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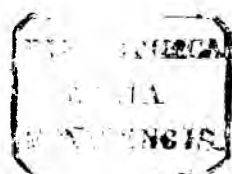
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COMPARATIVE ANTHROPOLOGY OF ENGLAND AND  
WALES.\*

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"Let some Fellow also do for England what M. Paul Broca has done so well for France, and write us a Memoir on the Ethnology of England."—Dr. JAMES HUNT, *Anniversary Address before the Anthropological Society of London*, delivered January, 1864.

IN 1861 I read a paper before the Ethnological Society of London, entitled "Results of Ethnological Observations made during the last ten years in England and Wales." Up to that time ethnology had generally been treated as a branch of philology, archæology, or history. It could not be said to have had an independent foundation, or to have acquired the rank of a distinct department of science. Many, perhaps the majority, of those calling themselves ethnologists did not believe in ethnology according to the most approved and authoritative meaning attached to that word, namely the science of blood, or races of mankind resulting from genealogical descent. The attempt to classify races in Europe, and especially in England, was then generally looked upon as presumptuous, or, at least, as not likely to lead to a satisfactory result. In the discussion which followed the reading of the above paper, one of the Fellows considered the attempt as dangerous, by which I suppose he could only mean dangerous to preconceived theories. Several of the speakers favoured the views of the author, but the majority seemed to agree in thinking that the races described in the paper as occurring in England and Wales were not due to lineal descent from tribes of early inhabitants, but either arose by accident

\* We propose to publish, from time to time, a series of personal observations on the Comparative Anthropology of the British Islands.—EDITOR.

or according to a law by which human beings become adapted to circumstances or occupations. It was likewise alleged that to substantiate the doctrine of genealogical derivation would require the discovery of counterpart races in those districts of Europe from which England was colonised.

As there would still appear to be a great indisposition to believe that distinct, hereditary, and long-persistent races or types can be traced in different districts of England, it may be necessary, before proceeding to a statement of facts, to make a few general observations.

*Alleged Disappearance of Types by Crossing.*—It is not to be wondered at that those who have had few opportunities of making particular and repeated\* observations in different parts of England, should doubt the possibility of *types*† of mankind being perpetuated, more especially as we are continually reminded by the newspaper press of migrations taking place from one town or province to another. Previously to travelling, or as long as we are contented with being library anthropologists, we are likely to be left in ignorance of the extent to which the masses of the English population still cling to their native districts. Internal migration in England is generally limited to the middle or more affluent classes. The great bulk of the people very seldom shift their localities, except in manufacturing districts, and even then it could be shown that at least three-fourths of the inhabitants of a manufacturing town, such as Sheffield, have either been born in the town or have come from the neighbourhood. Railways in many respects have favoured migration, but it could be shown that in quite as many cases they have rendered a change of residence unnecessary. But the fact that different dialects still linger in different parts of England is a sufficient proof that the interblending of races has not proceeded to an extent capable of destroying typical distinctions, or rendering the classification of the inhabitants impossible. The uneducated natives of one anthropological area‡ are still nearly unintelligible to those of another area. In one area at least nineteen-twentieths of the people still say *we* for *us*, *her* for *she*, *I* for *me*, and *vice versa*. They likewise pronounce *s* as if written *z*, *t* as *d*, etc.§ This area includes a part of

\* If repeated observations are necessary in geology to insure an arrival at truth, they are still more so in anthropology—a science in which the phenomena are much less strongly marked, and the boundary lines less distinctly defined.

† I shall principally use the word *types* in this article, because in an infant science, like anthropology, more systematic names are premature.

‡ A district, without reference to county divisions.

§ These modes of speech are used not by one race, but by several races, who must have come from the Low Countries, at a period or periods unrecorded in history. National and British school education, I have found, has

Dorsetshire and Wiltshire, nearly the whole of Somersetshire (Zomerzetzhire) and a part of Devon. In a churchyard between Salisbury and Wilton, I have seen the following epitaph :—

“How strangely fond of life poor mortals be ;  
How few who see our beds would change with *we*,” etc.

The traditional characteristic epitaph of the above area would appear to be—

“Her no more shall come to *we*,  
But us must go to *she*.”

The remark of a working man of Dorchester, in reference to a scolding wife, shows that these peculiar modes of speech are not incompatible with sound philosophy—“It pleases *she*, and it don't hurt *I*.”

*Proofs of Typical Perpetuation furnished by Surnames.*—Besides dialects, surnames show that the people of many parts of England have escaped interblending. In one area we find prevailing surnames ; in other areas these surnames are almost entirely absent. There are large districts in the south-west of England where one might travel for days without meeting with a Smith, while in the east of England there are equally large districts in which Smith is the most common name. A long article, elaborated from Directories, might be written on the local limitation of surnames. Christian names are more uniformly distributed, though I think it will be found on inquiry that in the north-east or Scandinavian part of England there is a very much less tendency to use Scripture names than in the south, where in some places it amounts to little short of a propensity. Some years ago (and it may be so still) the name of the Librarian of the Ryde Literary and Scientific Institution was Nebuchadnezzar Belshazzar Pentecost !

*Presumptions in favour of Genealogical Derivation.*—That the difference in type or race which, during many years, I have had opportunities of tracing in various parts of England, is not the result of accident, or of a merely *teleological law*, but exists through *hereditary descent*, is rendered highly probable, in the absence of more satisfactory evidence, by the fact that distinct dialects are often, if not generally, spoken by races having distinct physical and mental peculiarities—that these races inhabit areas colonised from certain parts of Europe—and that these dialects (except where reasons to the contrary can be assigned) are in accordance with the historical account of their derivation. A whole article, or rather volume, might be written on this

done very little to obliterate peculiarities of dialect among the working classes, partly owing to the time at school being too brief to admit of a permanent impression being produced ; but likewise owing to the *high-pressure* system generating a dislike to education among children, who, on leaving school, gladly forget what they have been taught.

subject, and much has been written. Suffice it at present to remind the reader that in Cumberland, Westmoreland, and several neighbouring districts, many traces of *Norse* may be found,\* and many family names are Norwegian. In Lincolnshire, many words in the dialect, and many family names are not only of Danish derivation, but in numerous cases the latter have continued unaltered in the spelling since the time of the Scandinavian invasions.† Now if the names of persons in use among ancient *colonising* tribes are still to be found in the *colonised* districts, is it not probable that the physical and mental peculiarities of these tribes have likewise persisted? or rather, is the anthropologist not justified in taking this for granted until the contrary can be shown.

*How Types are to be determined.*—Admitting the force of the foregoing remarks, and allowing that types may be classified in various districts, the important question still remains, what names are we to employ? If only one uniform type existed in a given locality, the task would be easy. But when in most districts (not all) we find two or more distinguishable types, how are we to tell which is Danish, which Saxon, etc.? It is here that the anthropologist may readily lay himself open to a charge of presumption, unless he proceeds with extreme caution. There would, however, appear to be several ways of arriving at approximately satisfactory conclusions on this subject.

First, we may compare the existing mental and (as far as possible) physical peculiarities of a given type with the historically-recorded character of either the original type, or colonising type, of the locality.

Second, we may collect traditions concerning the complexion, stature, etc., of certain types.

Third, we may visit regions, or rely on the accounts of those who have visited regions, either in the British Isles or on the continent, where we have reason to believe a given type prevails uniformly, or is very decidedly predominant.

With regard to the first, it is desirable that the anthropologist should render himself well acquainted with the character of the ancient Saxon, Dane, etc., as illustrated in such books as Bulwer's *Harold, the last of the Saxon Kings*, Mallet's *Northern Antiquities*, etc.

\* Since the publication of Worsaae's very valuable contribution to anthropology, *Traces of the Danes and Norwegians in England*, etc., it has become more and more customary to refer words commonly regarded as Saxon to Norse, or Danish. Capt. Fergusson, President of the Carlisle Mechanics' Institution, has lately published an important work on the dialects of Cumberland.

† Of this I was assured some years ago by the very eminent, though not professed, anthropologist, Sir E. B. Lytton, several of whose novels might justly be styled *studies in anthropology*.

Traditions are not always to be trusted, but a traveller is often struck with the extent to which the inhabitants of various parts of England agree in assigning characteristics to ancient colonising or native tribes, such as ruddiness and tall stature to the Danes, blue eyes and lymphatic temperament to the Saxon, dark complexion and excitable temper to the ancient Britons, etc.

Much caution ought to be exercised in selecting regions likely to contain an all-prevalent or preponderating type. It is true one could scarcely err in visiting certain parts of Norway, the Orkney Islands, and some parts of the Hebrides (where Norsemen have kept aloof from the Gaels), in order to make out a type to which the name Norse might be applied—in going to some parts of Denmark (not West or South Jutland) in quest of the Danish type.\* For Saxons one might explore the country between the Elbe and the Weser, steering clear of Friesland—for Angles, the district called Anglen in Schleswig, where Dr. Clarke, the traveller, could fancy himself in England. For the Jutian type, the anthropologist might visit the west of Jutland, from Schleswig to the Lime Ffiord—for Frisians, the region commonly called Friesland would probably answer his purpose better than Strandfrisia; for linguistic† considerations render it certain that England was largely colonised from the country to the east of the Zuyder Zee. One might expect to find pure Britons in Wales, and Gaels in the West Highlands of Scotland, though in both these countries the people are far from being homogeneous.

That the lineal descendants of ancient tribes may still be recognised in various parts of England, is not so much doubted by people in general, as by those whose minds are prepossessed by certain theories concerning the origin of admitted typical differences among mankind. The science of comparative anthropology, or that department of it—comparative ethnography, to which this article is mainly confined—is at present in a state somewhat resembling geology in the days of Dr. Hutton and Professor Playfair. These truly great philosophers wisely abjured all *speculations concerning the origin of things*. But when Dr. Hutton used these or similar words, he did not mean to exclude the

\* At the British Association meeting at Birmingham in 1865, I was not surprised to see in Professor Steenstrup, the eminent Danish antiquary, a *fac-simile* of a physiognomy very common in the east and north of England.

† For all questions connected with what may be called glossological ethnography, Dr. Latham's works are the best that can be consulted. That eminent author does not seem to place much faith in ethnology as the science of blood; though I ought to acknowledge my obligations to him, many years ago, for leading me to believe that the prominent-mouthed type, so prevalent in the south-west of England, is only a less exaggerated form of the Irish Gael.

origin of *derivative* phenomena, but only what may be appropriately called the *first* origin of things; and although the question of the first origin of man lies more within the province of geology than anthropology, the changes or causes which have given rise to typical distinctions among men may be advantageously considered, before proceeding to a detailed statement of these distinctions as observed in England and Wales.\*

*Causes of Typical Distinctions.*—Mr. Darwin has rendered great service to natural history by showing that a slight variation from an ancestor is capable of continued hereditary transmission. He has, however, I think, generalised beyond foundation in regarding all the modifications to which the organic world has been subjected as slight, or in supposing that species have arisen by almost insensible gradations. In the inorganic world—in the provinces of water and fire, we find gradual mutation alternating with *crises* of action, or a series of ordinary changes followed by a sudden paroxysm. The aqueous and igneous agents which modify the crust of the earth are more or less intermittent. Comparative repose in fluvial, oceanic, and volcanic action, is succeeded by floods, storms, eruptions, and explosions; and there can be no reason for supposing, apart from palæontological evidences to the contrary, that all the variations from ancestral organic types have been minute, or for denying that “strides in the otherwise continuous chain of succession”† may not have frequently occurred. These minute variations and strides are equally to be regarded as *creations* unless we “deify second causes;” and I can see no reason why the creational act which gives rise to a perceptible *family* variation, may not, at intervals, introduce a *specific* or *generic* variation. A general survey of the higher results of scientific investigation would appear to favour the doctrine that in the economy of the universe there are subsidiary laws dependent on a more comprehensive plan; and the sudden introduction of new species is just what one might expect to mark the ingress or egress of one of these laws.‡

\* On the first appearance of his *Principles of Geology*, Sir Charles (then Mr.) Lyell was accused by some reviewers of putting the cart before the horse—of discussing the respective merits of an unimpaired and uniform series of changes, and a succession of catastrophes diminishing in intensity, before proceeding to a statement of facts showing the adequacy of existing causes to account for ancient geological phenomena. But the order adopted by Lyell was the best calculated to prepare the mind of the reader not only to appreciate, but to take an interest in, the mass of circumstantial evidences, or *veræ causæ*, contained in that justly celebrated work.

† See Lyell's *Antiquity of Man*.

‡ I think all anthropologists must admit that no positive evidences in favour of there having been a series of consecutive connecting links between

But one part of Darwin's theory certainly accounts for anthropological phenomena not otherwise easily explained. In the *Fortnightly Review* (III, 276), Professor Huxley has applied this theory to the origin of typical distinctions among men. Variations occur in a family—one variation dies out, another is preserved. It becomes isolated. By hereditary transmission its peculiarities become hardened into the "enduring character of persistent modification." According to this view, it is not necessary that a type should amount to a *specific* distinction to enable it to be hereditarily transmissible. A variation is possessed of this power, and would seem to be subjected to a law preventing a return to the original. When it has become hardened into a "persistent modification," it may endure for many, if not for thousands of years, as is evident from geology. We have only then to suppose that the types under consideration in this article were originally family variations in certain parts of Europe—that they gradually acquired a persistent character—that they have continued *until now*, and will continue until the law\* which limits the period of their perpetuation shall replace them by new variations, destined in their turn to become invested with enduring characteristics.

Among men there would appear to be types which have become sufficiently hardened to resist amalgamation, and even in England many phenomena would seem to indicate that hybridity is followed by extinction or reversion to the original. In some parts, where inter-blending has occurred to a great extent, we still find distinct types identifiable with those which may be classified in remote and comparatively unmixed districts; and very frequently two or more types may be seen in the same family. In many cases, typical amalgamation does not apparently take place at all, but the children of two parents of distinct types follow or "favour" the one or the other parent, or occasionally some ancestor more or less remote.

We have no reason to suppose that the comparatively brief period, geologically speaking, with which the anthropologist has to deal, is sufficiently long to reveal any processes by which new types are intro-

the anthropoid apes and man have yet been discovered. The theory of his anthropoid derivation, then, must rest on the assumption that these links have disappeared, or remain to be discovered—an assumption inadmissible in *inductive* science. From the latest discussions on the Neanderthal skull, it would appear to be allied to *Gaelic*.

\* I think Mr. Darwin errs in supposing, or allowing his readers to suppose, that variations capable of originating persistent modifications are accidental. We cannot conceive of their giving rise to phenomena which admit of being systematically classified without believing them to form part of a fixed system. See some able remarks on this subject, in the *Anthropological Review*, vol. iii, p. 130.

duced, so that we are justified in classifying the types which come under our notice as if they were unalterably fixed.

During the last fifteen years, I have had occasion to reside successively, and often repeatedly, in most towns of any importance in England and Wales; and I have devoted particular attention to the characteristics of the inhabitants of the surrounding districts. The people of some localities I have not been able to classify at all. In other localities, I have not felt justified in applying historical names to the typical peculiarities of the inhabitants. A description of those types, with their lateral gradations, which I have been able to make out, will form the remaining part of this memoir.

*Types in North Wales.*—I begin with the Welsh, not because they are really more easily classified, but because the reader will probably be more ready to believe that types may be met with in the Principality than in England.

On arriving in North Wales in 1861, I was not much surprised to find the inhabitants differing from one another, as I had previously observed a similar absence of homogeneity in South Wales. About the same time, Dr. Barnard Davis, and Dr. Beddoe, passed along the north coast on their way to Ireland, and I believe were surprised at the diversity of countenances presented by the Welsh. After a series of systematic observations, continued for several months, I succeeded in reducing the differences to the four following types:—

*First*, the prevailing type in North Wales, with its lateral gradations, I had an excellent opportunity of observing during a great Calvinistic Methodist gathering at Mold, Flintshire. On that occasion, at least nine-tenths of the adult men and women presented the following characteristics:—stature various, but often tall—neck more or less long—loose gait—dark brown (often very dark) and coarse hair—eyes sunken and ill-defined, with a peculiarly close expression—dark eyelashes and eye-brows—eye-basins more or less wrinkled. The face was long or rather long, narrow or rather narrow, and broadest under the eyes. There was a *sudden sinking in under the cheek-bones*, with denuded cheeks. The chin was rather narrow and generally retreating, though sometimes prominent. The nose was narrow, long or rather long, much raised either in the middle or at the point, and occasionally approaching the Jewish form (see fig. 5). The forehead was rather narrow but not retreating—the skin wrinkled, and either dark or of a dull reddish-brown hue—the skull rather narrow and rather elongated. (See figures 1, 2, 3, 4.)

*Second Type in North Wales.*—To the west of Mold, comparatively flat faces begin to make their appearance, and increase in number until in Carnarvonshire they are very common. In this type, as in the last,



the face is broadest under the eyes, with a *sudden sinking in under the cheek-bones*. The nose is sometimes highest in the middle, but more frequently *projecting at the point*. The eyes are sunk and often half closed. The mouth is well formed, with the chin more or less prominent. The forehead in general is broad, high, and capacious. The stature is short or middle-sized, with broad chest and shoulders—the complexion dark, with brown or dark brown hair—the skull broad and approximately square. (See figures 7, 8, 9.)

This type may be traced in considerable numbers along the western part of Wales as far as Pembrokeshire. It is likewise not unfrequent in Central Wales as far east as Montgomery, and it is very common in the West Midland Counties of England. In many parts of South Wales it predominates.

*Third Type in North Wales.*—Rather full and massive face—decidedly dark and often curly hair—dark whiskers, eye-brows, eye-lashes, and eyes—tall or rather tall and massive frame—skull approximately round. This type, which may be found in small numbers in both North and South Wales, is generally confined to the more prosperous inhabitants. It is not very dissimilar to a type which in Ireland has been called Milesian. It is not uncommon in Monmouthshire, and may possibly be of *Silurian* derivation. (See figures 10, 11.)

*Fourth Type in North Wales.*—This type presents a greater or less approximation to what I would call the Gaelic type (see sequel). In some places it is strictly Gaelic; in others it graduates into the first or prominent-nosed Welsh type, or into the comparatively flat-faced Welsh type. About Bangor it often presents a resemblance to the Jewish profile. On the occasion of a Criminal Court meeting at Beaumaris, in Anglesea, I observed this type presenting the extreme profile represented in fig. 15. The Gaelic type, however, it ought to be stated, is not very prevalent in Anglesea, or indeed in any part of North Wales.\*

*Mental Characteristics of the Welsh.*—The following characteristics apply only to the first, second, and partly to the third of the Welsh types above described—(the Gaelic peculiarities will be found in the sequel):—Quick in perception—more critical than comprehensive—decidedly adapted to analytical research, and especially to philological and biblical criticism (the foregoing characteristics apply more particularly to the second Welsh type)—*extreme tendency to trace back ancestry*—great genealogists, and by race comparative anthropologists—

\* At Beaumaris I met with an excellent specimen of the highest development of the second Welsh type, in the person of John Williams, Esq., solicitor, who is not only an accomplished general scholar, but an eminent theoretical musician, antiquarian, and comparative anthropologist.

poetical as regards the expression of deep feeling, but deficient in buoyancy of imagination—free from serious crimes, and very peaceable, with the exception of a tendency to cherish petty animosities which seldom break out into open hostilities—extreme tendency to religious excitement—economical, saving, and industrious to a fault—temperate, with a strong susceptibility to temptation when brought in contact with, or treated by, the English. The North Welsh, as a people, are decidedly superior to the *mass* of the English population; but the gentry of North Wales are in general behind in mental cultivation.

Among the more serious failings of the Welsh must be reckoned extreme parsimony, which, however, only degenerates into cheating when directed to the Saxon robbers of their ancestors.\* The failing most commonly believed to be characteristic of the Welsh is a want of strict regard to truth. This failing, which is by no means so general in Wales as is often represented, I should be inclined to attribute to two causes—first, the existence of contradictory faculties in a Welshman's mind (this remark is most applicable to the second Welsh type). Thus, strong love of approbation may co-exist with equally strong covetousness, so as to lead a Welshman to promise what he either cannot bring himself to perform, or what lies beyond his power. Second, the nature of the Welsh language, which is not well adapted to express minute distinctions between truth and falsehood, and which by its constant use may encourage a tendency to ambiguity. How, it may be asked, can we harmonise a want of precision in the language with the eminence in philological and biblical criticism to which many Welsh scholars have attained? I think it does not follow that the original language of all the Welsh types was what is now called *Cumraeg*. The difference in dialects in various parts of the principality suggests the possibility of the present written or standard Welsh having been super-imposed on the original languages of at least some of the types. I have been informed that the names of many hamlets and farmsteads in North Wales are not *Cumraeg*, but have apparently been derived from a pre-

\* The tendency among the inhabitants of some parts of Wales to cheat Englishmen, has been very greatly exaggerated. It is well known that at the inns of North Wales the charges are generally very much lower than in England; and, in the interior of South Wales, I have met with instances of disinterestedness, accompanying a sense of honour, which might be looked for in vain in most parts of England. With regard to Welsh inns, many favourable specimens may be found, not only as regards comfort, order, and systematic arrangement, but likewise as regards the intelligence and high character of the proprietors, throughout all parts of the Principality.

viously existing language. If this be a fact, it deserves to be particularly investigated.

*Moral Condition of North Wales.*—In most (not all) parts of North Wales, the moral condition of the working classes stands higher than in England. Infanticide is almost entirely unknown, and marriage as a rule is the consummation of what otherwise might be regarded as a reprehensible freedom of intercourse among men and women. The Welsh are too frugal and parsimonious to be guilty of those vices connected with extravagance, which are the very worst failing of the inhabitants of the larger towns of England. Though in certain respects excitable, they care little for those comic and sensational entertainments which, in England, form the keenest enjoyments of the mass of the population. There is likewise but little taste for those field sports which in England are more or less associated with gaiety. The Welsh are in general strangers to luxurious living, and many large villages might be mentioned with only one or two public houses, and these indifferently supported. The social order observable in some villages and towns can scarcely be exaggerated. Behind my apartments in Denbigh there was a row of cottages inhabited by men, women, and children, but so quiet\* were the inmates, that after 9 p.m. I do not recollect having heard a single sound proceeding from these cottages during three weeks, excepting a hymn-tune on a Sunday. The village of Glan Ogwen, misnamed Bethesda, near the Penryn slate quarries, would, in England, be considered a model village, as regards order, quietude, temperance, and early hours. Reading, music, and religious meetings monopolise the leisure of the inhabitants. Their appreciation of the compositions of Handel, and other great musicians, is remarkable; and they perform the most difficult oratorios with a precision of time and intonation unknown in any part of England, except the West Riding, Lancashire, Worcester, Gloucester, and Hereford.

*Music in North Wales.*—The musical ear of the Welsh is extremely accurate. I was once present in a village church belonging to the late Dean of Bangor,† when the choir sung an anthem composed by their

\* A traveller who expects to find in a Welshman the brother of an Irishman, is often surprised at the taciturnity characterising the former. In some parts of Wales, I have noticed this taciturnity prevailing to a very great extent, especially among the women. With them, even to smile is a very rare occurrence.

† It would be difficult to single out a dignitary of the Church of England, at any period of its history, who so completely devoted himself to the social, intellectual, and moral improvement of the people, as the late Dean of Bangor. His humility and activity were alike unbounded; and to the deepest reverence for things sacred he united the most brilliant conversational talent. He once assured me that the Welsh language is not nearly so un-

leader, and repeated an unaccompanied hymn-tune five or six times, without the slightest lowering of pitch. The works of Handel, Haydn, Beethoven, and Mozart, are republished with Welsh words at Ruthin, and several other towns, and their circulation is almost incredible. At book and music shops of a rank where in England negro melodies would form the staple compositions, Handel is the great favourite; and such tunes as *Pop goes the Weasel* would not be tolerated. The native airs are in general very elegant and melodious. Some of them, composed long before Handel, are in the Handelian style; others are remarkably similar to some of Corelli's compositions. The less classical Welsh airs in 3-8 time, such as Jenny Jones, are well-known. Those in 2-4 time are often characterised by a sudden stop in the middle or at the close of a measure, and a repetition of pathetic slides or slurs. The Welsh are so musical that most of the Calvinistic Methodist preachers intone instead of merely delivering their sermons.

*Religion in North Wales.*—The Welsh, especially the North Welsh, are very religious, and the statistics of the country demonstrate that religion has done much to improve their moral condition. For every one who attends a place of worship in the more Scandinavian districts of England there are at least eight in North Wales. The religion is chiefly Calvinistic Methodism, which affords scope for the exercise of excited feeling and emotion. The Welsh are naturally a dramatic people,\* and with them religious services are often converted into solemn dramatic entertainments. While at Llangollen I heard of a celebrated Welsh divine† (blind in one eye) opening a chapel on a wild hill-side not far from Bala lake. The subject was the progressive development of the Christian scheme from Adam to the final judgment. The prophets were made *dramatis personæ*, and the preacher represented them rising from the dead, appearing on the stage of time at the last day, and vindicating the correctness of their predictions concerning the Messiah.

*Remarks on South Wales.*—The first-mentioned, or long and high-musical as is commonly supposed, and that he had no difficulty in getting Welsh children to pronounce such words as *lions* and *tigers* with great elegance; but that, in Nottinghamshire, he never succeeded in getting young persons to pronounce these words otherwise than as *loyons* and *toygers*.

\* I cannot resist the belief that Shakespeare, if not a Welshman, was more allied to the Cymrian type, or one of its lateral variations, than any other type yet classified. In his native district, at least half of the inhabitants differ very little from the Gaelic-British and Cymrian-Welsh. To call Shakespeare a Saxon, would be to show a total ignorance of the science of races; though I should not like to be too confident in asserting that he was not a Dane.

† See Fig. 10.

featured physiognomy of North Wales (which, for convenience, I shall call CYMRIAN) becomes flatter and shorter as we proceed southwards through Central Wales, until in most parts of South Wales the comparatively flat-faced or second type (which I shall call BRITISH) is found to preponderate. This style of physiognomy is generally accompanied by very broad shoulders. The late eminent antiquarian, Archdeacon Williams, once informed me that about the time of the French Revolution 1,000 Cardiganshire volunteers were found on a certain occasion to take up as much room as 1,200 Midland County men (Angles and Danes?) In Glamorganshire and other parts of South Wales, I observed that, in addition to the above type, a large proportion of the inhabitants (chiefly the working classes) presented a greater or less approximation to what I have called the Gaelic physiognomy with the under part of the face projecting forwards.\* (See figures 12, 13, 14.) This accords with the opinion of a very intelligent prize historian (Mr. Stevens, chemist, Merthyr Tydvil) that the first traceable inhabitants of Wales were Gaelic Britons, and that the Cymri from Strathelwyd† on entering Wales drove the pre-occupants to the South. The native music of South Wales is likewise to a great extent Gaelic, or similar to what we find in the more Gaelic districts of Scotland and Ireland—that is, in 6-8 time, and in the minor mode, with an ascending as well as descending flat sixth and seventh.

The mental characteristics of the South Welsh include these already stated in connection with the inhabitants of the North; but in most parts of the South the people differ from the North Welsh, and their dialects likewise differ. This may arise from the amount of Gaelic and British blood in the South, and from the extent to which the coast has probably been colonised from the south-west of Europe. Generally speaking, the South Welsh, though often very taciturn, are more excitable than in the North—more given to extremes—less orderly—and more divided among themselves. The Glamorganshire men have an antipathy to the Cardiganshire men, and other tribes are mutually at variance. In Caermarthenshire the people are very intellectually disposed. The chief ambition among young men in that county is to become speakers or preachers, and the congregational pulpits of England are largely supplied from Caermarthenshire and the neighbourhood. In the peninsulas, such as Gower, the descendants of Teutonic, chiefly

\* About Merthyr Tydvil, a profile about midway between Gaelic and British seemed the most prevalent. See Fig. 6. One very occasionally meets with Fig. 16 in South Wales.

† A district lying between the rivers Clyde in Scotland, and the Mersey in England. Mr. Stevens has proved that some of the best Welsh poems were composed in Strathelwyd.

Flemish, colonists, may be found. It has been remarked that they make very much better sailors than the Welsh. The history of Pembrokeshire, or "Little England beyond Wales," is very well known.\* I have been assured that the boundary line between the Flemings and Welsh is still sharply defined.

Along the borders of North and South Wales the people are more naturally intellectual than in any other part of England; Hertfordshire, Essex, Cambridgeshire, and Hampshire, perhaps excepted. In a long district running between Taunton and Oswestry—extending as far west as Hay, and as far east as Bath and Bewdley, science, especially geology, receives at least ten times more attention than it does in any other equally-sized area. This conclusion I have arrived at from personal observation, and it is corroborated by the comparative number of Fellows living in this district whose names may be found in the list of the Geological Society. It is difficult to explain this fact without supposing it to be connected with the Welsh derivation of many of the inhabitants, who may be regarded as Anglicised Welsh. It cannot arise from superior elementary education, for that is defective throughout the greater part of the district. Neither can mining pursuits be the cause, for the working miners are not the most intelligent part of the population. In the adjacent parts of Wales where English is spoken, we likewise find a greater taste for solid knowledge than in the heart of England. The little and poverty-stricken town of Montgomery, with its immediate neighbourhood, contains more than a dozen thoroughly informed and deep-thinking geologists; whereas a traveller might visit a dozen towns of the same size in Leicestershire, Lincolnshire, or East Yorkshire, without meeting with a single geologist. Ludlow, on the Welsh borders, possesses the best local geological museum in England.

*Types in the West and South-West of England.*—A considerable proportion of the inhabitants of the West Midland and South-western counties are scarcely distinguishable from three of the types found in Wales, namely the British, Gaelic, and Cymrian. In Shropshire, and

\* The following history of settlers in Gower and Pembrokeshire is the most satisfactory I have been able to obtain:—In 1099, Henry Beaumont, Earl of Warwick, planted a colony of Somersetshiremen in Gower. About the year 1106, a tremendous storm carried away embankments and sand hills, allowing the sea to overflow a great tract in Flanders. A numerous body of the inhabitants sought refuge in England. They were first admitted into the northern counties; but, disagreeing with the English, they were removed to the district of Roos in Pembrokeshire. They are said to have afterwards disappeared. In the time of King Henry, a second body of Flemings came into England, and the king, wishing to oppose the power of Gryffydd ab Rhys in South Wales, sent them into Pembrokeshire.

ramifying to the east and south-east, the Cymrian\* type may be found in great numbers, though not predominating (see *Anglian*). It seems probable that among the earliest inhabitants of the West and South-West of England, Britons, Gaels, and Cymri greatly preponderated. The Britons, either identical or mixed with Prehistoric Finns, may have been the first inhabitants. The Gaels may have come next, and then the Cymri. An Anglian element (from the east) and a Norse (from the north-west†) must, at a later period, have been superimposed on the previous compound population. In many parts of the south-west, and, at intervals, along the south coast, the prevailing type among the working classes is decidedly Gaelic. It may have come from Gaul, and the terms Gael and Gaul may be ethnologically synonymous. But it is certain that it not only prevails in the parts above-named, but in a more exaggerated, or in some places more mitigated form, in the Highlands of Scotland and in the greater part of Ireland. As already mentioned, it exists in South Wales, but North Devon and Dorset may be regarded as its head quarters in South Britain.

*Gaelic Physical Characteristics.*—*A bulging forwards of the lower part of the face*, most extreme in the upper jaw; chin more or less retreating (in Ireland the chin is often absent); forehead retreating; large mouth and thick lips; *great distance between the nose and mouth*; nose short, frequently concave, and turned up, with yawning nostrils; ‡ cheek-bones more or less prominent; eyes generally sunk, and eyebrows projecting; *skull narrow and very much elongated backwards*; *ears standing off* to a very striking extent; very acute in hearing; slender or rather slender

\* In Lancashire, and probably farther to the north, many words are of Welsh derivation. Besides Cymrian, the people of Lancashire would appear to be to a great extent Anglian (?) and Scandinavian.

† Worsaae's *Danes and Norwegians in England*, etc.

‡ In a large school at Tiverton, Devonshire, at least nine-tenths of the boys presented the most exaggerated Gaelic physiognomy, with gaping nostrils. It is a remarkable fact, that not one out of a thousand of the inhabitants of the North of England (apart from the Irish in towns) presents any approximation to the Gaelic type. The North of England nose is almost invariably thin, high, and sharp, with small nostrils. Archbishop Whateley, in his *Notes on Noses* (Bentley), is quite right in regarding this as an anti-cogitative nose, for the North is more characterised by activity than contemplation, and the people generally show a great indisposition to settle down to quiet meditation. The archbishop, in the above work, tells us, on the authority of the *Edinburgh Review*, that "there are certain districts in Leitrim, Sligo, and Mayo (as pointed out by an intelligent writer in the *Dublin University Magazine*), chiefly inhabited by descendants of the native Irish, driven by the British from Armagh and the south of Down about two centuries ago. . . . These people are especially remarkable for open projecting mouths, with prominent teeth (*i. e.* prognathous-jawed—the negro type), their advancing cheek-bones, and depressed noses, etc."

and elegantly formed body ; stature short or middle-sized, though in some districts tall ; hair brown or dark brown, and generally straight. There would appear to be two sub-varieties of this type, the one above described, and another with fair complexion, and red or light brown hair.

*Gaelic Mental Characteristics.*—*Quick in perception*, but deficient in depth of reasoning power ; headstrong and excitable ; tendency to oppose ; *strong in love and hate* ; at one time lively, soon after sad ; vivid in imagination ; extremely social, with a *propensity for crowding together* ; forward and self-confident ; deficient in application to deep study, but possessed of *great concentration in monotonous or purely mechanical occupations*, such as hop-picking, reaping, weaving, etc. ; want of prudence and foresight ; *antipathy to seafaring pursuits*, in which respect they contrast very strongly with Norsemen and Frisians ; veneration for authority.

In Exeter and the neighbourhood, the Gaelic type (with both fair and dark complexions) is very prevalent ; and with the exception of a type approximating to the Saxon, the population may be said to consist of Gaels, and a well-marked race with very dark hair, high forehead, Roman nose, thin lips, and prominent chins.\*

In several parts of England to the south of the Thames, a type may be found predominating to which I shall apply the term Saxon. Its characteristics accord with local traditions concerning the ancient Saxon, and it is similar to a type still prevailing in many parts of Germany, to which no name but Saxon can well be applied. The localities in England where it most intrudes itself on the traveller's attention are very nearly those where Saxons landed according to history, or to which Saxons may conveniently have migrated. These localities may be stated as follows :—the Isle of Selsea and the neighbourhood of Chichester,† the district extending between East Grinstead and Hastings, chiefly in Sussex, but including the neighbouring part of Kent, the valley of the Hampshire Avon as far as Salisbury and the neighbourhood, the West of Berkshire,‡ especially the White Horse

\* This race is likewise to be found in Cornwall. But the Cornish chiefly consist, first, of Gaels with dark or brown hair ; second, a race with a rather short angular face, somewhat like the second Welsh type ; third, a race more or less hatchet-faced ; and fourth, a race with a very Spanish-looking physiognomy.

† At the national school of Bersted, near Bognor, I observed that nearly all the girls presented the most decided Saxon physiognomy. In many parts of England there are large schools in which not a single Saxon face can be found.

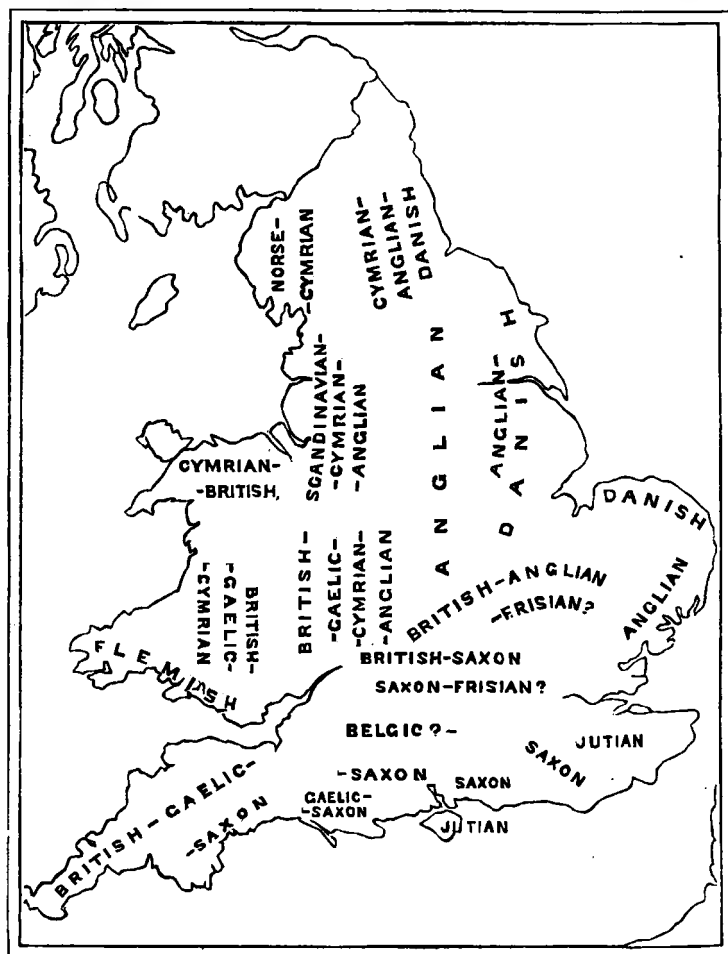
‡ The Saxon hock-tide sports are still kept up in Hungerford and the neighbourhood.



MAP TO ILLUSTRATE  
THE  
COMPARATIVE ANTHROPOLOGY  
OF  
ENGLAND AND WALES.

BY  
D. MACKINTOSH, F.G.S.

*The areas are not coloured, because the boundary lines cannot be precisely defined.*





Valley and vicinity. But Saxons may likewise be found in considerable numbers, though not always predominating, in the interior of the Isle of Thanet, the south of Dorsetshire, the east of Devonshire, the greater part of Somersetshire, and likewise in the East Midland Counties.

*Saxon Physical Characteristics.*—*Features excessively regular; face round, broad, and short or rather short; mouth well formed, and neither raised nor sunk; chin neither prominent nor retreating; nose straight, and neither long nor short; under part of the face a short ellipse; low cheek bones; eyes rather prominent, blue or bluish-grey, and very well defined; eyebrows semicircular, horizontally, and not obliquely placed; forehead semicircular, and skull of a shape midway between a parallelogram and a round, flat above the ears, and small in the occipital region; flattened ears; hair light brown; chest and shoulders of moderate breadth; tendency to rotundity and obesity,\* especially in the epigastric region; short and round limbs, hands and fingers, general smoothness and roundness; total absence of all angles and sudden projections or depressions.* See fig. 19 (a Chichester Saxon), figures 20, 21.

*Saxon Mental Characteristics.*—Extreme moderation; absence of extraordinary talents, and equal absence of extraordinary defects, mind equally balanced; character consistent, simple, truthful, straightforward and honest; persevering in pursuits admitting of variety, but unadapted to purely mechanical or monotonous occupations; predilection for agriculture; determined, but not self-willed; self-reliant yet humble; peaceable, orderly, unexcitable, unambitious, and free from extravagance; not brilliant in imagination, but sound in judgment; great general benevolence accompanying little particular attachment; tendency to forget ancestors, to care little about relatives, and to have limited intercourse with neighbours.

The term *Anglo-Saxon* has little or no meaning in the present state of English anthropology, unless it be strictly limited to a combination of the Saxon and Anglian types. But some of the mental peculiarities commonly assigned to the supposed Anglo-Saxon, are quite as applicable to the Dane as to the Saxon; and in all political orations in which the word *indomitable* is used it ought to be coupled with *Dano-Saxon* instead of *Anglo-Saxon*.

*Is there an Anglian Type in England?*—Some suppose that the Anglian colonists of East Anglia, Mercia, Deira, and Bernicia,† were

\* Numbers of very rotundiform and massive Saxons may be seen in the markets of most of the towns of Sussex, West Berkshire, etc. In Northampton market, a very Saxon-looking race, but taller and darker in complexion than the strictly typical Saxon, may be seen predominating.

† According to the best historians, in 527 and afterwards, Angles arrived

mere handfuls in comparison with other settlers from the Continent. Bede, on the contrary, asserts that the Anglian province in Jutland was laid waste by the extent of the emigration. I have not been able to trace a very well defined type to which the term Anglian can be exclusively applied, but a race not very dissimilar to Saxon, though in some points peculiar, and which looks like a lateral variation of the Saxon type in the direction of both Dane and Norwegian, may be found in great numbers, especially among the women in the following districts:—Suffolk, and parts of Norfolk, Cambridgeshire, Hertfordshire, Bedfordshire, Northamptonshire, Buckinghamshire, parts of Oxfordshire, Warwickshire, South Staffordshire, Shropshire, the east of Derbyshire, the west of Leicestershire and Nottinghamshire, and a zone running north through the West Riding of Yorkshire into Durham.

*Anglian (?) Characteristics.*—The characteristics which may be provisionally termed Anglian are the same as Saxon, with the following exceptions:—face rather longer and narrower than the Saxon; cheek-bones slightly projecting; chin varying from rather prominent to rather retreating, and more or less approaching angularity; nose narrower and more elegantly chiselled than the Saxon, and the nostrils more compressed; frame much more slender than the Saxon, with narrow shoulders, long neck, and erect figure; hair of a more golden or yellowish hue than the Saxon; complexion exceedingly fair, with more or less of a pinkish hue; in mental character more active, determined, and ambitious, than the Saxon; deficient in the more disinterested tendencies of human nature, and dull in those faculties which elevate man above the necessary affairs of life, but pre-eminently adapted to make the most of the world. Figures 17, 18, 22, are from Anglian districts.

*Frisians (?) and Jutes.*—In the east-midland, eastern, and south-eastern counties of England, we frequently meet with a physiognomy

in Norfolk and Suffolk (East Anglia). In 547 a more numerous body arrived, under Ida, in the district between the Tyne and the Forth (Bernicia), and afterwards spread farther to the south. In 560, Angles arrived under Ella, and settled in the country between the Tyne and the Humber (Deira). In 585, Angles under Crida arrived in the midland districts of England (Mercia). It is stated in one or more Directories of Shropshire and Staffordshire (I cannot ascertain on what authority), that the English settlers were divided into families or tribes, with the following names:—The Harling, Horning, Hanning, Willing, Elling, Whitting, Totting, Patting, Holling, Essing, Hunting, Copping, Eding, Rolling, Darling, Wiggling, Bucking, Winning, Stalling, Tibbing, Packing, etc. How far this may be correct, I am not prepared to say; but it is certain that numerous names of places, apparently referable to the above or similar tribes, may be found in the midland counties, particularly in Shropshire. I think it probable that *ton* (as in Whittington) is more especially, though not exclusively, an *Anglic* termination.

which is neither Saxon nor Danish, and which is similar to a prevailing type in many parts of Friesland. The face is narrow, and the features prominent, but the profile is not so convex as in the type next to be described. The complexion is fair, and the hair light brown. The skull is narrow, high at the spot called firmness by phrenologists, and low in veneration. (See fig. 24.) The mental character is chiefly remarkable for extreme self-complacency, and independence of authority. In Kent, this type graduates into a much more strikingly-marked type, to which I shall provisionally apply the term JUTIAN, as it is found in Kent and the eastern part of the Isle of Wight—localities which, according to Bede, were colonised by Jutes. On walking from Ryde to Brading, in the Isle of Wight, one evening, I met numbers of men returning from work, and in almost every instance they presented the under-mentioned peculiarities. I found the same type predominating in the neighbourhood of Brading, and likewise in West Kent, especially about Tunbridge.\*

*Jutian Characteristics.*—*Very convex profile*, so that if one leg of a pair of compasses were to be fixed in the ear, the other would describe not only the contour of the face, but of the skull (see Fig. 25); cheek bones slightly projecting; nose sinuous, and rather long; dull complexion, and brown hair; grey or bluish-grey eyes; narrow head, and face more or less narrow; long neck, narrow shoulders and chest; frame broadest at the trochanters; springing gait; often tall, especially in the Isle of Wight; extremely adapted to the practical affairs of life; tendency (still greater than in the Saxon) to manifest indifference to ancestors, relatives, and neighbours.

In North Kent, the Jutian graduates into the Danish type. Concerning the latter, I have no remaining doubt, as it decidedly preponderates in those parts of England where Danes must have settled in the greatest numbers. It is to be met with more or less in all the midland counties; in Lancashire, Westmoreland, Cumberland, Northumberland, and Durham; but chiefly in the North and East Ridings of Yorkshire, Norfolk, Suffolk, and, above all, in Lincolnshire.† In

\* Mr. Roach Smith has found that the sepulchral remains of Kent and the Isle of Wight are similar, and that they are different from Saxon strictly so-called. In Kent, I have heard of old songs and traditions which imply that the inhabitants did not formerly regard themselves as Saxons.

† The termination *by*, in names of places, has been pointed out by Dr. Latham and others as exclusively Danish. It is well known that an immense number of names in Lincolnshire have this termination; but many, perhaps, are not aware that in the north-east of Leicestershire it is quite as common. The following is a list of names terminating in *by* in Melton Mowbray union:—Ab-Kettleby, Asfordby, Ashby-Folville, Barsby, Brentingby, Wyfordby, Brooksby, Dalby, Freeby, Frisby, Gaddesby, Gradyby,

the latter county, I have been at some pains to collect the characteristics of the inhabitants, and before proceeding to a detailed statement, I must remark that a frequently-observed variation from the predominating profile consists of a sunk mouth and prominent chin (instead of a rather prominent mouth and rather retreating chin). I have often thought that this variation in certain parts of the physiognomy in the same race (the other physical peculiarities being the same) may be part of a law calculated to secure sufficient individual differences in families, without the typical limits being transgressed.

*Danish Physical Characteristics.*—*Long face* and rather coarse features; *high cheek bones, with a sudden sinking in above on each side of the forehead; high and long nose;* rather prominent mouth, and rather receding chin (see preceding section); skull narrow, elongated, and increasing in width backwards; large occipital region; high in what phrenologists call *self-esteem, firmness, and veneration*; long neck, and low, rather narrow shoulders; stature various, but in general tall; *swinging gait*; hair either yellowish flaxen, yellow, *red*, auburn, chestnut, or brown with a reddish tinge; whiskers generally red; grey or bluish-grey eyes; *ruddy complexion*. (See figs. 27, 28.) Fig. 26 is a mitigated form of Danish face common in all Danish districts.

*Danish Mental Characteristics.*—*Sanguine*, active and energetic, with a tendency to be always doing something, which often leads into scrapes; determined, courageous, and *ambitious; proud*, vain, and ostentatiously benevolent; high sense of honour; warm in love or hate; obliging and hospitable; tendency to extravagance in eating and *drinking; very social and convivial*; talent for practical science, but deficient in depth of thought, or adaptation to philosophical studies; *good speakers but bad listeners*; tendency to apply inventions to pecuniary advancement; capacity for pushing *on external or material civilisation*. A well educated Dane is an ornament to society. An ignorant Dane stands very low in the anthropological scale.

*Norse Districts of England.*—Names of places and persons, dialects and history, would lead us to expect a Norse element in the population of Cumberland, Westmoreland, parts of Lancashire, and the northern parts of the West Riding of Yorkshire. Indications of the same element are not perhaps wanting in other parts of England.\* I

Harby, Hoby, Kirby-Bellers, Rotherby, Saltby, Saxby, Saxelby, Somerby, Stonesby, Sysonby, Wartnaby, Welby.

\* The Staffordshire *clog*, several specimens of which have been found (see *The Reliquary*, by Llewellyn Jewitt, Esq., F.S.A., Derby), consists of a piece of wood, with marks on the edges, and Runic symbols. It is generally attributed to Norwegians.

have searched, especially in Cumberland, for a type or types to which the term Norse may be applied. But in addition to Cymrians and Danes, I have not met with any extensively prevailing type except the following. Face rather flat, chin angular and rather prominent, mouth well formed and frequently depressed. Nose high, but not so long as in the Dane; cheek bones often a little projecting, eyes grey, forehead square, and head a short parallelogram;\* neck rather short, and shoulders rather broad; *stature generally tall*; complexion among the men ruddy, and hair either brown or sandy; *whiskers generally sandy*; complexion among the women fair, with a lily or *pinkish* hue; good mental abilities, and, with sufficient inducement to cultivation, capable of attaining a high intellectual rank, but very deficient in precocity; practical, orderly, and cleanly; *obliging* to an unparalleled extent, though not free from suspicion; *honest* to an extreme perhaps unknown among any other race in England. The proof of this honesty may be found in doors not being locked during night—in the absence of imposition at inns and lodging-houses—in disdaining to take advantage of strangers—in making no charge for small services—and in refusing any return for favours bestowed. The latter peculiarities may likewise be regarded as resulting from that sense of honour and independence of mind by which the Norsemen in all ages have been characterised.†

In the foregoing survey of the comparative anthropology of England and Wales, I have left anatomical details out of consideration, because I have found it necessary to confine attention to a particular line of observation in order to retain sufficiently distinct impressions, and because I have no doubt Dr. Barnard Davis, who has taken up the anatomical department, will soon be able to connect it with the evidence furnished by physiognomy and mental characteristics. The colour of skin, hair, and eyes, is likewise a subject on which I have touched very briefly, as that may be more profitably left in the hands of Dr. Beddoe. As we may learn from the history of geology, it will not be until after the results of distinct lines of investigation have been grouped and generalised, that we can succeed in establishing fundamental principles on which the superstructure of comparative anthropology can be safely erected.

\* I have refrained from giving any decidedly illustrative portrait of the Norse type, as I have not been able to meet with any furnishing a satisfactory average representation. Fig. 23 is not uncommon in the Scandinavian districts of the north of England.

† Worsaae is correct in his assertion, that the inhabitants of Cumberland are extremely addicted to litigation.

## THE ROMAN AND THE TEUTON.\*

HISTORY has ceased to be a chronicle. It is no longer even a series of elegant biographies or eloquent dissertations. It is beginning to be a science. We want proof as to its premises, and demand logic in its deductions. The mere scholar is no longer adequate to its composition. It not only demands attainments of which he is devoid, but also habits of thought with which he is scarcely familiar. To write history well requires a faith in first principles; in truth, the subjection of the mind itself to the law of order. Now it is here that the scholar fails. He is accustomed to deal with the concrete rather than the abstract, with the individual rather than the universal. To him at best, history is but the rise and fall of nations, not the movement of races. He cannot eliminate the accidental, by regarding it as a perfectly normal phenomenon, subject even to the cyclical law of repetition. He is the slave of appearances. He numbers the waves while neglecting the tides. He does not know that there is "a law of storms" in the moral as in the physical world. He cannot be made to understand that the occultations and eclipses of the one are as periodical as those of the other. He sees the leaves falling and the fruit ripening at their due season, but he does not seem to comprehend that the mystic tree Ygdrasil, also sheds its leaves and casts its fruit, even though they be the very stars of heaven, when the eons have told out their period of duration.

We have been led into these remarks by the introduction which Mr. Kingsley has prefixed to his lectures, and which we think, both for his own sake and for the cause which he represents, had better have been omitted. It is simply an illustrious instance of clerical logic, a magnificent pile of well-meant arguments, based on the untenable foundation of purely gratuitous assumptions. Had it come from Oxford we should not have been surprised, for it is in perfect keeping with her (late) mediæval proclivities, but we were certainly not quite prepared for the announcement of such views by a Professor of Cambridge, the *alma mater* of Bacon and Newton. But we presume Mr. Kingsley's utterances about suspended gravitation, and other matters of similar import, must be regarded as a manifesto of the literate and not the scientific section of this University, and as such may be allowed to pass without further comment.

The subject of Mr. Kingsley's work is certainly most important. The

\* *The Roman and the Teuton*. By Charles Kingsley, M.A. Cambridge and London: Macmillan and Co. 1864.



Teuton and the Roman almost divide European history between them. For the annals of Greece are but a prelude, while the traditions of the Celts are lost in the mist of a prehistoric antiquity. The Latin and the Gothic peoples have held the stage in succession for two thousand years, and to a large extent modern civilisation is what they have made it. Politically we are Romans, socially we are Teutons. In the South of Europe Italic influences still preponderate both in creed and custom, while in the North and West the Gothic element has successfully reasserted its olden independence. In a sense modern history is but a narration of this racial interaction, and it was quite right therefore that the Professor of this department should favour us with his matured conclusions on the subject.

To understand the rise of Roman power we must not contemplate it as an isolated phenomenon. It was simply a tidewave in the north-western march of empire, from the plain of Shinar to the shores of Britain. Its more especial function was the summation of ancient preparatory to the birth of modern civilisation. History undervalues the mission of the classic race. The empire of Alexander is the area of Islam, the realm of the Cæsars is the domain of Christianity. Such facts speak volumes. They show that humanity has never rolled back to the antique standpoint, despite what Turk and Teuton could accomplish in the way of re-establishing that barbarism, which is proper to a predominantly muscular type, more especially at their uncultured stage of development.

Contemplating Christianity through the supernatural medium, we have exaggerated its historical importance. We have regarded it as an entirely exceptional phenomenon in human affairs, as an advent for which there was no preparation, and a movement to which there could be no conclusion. We have presumed upon its being miraculous, and have consequently not held it as amenable to the doctrine of forces. To speak of it as in any measure a result of Roman civilisation would, till very recently, have been held as absolutely impious, and even now the public are by no means prepared to hear that it was a purely historical development. The sequence and generation of creeds seem to be but imperfectly understood, yet it is obvious that a law underlies this process, as regular in its operation as any other in the whole domain of nature.

It will be readily understood that the foregoing views are not precisely in accordance with those of Professor Kingsley. He does not believe in the *supremacy* of law, though he admits its *existence*, or rather he does believe in the supremacy of an *undiscoverable* law—for the production of men of genius—who, naughty creatures, fatally disturb all possible calculation, as to the probable order of events. That the man

of genius, whether a Gautama or a Mohammed, a Luther or a Shakespeare, a Cromwell or a Napoleon, is a befitting response to the wants of humanity, that he accurately answers to its necessities, and adequately fulfils its demands, is apparently not enough for him. He is still haunted with the idea of something *accidental* in his production, and although he does not say, in so many words, that he is abnormal, but rather the very reverse, yet he does so in effect, by declaring that all ordinary men, the rank and file are so! Now all this is, to say the least of it, very foolish. It is utterly unphilosophic. A Bacon in his study and a ploughman between the stilts, are equally normal, each in his own grade. The one is as much an instrument of providence, or shall we say an individual organ of the universal mind, as the other. The one does not do more, and the other does not accomplish less than is required of him. They are perfectly harmonious parts of the great whole of human society, and severally discharge their respective functions, in the time and manner required for its growth and well-being. Mr. Kingsley's harassing doubts on this subject, like those of many of his less enlightened brethren of the cloth, appear to us to arise from a want of *living* faith, that is, faith in the now. They cannot, it would seem, realise the sublime truth, that all action is a miracle and all thought an inspiration, and that as a result of this, divine order and celestial beauty, are ever in the process of evolution, at all times and in all places, in the storm and the calm, through the volcano and the earthquake, under the darkness of the eclipse and in the noontide splendour of the sun's meridian power. To attain to this, however, we must believe not only in a *past* but a *present* revelation, not only in a deity that *was* but in a God that is.

If we wanted a striking instance of the disturbing effect of a belief in the miraculous even on a very superior mind, we do not know that we could select one more to the point than that which is furnished by this very work of Mr. Kingsley. There is a looseness of thinking in it, absolutely astounding. Witness the following in his first lecture on "The Forest Children". He is speaking of the conquest of the Roman Empire. "But the Teutons might have done it a hundred years before that, when Rome was in a death agony, and Vitellus and Vespasian were struggling for the purple, and Civilis and the fair Velleda, like Barak and Deborah of old, raised the Teuton tribes. They might have done it before that again, when Hermann slew Varus and his legions in the Teutoburger Wald; or before that again, when the Kempers and Teutons burst over the Alps to madden themselves with the fatal wines of the rich South." Now if there be any one fact in ancient history more patent than another, it is that Rome had a cycle of growth, splendour, and decay, and to suppose that she could have been over-

whelmed, as by an unlucky accident, in the earlier stages of this process, is equivalent to saying that winter might come at midsummer, or the moon suddenly wane from her full-orbed splendour. Mr. Kingsley is surely not ignorant of the great fact, that the Teutonic invasion was not an isolated incident, but part of a mundane movement, which embraced both Europe and Asia, and set not only the Goth, but also the Hun, the Tartar and the Mongol in motion, and so changed the masters of the world from India to Britain. "The human deluge," as he very properly terms it, was a tidal movement of humanity, having its appointed times and seasons, and so not to be hurried or retarded by any accident. The process was essentially ethnic, and consisted in the baptism of the effete nervous races by their muscular correlates. It was what had been done before, and will some day have to be done again, for the tides of the moral like those of the material ocean, repeat themselves periodically.

Now there is no one who knows all this better than the professor of modern history. Of Mr. Kingsley's attainments we have the very highest opinion, and of his talent none can doubt. Yet his unfortunate habits of thought go far to render nugatory, not only his learning but even his commanding ability. He belongs to the school of detail. He paints individualities with pre-Raphaelite minuteness and fidelity, but he has a paralysing distrust of law and principle. His mind is essentially feminine. It is great in the small. It has exquisite finish, but it is sadly wanting both in depth and breadth. He cannot grasp the totality of a great historical event. He is lost in the parts, and we may add, confused amidst effects, which he often mistakes for causes. He is, moreover, too prone to moralise; a venial fault, however, in a reverend professor addressing a class of promising young undergraduates. He is the very antipodes of Buckle, that magnificent pedant of statistics, that amiable fanatic of averages. In *The History of Civilisation* men are pawns on the chess-board of fate. In the Teuton and Roman they are clay in the hands of the clerical potter. Mr. Buckle believed in the omnipotence of circumstances. Mr. Kingsley has unbounded faith in the efficiency of morals. Each doubtless has a side of truth, but neither has the whole truth, which does not however lie between but above them.

The rise and fall of empires are not only phenomena developed in perfect obedience to law, but their minuter accessories are also subject to cyclical repetition. The stern virtues of the conscript fathers in the early days of the republic, and the abandoned profligacy of the senatorial families under the later emperors, are not matters for astonishment; such transcendent virtues and such unutterable vices were the normal product of a powerfully organised and decisive race, pass-

ing over the tremendous arc of ascension into and declension from the imperial supremacy of a world. The Babylonians, taking into account the diversity of race and area, had doubtless passed through much the same cycle of fortune and morals in a previous era. Indeed, the destruction of the great Assyrian monarchy by the Persians and Kurds under Darius and Cyrus, had its later parallel in the conquest of the Roman empire by the comparatively pure and simple and vigorous Goths, under Alaric, Odoacer, and Theodoric.

We have yet to learn the effect of high civilisation upon structure and function. It is obvious that it has a marked and hereditarily transmissible effect upon the nervous system, and through it doubtless upon the osseous and the muscular. It increases the susceptibility to pleasure and pain, and apparently eventuates in a morbid development of the passions. While a refining, it is obviously an exhausting process. It is doubtful if humanity be capable of enduring it in perpetuity. It never has done so hitherto. India and Egypt, Assyria and Persia, Greece and Italy, are eloquent as examples in the past. It would be unwise to vaticinate, so we will only say that the fortunes of modern Europe are in the keeping of futurity.

The fall of Rome certainly presents a great problem, more especially for clerical moralists like our author. Its people no doubt became exceedingly corrupt under the old heathenism, not however till that heathenism was itself effete. When thus corrupt, however, it is obvious that Christianity utterly failed to regenerate them. That could only be accomplished by the natural and normal process of an ethnic baptism. It was not Christianity, but the Goths that restored Southern Europe to virility after the exhaustion of an era of imperial civilisation. Thus showing how irresistible are the natural laws, which fulfil themselves under all circumstances, and in despite of, apparently, the most unfavourable and exceptional conditions. The truth is, Christianity itself was a part of the invasion, Olympus, like the Palatine, going down before the resistless deluge. The Cæsar and the Jove grew old together. The classic man was expiring, not merely in his government but also in his faith. It was the night of death preparatory to the morning of resurrection.

History has not yet done justice to the Teuton. It is only in the process of doing so. It has contemplated him too much through Roman and monkish spectacles. It has scarcely appreciated his manhood. It has decidedly underestimated his civilisation. We have talked of his forests, till we have forgotten his corn-fields, and spoken of his feats as a hunter, till we have overlooked his labours as a herdsman. We have believed that well-equipped and disciplined armies, with all their weapons, clothing, and commissariat, could come

out of the wilderness, or what is yet more incredible, that naked barbarism could defeat the legions and storm the cities of a well-organised civilisation. It is something like the story of "the painted Britons" and their war-chariots, an incredibility which only scholars could believe and pedants could reiterate. When shall we again have history written by statesmen and soldiers, men who know *things*, and are not to be deceived by mere *words*?

Let us endeavour to understand the ethnic position of the Teuton. He is the muscular and material man of Europe, holding the same relation to it which the Tartar does to Asia. He is pre-eminently the *strong* man of the world, the Teuton, Toiton, *Titan* of the West. He does battle even with the Olympian Gods, and as we have seen, sometimes overwhelms them with mountains of human force. He is nature's resource, when her nervous races, Celtic and Classic, have become effete, that is wiredrawn and overbred, "used up". Then she resorts to him for a fresh supply of strength and stature, bone and muscle. A rather terrible process for the wiredrawn, but very necessary for the world, whose mightier works cannot be accomplished by "Aztec" types, even of the most aristocratic descent.

But the Teuton is not all bone and muscle. He has also a goodly brain, well arched, and of the largest volume. He far transcends the Classic man, both in elevation of principle and in warmth of affection. He regenerated the South morally as well as physically. He is by organisation a Pantheist. He is a child of nature, and cannot help confounding her with God. The sublime monotheism of the Semites is beyond him. He cannot discriminate between creation and the Creator. These are his limitations. He is analytical not synthetical in his mental constitution. Hence he can pull down but he cannot build up. He is the world's master in ages of negation. He can reform, but he cannot found. He is not an architect. He conquered political Rome as a soldier. He is in the process of subduing ecclesiastical Rome as a theologian. But when the rubbish has been removed, he will not be called upon to build the new temple. That is a feat reserved for men of a finer race, for the thoroughly baptised Celt of Western Europe, now in the brilliant dawn of his re-emergence, and about to enter on the magnificent epicycle of his prehistoric civilisation.

And here we are landed in another problem. Is the Celtic or the Classic race inherently and essentially the highest? Of course, the scholar will have no hesitancy in deciding for the latter. All history is in their favour. But here arises the yet deeper question, "what is history," to what extent can we trust it in the solution of a mundane problem? To help us in this difficulty, let us see what is the area of time and space which it covers. It goes back some three thousand

years with moderate distinctness, and then surrenders us to the rather uncertain guidance of archæology and tradition. It embraces the Mediterranean seaboard of Europe, Africa, and Asia, and the oceanic seaboard of the latter, to China and Japan. This is its domain. It can tell us absolutely nothing of Celt, or Teuton, or Slavon, till comparatively modern times, say, during the last two thousand years. It knows nothing of the Arab but as a Saracen, or of the Moor, till he emerged as a Carthaginian. It ignores India till the period of the Aryan immigration, and even then surrenders it largely to tradition, till the age of the Macedonian conquests. It takes the antiquity of China upon trust, and simply presumes that the Tartar and the Mongol have always been nomads upon the eastern steppes. Now to what does all this amount? Simply a rather confused and fragmentary narrative of one mundane tidewave of empire and civilisation, its western sweep from India to Britain; not beginning indeed with the former, and not yet able to end with the latter. It tells us only of the occidental march of conquest and colonisation, and the analytical tendencies of thought and belief which accompanied it. It shows us how Babylon reappeared in Rome, and how Rome is undergoing a resurrection in London. It tells us that the theosophy of the East has become the philosophy of the West; and that the magnificently inflectional and sonorous languages of the earlier Aryan tribes, beginning with Sanscrit and ending with Latin, have been disintegrated into those infantile particles, which constitute the baby tongues of Southern Asia and Western Europe. It is simply, then, the narrative of one grand oscillation of humanity, one stupendous swing of the pendulum of fate.

But we want something more than this. We want some account of the previous oscillation. We want to know something about the rise of cromlech culture in Gaul and Britain, and of cyclopean civilisation in Greece and Italy. And we want to know what took the Aryan tribes to Persia, and carried them as resistless victors, through the passes of the Himalayan mountains into the plains of India. This is surely not an unreasonable demand. We have seen the great inflectional languages broken down, so we want to know something of the processes by which they were built up. Philology may reveal this to us, but history cannot.

But to return to the more especial subject matter of the present article, what were the ethnic results of the great Teutonic invasion? And we reply, they were purely baptismal; that is, they produced no permanent displacement of races. Spain is still Iberian. Italy is predominantly Classic; while modern France, like ancient Gaul, is almost purely Celtic. All this will doubtless be readily admitted, but

not so the corollary from these instances, or rather from the law of non-displacement to which they point, namely, that Britain is therefore still essentially Celtic. Saxon prejudice and Norman pride alike revolt at such an insinuation. But again we say, what if it be the truth. If Greek and Persian be still in existence, despite the Turkoman, why should not the Celt remain, notwithstanding his baptismal regeneration ?

And here it may be asked, what is the ethnic stage at which Europe has now arrived, more especially in reference to that Teutono-Roman movement, with some features of which Mr. Kingsley's work renders us so delightfully familiar. And we reply, the stage of re-emergence from the Gothic conquests. The old nationalities are reappearing. The specialities of the past are undergoing a resurrection, let us hope in glorified bodies. The Lombard has been absorbed in the Italian, the Visigoth in the Spaniard, the Frank in the Gaul, and shall we add, Angle and Saxon, Dane and Norman, in the Briton. Yes ; perhaps that will do. The *name* is not quite so objectionable !

We have said that the Gothic conquest of the Roman Empire was not an isolated phenomenon, but part of a mundane movement, consisting in the aggressive action of the muscular on the nervous races, during the ethnic collapse of the latter. So neither is the re-emergence local or national. It is not confined to one people, or even to one continent. It extends through Europe into Asia. It is seen in the reappearance of "the Latin nations" on the foreground of history, constituting a part of that process of resurrection, which is obviously going on around the whole Mediterranean seaboard. It has raised not only the Italian, but even the Greek, to an initiative nationality. The Persian is reviving ; while, perhaps, even the Indian mutiny was but the first spasm of returning vitality in the farther East. It is not merely the Teuton that is reabsorbed into the Celt and the Roman, but also the Tartar, that is disappearing in the Syrian, the Persian, and the Hindoo. And in conjunction with this, it is interesting to observe that the Slavon and the Mongol, the preeminently representative material types of the two continents, are losing place and prestige in the estimation of mankind. Russia has received her first severe check at Sebastopol, and it will be observed at the hands of the two *western* powers. China is falling to pieces by its own weight and from irremediable corruption, while amidst its pitiable confusion, the same two powers managed to march in triumph to its capital, and dictate terms of peace amidst the smoking ruins of the summer palace of its celestial emperor. The sun is rising in the West. The mystic utterance of the Prophet of Islam is undergoing fulfilment. The nervous races of the occident are dominating the material types of the

orient, and another great cycle of destiny is in the process of inauguration.

It need scarcely be said that it is not such views as the foregoing, that the reader will find illustrated in the work of Professor Kingsley. They would perhaps scarcely be suitable either to a reverend author or to an university professor. History, properly so called, can scarcely be written, and it certainly dare not be taught *ex cathedra*. The extent to which its true roots transcend even the faintest echoes of tradition, antedating, not only the most ancient empires, but the oldest monuments, is only beginning to be grudgingly admitted by orthodox scholars, accustomed to limit their views by classical data and Hebrew authority. The range of time imperatively demanded for the sweep of the great cycles, not only for the rise and fall of empires, but for the growth and decay of languages, and above all the succession and interaction of races, is such as only a scientifically trained mind can adequately or even approximately conceive. While the degree in which each movement is truly mundane in its causes and consequences, ever but the part of a larger whole, a link in that mystic chain, descending in unbroken concatenation out of the past and stretching on in prophetic anticipation to the future, is only dawning in its full significance, even on the most advanced thinkers. In saying this, do not let it be supposed that we, even by implication, blame Professor Kingsley because his work is essentially fragmentary, because it takes up Rome at her decline and lays down modern Europe at her dawn. This was in accordance with his plan, and he was, therefore, quite right to thus pursue it. But there is no reason why we should be equally limited in the treatment of a topic so eminently suggestive of broader and more expansive views, of a wider, and we may add, sublimer and more hopeful outlook.

There is one great historical fact more immediately connected with the subject matter of Mr. Kingsley's work, on which both professionally as a clergyman, and by special position as an authorised teacher in an orthodox university, he was particularly limited; we allude to the introduction and diffusion of Christianity. We have already said this was a part of the invasion; it was the moral or spiritual, as the Gothic conquest was the material and martial phase of that great inundation by which Classic civilisation was overwhelmed in the hour of its utter effeteness. Being then part of a movement which in its social and political aspect was certainly mundane, have we not reason to believe that this, its religious province, was mundane also, and as the Gothic immigration of Europe, had its correlated Mongolic invasions in Asia, have we not reason to believe that the rise and diffusion of Christianity in the west must have had its preceding or accompanying parallel in the east? It had, and that parallel was Buddhism, the Christianity of



the farther Orient, as Christianity, contemplated philosophically, is but the Buddhism of the hither Occident. This subject demands profounder treatment than it has yet received. Perhaps we have not even yet sufficient data for an effectual solution of the problem. But we can have no doubt that there is a very near relationship between these two great religions, with their incarnational advents, their similar sacerdotal organisation, and their equally remarkable monastic institutions. To deny that the Pope is the Grand Lama of the West, or to assert that the Grand Lama is not the Pope of the East, is simply to affirm that the sun does not shine at midday. The thing is palpable to all whose eyes are not blinded by prejudice, and what we really want is not its denial but its explanation.

The relationship between Buddhism and Christianity is in truth one of those great and searching questions, for whose honest and thorough discussion the world is but imperfectly prepared. And yet, however long the investigation of this inconvenient subject may be postponed, it is obviously looming in the distance, as one of the grand inevitabilities of the future. Both were reactions against the stringent tyranny of a previous system of law and order as administered by an hereditary priesthood. Each endeavoured to escape from this despotism of a sacerdotal caste, by placing the offices of religion in the hands of celibate monks, taken of necessity from the laity. Both were essentially democratic, and in a measure communistic movements, in opposition to the eminently hierarchical and aristocratic constitution of things which had preceded them. Both are based upon the fundamentally pantheistic idea of the descent of the Divine into the human, the pervasion of the sensible by the spiritual, the suffusion of the terrestrial by the celestial, of which a messianic incarnational advent is the culmination.

But this is not all. To the Anthropologist it is equally interesting to observe that the rise and diffusion of Buddhism under Gautama, preceded and accompanied the great aggressive movement of the Mongolic tribes of the North-east on the more refined and civilised races of the South-west of Asia, just as correspondently, the rise and diffusion of Christianity preceded and accompanied the equally aggressive action of the muscular Teutonic races of the North-east on the more refined and civilised nations of the South-west of Europe. It is here quite obvious that a negative and disintegrative faith, arose in each case as the befitting accompaniment, and we may say exponent of a racial movement, which amidst unutterable disorder, eventuated in placing bone and muscle in temporary preponderance over nerve and thought. Nor does the parallel end here. For as the earlier triumphs of Buddhism were followed after a time by the partial reaction of Brahminism, so were the earlier triumphs of Christianity followed by

the reaction of Mohammedanism, whereby the cradle-ground of India in the one case, and Syria in the other, were recovered for the more ancient faiths. It is scarcely necessary to observe that, contemplated from this altitude, the creed of Islam must be regarded as a return to the severities of Judaic monotheism, from the incarnational heresies of Christianity, Mohammedanism being simply Judaism stripped of its sacrificial ceremonial, and so adapted to the requirements of the world in these latter and post-classic ages.

Now it is obvious that we are dealing here with an immense problem, whose elements cover an area both of time and space but little suspected. The incarnational idea antedates tradition. Brahminism, Buddhism, and Christianity are but its successive embodiments. It pervades not only Classic but Scandinavian mythology. Only, however, in the faintest manner does Mr. Kingsley here and there allude to the very important fact, that some form of Buddhism had obviously preceded Christianity over a large part, if not the whole, of Western Europe. He finds the square bells of Lamaitic Tartary in the West of Ireland, and he discovers that Christ was occasionally accepted as the chief of the Sons of God—in truth, as the last and grandest of the incarnations. But he, perhaps, very properly does not say anything about the worship of Odin, being simply the prehistoric European phase of that great incarnational faith, of which existing Buddhism and Christianity are, as we have observed, the more recent developments. And yet in speaking of the conversion of the Teutonic tribes, such a topic, however inconvenient, is almost unavoidable. Nay without an underlying Buddhistic element, even in the Classic race, it is almost impossible to explain the slow, steady and resistless growth of the new eastern faith, amidst the decaying populations of the old empire. Here again we are reminded of the limitations of what we are pleased to call history. What do we really know of the religious revolutions of the world. Faintly echoed from the far remoteness of an undefined past, we catch the dying glories of the Saturnian age in Europe. But obviously parallel with this was a corresponding movement in Western Asia, eventuating in the dethronement of Moloch. What is the connection between Jove and Jehovah, and what was the essential character of that revolution in religious thought, which brought in their milder worship upon the ruins of that of their sterner predecessor, the cruel old timegod, with his bloody rites and human sacrifices? And why was Saturn spoken of with such reverence in Europe, while the memory of Moloch was held in such detestation in Asia? Truly in all this it is greatly to be feared that we have not yet light enough to see our own darkness. We do not yet know how very superficial is our knowledge, how short is our plumb-line compared with the depth of the sea of time we are attempting to fathom.

Falling back (in utter despair of obtaining anything really satisfactory on this subject from written records) on racial type and organic proclivity, we conclude that, in the first place, the Caucasian race must have originated their own thoughtforms in faith, as in philosophy and government. And secondly, that there has always been and ever will be some well-marked specialities attaching to the creeds respectively, of the Semitic and Aryan divisions of this higher type of humanity. At the present hour this is seen as distinctly in Trinitarian Christianity and Unitarian Mohammedanism, as formerly in the polytheistic arrangements of Olympus, and in the Monotheistic creed of Mount Zion. And we may conclude that in this, as in all other known manifestations of force, there is not only action from the east, but also reaction from the west. In other words, that Asia is not the sole fountain of faith, but that Europe must also, at certain periods, take her share in the great work of religious development. It is, indeed, a serious question, to what extent existent Christianity is virtually an European faith. Judging by the facts of history, it would certainly appear to be most distasteful to the Semites both of Asia and Africa, who have practically extruded it from their borders and put the Monotheistic faith of Islam in its place. But the grander mission of Europe in the religious sphere is doubtless yet to come. She has simply *modified* Christianity, rendering it artistic for the Latin nations, and rationalistic for the Teutons. But in the great day of her re-emergence which is now dawning, in that social resurrection of her South-western types after their Teutonic baptism, which is the dominant ethnic characteristic of our times, will she rest satisfied with this. Is it in short to be supposed that the powerfully organised Aryans of Western Europe, will submit to be held in permanent pupillage, to the ancient thoughtforms of Oriental tribes, long since ethnically effete. We think not. At present Europe is evolving the literature and science of the world. Hereafter she will develop its religion.

From what we have said of Mr. Kingsley's work, it must be obvious that we do not regard it as being exactly of an historical character. He does not so regard it himself. But it consists, nevertheless, of some beautifully written prelections on a most interesting and important phase of European history, and may be studied with advantage, not merely by the general reader, but also by the scientific Anthropologist, seriously desirous of knowing something of the details of that process of racial amalgamation, whereby Teuton and Roman became one people, emerging into the modern Italian, out of the strife and confusion necessarily attendant on the "decline and fall of the Roman Empire."

## THE SECRET OF HEGEL.\*

Μάντιν ἢ ἰητήρα κακῶν:—

οὗτοι γὰρ κλητοὶ γὰρ βροτῶν ἐπ' ἀπειρονα γαῖαν.

WE cannot congratulate Mr. Stirling upon the motto which he has chosen for his work : " A prophet, or a healer of ills . . . for such men are welcome throughout the boundless earth." Is Hegel well received in all quarters of the globe? Certainly not, says Mr. Stirling himself, for no one except Mr. Stirling appears to understand him. Is Hegel a healer of ills? It appears to us, on the contrary, that Hegel would be the worst possible physician who could minister to a mind diseased. After him, as after Prometheus, *nova februm terris incubuit cohors*, and especially brain fever in all its forms. And the penalty which has followed upon the fulfilment of his destiny by Hegel has been greater in proportion to the benefit than that which followed upon the fulfilment of the destiny of Prometheus. Endless blessings followed for all mankind when Prometheus drew down fire from the skies ; but who, except Mr. Stirling, can tell us what benefit was conferred upon us when Hegel raised a fog from the earth? A prophet too—a seer ! says Mr. Stirling. Well, perhaps this epithet is the least inappropriate. The prophet makes obscurity a part of his trade, and his followers may interpret him in any way they please. There are commonly as many different interpretations of the meaning of a prophet as there are different interpreters ; and Hegel is no exception to the rule. Mr. Stirling is the last, and therefore, for the time being perhaps, the most infallible interpreter of Hegel ; but oh, for an interpreter of Mr. Stirling !

It may possibly be said that this is a very flippant and unbecoming manner of treating a conscientious attempt to expound so great a thinker as Hegel. But we do not believe that such an objection will be raised by any Englishman who has made a conscientious attempt to understand Hegel and to compare his doctrines with those of an opposite school. It does not become us to be cowed by a name ; it does not become us to accept obscurity as identical with clearness and depth of thought. If Hegel has indeed a meaning, let us try to drag it out from the chaotic diction in which it is buried ; but if we tear away mountain after mountain of verbiage and find nothing when all is done, let us not be afraid to proclaim the fact.

\* *The Secret of Hegel: being the Hegelian System in Origin, Principle, Form, and Matter.* By James Hutchinson Stirling. London: Longmans. 1865,

It has often been said that it is as unjust to find fault with the jargon of the German philosophers as it would be to find fault with the technical language or symbols of the mathematicians. But the two cases are no more parallel than are the two halves of one straight line. The mathematicians always tell us what they mean by their terms and their symbols, while Mr. Stirling considers it a merit in Hegel that he leaves us to find out the meaning of all his terms for ourselves.

"Here it is," says Mr. Stirling, "that we have one of the most peculiar and admirable of the excellences of Hegel; his words are such and so that they *must* be understood as he understands them, and difference there can be none. In Hegel thing and word arise together, and must be comprehended together. A true definition, as we know, is that which predicates both the *proximum genus* and the *differentia*: now the peculiarity of the Hegelian terms is just this—that their very birth is nothing but the reflexion of the *differentia* into the *proximum genus*—that at their very birth, then, they arise in a perfect definition. This is why we find no dictionary and so little explanation of terms in Hegel; for the book itself is that dictionary; and *how* each term comes, *that* is the explanation; each comes forward, indeed, as it is wanted and where it is wanted, and just so, in short, that it is no mere term, but the thought itself."

This lucid passage at once rouses the suspicion that there may possibly be many equivocal terms in Hegel's writings, and that they may lead to some fallacious reasonings. Still, we did not expect to find on the very next page of Mr. Stirling's book the following confession:—

"Another difficulty turns on this word, *Vorstellung*, which we have just used. A *Vorstellung* is a sort of sensuous thought; it is a symbol, a metaphor, as it were; an externalisation of thought; or *Vorstellung*, as a whole, is what we commonly mean by conception, imagination, the association of ideas, etc. . . . Then, the process itself, as a whole, is also nameable *Vorstellung* in general."

Still less did we expect to find such a damaging admission as this:—

"Again these terms [*An sich, an ihm selber, an ihm*] will occur in Hegel, not always in their technical senses, but sometimes with various shades, and very much as they occur in other writers. It must be confessed, indeed, that it is these little phrases which constitute the torment of every one who attempts to translate Hegel."

To put the matter more clearly—Mr. Stirling having, in his first volume, lauded Hegel to the skies for the exquisite clearness of his terms, is compelled in the second volume to complain of their ambiguity.

And here we believe is the true secret of Hegel. Mr. Stirling never distinctly tells what the "secret" is; he bids us read Hegel

again and again, and so find out for ourselves. But in our opinion the secret is simply this. Hegel never distinctly realised to himself the meaning of his jargon, and so fell into a series of fallacies through the use of equivocal terms. It was perhaps a misfortune for Hegel that he was born in Germany. Though the German language is probably a reflex of the German mind, it is not impossible that the habit of speaking French or English from his infancy might have placed the writings of Hegel within the class intelligible, might have made him the founder of a school, or might have altogether deterred him from writing metaphysics. The cumbrous German language affords fatal facilities for fallacies; the numerous different shades of meaning of which most German words are susceptible render the use of equivocal terms inevitable even to the most careful and conscientious writers. But when a German goes out of his way, as Hegel does, to found scientific arguments upon far-fetched verbal resemblances, he nips in the bud any faint expectations that he may have raised of philosophical accuracy.

As an example of verbal illustration or argument we quote the following passage from Mr. Stirling's translation of Hegel on Quality:—

"The *Qualirung* or *Inqualirung* (the Agonising or Inagonising, inward pain-ing, pang-ing, throe-ing),—an expression of Jacob Böhme—of a Philosophy that goes into the *Deep*, but a troubled deep,—signifies the movement of a quality (the *sour*, *bitter*, *fiery*, etc.) in its own self, so far as it in its negative nature (in its *Qual*, its pang) expresses and affirms itself through Other—signifies in general the Unrest of the Quality in itself, by which it produces and maintains itself only in conflict."

Any one to whom Hegel may first introduce himself by this sentence will probably be unable to discover anything in it of which he can feel certain except the play upon the two German words *Qual* and *Qualität*. But we do not believe that Hegel could introduce himself in any more intelligible or appropriate way. We find ourselves here plunged in *medias res*. In this one sentence are the principal features of Hegel's philosophy—not exaggerated or distorted, but rather softened and flattered; those features are not here beaten into one formless mass as they sometimes appear after a terrible conflict with the Indeterminate, but rather as the features of a pugilist who has fairly recovered from one defeat and is prepared for another.

Mr. Stirling assures us that the right way to enter upon the study of Hegel is to read that portion of the "Complete Logic" which treats of "Quality" until it becomes intelligible. We, therefore, set to work upon this same "Quality," resolved not indeed to understand it, but either to understand it or to know why it could not be understood. And we believe that we are now able to shew why it is unintelligible.

The sentence with which "Quality" begins is this:—"Being is the

indefinite *immediate* ; it is devoid of definiteness as in reference to essentia, as also of any which it might possibly have within itself. This reflexion-less Being is Being as it is only in its own self." Let no one be deterred from reading on because it is difficult to understand what Hegel means by Being, because it is impossible to have any idea of that which has no qualities. Hegel explains further on : "the question of *How* belongs itself to the erroneous ways of Reflexion, which demands comprehensibility, but at the same time presupposes its own fixed categories, and consequently feels itself armed in advance against the reply to its own question." We were at first inclined to suspect that Mr. Stirling had made some mistake in the translation ; but, to do him justice, in this and in other cases in which we have referred to the original, we have found him as scrupulously accurate as the case would permit. Hegel does distinctly say that we must not demand comprehensibility (*Begreiflichkeit*) that we are not to ask for any clear conception, any image of the matters about which we are to reason.

Remembering this philosophical dogma, we may pass on to what Hegel says about Nothing : "*Nothing, pure Nothing* ; it is simple equality with itself, perfect vacancy, determinationlessness and intentlessness [formlessness and matterlessness]." And then we come to the great Principle of Hegel's system, "*Pure Being and pure Nothing is therefore the same.*" Now we must remark that we cannot see how the conclusion follows from the premises. Pure Being and Pure Nothing, as we understand the statement, are identical because both are without qualities or attributes, or as Hegel says determinationlessness. Let us throw the argument into the form of a syllogism :—

Pure Being is without attributes ;

Pure Nothing is without attributes ;

Therefore Pure Being and Pure Nothing are identical.

In order to avoid technical terms, let us construct another syllogism on the same principle by way of exposing the fallacy :—

Snow is white,

White hot coals are white,

Therefore snow and white hot coals are identical.

But there is another, and perhaps more plausible way of stating the argument :—

When we think of pure Nothing we cease to think ;

When we think of pure Being we cease to think ;

Therefore pure Being and pure Nothing are identical.

As a companion to the above syllogism we suggest the following :—

When we inhale chloroform we cease to think ;

When we get a hard knock on the head we cease to think ;

Therefore chloroform and a hard knock on the head are identical.

And on the same principle it might be shown not only that these two

are identical with one another, but that they are also identical with Pure Being and Pure Nothing.

But Hegel was not really misled by the fallacy in the latter form ; he was saved from that by another fallacy depending upon language and upon the peculiar character either of the German language or of the German mind. It is a marked peculiarity of Germans to emphasise their words far more than either Englishmen or Frenchmen. Accordingly Hegel is constantly reminding us that we must place the accent here, and not there, there and not elsewhere ; and in many of his sentences he informs us that the accent is to be placed on the copula, not on the predicate. "Nothing," he tells us, "is thought, nothing is represented (conceived), it is spoken of ; it *is* therefore. Nothing has in thought, representation, speech, etc., its Being." In this passage we believe that the meaning and the error of Hegel's fundamental doctrine are apparent. We have once before had occasion to point out the same error when made by a far greater man than Hegel. In that case the error was a mere slip so introduced as not to vitiate the whole work. In this case it is the corner stone of a rotten edifice. It is obvious that, if Nothing exists because it is spoken about, centaurs, ghosts, fairies, men with tails, mermaids, sirens, one-eyed giants, and anything that anyone likes to invent, must exist on the same principle. And this theory is apparent throughout the whole of Hegel's argument. He does not say that the perception of pure Being or of pure Nothing is the negation of perception ; he says that each *is* perception though he prefixes the epithets pure and void. When he draws an illustration from light and darkness—representing Being as pure light, Nothing as pure darkness—he does not say that in each case we should be equally unable to see, but that "the one seeing as much as the other seeing *is* pure seeing—seeing of Nothing." We may, perhaps, travel on "the erroneous ways of Reflexion" so far as to suggest that the destruction of the optic nerves would have the same effect as "pure darkness." The destruction of the optic nerves is therefore the surest road to pure seeing. Whether any Hegelian philosopher will adopt this method of obtaining a view of Pure Nothing which is Pure Being, we cannot predict ; but before he tries the experiment we take the liberty of recommending him to consider seriously whether there may not after all be a difference between seeing and not seeing, and whether the "seeing of Nothing" may not be a synonym for the loss of sight. We do not ourselves pretend to know anything about either pure Being or pure Nothing, but we are too obtuse, too un-Hegelian to see that the imposition of an accent upon the word "*is*" can be sufficient to prove the existence of either, still less the identity of one with the other. And although Pure Being and Pure Nothing are in a sense one to us, inas-



much as we know no more of one than of the other, we have not the vanity to suppose that our ignorance is knowledge transcending the powers of other men. We do not suppose an inhabitant of Jupiter to be an inhabitant of Venus because we know nothing about either, nor can we suppose Being (whatever that may be) to be Nothing (whatever that may be) for a similar cause. In short, we decline (for sufficient reasons, as we believe) to accept the fundamental principle of Hegel.

Philosophers have ere now declined to accept that dogma for reasons different from those given above. "Being," they have said, "and Nothing are the same thing ; it is, *therefore*, the same thing whether I am or am not, whether this house is or is not, whether three hundred dollars are or are not in my possession." To this Hegel answers fairly enough, "Such inference or such application of the proposition alters its sense completely. The proposition contains the pure abstractions of Being and Nothing ; the application, on the other hand, makes of these a determinate Being and determinate Nothing. But, as has been said, the question here is not of determinate Being." A philosopher has, of course, a perfect right to draw such a distinction as this, and to complain if his adversaries ignore it. But, on the other hand, his adversaries, if unable to admit the argument about pure Being, have a right to use their own weapons when the war is carried into their own domain—that of the Determinate. By all means let Hegel be monarch of all he surveys while he remains in the region of pure Being, and pure Nothing ; those revolutions have little interest for us in which, according to him, Being and Nothing alternately come uppermost, and yet remain identical ; we cannot say that Hegel's revelation is not true ; we can only say that Hegel has not shewn it to be true, and that it matters not to us whether it be true or false. But we watch with a jealous eye for the introduction of manners and customs from this unknown, this hypothetical realm into the better known and free land of the Determinate—of the Concrete.

Hegel's disclaimer is a disclaimer only for the time being. In the domain of pure Being and pure Nothing diplomacy seems to be not unknown. When hard pressed, Hegel declares that the identity of Being and Nothing applies only to pure and indeterminate Being and Nothing ; when the danger is passed, both Hegel and his disciple, Mr. Stirling, deliberately make the same assertion about the Determinate. "Hegel," Mr. Stirling tells us, "came to see that there exists no concrete which consists not of two antagonistic characters, where, at the same time, strangely, somehow, the one is not only through the other ; but actually is this other." A truly startling statement ! We might possibly reconcile ourselves to the theory that this side of Nowhere is the same as the other side of Nowhere, because the geographical

position of Nowhere has not been accurately ascertained, and because we have no particular interest in the district. But when we are told that the north side of Fleet-street is the south side, and that each is itself and the other at the same time, the matter becomes more serious. A confident and impatient man might, perhaps, fling the book away at once with a laugh. A more diffident man might, perhaps, walk into Fleet-street and ask impartial passengers for their topographical opinions. And an inquisitive man having thus satisfied himself that his wits had gone no further astray than those of the average Englishman, might set himself to inquire how any man could have arrived at the Hegelian point of view.

And here again we must remark that we do not think Mr. Stirling has misrepresented Hegel. Hegel does state that every concrete is its other, and attempts to establish that position by the most curious argument we ever met with. In order to shew that there can be no mistake about the application of this argument, we quote first the following distinct statement of Hegel's :—

"There-Being\* is definite, determinate Being ; its determinateness, definiteness, is beënt determinateness, beënt definiteness, Quality—Through its quality is it that Something is,—and as in opposition to Another."

"There-Being" then is this "determinate" Being to which we were told in the passage before quoted the identity with Nothing would not apply. Though Being is the same as its Other, Nothing, and *vice versa*, the principle, we were told, was not to be applied to "There-being" (Daseyn). What then was our astonishment when we read the Chapter on "There-being" and found the following :—

"1. Something and Other are both in the first place, There-beënt or Something. 2. Each is equally an Other. It is indifferent which is first named Something ; and just because it is *first* named is it Something. . . .

"At the same time, as has been remarked, even for conception (representation) every There-being is distinguishable as an other There-being, and there remains not any one There-being that were distinguishable only as a There-being, that were not without or on the outside of a There-being, and, therefore, that were not itself an Other. Both are equally determined as Something and as Other, consequently *as the same thing*, and there is so far no distinction of them." The italics, be it remarked, are not ours.

If we take "Both" to mean any one "There-being" and any one "Other", as we suppose we must take them, the argument is this :—

A (any one "There-being") is Something and Other ;

B (any one "Other") is Something and Other ;

Therefore A is the same as B.

\* "There-Being" is Mr. Stirling's translation of *Daseyn*.

It is hardly necessary to point out that there is a double fallacy in this reasoning. In the first place, if the terms were unequivocal, a precisely similar syllogism would suffice to shew as before that snow is the same as white hot coals. In the second place the term "Other" is monstrously equivocal. *A* may be the north side of Fleet-street and so an Other as opposed to the south, while *B* may be the Sun as opposed to, or the Other of, the rest of the universe. It will then follow from the argument that the north side of Fleet-street and the Sun are one and the same thing.

But let us try to be more charitable to Hegel, and concede that, although he has not taken pains to be verbally accurate, he, of course, did not intend the word Other to be equivocal; that if he intended to speak of *A* as an Other, he also intended to limit the signification of the term Other strictly to *A* and its correlate, which we may call *B*. *A* is the other of *B*, *B* the other of *A*. Be it so; then if *A* and *B* are the same thing, the north and the south sides of Fleet-street are identical.

But, it will be said, Hegel could never have gone so far wrong as this; there must be some other possible interpretation of his meaning. And there is another possible interpretation. Hegel may have meant to say that "Something and Other" is a complete definition of the term "There-being", and also a complete definition of the term "Other", and that the two terms are therefore synonymous. But what a lame and impotent conclusion is this; when we look for an inference we find only a definition just as when we looked for definitions we were sent empty away. We nevertheless believe that Hegel had some such meaning as this, with a most unwarrantable *arrière pensée* attached to it. He wished us to believe that what is true of a word is true of that which is signified by the word—or, to use more forcible if more technical language, that all things which may be denoted by any connotative term are identical. There is nothing, he seems to imply, to which you can apply the predicate "There-being" to which you cannot also apply the predicate "Other"; and, conversely, there is nothing to which you can apply the predicate "Other" to which you cannot also apply the predicate "There-being"; therefore, anything which has the predicate There-being applied to it is identical with anything which has the predicate Other applied to it. Let us, as before, illustrate the absurdity by a similar argument. Let "mortal" and "certain to die" be synonymous terms; then those things of which "mortal" may be predicated are the same as those of which "certain to die" may be predicated; "mortal" may be predicated of men, and "certain to die" of horses; therefore men are identical with horses.

And Hegel apparently did mean to state something more than that

the two terms "there being" and "other" are synonymous. The passage immediately following that which we last quoted, affords evidence that Hegel supposed himself to be dealing with something more than mere words:—

"*This self-sameness of the determinations, however, falls only into outer Reflexion, into the comparing of both; but as the Other is at present constituted it is per se the Other, in reference, indeed, to the Something, but it is per se the Other also outside of, apart from the Something. Thirdly, therefore, the Other may be taken as isolated in reference to its own self; abstractly as the Other; the τὸ ἕτερον of Plato, who supposes it to be the One as one of the moments of Totality, and in this manner ascribes to the Other a special nature. But thus the Other, taken as such, is not the Other of Something, but the Other in itself, that is, the Other of itself.*"

Let us not pretend that we understand the above passage; we quote it, partly in order that we may not be accused of suppressing the context of the previous passage, and partly because Hegel seems to be giving some account of things, rather than, or in addition to, a definition of terms. It will be seen, upon reference to the first passage quoted in this review, that in Hegel's philosophy there appears to be a mysterious trinity—the Thing, the Word, and the Thought—in which we are unable to divide the substance, though Hegel apparently confounds the persons. We do not deny the existence of such a trinity; but we must remark that if, in the Hegelian philosophy, there is no difference between thinking a man a fool, calling him a fool, and being a fool oneself, we hope no true Englishmen will become converts.

We believe, then, that Hegel has been, and is likely to be, unintelligible, because he is continually led astray by mere words—because he does not take sufficient pains to distinguish between words and the things that are denoted by them. Hegel, we believe, was not, as Mr. Stirling asserts, a master of language, but language was rather the master of Hegel. And his obscurity is to be attributed not simply to his technical terms; perhaps not more to his terms than to his utter ignorance of the arts of diction. In confirmation of this opinion, we quote a passage from the original German, which Mr. Stirling himself admits is "curiously tangled":—

"Das Umschlagen des Nichts durch seine Bestimmtheit (die vorhin als ein Daseyn im Subjecte, oder in sonst was es sey, erschien) in ein Affirmatives, erscheint dem Bewusstseyn, das in der Verstandes-Abstraktion feststeht, als das Paradoxeste; so einfach die Einsicht ist, oder auch wegen ihrer Einfachheit selbst erscheint die Einsicht, dass die Negation der Negation Positives ist, als etwas Triviales, auf welches der stolze Verstand daher nicht zu achten brauche, obgleich die Sache ihre Richtigkeit habe,—und sie hat nicht nur diese Richtigkeit, sondern um der Allgemeinheit solcher Bestimmungen willen ihre unend-

liche Ausdehnung und allgemeine Anwendung, so dasz wohl darauf zu achten wäre."

This sentence, we believe, is truly Hegelian; it is a sentence in which we vainly endeavour to drive the *anacoluthon* to the end, just as in Hegel's train of reasoning we vainly endeavour to drive the *non sequitur* to the end of a paragraph. Whose fault is it, we ask, that the writer of such a sentence as the last quoted is unintelligible—that of the reader or of the writer? Are we to be told that the man who cannot see his way clearly to the end of a sentence, can see his way clearly through a long train of reasoning? Are we to be told that this ungrammatical German is a better guide in philosophy than our British writers, whose style is as clear as their thoughts? And yet this is what Mr. Stirling would have us believe—Mr. Stirling, who can give us no better account of the "Secret of Hegel" than the following:—

"The secret of the universe is thought, the spirit of thought, whose own life is the play of what is, and that which is, is thought in its own freedom, which at the same time also is its own necessity. The absolute is the vibration of a mathematical point, the tinted tremble of a single eye, infinitesimally infinite, punctually one, whose own tremble is its own object, and its own life, and its own self."

We regret that we are unable to explain what kind of absolute is the vibration of a mathematical point, etc.; for it is stated by Mr. Stirling, on behalf of Hegel, that there is more than one kind of absolute:—"Your Absolute and your Infinite may be, and I doubt not *are*, quite incomprehensible, for they are chimeras of your own pert self-will; whereas I confine myself to the realms of fact and the will of God. So, on such points, one might conceive Hegel to speak." But in what respect the tinted tremble of a single eye, or the vibration of a mathematical point, are more intelligible, we have failed to discover. Nay, our "pert self-will" prompts us to inquire in what realms of fact Mr. Stirling or Hegel discovered the vibration of a mathematical point, which is at the same time the tinted tremble of an infinitesimally infinite single eye. We should also like to know by what process either Hegel or Mr. Stirling ascertained the will of God in matters of philosophy.

But, it may be said, allow that there is any amount of absurdity in Hegel's writings, allow that he knew neither how to write nor how to reason, yet you must allow that he had some fundamental principle about which he attempted to reason and to write. If so, what was that principle? To this question we think we have discovered the answer, but it is very different from the answer given by Mr. Stirling. Hegel, we believe, just failed in grasping firmly the fundamental law

of relativity or discrimination ; and, having failed to grasp it, he tried to escape from it. Hegel and this law seem to us like two ancient wrestlers, whose bodies and limbs have been well oiled before the struggle. Hegel advances, apparently has the law in his grasp for a moment, but the next moment appears powerless and drops to the ground ; he gets up, skulks round the ring until he is forced to close once more, and then his adversary again eludes his grasp and trips him up ; and so on *ad infinitum*. Hegel's two hands, so to speak, are his "Something" and "Other"; but they are sadly clumsy hands to start with, and Hegel has no skill in the use of them ; he gets them into such awkward positions, that he soon forgets which is his right and which his left, and ends by believing that he has only one hand, which is right and left, and neither and both, all at once.

All that is true in Hegel's philosophy is the statement of the law of relativity—the law that whatever is known, is known only in its relation to other objects of knowledge, and in its relation to the knowing subject. But we do not hesitate to say, that the principle is worse stated by Hegel than it could possibly have been stated by any British psychologist. It is so badly stated, that it is impossible to believe it was ever fairly grasped by Hegel—so badly, that it leads Hegel himself to self-stultification. That Hegel never fairly comprehended this law, we believe we should be justified in asserting, if we had no other evidence than the single fact that he starts with dogmas and arguments about the indeterminate, whatever that may be. It is clear that, inasmuch as human reasoning must conform to the laws of human thought, which involve the perception of resemblances and differences, the reasoning about the indeterminate must involve resemblances. But no two things can resemble one another unless they possess similar attributes ; and yet, according to Hegel, "the Indeterminate" has no attributes, and every thing which has attributes is "determinate". It follows, then, that, in order to reason about "the Indeterminate", or that which has no attributes and stands in no relations, we must treat it precisely as if it had certain attributes and stood in certain relations. In order to be Hegelian, we must start with the assertion that what is beyond our understanding is not beyond our understanding. In this one proposition, we believe the whole Hegelian philosophy is summed up ; admit it, and you may admit anything else you please—that every thing is its other, that a man is his wife, that the obverse of a coin is the reverse, that the right hand is the left, that the outside of Bedlam is the inside. And here we should leave Hegel and his followers in general, had we not a word or two more to say about Mr. Stirling in particular.

Mr. Stirling tells us that he has devoted to the study of Hegel "a

greater number of years, and for a greater number of hours in each day of these years, than it is perhaps prudent to avow at present." There is something touching in this confession; there is something in it which is at once manly and modest, and which prepossesses us in the writer's favour. Would that the general tone of Mr. Stirling's work were similar! But, unfortunately, there is an arrogant assumption of superior knowledge, an exaltation of German intellect, of which Mr. Stirling is the sole exponent, at the expense of English intellect, of which Buckle is represented as the best type. In all things intellectual, Mr. Stirling tells us, we are surpassed by the Germans. Style is of course included; and Mr. Stirling, partly perhaps unintentionally, but without doubt partly from a fixed resolve to imitate, has effectually Germanised his style. The following passage is a not unfair specimen both of his matter and of his style:—

"Hegel is more impervious than Kant; yet still, despite the exasperation, the positive offence, which attends the reading of such exoteric works of his as have been attempted to be conveyed to the public in French or English, we see cropping occasionally to the surface in these, a meaningness of speech, a facility of manipulating, and of reducing into ready proportion, a vast number of interests which to the bulk of readers are as yet only in a state of instinctive chaos, and just on every subject that is approached, a general overmastering grasp of thought to which no other writer exhibits a parallel. In short, we may say that, as regards these great Germans, the general public carries in its heart a strange secret conviction, and that it seems even to its own self to wait on them with a dumb but fixed expectation of infinite and essential result."

Mr. Stirling is very hard upon the *Aufklärung*, the illumination or enlightenment—a name which he gives to the school of writers which we Englishmen commonly regard as intelligible. Macaulay and Buckle are Mr. Stirling's favourite examples. He objects to Macaulay, but Buckle is his abomination. No wonder! The man who could write the above passage, need not tell us that he has an aversion to the light; he need not tell us that he and the Germans are unlike Buckle and Macaulay; he need not tell us that all Macaulay's and all Buckle's graces of style are thrown away on this ungainly imitator of a German hobbadehoy. And yet we are to unlearn all that we have learnt, in order that we may think and write like Hegel and Mr. Stirling. We are to give up our enlightenment, and with it, apparently, also our refinement. When an opponent has but just dropped down exhausted under the heavy weight of too vast a scheme, we are to spurn his remains, and vituperate him as follows:—

"He had a theory, had Mr. Buckle, or rather, a theory had him—a theory, it is true, small rather, but still a theory that to him loomed

huge as the universe, at the same time that it was the single drop of vitality in his own soul," and then in a more grandiloquent if not more intelligible strain, "If Mr. Buckle did penetrate the Germans, he found that there was nothing left him but to burn every vestige of that shallow enlightenment which, supported on such semi-information, on such weak personal vanity, amid such hollow *raisonnement*, and with such contradictory results, he had been tempted, so boyishly ardent, so vain-gloriously pompous, to communicate—to a world in many of its members so ignorant, that it hailed a crude, conceited boy (of formal ability, quick conscientiousness, and the *pang* of illumination,—inherited probably from antecedents somewhere) as a 'vast genius', and his work—a bundle of excerpts of mere illumination, from a bundle of books of mere illumination, disposed around a ready-made presupposition of mere illumination—as a 'magnificent contribution' fruit of 'vast learning', and even 'philosophy.'"

The first question which presents itself, when we meet with this tirade against enlightenment, is—what can Hegel or Mr. Stirling give us instead? They can give us, it appears, a crystal skeleton which is invisible. We are not anywhere informed in what respects an invisible skeleton is the better for being made of crystal:—

"Hegel, *in effect*, has only cleared relations of ideas into their *system*—that crystal skeleton which, the whole *truth* of the concrete, of sensuous affection, of matters of fact, underlies and supports the same. Of this, so to speak, invisible skeleton causality is but one of the bones."

We think, indeed, that Mr. Stirling is a worthy disciple of Hegel; and these two philosophers remind us of two celebrated works of art. There is, or was, a painting called "The Israelites crossing the Red Sea." It was nothing more than a large red daub. The artist was asked for an explanation. "That's the Red Sea", said he. "But where are the Israelites?" "They are on the other side". "And where is Pharaoh with his host?" "They are at the bottom". The second work of art to which we refer is a photograph immortalised by Albert Smith. It was shewn to him by a friend. "But there is no picture here," said Albert Smith. "Oh! yes! that's Strasbourg Cathedral". "Strasbourg Cathedral?" "Yes; Strasbourg Cathedral at midnight". "Nonsense, what do you mean?" "Why, if you went out at midnight and it was pitch-dark, you would not see it, would you?" "No". "Very well; that's just what I did when I was at Strasbourg; and I photographed the Cathedral in the dark, and there it is".

Now it appears to us that Hegel has, as it were, painted the Israelites crossing the Red Sea, and that Mr. Stirling has taken a photograph of the picture in the dark. Hegel's philosophy is a huge daub, in which there are no lights and shades except such as may reach it from the objects by which it is surrounded; Mr. Stirling's reproduction is paper and nothing more.



We think we cannot do better than conclude this review with one more very elegant extract from Mr. Stirling's preface ; it is not for us to suggest any application of the words :—

“An empty belly, when it is active, is adequate to the production of gripes ; and when an empty head is similarly active, what can you expect but gripes to correspond—convulsions namely, contortions of conceit, attitudinising, eccentric gesticulations in a wind of our own raising ? It were easy to name names and bring the criticism home ; but it will be prudent at present to stop here.”

## THE SKULLS OF THE INHABITANTS OF THE CAROLINE ISLANDS.\*

By one of those accidents which have led some ethnologists to imagine that the islands of the vast Pacific have actually been peopled, and which have been made to do service in the great system of “accidental philosophy”, a number of crania of the natives of the Caroline Archipelago came into the hands of those zealous cultivators of science, the Dutch medical officers of Java. As none of the Europeans who have visited this Archipelago had taken the pains to collect the skulls of the inhabitants, and thus nothing was known of their cranial conformation, great interest must be attached to the first description of these curious objects—which description has now been made by a most competent observer, Professor J. Van der Hoeven, of Leyden, the author of similar histories of the skulls of many other races.

In the year 1858 Capt. D. Herderschee, of the Dutch ship *Amsterdam*, sailing from Hong Kong to Melbourne, at a distance of ninety German miles from the Pellen (Pelew ?) Islands, met with a canoe containing twelve men and women. They were in great distress, famished and weak, so that they were almost reduced to skeletons, and were covered with vermin. Captain Herderschee took them on board his ship, and conveyed them to Batavia. Neither on shipboard, nor in this city, could their language be understood. With the exception of two, who had suffered the least, they were all sick when landed, and were sent to the Hospital. Three of these died immediately, and the rest soon afterwards ; indeed, only one of the twelve appears to have escaped. As the language they spoke could not be comprehended, there was some doubt as to their origin.† It was, nevertheless, concluded by Capt.

\* *Beschrijving van Schedels van Inboorlingen der Carolina-Eilanden*, door J. Van der Hoeven. 8vo, pp. 16, 2 pl. Amsterdam : 1865.

† Among the twelve islanders, some gave other names to the same objects, so that it is uncertain whether they were all derived from the same island.

Herderschee, who found them, and by others, that they were from the Island of Wolia, Olee, or Ouléa, which is in the Caroline Archipelago; and that they had wandered on the ocean for about one hundred days. There are many reasons to place confidence in this conclusion. Choris, speaking of "Kadou", the native of this island met with in Kotzebue's Voyage, and who had visited the Pelew Islands, tells us that they are bold navigators, and undertake great sea voyages, and that they sail annually to the Isle of Guaham, one of the Mariana group. Their peculiar kind of tattooing also, and their mode of distending the lobes of the ears by hoops of tortoise-shell passed through holes in them, exactly agree with the accounts given by voyagers of the Caroline Islanders.

By the diligence of Dr. C. Swaving, who has distinguished himself as a collector of crania, nine of the skulls of these islanders have been sent to Holland. Four of them were first of all placed in the hands of the late Professor Willem Vrolik, with a number of articles of dress and of ornaments, and the alphabet (vocabulary?) of their language. These are described in the Catalogue of the Vrolik Museum.\* In consequence of the lamented death of Professor Vrolik, these skulls were reclaimed by Dr. Swaving, and presented, with four others, to the Anatomical Museum at Leyden, where a ninth, that of "Soejoer", is also placed.

Professor van der Hoeven's Memoir consists of a careful description of these skulls, together with measurements and numerous observations, both on the crania and other subjects. It is illustrated with a good wood-cut of the skull of "Taralipa", showing its form vertically, and two very neatly executed lithographic plates, giving a front and profile view of the same skull, and profiles of those of "Taraloni", and of that of the woman "Laepat", all half-size; and followed by a table of measurements, according to Professor van der Hoeven's method.

Of the crania entering into this description, seven are those of men, and two those of women.† The male skulls occupy the attention of the author first.

\* *Musée Vrolik Catalogue de la Collection d'Anatomie, etc.*, par J. L. Dusseau, 8vo., 1865, p. 120.

† By the kindness of the Leyden professor, the fine skull of "Erolimo", No. vi of his table, has passed into the collection of the writer, No. 1260. It is inscribed "Erolimo van het eiland Oolea, Carolinen-eilanden. Obiit 14 Dec. 1853. Swaving." It is the cranium of a man of probably forty years of age. The alveoli of some of the incisors of the right side, the inner tooth of the upper mandible, and both those of the lower, are entirely absorbed, presenting the appearance of those of Kanakas and Australians whose teeth have been punched out in early life, during certain ceremonies. But, in this skull, those of the two last upper molars on the left side are also totally



Fig. 1.



Fig. 2.

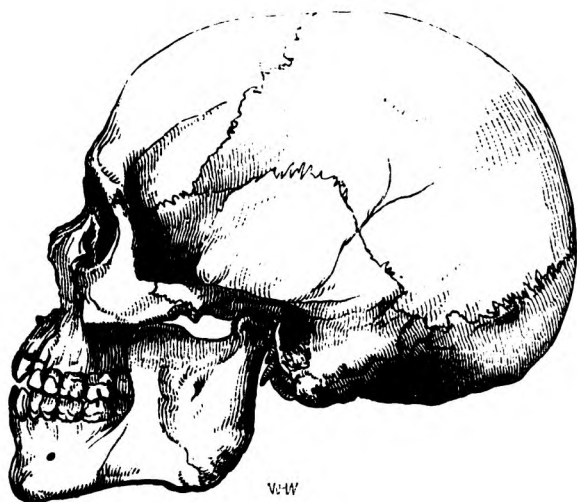


Fig. 3.

Figs. 1, 2, and 3.—Skull of "Biat," Lifu, Loyalty Islands. No. 816. One-third size.



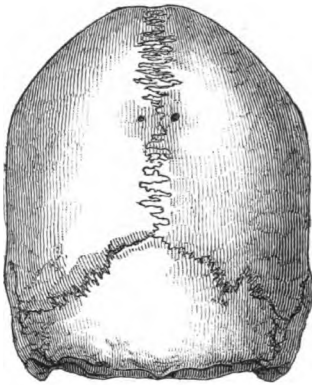


Fig. 1.

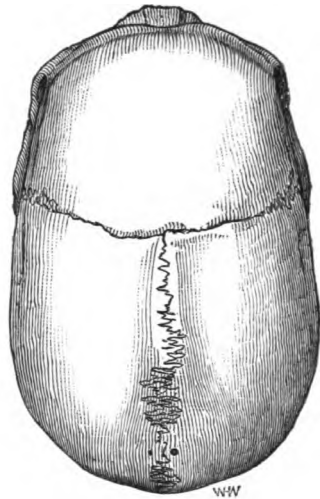


Fig. 2.

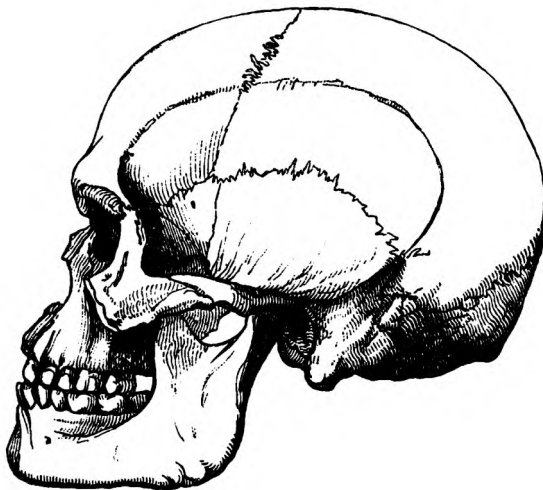


Fig. 3.

Figs. 1, 2, 3.—Skull of "Kilala," Apee, New Hebrides. No. 820. One-third size.



The Professor remarks, *in limine*, that all the skulls agree in having one oblong form ; they belong to a people which, in the terminology of Retzius, must be named *dolichocephalic*. This is pre-eminently the case ; and, upon such chief distinguishing feature of the whole series, some further remarks will be made in the sequel.

The statement of Dr. Van der Hoeven is, that the mean circumference of the skulls is 515 millimeters, equal to 20.3 inches English. This is greater than the circumference of the skulls of Javans, which is 499 mm. ; and, on the contrary, less than that of the skulls of German people, 528 mm., observed by the author. The mean circumference of the Caroline Islanders' skulls agrees with that of the Chinese skulls, which he had previously measured. It may be remarked, that Professor Van der Hoeven, throughout his memoir, compares the skulls described with those of Chinese.

The length of the crania varies from 171 mm. to 191 mm., the mean of the author being 182 mm., or 7.2 inches. In six Chinese skulls the average was 180 mm. The mean breadth between the parietals is 126 mm., or 5 inches. This, it should be observed, is a remarkably small transverse diameter in adult skulls. The author adds, that in six Chinese skulls he found the average breadth to be 137 mm., or more.

The arch of the calvarium, measured from the root of the nasal bones to the *anterior* edge of the *foramen magnum*, he makes to be, in the mean, 382 mm., or 15.1 inches, which is an unusually long arch. Of this mean measure, the greatest portion is absorbed by the parietals, a lesser by the frontal, about 14 mm. less, and the smallest by the occipital, about 18 mm. less than the frontal.

The height of the skull, in the mean, amounts to 142 or 143 mm., or 5.6 inches. In Chinese skulls the author found this measure to be 145 mm., but some of these were particularly high examples.

From such measurements it appears that the skulls are oblong, narrow and tolerably high.

The author next proceeds to a more minute description of the individual bones of the cranium of the men, into which we do not propose to enter at length. The frontal bone is moderately long, and the point of junction of the coronal and sagittal sutures is, in five of the skulls,

effaced from caries, and it is probable that the alveolus of the canine of this side of the jaw has likewise perished in the same way. The skull is remarkable for the complete ossification of much of the coronal suture, especially its middle portion, and also of the sagittal, which can be traced only at its posterior extremity. This extensive *synostosis* has scarcely interfered with the normal form of the cranium, hence was probably post-congenital. The right *foramen parietale* is still persistent, the left absent.

perpendicularly over the anterior edge of the occipital foramen ; in two skulls, only just before it. In all, the sagittal suture is longer than the frontal bone. Such also is commonly the case in German skulls, although there are examples in which the length of the frontal exceeds that of the parietals ; which, according to Professor Van der Hoeven's earlier observations, he says, appears contrariwise, to be the rule in Slavic and Tschudic skulls. The frontal is proportionally arched, most prominent in the middle,\* and gently gliding to the sides, without plainly developed *tubera frontalia*. The *glabella* in most of the skulls stands out strongly. The *tubera parietalia* are placed in a backward position. The outer plate of the pterygoid processes of the sphenoid, is, in most of the skulls, very broad, and directed outwards. This conformation is strongly expressed in the skull of "Erolimo". The nasal bones are not flat, but form with one another a more or less acute angle ; they are narrow, and under the *glabella* appear somewhat less prominent than towards their lower extremities. In their connection with the frontal, they always ascend higher than the adjacent *processus nasales* of the superior maxillæ. The jugal arches do not project prominently outwards.† The teeth are sound, and Professor Van der Hoeven did not observe one affected with caries. This is not inconsistent with the remark made before on the teeth of "Erolimo", which, strictly speaking, do not exhibit indications of caries, although there remain obvious proofs of extensive caries of the alveoli ; still most likely the sequel of caries of the teeth.

Into the particular description of the skulls of the two women it is not proposed to enter here, as they present sexual peculiarities chiefly, if not wholly, and, as the author justly observes, it would be rash to conclude upon the sexual peculiarities of the women of the race from two examples merely. He mentions one anatomical anomaly, which occurs on both sides in one of the women's skulls, and on the right side in one of the seven skulls of men ; an anomaly which Hyrtl, in his *Lehrbuch der Anatomie des Menschen* (Prag, 1846, 8vo., S. 177), says is very rare. It consists in the prolongation of the outer plate of the *processus pterygoideus* of the sphenoid backwards at its base, and its consolidation with the spinous process of the great wing of the sphenoid bone. Above this junction there remains an oblong hole, situated immediately below the *foramen ovale*. The writer has long since observed this peculiarity in other skulls, and cannot consider it very rare.

\* This peculiarity will obtain further attention hereafter.

† In the skull of "Soenjoer", the jugal process of the temporal bone is divided by a suture into an anterior and a posterior part. This suture is placed a little before the anterior edge of the articular cavity for the head of the lower maxilla.



The remaining portions of this excellent and instructive memoir are chiefly devoted to the elucidation of geographical points, arising out of the acquisition of these rare skulls. As previously remarked, the commander of the ship, Capt. Herderschee, considered these natives to come from the island of *Wolia*, but the reasons for this opinion are not given. There is no ground for regarding this island as new to geography. It is most likely that named by De Torris *Guliai*, and by others *Oelee*, or *Oellie*,\* and would be the same from which "Kadou", who was met with by O. Von Kotzebue, was derived. It is situated in the western part of the great group of the Caroline Islands, in about 7° of N.L., and 144° E.L. The Caroline Islands, as laid down in our maps, extend over a vast space of the Western Pacific, and really consist of numerous distinct archipelagos, the natives and the productions of which probably differ very materially in the different groups. Of these, as well as of the various islands themselves, not a great deal seems to be known with much accuracy. Still, the islands were discovered long since, and often have been visited. Captain Freycinet, who gives an extended and interesting historical account of the communications of different navigators with the Carolines, attributes to the Portuguese, Diego da Rocha, in 1526, the honour of opening the way. The Spaniards had been long established in the Mariana Islands to the north, which are still a dependency of the Spanish government of the Philippines, when, about 1686, Lascano fell in with the Island of Faröilep, and named it Carolina, in honour of Charles II of Spain. Ten years afterwards a canoe containing twenty-nine persons, men and women, from the Islands of Lamoursek, was driven to the Island of Samar, one of the Philippines. This event led to other expeditions of discovery. The description of the adventures of Captain Wilson, of the English ship *Antelope*, which was wrecked, in 1783, on the Islands of Palaos, or the Pelew Islands, affords the fullest and most authentic account of these isles. He remained three months on shore with his companions, built a new vessel, and sailed to China.† An eastern archipelago, the Radak Islands, was visited by Otto von Kotzebue, in 1817; indeed, the principal object of Kotzebue's expedition was to make researches in the Marshal Islands, an archipelago somewhat to the east of the Carolines. Choris was the artist to this expedition, hence his figure of "Kadou", regarded as the most authentic portrait of a Caroline Islander known. In 1819, Freycinet, in the voyage of the "*Uranie*" and "*Physicienne*", touched at the Carolines, which led

\* "Ile dont le nom s'écrit aussi *Guliai*, *Ulië*, *Olië*, *Ul'a*, *Uléë*, et même *Vlee*." Freycinet. *Voyage de l'Uranie*, ii, 81.

† *Account of the Pelew Islands*, by G. Keate. 4to.

him to devote so much space to the history of discovery in these islands, in his great work on the voyage.\*

The people inhabiting these numerous isles of the Western Pacific are still very imperfectly known, notwithstanding the visits of many navigators. Professor Van der Hoeven tells us that accounts of them generally agree in the following particulars:—They are of middle stature, not all of the same colour, even in the same island there are differences of tint, the darkest coloured are those of lower stature. Their teeth are white, not filed or dyed black like those of Malays. A defined national physiognomy cannot be detected in their features. They go almost wholly naked, but adorn themselves with dark blue tattooed stripes on their arms and legs, placed lengthwise. Moreover the ears are bored, and the lobes are sometimes inordinately stretched by the objects worn in them for ornaments. In these holes they wear rolls or rings of tortoise-shell or bone, and the women decorations of flowers. We refrain from following the author into an account of the manners, weapons, etc., of the islanders. With these relations respecting the Caroline Islanders, the observations of Dr. Swaving on those whose skulls were sent to Leyden, fully agree, so that there cannot be a doubt of their being really Caroline Islanders. From this gentleman's description we may quote a few statements. Their *hair* was exceedingly *black and smooth*, with the exception of the woman "Laepat", whose hair was rather crisp. Some of the men had whiskers and moustaches. The woman "Natioli" appeared to have had the hair eradicated from the *labia*, which were tattooed, an operation peculiar to her. The eyelashes were thick, and the nose more pointed than in the Malays of Batavia. The eyes were black, but not large. The colour of the skin, which was covered with a scaly eruption, was a deep brown. One man wore a necklace. With the exception of two men, they all had their skins tattooed, although in different fashions. Save in the case of "Natioli", this ornamentation was limited to the extremities. They had only a cincture round the loins for dress. From this girdle hung down between the thighs a tissue formed of bark.† Prichard gives a lengthened account of the Caroline Islanders, and alludes to the ridiculous nickname bestowed upon them by M. Lesson, of *Pelagian Mongols*.‡ As far as these crania of Caroline Islands are concerned, the epithet Mongolian, when applied to them, would be the most unfortunate and inapposite that could be hit upon in the whole vocabulary of hypothetical ethnography.

Skulls of Caroline Islanders were previously unknown, but figures of

\* *Voy. autour du Monde de l'Uranie et la Physicienne*, 1817-1820, par M. Louis de Freycinet. 4to et fol. 1829.

† *Musée Vrolik*, p. 118.

‡ *Physical Researches*, v, 179.

the natives themselves appear in many works. The best probably, as already mentioned, is that of "Kadou", in the *Voyage Pittoresque* of Chloris, part v, pl. xvii. In the *Atlas Historique* of Freycinet's *Voyage de l'Uranie*, there is a fine plate of a Caroline Island woman and man, of the Island of Guam, pl. 53. These are of a brownish tawny colour, and much tattooed on the legs. The figures, as Dr. Van der Hoeven justly remarks, remind one so much of drawings of an European Academy of Fine Arts, that it is difficult to regard them as authentic. The drawings are from the hands of M. Jacques E. V. Arago, the artist of the expedition, who furnished similar figures to his own work, *Promenade autour du Monde*. Plate 54 of the *Voyage* represents two men dancing, and plate 55 a group of fourteen Caroline Islanders engaged in a dance. These and other fine plates of this *Atlas* are very beautiful, but have such an air of European *beau idéal* as to make one hesitate about their fidelity, which nevertheless may be real. In the last voyage of the *Astrolabe*, under the command of Admiral Dumont D'Urville, Dr. Dumoutier obtained moulds from three Caroline Islanders, belonging to the group of Lougonor or Nougonor. They were taken from young men of twenty to twenty-five years of age. Casts have been obtained from these moulds, and are deposited in the *Galerie Anthropologique*, at the *Jardin des Plantes*. The authenticity of these is beyond question, and, being of the size of life, they are both perfectly reliable and of very great value. Fine lithographs of these busts taken from photographs, are given in Dumoutier's *Atlas* (*Anthropologie. Voy. au Pol Sud*), and M. Emile Blanchard, in the volume entitled *Texte de l'Anthropologie*, comments upon them. In one passage M. Blanchard remarks that the Caroline Islands are so multiplied over so considerable an extent from west to east, and the descriptions of voyagers are so variable, according as they apply to the inhabitants of one isle or another, that we believe the natives of the archipelago are far from all being identical.\*

\* A sentence of M. Blanchard's work deserves to be quoted at length. He says:—"On sent quel vaste champ de recherches reste aux explorateurs; combien il serait à désirer que ceux qui visiteront les îles de l'Océanie s'attachassent à recueillir un grand nombre d'empreintes du visage de ces insulaires, et de portraits pris au daguerréotype; combien il serait utile aussi que l'on s'attachât à se procurer des crânes et même d'autres parties du squelette en quantité considérable! C'est seulement avec de tels éléments que la science anthropologique pourra progresser. On le voit à chaque pas, rien de contradictoire comme les impressions des voyageurs. Les uns considérant des hommes qui se ressemblent beaucoup en réalité, les déclarent absolument de même race, absolument comme une personne peu exercée en voyant plusieurs espèces voisines d'animaux, et ne sachant pas saisir les différences, n'hésite pas à les trouver toutes pareilles. Les autres, au contraire, mieux doués sous le rapport du tact d'observation, ce qui n'est pas

Before leaving Professor Van der Hoeven's excellent memoir, it should be mentioned that he has examined the vocabulary put down by an English missionary, who was on board the *Amsterdam* with the Caroline Islanders, and which Dr. Swaving sent to the late Professor Vrolik, and compared it with that of Arago in the work above cited. The result is the discovery of such an agreement between the two as to take away all doubt from the mind of Dr. Van der Hoeven, and to assure him that the natives rescued in the canoe were derived from one or more of the Caroline Islands.

It is now proposed to add a short commentary, with a view to attempt to explain and illustrate these rare skulls a little more fully.

I. It must be observed that the whole of the skulls, which the writer has had an opportunity of examining, *agree* in a remarkable manner. They not only agree, but they present such a peculiar conformation as to prevent their being confounded with any other series of crania generally known.

These skulls are distinguished by unusual dolichocephalism, or *great length* and *narrowness*, to which is conjoined *great height*. Professor Van der Hoeven's measurements afford a length of from 171 mm. to 191 mm., or a mean of 182 mm.; a mean breadth of 126 mm., and a mean height of 143 mm. These dimensions yield the uncommon proportions of breadth to length, regarded as 100, (according to our method of measurements, J), '68, *i.e.* Broca's *Indice Céphalique*; and height to the same (our K.) '78. These ratios in twelve English skulls of men are respectively J '77, K '73; in eleven English skulls of women J '76, K '73; in twelve skulls of Chinese men J '77, K '78; in four skulls of Chinese women J '78, K '79; in the whole sixteen skulls of Chinese men and women J '76, K '78. This is adequate evidence of the remarkable general form of the nine crania of the presumed Caroline Islanders, and of its total diversity from that of English and Chinese skulls. In the description of these skulls, Professor Van der Hoeven has observed, besides their general length and narrowness, the prominent ridge which runs down the middle of the frontal bone, and also the great length of the sagittal suture, and of the parietals. This ridge is continued slightly along the line of the sagittal suture, and being accompanied with an unusual lowness of the parietal tubers, these crania are greatly approximated to those *synostotic* skulls, which have obtained the denomination of *scaphocephali*. In fact, the writer has been inclined to regard them as *natural scaphocephali*, and they

départi à tout le monde, sont frappés par des dissemblances qui avait échappé aux premiers et voient des types différents là où les précédents avaient cru voir des types identiques. De là cette confusion répandue de toutes côtés." —P. 104.

have probably a stronger claim to be considered such than the skulls of Esquimaux, before pointed to by Professor H. Welcker.\*

II. Allowing that these crania agree among themselves, whilst they differ in a singular manner from those of other well-known races, and there need be no hesitation in making these statements, it may next be asked, *are there any skulls of less known people which exhibit a similar conformation?* This question may be answered in the affirmative. In the extensive collection of crania formed by the writer, his attention was long since arrested by a series of skulls, all of which are derived from the same region of the Pacific Ocean as these of Caroline Islanders; which series stands out pretty distinctly from the rest of the skulls of human races hitherto known and described. Their peculiar features have already been alluded to. They are unusually long, unusually narrow, and, at the same time, very high, or tall. Taken proportionately, those of the Caroline Islanders do not present the features in so exaggerated a degree as others of the series. The frontal tuberosities are less prominent than usual, and the parietal tubers have a still greater depression. The parietal bones are long, and sometimes elevated at the sagittal suture, so as to approach in form the *carina* of scaphocephalism, which ridge, in some instances, as already noticed, may also be discriminated along the frontal bone. They are distinguished by great fullness and length of the occipital region, and sometimes considerable prominence of the zygomatic arches. Although prognathism occurs among them sometimes to an exaggerated degree; yet, at times, as in the Caroline Islanders, it is absent, or not remarkable.

It may be well to state explicitly, that the above is somewhat an ideal picture, intended to mark the peculiarities of this series of crania in a distinct manner; individual instances nevertheless occurring with all these features, even in an extreme form. In nature it is sometimes found that the skulls of the people to whom this peculiar type appertains, and to which we have applied the distinctive term high-narrow skulls, or *hypsi-stenocephalic*, exhibit it in various degrees; and, in some individual cases, the distinctive features are in a great measure wanting. But this is quite in accordance with the usual diversities of nature.

These hypsi-stenocephalic crania are sometimes seen in an extreme form in the skulls of *Loyalty Islanders*, as in No. 810, No. 811, and especially No. 816, the skull of "Biat", from Lifu, in the writer's collection. The length of this latter is 7·6 inches, or 192 mm., its breadth 5 inches, or 127 mm., and its height 5·8 inches, or 147 mm., which, expressed proportionally, afford  $\epsilon$  100,  $\gamma$  65,  $\kappa$  76. They are also seen

\* *Untersuchungen über Wachsthum und Bau des Menschlichen Schädels*, 4to, 1862, S. 118.

in *New Hebrideans*, No. 575, from the Island of Erramanga ; No. 815, from the Island of Tana ; No. 817 and No. 819, from the Island of Fate, or Sandwich Island, all strongly marked examples ; and such also is No. 820, from the Island of Apee. And they likewise occur among *New Caledonians*, as in No. 812, from the Isle of Pines ; and No. 813, the skull of "Joey", from the Isle of Yengen.\* As far as can be judged from two specimens of the skulls of women from the *Feejee Islands*, Nos. 233-4, they also seem to appertain to this hypsi-stenocephalic group. Dr. Pickering made the remark, "The Feejeean skulls brought home by the expedition will not readily be mistaken for Malayan ; they bear rather the negro outline ; but they are much compressed, and differ materially from all other skulls that I have seen".† This passage appears fully to confirm our view.

It must remain for future investigators to determine the degree to which this peculiar type prevails in these groups of islands. As far as can be at present ascertained, it is general, yet marked with different shades of intensity in different cases. That it is not universal the instance of No. 1159, a New Caledonian skull, derived from Dead Man's Peak, which is at the entrance of the River Kanala, on the east coast, shows. This cranium does not present the extremely long, narrow, high form ; but, as it has been artificially deformed, whether intentionally or not, by an extensive parieto-occipital flattening on the right side, it is of no weight in the argument.‡

\* In the first volume of the *Bulletins de la Société d'Anthropologie*, there are some valuable descriptions of the skulls of New Caledonians, by M. de Rochas (see also *La Nouvelle Calédonie et ses Habitants*, par le Dr. Victor de Rochas, 1862) and M. Bougarel, which are illustrated by a series of seven plates, representing the crania in five different aspects. M. Rochas, in his table of measurements, introduces a skull from the Isle of Pines, and another from the New Hebrides, both of which are of the extreme length of 200 mm., or 7·9 inches. M. Bougarel points out clearly the specific forms of the New Caledonian skulls, and shows how these evidently differ from those of Polynesian Islanders.

† *The Races of Man*, 1848, 4to, p. 145. U.S. Exploring Expedition.

‡ The history, descriptions, and measurements of these crania, will be included and given at some length, in a work now in a state of great preparation for the press—*Thesaurus Craniorum*, Catalogue of the Skulls of the various Races of Man, in the Collection of Joseph Barnard Davis, M.D.

It may not be quite out of place here to mention, that some of the crania to which we have referred manifest an extremely savage form, or, more properly, an extreme of that form to which we are disposed to apply the terms savage and ferocious. No. 818, a skull of a young man from Fate or Sandwich Island, is the most prognathous and most pithecoïd cranium in the whole collection. The enormous and wide jaws, forming the segment of a large ellipse, filled with a perfect set of very robust but fine teeth, almost necessarily carry back the thoughts to anthropophagism. The large, very

III. It becomes a question for craniologists to determine whether these skulls, to which the name hypsi-stenocephalic has been applied, may not deserve to be ranked as a chief class, somewhat on a level with the three great classes of skulls deduced by Blumenbach from his vertical method, viz., the Caucasian, Mongolian and Ethiopic; or the two great divisions of Retzius, the dolichocephalic and brachycephalic. The latter terms mark extreme forms, just as black and white in colour; therefore, the proposed class cannot be quite so distinctly defined. Like red and blue in colours, they are in some measure intermediate, but not the less capable of being discriminated. They certainly do differ from all the other great divisions of skulls, although they approach nearest to those of some tribes of African negroes. Camper pointed out the dolichocephalism of these latter, and, indeed, he also spoke of the great breadth of the skulls of Asiatics, and the middle position in this respect of those of Europeans. The observation with regard to negroes was supported by Soemmerring,\* and confirmed in the great work of Van der Hoeven.† In some respects, no doubt, these crania of Pacific islanders *approach* those of African negroes, but they agree with them in a very partial manner indeed. The great *height* of the *calvarium*, combined with its narrowness, is not seen in African skulls; and, instead of the flat nose, the result of the broad plane form of the nasal bones, and, equally so, of that of the nasal processes of the superior maxillaries, in the Pacific islanders' skulls the nasal bones are narrow and elevated at their junction into an acute angle, whilst the before-mentioned nasal processes are entirely conformable, and inclined to each other at an equally acute angle.

We do not pretend to define what ought to be the exact value of hypsi-stenocephalic skulls in any arrangement of human crania, but have no hesitation in saying that they deserve a distinct place, apart from all others.

IV. Further inquiry will have to be directed to these subjects before it can be determined with any degree of confidence to what different peoples this peculiar cranial conformation belongs. It seems every way probable, that the Archipelagos of the New Hebrides and

projecting face, above which an extremely sloping narrow forehead does not stand up, but strongly recedes backwards, give the perfect image of the muzzle of an ape. The calvarium of this skull, when seen in profile, very closely resembles, except in the irregularity of outline occasioned by the compressing bandages, that of an ancient Peruvian; such, for example, as that of Morton's, pl. 3, or that of the Clickatat, pl. 48 (*Crania Americana*).

\* *Ueber die Körperliche Verschiedenheit des Negers vom Europäer*, 1785, S. 19.

† *Bijdragen tot de Natuurlijke Geschiedenis van den Negerstam*, 4to, 1842, bl. 23.

of New Caledonia may be regarded as the focus of hypsi-stenocephalism ; from whence it radiates eastwards to the Loyalty Islands and probably to the Feejees, and westwards and northwards to the Caroline Islands ; with how many intermediate points it is at present, from the very imperfect knowledge we possess of the craniology of the Pacific, which might more properly be called deplorable ignorance, impossible to tell.

There is, however, evidence to show that it is not universally, and, as it were, indiscriminately, distributed throughout the numerous *adjoining* or *approximate* archipelagos of this great region of the Western Pacific. It is most probable that it is limited to particular islands, or groups of islands, within the bounds to which it does extend. The Salomon Islands constitute a large archipelago to the north-west of the New Hebrides and New Caledonia. The writer's collection includes five skulls of Salomon Islanders, and there are others buried in the cellars of the British Museum. These agree in their general forms ; they are not high, they are even particularly low in the frontal region, and have a peculiar angular, bony, savage aspect, with prominent parietal tubers. On reverting to the figures of the busts of Caroline Islanders, and of Salomon Islanders also, in the splendid atlas of Dumontier, it will be seen, not only that the latter agree closely with the account now given of the skulls of Salomon Islanders, but, likewise, that the three busts of Caroline Islanders do not exhibit any material differences from these skulls ; on the contrary, they really belong to the same species. Hence, the inference is, that there are different cranial configurations in the islands of the Caroline archipelago ; that of some islands may be called hypsi-stenocephalic, whilst that of other islands presents a striking conformity with that of Salomon Islanders. At all events, the series of crania described by Prof. Van der Hoeven, and which there seems good grounds for regarding as authentic, differ essentially from the natives of the Lougonor or Nougonor group of the Caroline Islands. And this is fully confirmed by the account of the busts given by M. Blanchard, when he compares them with Polynesians. His words are :—"Ce sont des physiognomies plus intelligentes que celles des Polynésians de l'est, *des têtes plus rondes*, des fronts plus développés," p. 100. The greater roundness of the heads of these natives of Lougonor, or Nougonor, than those of Polynesians is in conformity with the figures of the busts, and also in agreement with our skulls of Salomon Islanders ; but the statement is totally at variance with the crania described by Professor Van der Hoeven. This may be considered to confirm, almost to prove, the essential diversity of the races peopling the different islands comprehended under the name of the Caroline Archipelago.



V. That the Islanders brought by the canoe to Batavia could not belong to any race of people to which the term Papuan can be applied, is undoubted; still, there remain two questions which ought not to be passed over in silence. One is, whether the races of Islanders with hypsi-stenocephalic skulls are any of them Papuans; the other is, whether this term, in its ordinary acceptation, is confined to those species of men, who are distinguished by having the hair not growing equally spread over the scalp, but, in tufts, with bare spots between. There are many distinct races, as distinct as species, which agree in presenting tufted hair. The Hottentots, the Bushmen, and the Oriental Negroes of the Pacific Islands, are as distinct from each other as any known races of man, yet they are all said to agree in having this curious tufted hair. The New Caledonians, the New Hebrideans, and the Feejee Islanders are Papuans, or agree in the practice of teasing out the hair into a kind of mop, some of them, as the natives of Aneiteum and Tana, wearing it in very slender ringlets, each of which is wound round at great pains, with a vegetable fibre, so that the whole is made to resemble a thrum mop, or one form of wig worn by the ancient Egyptians. There is no doubt that the natural structure and growth of the hair in some of these Islanders has suggested this strange fashion, and is especially adapted to the manipulation to which it is subjected. It is generally exceedingly fine and slender, and of that structure which Mr. P. A. Browne denominated *eccentrically elliptical*. The consequence of this form of its section is, that it naturally twists into cork-screw locks. These the natives avail themselves of, and wind round them a thin vegetable fibre, which is the fine rind of a plant, to within an inch of the extremity; by which means the separation of the locks is ensured, and their growth to an indefinite length. Others, also designated mop-headed, by means of long skewers and wooden combs with five or six long teeth, which they wear in their hair, tease out their crisp locks into an immense bush. It is true that no straight-haired people, *Leiotrici*, could follow either of these fashions. Those having any kind of crisp or woolly hair, which grows sufficiently freely, might adopt either custom, irrespective of its springing in tufts. And to judge from what we can learn concerning these Papuans, it appears that races with essentially different kinds of hair, do tease it out in this manner, and have been called Papuans. Neither Pickering nor Williams, Erskine, nor Seemann says that the Feejeeans have hair growing in tufts, yet they are among the most famous people for mop-heads, and for hair-dressing. M. de Rochas says nothing of tufted hair among the New Caledonians, who have the high narrow skulls. Like most other travellers, he is brief on the subject of hair, describing it most at length in his first account of New Caledonian Anthropology

(*Gazette Médicale*, 1860, p. 185), in these few words, "les cheveux noirs, laineux et crépus".\* The Papuans of New Guinea are considered to have tufted hair, and the hair of the Negritos of the Philippine Islands has been said to grow in tufts.† Mr. Earle assures us that a slight mixture of the full-blooded Papuan with "the brown race", removes the peculiarity of tufted hair, which he attributes to the Papuans as a race. (*The Native Races of the Indian Archipelago*, p. 3.) Hence it may be concluded that the high-narrow skull is not essentially associated with the mop-headed races, and that it is equally independent

\* A considerable number of specimens of the hair of New Caledonians, collected by Lieut. M. E. Didot of Tahiti, are now in the possession of the writer, and they seem to prove that, both in colour, texture, and mode of growth, there is much diversity. In general it may be said to be, in common parlance, black; but it varies from a deep brown or black, between Nos. 41 and 48 of Broca's tableau, and passes through many shades to a yellowish flaxen colour, much the same as No. 45 of Broca; this latter being the hair of a girl of three years of age, distinguished also as "peau jaune." It is mostly fine in texture, generally crisp, sometimes very crisp. Its character is that of short hair, never exhibiting the long flowing locks of Europeans. It is sometimes straight, sometimes a little flexuous, but more frequently bushy and in confused masses. A few specimens present the small, short, crisp, corkscrew tufts; but whether these grow separately or not there is no indication. The hair both of the head and the beard of "Jack", a New Caledonian chief of the Dumbia tribe, is black, Broca's No. 48. In the photograph of this head, which is preserved at Brest, politely transmitted by Dr. A. Le Roy de Méricourt, the hair is seen to be short, curly, and bushy, but not growing in separate tufts. The beautiful calotype portrait of "Williamu", a native of Aneiteum, New Hebrides, presented by the Rev. John Inglis, who brought him to this country, exhibits short, crisp, curly, thick, not discrete hair. Mr. Inglis designated him a Papuan. The specimen of his hair sent by this gentleman to the writer is fine, of brown colour, not very dark (like No. 41 of Broca's table), not very crisp, curly, so interlaced that it would be very difficult to comb out, but easily matted or teased out into a mop-head.

† The small skull of a Negrito from the island of Panay, sent the writer by Mr. Nicholas Loney, is remarkable for still retaining a good portion of its hair. This consists of a number of very short, small, grey curls scattered over the head not very thickly, but, as far as can be ascertained, not growing in tufts, not woolly, nor spirally twisted. A specimen of hair of a Negrito woman, also from Panay, is of a dark brown colour, deeper than No. 41 of Broca's tableau. It is fine, and growing freely, bushy, wavy in texture, and has pretty surely grown equally spread over the head. The fine photograph of a pure Aëta man taken at Manilla, sent by Mr. W. W. Wood of that city, exhibits a short, curly, crisp hair, much resembling the woolly locks of the Negro, but covering the whole head alike. That of a Negrito or Aëta woman is exactly of the same character. Black, woolly, crisp, and frizzled, are epithets applied to the hair of the Negritos by Mallat, Giromiere, and Earle; but I do not see that the two first describe it as being in separate tufts.

of the fact of the hair growing in tufts, or otherwise. Both positions may be said to receive confirmation by the crania of Papuans of New Guinea, and of Alfourous in our collection. Neither the former, Nos. 1400, 1401, and 1402; nor the latter, Nos. 1403, 1404, and 1405, exhibit any tendency to the peculiar form here designated hypsi-stenocephalic. Hence, it may be scarcely needful to add, that some Papuan races have the high-narrow skull; and that the name Papuan is not confined solely to races with tufted hair; so that hypsi-stenocephalism has no connection either with Papuanism, or with tufted hair.

VI. In conclusion, it may be remarked that these high-narrow, or hypsi-stenocephalic skulls do not seem usually to be distinguishable for want of capacity. That some of them are even large may be affirmed safely, from the measurements of those named, viz., Nos. 812, 816, 817, from New Caledonia and the New Hebrides, which have an average internal capacity of 80 ounces avoirdupois of sand, equal to 96 cubic inches. These are exceptional in size, but 96 cubic inches is exactly the mean of the English skull, as deduced by Morton in his great table. Such an observation and the results of the measurements of the skulls of the ancient Britons described in the *Crania Britannica*, lead to the idea that some modification may be required to be made in the doctrine that aboriginal races are distinguished from Europeans by having lesser brains. It certainly would be impossible to pack the brain of these New Hebrideans in the skull of an European, because of the great difference of shape. It would not fit the cavity, and must, indeed, be reduced to a state of disorganisation, before it could be made to enter into this cavity, although of equal size. Have we not in this fact a key to the psychological peculiarities which discriminate the two races? Is it not the different conformation of brain, running through all its organisation, that lies at the basis of the great essential diversities of the two peoples; one of which is what is called civilisable, or ceaselessly and almost endlessly progressive; the other savage and stationary—if movable, moved only to destruction?

J. B. D.

## THE TEUTO-CELTIC AND SLAVO-SARMATIAN RACES.\*

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AMONG the European races, two stand out more prominently than others; they are not only the dominant races of Europe—they are the dominant races of the world. The one occupies the east, and the other the west, of this highly gifted continent. They are both mixed races, and both are in contact with races comparatively pure. These are the Teuto-Celtic and Slavo-Sarmatian races. The former occupies France and Britain, Belgium, Switzerland, some portions of North-Western Italy, and South-Western Germany; the latter, the vast territory of European Russia.

From North-Western Germany and Scandinavia, the Teutonic peoples have, at various periods, encroached upon Gaul and Britain, infusing new and important elements into the original Celtic ones; and from Western Russia, Poland, Bohemia, Hungary, and the provinces now constituting European Turkey, the Slavonian race moved eastward and northward, and encroached upon the Sarmatian nations, imparting to them physical and mental qualities of a more elevated character than they originally possessed. Each of these new mixed races became more active and energetic than the primary races of which they were composed; the pure Slaven has been found unable to cope with the Slavo-Sarmatian, and the pure Teuton with the Teuto-Celt. Germany has repeatedly given way to France, and Poland and Livonia have succumbed to Muscovy. Wessex, with its large Celtic intermixture, rolled back the wave of conquest on the rest of the Anglo-Saxon heptarchy; the Teuto-Celts, under Charlemagne, vanquished the pure Saxons of the fatherland; the more mixed Norman-French subdued England and Sicily; and the still more mixed Anglo-Normans reduced Ireland and Wales under their sway, and defeated France with inferior numbers at Cressy and at Agincourt. Mixed races, it appears, when the original races have peculiar excellences, and do not differ too widely from one another, have a decided advantage over pure ones. Before the time of Mohammed, Arabia had received a large infusion of blood from Syria and other countries on her northern frontier, and the Arabs with whom he and his followers achieved so many conquests were a mixed race.

In the east of Europe, the Slavo-Sarmatian has been steadily and surely advancing to superior power and extending his bounds, by the subjugation of neighbouring nations. He has been bringing under

\* Kinglake's *History of the Invasion of the Crimea*. 1864.

his sway peoples more barbarous than his own in the east, and peoples more civilised in the west. On the south he has been rapidly curtailing the domains of the Ottoman, and on the north-west appropriating the territory of the doughty Scandinavian. One of the sovereigns of Russia mightily consolidated her power, making her feared and respected in the eyes of Europe ; while he prevented the Swedish hero, Charles XII, from playing the part of a second Alexander. His successors followed surely and prosperously in his steps, and, in conjunction with Teutonic powers, partitioned the Slavonian Poland and destroyed her nationality. From the Sarmatian race the Russian has derived much animal energy—that energy which has so frequently been the cause of terror and alarm to superior and more intellectual races. On this animal energy, the high, intellectual qualities of the Slavonian have been engrafted, endowing the mixed people with activities and talents which are not yet, perhaps, appreciated by the western nations of Europe. Certain it is that the Slavo-Sarmatian has been growing and strengthening at such an amazing rate as almost to seem a mystery to the rest of the world. One characteristic of this people, which seldom belongs to barbarous nations, and not frequently to moderately civilised ones, is that they have been all along fully alive to their own deficiencies and anxious to amend them. To accomplish this end, they have availed themselves, without prejudice, of the service of foreigners ; in employing whom, they have shown, mostly on all occasions, much discretion in their choice. Among foreigners employed, Scotchmen seem to have met with special favour, and these have shown their national talent and forethought in the signal services rendered by them to the Russian empire.

The ambition of becoming the dominant race of the world is a passion which, since the days of Peter the Great, has inspired every Slavo-Sarmatian from the emperor to the peasant ; a passion which forms one bond of union among this people from Archangel to Odessa, and from the Baltic to Behring's Straits. Their religious superstitions embrace a mixture of gross Turanian rites and intellectual Slavonian mysticism. In the west their influence is injurious, as there they come in contact with superior races ; their proper mission is towards Central Asia, where their peculiar mental and physical qualities fit them for advancing civilisation and improvement. For upwards of a century now their subtle diplomacy has been gradually augmenting their authority in Western Europe ; but since the time that Napoleon I invaded their territory and encountered such signal disasters, their ambitious tendencies have been watched with suspicion, and, accordingly, it has been the policy of other European nations to guard against their encroachments. All along, in their

wonderful career, Constantinople has been looked to with eagerness for a Southern capital, where, on the ruins of the Ottoman Sultanate, they have fondly hoped to establish the seat of a new empire of the world rivalling the Greek and Roman, and from which they anticipated to dictate terms to all nations and peoples, and to send their ships through the Mediterranean and the Straits of Gibraltar to lord over the western ocean, and there to form the middle of a naval wall of ships of war, which was to encircle the world from the Baltic through the Atlantic, Indian, and Pacific Oceans to the sea of Kamschatka. To the Czar of Russia at the head of the Slavo-Sarmatian people, France and Britain, constituting the two mighty branches of the Teuto-Celtic race, were to strike sail. Europe was to be ruled from the east; while French and English were to bow to the Russ at Stamboul.

Such, no doubt, were dreams in which thousands of Russians indulged, and a pretence was only required for engaging in war with the Turk in order to strip him for ever of his European dominions; while at no very remote future period it might be convenient to follow him to Asia and add all his possessions there to the Muscovite empire. These ambitious aspirations led to a war which brought out in bold relief the peculiar characteristics of this people, and those of the most active and energetic of all races, the Teuto-Celts of Western Europe.

That there is a national difference between the British and French is sufficiently certain, but this is a difference of degree rather than of kind. Both nations have the principal element, which is Celtic, in common. The romance of the extirpation of the ancient Britons by the Saxons is daily losing its authority as history. The bulk of the English people is Celt crossed with Saxon and other Teutonic invaders, who became the conquerors, not the extirpators, of the natives. For centuries the English looked upon the Saxon invaders of Britain as their principal ancestors, exactly as the French did upon the Franks as theirs. When a people are conquered, the conquerors become their aristocracy, and all are proud of claiming descent from them. The conquered are for a time despised, and, in consequence, are ready, when occasion offers, to claim origin from the conquerors. Franks and Goths seized upon Gaul exactly as Saxons, Angles, Jutes and Frisians seized upon Britain. As the Franks accomplished their conquest more quickly and had one king in common, France became a united nation sooner than England. The founding of the French monarchy by Clovis put an end to any further Teutonic invasions in Gaul, while the conquering Franks adopted the Romanised language of the conquered people. Here then was formed a uniform Teuto-Celtic nation with the Celtic element largely preponderating. The

case was different in Britain. The Saxon invaders were not so powerful or united as the Franks ; and in discipline and military tactics the former seem to have been much inferior to the latter. They had to cross the seas, and this circumstance rendered it more difficult for them to come in large force. Accordingly they arrived in Britain at successive periods under various leaders, and were divided among themselves, on account of which they warred with one another as well as with the natives ; while with the latter they frequently entered into alliances against one another. They acquired footing in the country very slowly, several centuries elapsing before Britain was entirely conquered by them, and Wales remained to be conquered by the Anglo-Normans. In this manner was the Teuto-Celtic race of England formed, more Teutonic blood being introduced in consequence of successive invasions than in France, and from the direction of the invasions it was more unequally distributed, Teutonic blood predominating in the east, and Celtic in the west.

A more uniform diffusion of Teutonic blood was effected in the British Isles by the invasions of the Scandinavians. The Danes seized upon the east of England, and finally conquered the country ; while the Norwegians descended on the west of Scotland and on the north and east of Ireland, wresting the Hebrides and the adjacent coast from the crown of Scotland and founding the kingdom of the Ostmen in Leinster. A fresh supply of Teutonic blood was infused into that of the French by the Norman invasion. In Normandy a new mixed race was produced from Normans and Franco-Gauls, which became one of the most remarkable the world had ever beheld, and which extended itself into England and Italy, conquering the whole of the former country and a large portion of the latter. In this manner were the mixed races of France and Britain formed, and from the facts adduced it may be readily perceived that the two races are identical ; the Frenchman having more of the Celtic element than the Englishman and Scottish Lowlander, but not more than a large portion of Scottish Highlanders, Welsh, and Irish.

The Norman conquest of England helped still further to assimilate Englishmen and Frenchmen to one another in temperament and character ; so that notwithstanding the numerous wars which have taken place between them, and the national antipathies bred by these, the French and English have more similarity to one another, and more latent sympathy with one another, than any other two nations in Europe. Small differences often create greater animosities than large ones ; sects closely allied to one another in opinion fight with more rancour than those that are separated by a wider gulf in belief ; and so it has been with the English and French. "The English and

French", observes Schlegel in his *Philosophy of Life and Language*, "are very much the same at bottom", and in reality they are so. Their different geographical position has thrown the intellect and activity of the two branches of the Teuto-Celts into different directions. France, ever since she became a nation, has exercised extraordinary influence on land, and her immense activity and brilliant intellect have considerably swayed the other continental nations; her tongue has become the universal language of Europe, and her literature a principal element in the intellectual life of the enlightened world. England's greatness has, on the contrary, rendered itself more conspicuous on the ocean. There, for centuries, she has reigned triumphant; and although Teutons are allowed to be better seamen than Celts, yet the Teuto-Celt has far excelled the pure Teuton as an ocean warrior. The phlegmatic obstinate persistence of the Dutch sailor has seldom or never been capable of competing with the vehement ardour of the British tar, which "rivals lightning's flash in ruin and in speed". Even the stalwart, resolute Dane, the pure descendant of the redoubtable sea-kings, had, after an obstinate and glorious resistance, to succumb to the fiery impetuous Teuto-Celtic Nelson at the head of his enthusiastic and chivalrous British seamen. Her insular situation and her well-tempered finely mixed Teuto-Celtic race have made Britain the supreme empress of the ocean; while, on the other hand, her position in continental Europe, along with her Teuto-Celtic blood, has made France the æsthetic and martial queen of all the other continental European nations.

A Teuto-Celtic race extends from the northern shores of the Shetland Isles to the Gulf of Lyons; from Bavaria and Switzerland to the Scilly Isles and the coast of Connaught. To develop this race to its present excellence, centuries of invasion, war, and conquest, were required. The firmness of the rock was to be united to the impetuous lightning flash; the fiery vehemence of the Celt was to be blended with the relentless sternness of the Teuton; the ideal intellect was to be combined with the intellect of fact; subtle disquisition and sparkling wit were to be associated with cool deliberation and sagacious humour; huge energy was to be coupled with matchless adroitness; centralising sociality was to be moderated by repelling individuality; and all these qualities in the course of time, after long-continued and terrible wars, numerous invasions, and several conquests, had done their work, have been intimately amalgamated into a most wonderful whole; so that a mixed race has at last been produced which is, for ages, to rule the destinies of the universe. Hereafter France and England must maintain an inseparable alliance; the interests of the world; the future prosperity of humanity; their own self-defence demand that it should be so; a



truth which the present French Emperor seems to perceive more clearly than most men.

The Crimean war, with all its evils and disasters, has had this very great advantage, that it has much helped to remove the old enmities between French and English, to lay the foundation of a permanent friendship between them, to bring out their common sympathies and racial affinities, and to convince them that their mutual interests require that they should continue in peace. Never before since the time of the crusades did two peoples march together to "glory or the grave" with so much reciprocal esteem and admiration; never since that chivalrous age were they inspired with a higher opinion of the cause in which they were engaged. They felt convinced that they had espoused the cause of universal liberty in opposition to that of relentless tyranny; but, independently of this, they instinctively felt that they were marching to defend the superiority which they had themselves acquired and which they had possessed for many centuries. The French and English being the dominant nations of the world, it was to be decided in the Crimea, around the walls of Sebastopol, whether the Teuto-Celts or Slavo-Sarmatians were to hold precedence among the races of men. Fierce battles were fought, and brilliant victories gained by Teuto-Celtic soldiers. The massive animal force, superstitious devotion, and rigid endurance of the great eastern European race, were not found a match for the nervous activity, the enthusiastic, daring, and fiery resolution of the occidental. The Crimean war has clearly decided the warlike superiority of the Teuto-Celtic race over the Slavo-Sarmatian; and as long as the two great branches of the former, French and English, continue on amicable terms, Russia must direct her ambition for sovereignty to Mongolian territory, and turn her back on the western regions of Europe. The Teuto-Celt has crushed the ambitious aspiration of the Slavo-Sarmatian for universal empire on the ruins of Sebastopol.

There could not be a more valuable contribution to the science of man than a good history of this war, and, accordingly, two very able volumes on the subject have appeared by Mr. A. W. Kinglake. History is one of the most important departments of human knowledge, and a department which is of indispensable service in the study of human nature. Little can be done in anthropology without its aid; for it is from human action on a Greek scale, when large masses of human beings are put in operation, that we can study human character in all its breadth. Man can hardly be understood when considered as isolated from his fellow; it is in groups in social relations with each other, both amicable and inimical, that human passions, feelings, instincts, and intellectual aptitudes, are developed and manifested. War, from its

terrible nature and serious consequences, brings human passions, virtues, vices, and abilities more into operation than any other movement; and on this account it must always continue to be one of the principal themes of the historian. History holds a middle place between art and science. Like art, it delineates and portrays men and actions so as to present the reader with a life-like view of things, and impart to him a concrete knowledge of men and women, as real and living, actuated by motives, prejudices, and impulses; like science, it analyses and digests facts in order to expound the general principle on which living action depends. When history is written purely in reference to artistic effect, it leaves the student ignorant of the abstract principles which form the groundwork of the living actions which he contemplates; and when written purely as science, it resembles anatomical dissection, which describes the various parts of a dead body, but conveys no idea of that body when influenced and put in action by thought, reason, and feeling. In Mr. Kinglake's book many of the qualities of a superior historian are to be traced; his descriptions are vivid and picturesque; his portraits of character well-conceived and vigorously delineated; and his penetration into the characters of nations and individuals keen and powerful; while his style, dignified and eloquent, has a magnificent flow admirably adapted to the lofty theme on which he has undertaken to write. His long disquisitions on diplomatic matters are, however, tedious and over-laboured; and on these points few will admit that he is at all happy in arriving at correct conclusions. He is evidently too prejudiced against the French Emperor to estimate his character with impartiality; and the biassed view that he takes of this extraordinary man, is a great blemish in a work possessed of such rare and superior merits.

Men rise up at certain periods whose very natures are, some way or other, involved in mystery. They are the glory, jest, and riddle of the world; but the jest and riddle because they are not understood. It is difficult to prevent the history of those men from being involved in mysticism. They afford a fertile theme to those who love the marvellous, and are a sure stumbling block to the sober mind that cannot distinguish the line of demarcation between the common-place and the extraordinary. Like rivers, the sources of which have not been discovered,—like narrow, tortuous caves which have never been explored,—like objects seen by moonlight, when the sky is mostly overcast with clouds; some men appear vague and undefined to the mind's eye. Such men are usually an insoluble problem in their own age; they are men who ascend to a conspicuous position, but whose mode of ascent cannot be very well ascertained;—men who exercise an influence of which they are not themselves entirely conscious, and who owe that

influence to something in their nature which bears upon momentous events;—to this class of men belongs Louis Napoleon. Along with his great talents there is one thing especially which has materially helped his success, and that is his being pre-eminently a Frenchman, or Gaul, possessed of all the social sympathies, the mental aptitudes, and some of the weaknesses which belong to the Gallic races. His uncle had led the French in many battles, and had added to the glory of the nation by winning so many signal victories; and all nations of Celtic origin are excessively fond of every kind of glory—military, scientific, or literary. The names of those who have added to the renown of their country, Celts never forget. The memory of Napoleon Bonaparte was, therefore, dear to France, and the sad termination of his illustrious career rendered it still dearer to them, enhanced his good qualities in their estimation, and effaced the recollection of his bad ones from their minds. But Napoleon I was not a Frenchman, and had nothing of the Celt in him. It is seldom that a man of one race can thoroughly appreciate men of another, however expansive the intellect, and however great the genius; and, accordingly, Napoleon I never fully appreciated the French character. “The French have but one sentiment, vanity,” says he;—a proof how little he could enter, notwithstanding his great abilities, into Celtic sentiments. To this may his downfall be chiefly ascribed. Had he fully understood Celtic sentiments there are strong reasons for believing that he had never been an exile in Elba, or a prisoner in St. Helena. His nephew, one himself of the race that he governs, thoroughly fathoms the deep sympathies, and fully appreciates the social tendencies of the Celts. Hence the wonderful progress of France, so obvious to the whole world, which has taken place during the period he has swayed her destinies.

The explanation given of the *coup d'état* by Mr. Kinglake seems to be dictated by strong prejudice and strikes an unbiassed reader as being extremely partial. The peculiar state of France at the time is not, perhaps, yet properly understood. In tumult and turmoil cruelties are committed, but how this happens is a question to which a satisfactory reply is not easily given. Of this *coup d'état* we have, as yet, but very contradictory accounts and explanations; and, certainly, if it did prevent a massacre upon as large a scale as that of 1849, the forethought of the author of it cannot but be admired.

The view that Mr. Kinglake takes of Louis Napoleon's courage is by no means in keeping with this author's usual sagacity. There is a rough, coarse personal courage, or rather rashness, which operates without considering consequences—a kind of courage which is in a great measure the result of strong health, exuberant animal spirits,

and immense self-confidence. This species of courage is, doubtless, a useful ingredient in masses,—it is, in reality, the courage which belongs to the herd of some races,—to the Teutons in Europe and to the Tartars in Asia ;—but it is not the courage of the Celtic race,—it is not the courage of the Celtic man. The courage of the Celt is founded on imagination and sentiment ;—it depends upon an idea and feeling of perfection,—it is moved and actuated by hope and fear ;—it is fed by the nervous system rather than by the vital organs, and is entirely regulated by the consideration of consequence. It is among Teutons that we meet with *Berserkers*,—men who will, under every condition, fight, regardless of consequences. More than most other races, they stand adversity without changing colour, and maintain their spirits and *sang froid* under the greatest reverses. The ancient Norsemen defied wounds and torture, and died without shedding a tear in their agony. Ragnar Lodbrog winced not when stung to death by serpents. This physical endurance—this defiance of fate, is principally owing to an extraordinary development of heart, stomach, and lungs, which this race possesses, and which makes those belonging to it fonder of feasting and revelling than any other people in the world. In the Norse tales, hell is defined as “a place where meat is scarce”. This animal courage does not belong to Louis Napoleon, or to the Celtic race which predominates in him. He is principally of a race that can bear hunger better than torture or reverses ; but the Teuton can bear the most of evils better than hunger. In all those cases in which Mr. Kinglake charges Louis Napoleon with cowardice, the reader who calmly considers the circumstances, will find that his conduct was regulated by prudence and a clear foresight of results ; and as for any alteration in his expression during those critical moments to which this author refers, it is perfectly evident that it proceeded from a sensitive nervous temperament and not from any deficiency of courage, a quality which has always appeared so conspicuous in him when it was to serve a purpose. It is, therefore, much to be regretted that an author who has so truthfully and vividly sketched so many distinguished characters, should be so strongly prejudiced against the Emperor of the French as entirely to misunderstand him.

Overlooking these faults, Mr. Kinglake's volumes may be read with much profit by the anthropologist who is desirous of becoming thoroughly acquainted with the racial characteristics of British, French, and Russians. The following sketch of Lord Palmerston gives some idea of his power in portraying individual character :—

“To those who know anything of Lord Palmerston's intellectual power, of his boldness, his vast and concentrated energy, his instinct for understanding the collective mind of a body of men and of a whole

nation, and, above all, his firm, robust will ; nay, even to those who only know of his daring achievements—achievements half peaceful, half warlike, half righteous, half violent in many lands and on many a sea—the notion of causing him to be subordinated to Lord Aberdeen in Foreign Affairs seems hardly more sound than a scheme providing that the greater shall be contained in the less. Statesmen on the Continent would easily understand this, for they had lived much under the weight of his strenuous nature ; but at that time he had been much called upon to apply his energies to the domestic affairs of England. Besides, he had been more seen in his own country than abroad, and for that very reason he was less known, because there was much upon the mere outside which tended to mask his real nature. His partly Celtic blood, and, perhaps, too, in early life, his boyish consciousness of power, had given him a certain elation of manner and bearing which kept him for a long time out of the good graces of the more fastidious part of the English world. The defect was toned down by age, for it lay upon the surface only, and in his inner nature there was nothing vulgar nor unduly pretending. Still, the defect made people slow—made them take forty years—to recognise the full measure of his intellectual strength. Moreover the English had so imperfect a knowledge of the stress which he had been long putting upon foreign governments, that the mere outward signs which he gave to his countrymen at home—his frank speech, his offhand manner, his ready banter, his kind, joyous, beaming eyes—were enough to prevent them from accustoming themselves to look upon him as a man of stern purpose. Upon the whole, notwithstanding his European fame, it was easy for him at this time to escape grave attention in England.

“He was not a man who would come to a subject with which he was dealing for the first time with any great store of preconceived opinions, but he wrote so strenuously—he always, they say, wrote standing—and was apt to be so much struck with the cogency of his own arguments, that by the mere process of framing dispatches, he wrought himself into strong convictions, or rather, perhaps, into strong resolves ; and he clung to these with such a lasting tenacity, that if he had been a solemn austere personage, the world would have accused him of pedantry. Like most gifted men who evolve their thoughts with a pen, he was very clear, very accurate. Of every subject which he handled gravely he had a tight iron grasp. Without being inflexible, his will, it has been already said, was powerful, and it swung with a great momentum in one direction until, for some good and sound reason, it turned and swung in another. He pursued one object at a time without being distracted by other game. All that was fanciful, or for any reason unpractical, all that was the least bit too high for him or the least bit too deep for him, all that lay, though only by a little, beyond the immediate future with which he was dealing, he utterly drove from out of his mind ; and his energies, condensed for the time upon some object to which they could be applied with effect, were brought to bear upon it with all their full volume and power.”

## WRIGHT ON BRONZE WEAPONS.

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At the recent meeting of the British Association at Birmingham, Mr. Wright read a paper entitled "On the True Assignment of the Bronze Weapons, supposed to indicate a Bronze Age in Western and Northern Europe." The paper is a very fair attack on the classification of the Northern antiquaries respecting the stone, bronze, and iron ages. The subject is one of great interest and importance; and this has induced us to give some copious extracts from this communication. Mr. Wright, at the end of his paper, appears to us to have gone somewhat out of his way to attack the views recently promulgated by the illustrious anthropologist M. Nilsson, respecting the supposed colonisation of this country by the Phœnicians, and goes so far as to say it is "unworthy of the serious consideration of the antiquary." We believe M. Nilsson's theory is eminently worthy of the most serious attention of the anthropologist; and we have consequently devoted a space to show what his views really are.

Mr. Wright commenced by observing:—

"Within a few years there has come into existence, I will not say a new science, but certainly a new and very extraordinary field for scientific inquiry. Not long ago, antiquaries limited their knowledge of the remains of human industry in this part of the world to a few generations, at most, before the date when we are made acquainted with its inhabitants by the Roman historians, and everybody was satisfied with the biblical account, that mankind had existed upon this earth somewhat more than six thousand years. It is but recently that we were all surprised by the announcement that flint implements, which had evidently been formed by man's hand, had been found in the geological formation known by the name of drift. As soon as this discovery became an accepted fact, and more general attention was called to the subject, it was discovered that these flint implements, instead of being rare (as we might perhaps have expected), were, in many parts where the drift was examined, so abundant as to imply the evidence of a considerable population at a period of course preceding the formation of the drift itself. These implements present a great uniformity in shape, and to some degree in size,—at all events, there are only two or three

varieties, and it is remarkable that, while the fossil bones of various animals are found in the same drift, there has been as yet no authentic discovery of human bones ; yet there appears to be no room for doubt that these implements are really the work of man. Of course, according to the opinions of geologists on the age of the drift, this discovery would carry back the existence of man on earth to an immense distance beyond the biblical date, and it leaves us for speculation and theory a period of far greater extent than the whole historical period. The question of the Antiquity of Man became thus an attractive, and even an exciting study. It happened that the northern—the Scandinavian—antiquaries, whose peculiar fault is a spirit of too hasty generalising, had already started an ingenious theory in relation to these pre-historic times, according to which these were divided into three periods or ages, distinguished by the names of stone age, bronze age, and iron age. During the first of these periods, metal was unknown to man, and stone was the best material he had for the manufacture of weapons or of other implements for cutting or hammering ; the second was characterised by the use of bronze as the only metal ; in the third, bronze had been superseded for these purposes by iron. This system of periods was eagerly embraced by the new school of pre-historic antiquaries, who have even refined upon it and divided at least the first two periods into subdivisions.

“It is this dark and mysterious pre-historic period which has furnished the subject treated in the handsome volume recently published by my friend Sir John Lubbock, which treats successively on the system of periods or ages just mentioned, on the tumuli of the pre-historic times, on the lake habitations, shell mounds, and caves, on the more general subject of the Antiquity of Man himself, and on the manners of modern savages, which the author employs very judiciously to illustrate those of the savages of pre-historic ages, for absolute savages at all times bear a certain resemblance to one another. I will only add, as to the book itself, that it is a well written and well arranged work, characterised equally by purity of language and by its singular clearness and perspicuity, while it presents a view of the whole subject, which surprises us by its comprehensiveness, without wearying us with what too often constitutes comprehensiveness, a close dry mass of enumerations of facts. My intention on the present occasion is to take Sir John Lubbock’s work only from one point of view—so far as its talented author treats of the system of periods—a system which, it is tolerably well known that I, in common with antiquaries of some eminence in their science, reject altogether, and look upon as a mere delusion, and some parts of the first chapters of my friend’s book are aimed at me ; that is, they are directed against opinions which I have expressed and

which are here rightly put into my mouth, and I am glad of the opportunity of explaining my reasons rather more fully. It will be understood by everybody that whatever strictures I have to make are directed, not against Sir John Lubbock's writings, but against the opinions on the school of pre-historic archæologists which he has adopted, and which are here stated more fairly and distinctly than in any other work with which I am acquainted.

"I am by no means inclined to impugn hastily the general conclusions to which men of science seem now arriving upon the great question of the antiquity of man—it is a subject in regard to which I look forward with anxious interest to the increase of our knowledge, certain that the ultimate result must be truth. *Magna est veritas, et prævalebit.* But I complain of the treatment which the science of archæology has hitherto received at their hands. There was a cry some time ago—and nobody joined in it more heartily than myself—that a close alliance should exist between archæology and geology; but this was to have been a fair and equal alliance, in which the geologist should accept the conclusions of archæology on the same footing as the archæologist is expected to receive the opinions of the geologist. Instead of this, the geologist seems to have considered that the science he had thus to give his hand to is a vague and uncertain one,—he has created a sort of archæology of his own, made in the first place to suit his own theories, and he takes only the advice of those who will give him an opinion which is in accordance with a foregone conclusion, and this is often quite contrary to the teachings of archæological science. Archæology, as a science, has now reached too high a position to be treated with so little respect. But let us go on to the more especial subject now before me.

"Sir John Lubbock alleges that 'Mr. Wright sees nothing in Great Britain which can be referred to ante-Roman times' (p. 35); and upon this he remarks (p. 36), 'But if we are to refer not only the bronze implements, but also those of stone, to the Roman period, what implements, we may ask, does Mr. Wright suppose were used by the ancient Britons before the arrival of Cæsar? It would be more reasonable to deny the existence of ancient Britons at once, than thus to deprive them, as it were, of all means of obtaining subsistence.' What I have said on this subject must have been strangely misunderstood, or I may have explained myself badly; for I am entirely unconscious of having ever uttered an opinion which could bear the interpretation here given to it. I have said, and I still say, that I do not believe we have many—perhaps any—monuments of importance much older than the Roman period, and that such ancient remains as are supposed to be older than the Roman period bear no characteristics



which would enable us to ascribe them to any particular date. I have never pretended to deprive the Britons of the use of stone,—it would not be in my power ; but I say that stone was also in use for the same purposes in Roman and Saxon times, and that the mere presence of a stone implement does not prove that the deposit was British any more than Roman. Stone, of various kinds, is a very ready and convenient material for purposes such as the stone implements of antiquity evidently served, and it is found in use in Western Europe even in the middle ages. Stone implements have often been found on Roman sites in this island ; they have been found in Saxon graves in Kent, and I have myself found flint flakes, evidently placed there by the hand of man, in Saxon graves in the Isle of Wight, perfectly resembling those of which the geologists have talked so much of late. The Abbé Cochet found similar flint flakes in Roman graves in Normandy, so arranged as to leave no doubt that they were placed there intentionally.

“Sir John, indeed, acknowledges that implements in stone were in use in Roman times, but it was not so much a difference between the poor and the rich, as he puts it (the structure of society was altogether different from that of modern times), as between different localities. It would be very wrong to suppose that the social condition of Britain under the Romans was uniform in cultivation and condition throughout the province. There were no doubt “savages” in wild and retired parts of the island, as there have been in much more recent times, and communication between distant localities, except on the lines of the great roads, was slow and precarious. People must thus have been frequently exposed to the inconvenience of falling short of metals, which, moreover, were probably always expensive, and then they would be obliged to have recourse to stones, the use of which would thus be habitual. People, under this state of society, could not go to obtain their flint implements at distant manufactories, but must either have made them individually for themselves, or, at the most, there may have been a man in each village or rural district who was more skilful in making them than his neighbours, and supplied them to those who were able to purchase. In this manner there must have been, throughout the land, at the same time, a vast variety in the form and style of flint implements, according to local taste or individual caprice, so that it would be absurd to consider difference of form and character as a proof of difference of date. In primitive times diversity, and not uniformity, was usually the rule, and sometimes this difference of form and design became almost a family distinction. Among the Anglo-Saxons, long after they had risen above the character of savages, the different tribes were distinguished by different forms

of personal ornaments, and we know that in much later times the clans of the Scottish highlanders have been similarly distinguished by the patterns of their plaids.

"But enough of stone for the present—let us proceed to bronze, which forms the grand corner-stone of the edifice of this system of periods. We may, perhaps, consider as the most important of these objects of bronze the swords, because they present a greater number of peculiarities of form than any of the other classes, and the circumstances connected with their discoveries seem at a first glance of the subject to suggest more difficulty in identifying them with the Romans; I shall, therefore, take them as the special object of my investigation, but the arguments I shall use with regard to them apply with still more force to the other objects made of the same metal. . . .

"Sir John asserts that 'bronze weapons are *never found associated* with coins, pottery, or other relics of Roman origin;' he then proceeds to quote a statement of mine to the effect that on all the sites of ruined Roman towns these other objects are found scattered about rather abundantly; and he adds somewhat triumphantly, 'We may assume, then, on the authority of Mr. Wright himself, that, if all these bronze arms were really of Roman origin, many of them would have been found from time to time in conjunction with other Roman remains.' I can admit of no such assumption as arising from the facts I have stated; and I am sorry to be obliged to say that this remark only shows that my friend, in common with the advocates of this system of periods generally, is but imperfectly acquainted with the archæological conditions of the question. The reason we do not find bronze swords under the circumstances which he insists upon, is a very simple one, easily explained, and applies to iron swords equally with bronze swords. The Romans did not bury their weapons with the dead, and they took great care of them, especially of the sword, while alive. Even in the last struggles of the empire, when the Romans must sometimes have been obliged to leave their weapons behind them, the barbarians, among whom we know that a sword was an object of inestimable value, took very good care to carry them away. The consequence of this is that a Roman sword in iron is one of the rarest objects in antiquarian discovery. I remember, within my own observation, hardly a single instance of one having been found in Roman Britain, and not above two swords supposed to have been found here, and it is my impression that the bronze handle of one of the latter presented a considerable resemblance, in its style of ornament, to those of some of the bronze swords found in Scandinavia. During the whole of our excavations at Wroxeter, which have filled a considerable museum with articles of Roman fabrication, we

have never met with the smallest fragment of a Roman sword, nor do I remember a single instance of such a find on any site of a Roman town or villa in this island. In one or two cases in the west of England, as in the very remarkable discoveries at Hod Hill, in Dorsetshire, bundles of unfinished iron blades, which looked like swords, have been discovered under circumstances which appeared to me to show that they had been government stores on their way to some imperial manufactory where the finish was to be given to them; other antiquaries thought they were not swords at all, and I think they may be right; but it is a very remarkable circumstance that among the Roman antiquities found at Hod Hill there was one undoubted iron sword-blade, and this was in every respect *an exact copy* of one of the swords in bronze, of which we are now speaking, a proof beyond doubt that the latter were at that time well known. This Roman sword-blade possesses the characteristic leaf-shape, with the ribs, and the holes for the rivets, by which the handle was fixed on. The fact of no Roman swords in iron being found, would be rather in favour of the bronze swords being Roman. Again, Sir John Lubbock gives as one of his arguments against me the fact that the bronze and iron swords and other implements are not found mixed together in the same locality. It seems to me that this is exactly what we might expect, especially in the case of the swords. These, as I have just observed, were valuable articles, and were probably, at least in the provinces, in possession of few individuals, except the military. The inhabitants of a lacustrine village, for instance, were not likely to be in possession of a sword, unless they had stolen it, and whence would they steal it? From some soldier belonging to the nearest military post. I am sure that Sir John Lubbock will allow that it has never been the custom to arm any corps of troops with a variety of weapons—if their swords were bronze, they were all bronze, if iron, all iron. The discovery, therefore, of weapons in any particular place would only necessarily show that it was the weapon with which the detachment of Roman troops stationed in that neighbourhood—or, at least, nearest to it—were armed. But I think that it is stated rather rashly that bronze swords are not found with iron swords; for in the very rare instances of the discovery of Roman iron swords found in Britain, in, I believe, almost a majority of cases they have been found associated with bronze swords. A few years ago a Roman sword in a bronze scabbard, the blade appearing from the rust to be of iron, was dredged up from the Thames, along with a very fine specimen of the well-known bronze leaf-shaped sword, and a large stone celt, all which are now in the museum of Lord Londesborough, at Grimston Park, in Yorkshire; and a similar iron sword in a bronze scabbard was

found together with a bronze sword in the river below Lincoln, at a spot where a bronze circular shield had previously been found. The discovery, in one or two instances, of a mass of bronze implements, with no mixture of iron, leads only to the conclusion that they had formed the stock-in-trade of some dealer in bronze implements, or that they had been a consignment of such articles lost on the way. But of this I shall say more.

“I must, however, state generally that the archæological fact is that, instead of our *not* finding the bronze swords in juxtaposition with Roman remains, in every case where they have been found in Britain or Gaul, where the details of the discovery have been carefully observed, it has occurred under circumstances which lead to the strongest presumption of their being Roman. A bronze sword, of the usual leaf-shaped type, is stated to have been found at the Roman station of Ardoch in Scotland, on the wall of Antoninus, and there appears no reason to doubt the accuracy of the statement. But, to come further south, it is well known to the archæologist that the great treasury of the antiquities of Roman London—and of mediæval London also—is the mud of the river Thames, and within the limits of the town, I believe that no object has been found that could claim an earlier date than Roman. This is just the place where objects of all kinds would be deposited by accidents, such as boats upsetting in the transit, people falling in and being drowned, and the dropping into the water of objects of various kinds which would sink by their weight. Now swords have been found in the Thames at London, and I should underrate the number in saying a few, but they were nearly all of bronze, and leaf-shaped in form, which might almost be taken to show that this bronze sword was most in fashion among the Romans in London. Certain it is, that my friend Mr. Roach Smith, who has examined these Roman antiquities of London more extensively and deeply than anybody else, and whom I have no hesitation in saying that I regard as the first authority on the antiquities of the Roman period in England or even on the continent, is convinced, equally with me, that the bronze swords are of Roman manufacture or origin. Discoveries of the axes, chisels, and other implements of bronze, have been much more frequent, and in positions which speak still more strongly of their Roman character. Thomas Hearne, who first called attention to these objects more than a century ago, took it for granted that they were Roman, but he unfortunately gave it as his opinion that they represented the Roman *celtis* (a technical word for a sort of chisel), and, in the low ebb at which archæological knowledge has stood from his time down to the present generation, antiquaries seem to have blindly fallen into the mistake that the name *celt* (*celtis*) was

equivalent to *Celtic*, and that it meant that they belonged to the ancient Britons. In this blunder solely, I believe, originated the notion that these 'celts' are not Roman.

"Let us now cross the Channel to our neighbours, and see what is the case in Gaul. France has undoubtedly produced by far the ablest, the soundest, and the most judicious antiquaries of modern times ; and I believe that they have all regarded the bronze swords, equally with the other bronze implements, as Roman. I will quote the authority of Monsieur de Caumont, to which I am sure that nobody who knows anything of archæology will object. In his *Cours d'Antiquités Monumentales*, De Caumont, in speaking of these so-called 'celts', says, 'But we find also very frequently these bronze axes in places covered with Roman ruins ; I have acquired the certainty of this by my own observations and by the information I have collected in my travels.' Again, the same distinguished scholar, in speaking of the bronze swords, after noticing the opinion of a previous writer who thought that the Gauls had derived the use of these swords from the Greeks, goes on to say, 'At all events, I must not conceal from you the fact that the bronze swords have been found sometimes along with objects of Roman manufacture, which would seem to announce a different origin.'

"I will go back a little farther among the antiquaries of France to produce not only opinions, but facts, such as I think ought to set the whole question at rest. At the beginning of the present century flourished the able antiquary Antoine Mongez, one of the most celebrated members of the Institute of France, a man distinguished for his science and learning, and for his judicious use of them. On the 16th of Prairial, an 9 (for we are still in the days of the republic), according to our reckoning the 5th of June 1801, the "citoyen" Mongez read at the Institute, before what was then called the Class of Literature and Fine Arts, but which is now represented by the Académie des Inscriptions et Belles Lettres, a memoir on an ancient bronze sword, which had been found with the skeleton of a man and horse, in a turbarry (*tourbière*) near Corbie, at Hailly, in the valley of the Albert, a tributary of the Somme. In this memoir, which is published in the volume of the papers read before the class, this sword is described, and figured in an engraving ; it is entirely of bronze, blade and handle. The object of Mongez was chiefly to analyse the bronze of which this sword was made ; but he also enters into the question of what manufacture it might be, and, after careful discussion, he arrives at the conclusion that these bronze swords were all Roman. On the 8th Frimaire, an 10 of the Republic, or the 29th of November 1801, in

our reckoning, M. Mongez read another paper on three bronze swords which had been recently found near Abbeville, and which resembled the other so closely that he thought it unnecessary to have them engraved. Mongez re-considered the question, and again pronounced them Roman—*je les crois Romaines*.

“After Mongez had read his *Memoires* on the bronze swords before the Institute, his opinion received a singularly remarkable confirmation in a more exact and complete account of the circumstances of the discoveries, which he obtained from a very zealous and able antiquary of Abbeville, M. Traullé. The bronze sword, as just stated, was found in the turbary at Heilly along with the skeletons of a man and a horse, and by the sword were four brass coins of the Emperor Caracalla, who, as is well known, reigned from A.D. 211 to 217. This sword, therefore, was that of a Roman cavalry soldier, not older, and perhaps a little later, than this reign, who had sunk in the bog to which the turbary had succeeded. The history of two of the other swords, found in a turbary at Pequigny, near Abbeville, was, if anything, still more curious. A large boat was found, which had evidently sunk, and in it were several skeletons. One of these had on his head a bronze casque, or helmet, accompanied with the remains of the other accoutrements of a soldier. The bronze sword lay by his side, and with it some Roman coins, some of which, if not all, were middle brass of the Emperor Maxentius, who reigned from 306 to 312. Another similar sword was found in the turbary outside the boat, which would appear to have been sunk in a skirmish after some of its crew had been killed in it. We learn here that Roman soldiers, in the wars and troubles which agitated Gaul in the third and fourth centuries after Christ, were armed with these bronze swords which some have so ingeniously supposed to have been brought into this island by the Phœnicians, some seventeen or eighteen hundred years before the Christian era. From the time of Mongez, the French antiquaries have regarded the bronze swords as Roman.

“I have thus crept on from one little, though significant, fact to another, until it seems to me tolerably clear that they all point to one conclusion, that the bronze swords found so often in different parts of western and northern Europe are Roman; that is, that they were all either of Roman manufacture, or, at the least, copied from Roman models. I consider that this evidence is sufficiently strong, but still it will be worthy of inquiry, whether it be confirmed by pictorial delineations on Roman monuments. I have no doubt that with a little labour we might bring together a mass of corroborative evidence of this description which would be quite irresistible, but I regret to say that pressing engagements of a different character will not at present allow

me to undertake that labour myself to its full extent. I think, however, that I can produce a few very satisfactory samples of it—and I will only take them in two classes of such monuments.

“First, as to the sculptures on stone, the figure of a Roman soldier, generally on horseback, is a common adjunct to sepulchral inscriptions found in the Roman cemeteries. Unfortunately, the soldier usually has his sword by his side in its sheath, and although the shape of the sheath would lead us to believe that they did hold blades of the different known forms of the bronze swords, yet we cannot insist upon it. If the sheath were made of the form of the blade of a leaf-shaped sword, of course the blade could not be drawn out, it is, therefore, represented in one uniform shape, distinguished only from any ordinary scabbard by being short. However, I feel convinced that I have seen one or two of these sculptures in which the Roman soldier held the sword drawn, and in which it was clearly leaf-shaped; but I cannot at this moment put my hands upon them. If any one, however, will take the trouble to look over the plates of that readiest of all books of reference, the *père Montfaucon's Antiquité Expliquée*, he must be convinced of the absurdity of denying that these swords are Roman. In the sculptures on the arch of Constantine at Rome, about contemporary with the bronze swords found near Abbeville, and described by Mongez, the Roman soldiers are evidently armed with the leaf-shaped swords, as well as with the other forms, a circumstance which brings into immediate relation the forms and the metal. . . .

“We see at a glance that the dagger with which Cæsar was slain was identical in every particular with those found in the tumuli of Britain, which some antiquaries are now ascribing to the remote age of Phœnician colonies!

“Thus we see that the bronze swords, the bronze shields, the bronze spears, the bronze daggers, which have been found in Britain, are all Roman in character. The so-called ‘celts,’ chisels, etc., bear the same character with the weapons, and are sometimes found with them, and probably continued in use later. It is my firm conviction that not a bit of bronze which has been found in the British islands belongs to an older date than that at which Cæsar wrote that the Britons obtained their bronze from abroad, meaning, of course, from Gaul, *ære utuntur importato*. In fact, these objects in bronze were Roman in character, and in their primary origin.

—And who has ever brought forward any evidence to show that the Romans did not use bronze for their weapons? Pliny tells us that, in the treaty which concluded the war between Porsena and the Romans after the expulsion of the Tarquins, that is about five hundred years before Christ, it was expressly stipulated that the Romans thenceforth

should use iron for nothing but agricultural purposes. Our acquaintance with the condition of that time is not sufficiently minute to enable us to judge what was the cause or the object of this stipulation, but it seems clear that swords were not made of iron, and they must, therefore, have been made of bronze. This stipulation continued in force during some three centuries, and it was only after the second Punic war, we are told, that the Romans began to adopt the form and material of the sword as it was in use among the Spaniards. Polybius tells a curious anecdote relating to the great victory obtained by the Romans over the Gauls during the consulate of Caius Flaminius, a little more than two hundred years before Christ. He informs us that the Gauls were armed with long pointless swords, which they used only in striking the enemy, while the Romans used short, stiff, pointed swords, with which they stabbed at the face and person. When the Gauls struck hard, the blade of the sword became so much bent that the soldier had to straighten it with his foot before he could strike another blow. The Roman officers, having observed this, directed the soldiers to close upon the ranks of the Gauls, and thrust vigorously at their bodies and faces before the latter had time to recover the use of their swords, and by this manœuvre the great inequality of numbers was partly compensated. ....

"When Sir John Lubbock (p. 35) says that I "lay much stress on the fact that the bronze weapons have generally been found near Roman stations and Roman roads," he has applied to the weapons what I had said of a rather different object. During ages when travelling was neither quick nor safe, and people seldom took long journeys unnecessarily, they had to depend for many even of the necessities of life upon men who carried them round for sale periodically, and a multitude of people gained their living as itinerant traders and manufacturers. It was a practice general throughout the middle ages, no doubt derived from the Romans, and the very utility of such dealers formed their protection against injury and interruption. We find abundant traces of this practice, curiously enough, in relation to the bronze swords and hatchets. These consist in discoveries of deposits, usually of an earthen vessel for melting bronze, of which there is sometimes a residuum at the bottom, of moulds for casting the implements, and generally of some broken swords or other bronze implements, no doubt intended to be melted down for metal, and of similar articles entire, constituting stock in trade. Now my remark was, that these tools and stock of itinerant bronze manufacturers are almost always found near a Roman road, or in the neighbourhood of a Roman station, and that therefore we are justified in considering them as Roman subjects, who had travelled along the Roman roads, and rested



at those spots for personal or local reasons which are unknown to us. Discoveries of such deposits have been very numerous in Britain, Gaul, Switzerland, and Germany. I am not aware if they have been found on the other confines of the empire. One of these, consisting of a quantity of bronze celts, both entire and broken, was found near the foot of the Wrekin in Shropshire, not far from the great Roman road, the Watling Street; another, among which there were fragments of a bronze sword, at Sittingbourne, on the Kentish portion of the Watling-street; a third, consisting of bronze punches, chisels, and other implements, with several pieces of unused metal, one of which was evidently the residuum of the melting-pot, at Attleborough in Norfolk, on the Roman road between Thetford and Norwich; a fourth, consisting of sixty bronze chisels, etc., with a portion of a bronze sword and a piece of bronze which again appeared to be the residue from melting, all contained in an earthen pot, at Weston in Yorkshire, on the road from Old Malton (where there are the remains of a Roman town) to York. It is not necessary to enumerate any further examples. Sir John Lubbock seeks to explain the position of these finds by supposing that the Roman roads were laid upon older British roads, but this is an objection to which I cannot listen until he brings me the slightest substantial evidence that such was the case. To me, these "finds" alone are sufficient to explain a fact which Sir John hardly, or only feebly, denies, the identity of forms, and not mere similarity, of all these bronze swords, in whatever part of Europe they are found. I cannot imagine that any one will believe that this identity of form, is the result of chance, but they must have been derived from one general centre; and, when we consider the radius through which they are scattered, it was only the Roman empire that could have supplied such a centre. It is nonsense to suppose that, brought into Britain at a remote and obscure period by the Phœnicians, they could have spread in this manner. The whole mystery, then, is dispelled by the proceedings of these itinerant manufacturers, who must have been very numerous, and who went not only to the limits of the Roman province, but, no doubt, penetrated into the surrounding countries, and made weapons for their inhabitants. It was, for these, the easiest way of obtaining weapons. Swords were so rare, and so valued, among the Scandinavians and Teutons, that they believed them to have been forged by the gods; and I beg to state that the arms which the gods forged were made of iron. There are many reasons, into which I will not now enter, for believing that it was a subject of honour and glory, among the different branches of the Teutonic race, for a man to possess a sword; and here the "barbarian" had a chance of getting a sword to wear by his side at not so great an expense of wealth and

trouble as if it had been made by the gods, and he no doubt profited largely by it. And then, the "barbarians," contrary to the Roman practice, buried their weapons with the dead, in consequence of which we find in their graves a sufficiency of those weapons to fill our museums, while we only pick up one now and then within the bounds of the Roman empire. Such is the case with Ireland, where, by the way, it has been somewhat too hastily asserted that the Roman arms never penetrated, seeing that we know little of the *history* of our islands under the Romans,—that Juvenal, speaking as of a fact generally known, asserts,—

"Arma quidem ultra  
Litora Juvernæ promovimus",—

and that Roman antiquities are now found in Ireland. Such is the case with Scandinavia, and also of the other countries of Europe bordering upon the Roman provinces. It has been alleged that some of the ornamentation of the Scandinavian bronze-work is not Roman in its character, which is true—but why? It is not probable that an enterprising people like the Scandinavians would be satisfied to remain long dependant on the precarious supplies, as they must have been at such a distance, of wandering merchants, and they would soon learn to imitate what they had seen done by others. Roman ornamentation and design, in their hands, would soon undergo degradation, until it took a character of its own, just as it did among the Anglo-Saxons, and among the Germans, and indeed among all the other non-Roman peoples into whose hands it fell. I have always held the belief that the mass of the Scandinavian ornamented bronze is nothing more than the development of Roman popular art under the influence of barbaric taste; and I think this will hardly be denied by any one who is familiarly acquainted with the forms and spirit of Roman art."

Mr. Wright concludes as follows:—"I will only repeat the belief, on which I have always insisted, that in this part of the world the use of bronze did not precede that of iron, and I believe that I am fully supported in this view by the opinion of our great metallurgist, my friend Dr. Percy. At the time of Cæsar's invasion, as that great warrior and statesman declares deliberately, the only bronze known to the Britons was imported; of course from Gaul, and it could not have come in large quantities. The Britons could not have made bronze themselves, for I am satisfied, by my own researches among our ancient mines, that no copper was obtained in this island until it was found by the Romans. I am informed that, instead of being easy, the process of mining copper or tin, and preparing bronze, is very complicated and difficult; whereas the smelting of iron is extremely easy, and in some parts of our island, as in the forest of Dean, the iron ore

presented itself on the surface, and in a form which could not fail to draw the attention of men who knew anything about metals. I confess that I only look upon the modern myth of the colonisation of this island by the Phœnicians as unworthy the consideration of a serious antiquary. It is based upon speculations which have no historical foundation. In these new questions which are agitated by men of science, we must enter upon the study of the remote period of archæology of which we have no practical knowledge, with a very profound knowledge of the subsequent historic period; whereas this new school of antiquaries prefer contemplating altogether the doubtful period speculatively from the utterly unknown period which preceded it, to going back to it from the known period which followed. Indeed, I fear that far too much of prehistoric archæology, as it has been hitherto presented to us, rests only upon a want of knowledge of what is historic."

We cordially agree with Mr. Wright in the last paragraph, and think he has done a good service in pointing out this fact.

### NILSSON ON THE BRONZE AGE.

THREE decades have nearly elapsed since Sven Nilsson, the eminent Swedish anthropologist, published a large work "on the primitive inhabitants of Scandinavia, etc."\* The book now before us is the first part of a new and enlarged edition,† which Prof. Nilsson is publishing, and which is entirely devoted to the bronze age. The fundamental theory which pervades the whole of the first section amounts to nothing less than this—that neither the Celts nor the Goths introduced civilisation and bronze into the North, and especially into Scandinavia, but the *Phœnicians*, who established factories, built temples, introduced Baal-worship, and remained in Scandinavia for so long a period, until, by intermixture, they became gradually absorbed in the mass of the native population.

That such a theory, so contrary to all current notions on this subject, will and must greatly stagger the archæologist, historian, and

\* *Skandinaviska Nordens Ur-Juwanare, ett Försö i Komparativa Ethnografien och ett Bidrag till Menniskoslägtets Utvecklings-Historia*. Lund., 1838-1843. "The Primitive Inhabitants of Scandinavia"; an Essay in Comparative Ethnography, and a Contribution to the History of the Development of the Human Species.

† *Andra omarbetade och tilltakta upplagan*. Bronsåldern (Stockholm. 1862).

even the anthropologist, is no more than may be expected. Whether or not the *facts* of our author may turn out to be *fictions*; whether his bronze *swords* are only *daggers*, as the antiquarian will have it, must be solved by archaic anthropology. Whether the account he gives of Pytheas' visit to the north will satisfy the historian, may be doubted. This much is, however, certain, that the work contains a vast amount of curious information, the result of great research, conveyed in a most attractive style. The evidence by which our veteran anthropologist supports his theory may be defective, but it cannot be sneered down, and must be seriously refuted. As no translation of this interesting work has yet appeared in England,\* we feel sure that our readers will thank us for the subjoined version of some of the more important passages, which will convey a fair idea of the nature of the book. We trust that our author, now an octogenarian, may be spared to see the completion of his work. He has our warmest sympathy and good wishes for the success of his undertaking.

"The reasons which induced me to treat first of the bronze-age are, first, that little or nothing has been published amongst us on this subject; and secondly, because I have, during the last few years, chiefly, though not exclusively, been engaged in its study.

"I may be accused of boldness in expressing my conviction that our pretended knowledge as regards the pre-historic period of the Scandinavian North consists merely of philosophical speculations and poetical fictions, devoid of any real basis. It has, therefore, long been my wish to treat the pre-historical period of Scandinavia according to the same comparative method as applied to the so-called bronze age. I trust that every unprejudiced reader will admit that the results arrived at are not based upon loose hypotheses, but upon undeniable facts. Among the facts here, for the first time, I believe, adduced as proofs, I would mention the following:—1. That the emblems upon the bronze weapons are traceable to Phœnicia and Egypt, the places of their origin. 2. That the swords embellished with these emblems have short hilts, about two inches and two lines long, whilst the swords with hilts three inches long are not embellished with emblems, the cause of which I endeavoured to explain. 3. That bronze culture and Baal-worship were contemporaneous in the north. 4. That in Massilia, the home of Pytheas, Phœnician Baal-worship existed. 5. That the natural phenomena which Pytheas compares to a so-called sea-lung, occurs annually in the north. 6. That the Phœnicians introduced into the north agriculture, beer-brewing, and the preparation of mead. 7. That the Phœnicians had left behind traces of Oriental customs which

\* An excellent translation into German has been published in Hamburg, by Meissner.

have persisted in historical times in several regions of Northern and Western Europe. 8. That in the fourth century before Christ there existed in England a Baal-temple. And further, since Movers, in his learned interpretation of the Phœnician stone tablet in Marseilles, has shown the analogy subsisting between the Phœnician and Hebrew ritual, we are enabled to explain why the Phœnician temple-vessels found in the north are such as described in the Old Testament.

"In the first place, we shall demonstrate that the people who introduced bronze must have been of a stock foreign to the north and the west. Of this we can easily convince ourselves by examining a collection of bronze swords and the length of their hilts; for it is quite clear that these hilts must have been so shaped that the people could handle them. . . . On close examination we find that all swords with short hilts are embellished with ornamental decorations, whilst all swords with hilts three inches long have no embellishments, and are evidently of inferior workmanship. This fact, mentioned before, was fully confirmed by my recent examination of the museums of Stockholm, Lund, and Copenhagen; it cannot, therefore, be accidental. The length of the hilts necessarily indicates the breadth of the hands which grasped them. When we inquire which of these two kinds of swords were first introduced by the foreign colonists, we must come to the conclusion that it was that sort with short hilts and oriental embellishments, which may be traced to Phœnicia and Egypt, and cannot have originated in Europe. If it be assumed that the first colonists introduced long-hilted swords without ornamentation, and subsequently adorned them with oriental figures, I cannot conceive how they could *here* have acquired the oriental art, and how their hands, which were first broad like our own, should have shrunk and become narrow, and so have become apt to grasp the hilts of the ornamented swords. On the other hand, it is very conceivable that the colonists who arrived unmixed, bringing with them their embellished articles, may, and must in the course of time have become intermixed with the natives, and that their descendants have very gradually approached the physical conformation of the natives. That this alteration must have been effected very gradually is clear, and hence we find transitional swords. We find these swords *with* embellishments which approach in length the long-hilted sword; and swords *without* ornamentation, approaching, by the shortness of their hilts, the embellished swords. We are thus enabled, on examining a bronze collection, to distinguish the objects of the oldest period of the bronze age from those of an intermediate or recent period. . . . Fortunately, connected with the short-hilted swords, are the small bracelets of bronze and gold belonging to the bronze age. These bracelets are frequently so small that no adult

female of the present race inhabiting Western or Northern Europe could slip them over the hand. They thus prove that the females who wore them must have had hands proportionately as narrow as the males who used the short-hilted swords . . . . It results, therefore, from what has been stated in respect to the gradual changes in the bronze weapons, that the Phœnicians must have dwelt in the north for a long period until they became fused with the natives ; just as has been observed in other countries, where the Phœnicians settled among foreign peoples, and where they also ceased to constitute a separate nation whilst their language was also absorbed in the native tongue.

"A distinguished philologist of Dublin expressed his conviction that no Phœnicians had ever settled in Ireland, as no Semitic words are to be found in the old language of the country. I respect the conviction of every one, but I cannot share this. In Greece the only traces of the Phœnician language are found in some local names. There are also stated to exist many traces in Ireland which remind us of the Phœnicians and their worship. Some of these traces are also found in Sweden and Norway. In the vicinity of Marseilles there are found neither in the Italian nor in the French Semitic words, and yet it is known that at the last place Phœnician priests performed their worship in the Phœnician language.

"Somebody has objected, that though it may have been a people with narrow hands who introduced bronze, they may possibly have been a Hindoo people. To this I reply that the ornamentations betray their origin. We never found anything like it among Hindoo or Indo-Germanic peoples ; whilst among the Phœnicians and Egyptians we may trace them back to the remotest period as far as the memory of man reaches. I trust I have sufficiently proved that bronze has been introduced into the north by the Phœnicians ; that they themselves have brought it, and that they have dwelt here during a long period. . . . . The question may now be asked, When did the bronze period first commence in the north ? It is impossible to give a definite answer to this question ; though proofs have been already given that it commenced in the north at a much earlier period than was generally imagined. Apart from the proofs already given, that the Phœnicians traded at a very remote period with Western Europe, we have undoubted evidence of their having had, at an equally remote period, stations in southern Sweden. In our oldest peat bogs in Schonen, the same in which skeletons of the aurochs and tortoise are found, indicating a period not much distant from that in which the Coast of Schonen and that of Prussia were yet connected, we find flint implements and ornaments of amber, and intermixed with them glass pearls, which prove the barter trade of the Phœnicians with the

natives at a time when the aurochs and the tortoise still inhabited the country.\*

"It appears, therefore, to me, that the beginning of the bronze period, or its equivalent, the commencement of the trade of the Phœnicians in the north, lies so far back that we have no proper conception of it. This much seems certain, that the trade with the North was carried on by people from Tyre, and is much older than Carthage, which was founded eight hundred years before Christ. The trade was, however, continued by the Carthaginians and the Massilians. How long this period continued, and when it ceased in the north, cannot be determined. There are many grounds for assuming that it continued for a very long period."

## ON THE ORIGIN OF THE GYPSIES.

By RICHARD S. CHARNOCK, Ph.D., F.S.A., F.R.G.S., F.A.S.L.

THE last volume of Transactions of the Ethnological Society of London† contains among other subjects, a paper by Mr. Crawford, on the origin of the gypsies.

After asserting that the "Hindu origin of the gypsies has of late years received general credence, and to some extent justly", the author of the paper forthwith sets to work to demolish the same!!! Mr. Crawford says:

"The evidence yielded by physical form will certainly not prove the gypsies to be of Hindu origin. They are swarthier than the people they live among in Europe, and this is all that can be asserted. The Hindus are all more or less black; and assuredly no nation or tribe of Hindus now exists, or is even known to have ever existed, as fair as the gypsies of Europe. It is nowhere asserted that

\* "I may here quote what I said in *The Primitive Inhabitants of the North* concerning these glass pearls. 'They are of rude workmanship. The hole is not bored, but pierced when in fusion by an instrument of metal. There is no other trace of polishing than that the projecting edge is sometimes ground off. They indicate that glass-melting was yet in its infancy; but it can hardly be assumed that they were fabricated by the makers of stone implements. They clearly indicate a foreign people, which traded with the savage natives of Scandinavia, and bartered their glass, pearls, etc., for amber, fur, and other products, as is even now done in the barter trade between Europeans and the South Sea Islanders.' I wrote this more than twenty years ago, and, after further researches, find no reason to change anything in this passage."

† Vol. iii, New Series, p. 25, 1865.

the gypsies were a blacker people than they now are, when they first arrived in Europe above 400 years ago. In the features of the face the gypsies certainly resemble Hindus, but so also do all the genuine people of Europe. The Hindus have no other colour of the eyes, of the hair of the head, and of the beard than black. The most prevalent colour of these with the gypsies is dark, but not unfrequently there are to be seen with them grey and blue eyes, fair and even red hair—that variety in the colour of the integuments which is the especial characteristic of the European race. The gypsies are, in fact, a mixed race, and in blood far more Europeans than Hindus.”..... “There are no salient points of physical character that will give to the gypsies a descent from the Hindus, who themselves, but for the black colouring matter of the skin and other teguments might often pass for Europeans.”

Mr. Crawford seems to assume that as the gypsies are not absolutely black they cannot be of Hindoo origin. But the Hindoos can hardly be considered black. The only real black people are the negroes, the negroid nations of New Holland, Van Diemen's Land or New Guinea, the New Hebrides, and other islands of the South Sea. Many of the Hindoos inhabiting the northern part of Hindustan are of a light olive colour, and it is most probable that from the north of Hindustan the gypsies had their origin, passing into Europe through Afghanistan and Persia. But granted that all the Hindoos are really black, is it not possible that in the course of their wanderings the gypsies may have intermarried with people of a fairer complexion, and in time have themselves become fairer also? Considering that the colour of the skin depends to a great extent upon the texture of the cellular substance immediately under the skin, it is not at all unreasonable to suppose that a difference of food, climate, and other exterior circumstances may in time have had considerable effect upon the complexion of the gypsies. As an instance of the effect of climate and change of life on the human species, we need only compare the Yankees of the present day with the people of the mother country. It is not, however, so much a question whether the gypsies are of Hindu origin, as whether they originated in Hindustan, which contains upwards of ten millions of Arabs and Persians. Perhaps the author of the paper goes rather too far when he asserts that in the features of the face all the genuine people of Europe resemble Hindus. Except so far as they may all be said to belong to what is absurdly termed the Caucasian variety, such resemblance has not been shown. “It is in language, then” (says Mr. Crawford), “chiefly that we must rely for evidence of the Hindu origin of the gypsies, and even this is neither very full nor satisfactory. The dialects spoken by the different tribes of this people, although agreeing in several words, differ very materially from each other. They are, one and all, rude and imperfect jargons; for the



gypsies arrived in Europe totally ignorant of letters, and have, consequently no record, hardly even a tradition of their own origin." The author of the paper would seem here to admit that the gypsies did not originate in Europe ; and if they did not, from what other part of the globe did they have their origin ? We have assuredly no evidence of their having come from America ; and their African descent is not much more probable. After referring to the intermixture of foreign terms in the gypsy language, and to parts of Hindustan the "present population of which some eighty millions as not likely to have furnished the emigrants that finally became gypsies," Mr. Crawford says "the Hindus of the Punjab, of Moultan, and of Scinde, being border nations, and speaking distinct languages, are naturally those to whom European writers have been disposed to ascribe the origin of the gypsies. The first of these, speaking the Hindi or Hindustanee tongue, the most current of all the languages of India, seems upon the whole, the most likely, etc., etc. Mr. Crawford does not seem to be aware of the fact that Hindí and Hindústání are quite different languages. There is indeed as much difference between the latter and the former, as between the English of the present day, and its base, the Anglo-Saxon. In the Hindí—a language of five dialects, spoken in Bahar, Bhojpur, Benares, Bindraban, and Delhi—nine tenths of the words are of Sanskrit origin ; whereas in the Ūrdu or Hindústání, although based upon one of the Hindí dialects (perhaps the *Brája Bháká*) and the Prakrit, at least one third of the words are derived from Arabic and Persian ; and the remainder from Guzaráthí, Karnáta, Tamil, Telugu, Malayálam, Turkish, Hebrew, Portuguese, Greek, Latin, and even English. After giving a list of the gypsy words, in all 123, which he considers traceable to Hindí or Hindústání, Mr. Crawford says :

"Neither the number nor nature of the Indian words, be they Sanskrit or Hindi,—and I am not aware that there are any other than these found in the gypsy language, can warrant us in concluding that it is an Indian tongue. They are, in fact, not greater in number or in character—not more essential, than are the Malayan words in the languages of the people of the South Sea Islands, or in the language of Madagascar ; tongues fundamentally different from the Malay, as well as from each other, and spoken by men different in race. I may, indeed, further add that the Indian words which exist in the language of the gypsies are by no means so numerous as the Latin ones which are found in the Welsh and Armorican, or in the Irish or Gaelic. The most copious vocabularies of the gypsy speech hitherto made do not amount to a complete language at all, nor indeed to the fourth part of any tongue, however meagre and rude. Dictionaries have been already framed of the language of the cannibals of New Zealand, which contain three times as many words as the vocabulary of Mr. Borrow, the fullest that has come under my notice."

The words referred to by Mr. Crawford as of Hindu origin, have been derived, as he says, from the vocabulary of Borrow,\* which, at a rough guess hardly contains more than 2,260 words; whereas, had the author of the paper consulted Bischoff's *Deutsch Zigeunerisches Wörterbuch*,† he would have found that the gypsy language contains at least 4,500 words, which is not only a fourth as many words as some languages, but considerably more words than some languages.‡ Of these 4,500 words, at least one fourth may be traced to the Hindústání, Bengálí, Sanscrit, Malabar, Malay, etc.; the remainder being derived principally from the Turkish, Greek, Latin, Coptic, Slavonic, Wallachian, German, etc., etc. Now, when it is taken into account that the gypsies have been wandering among peoples speaking different languages for upwards of four centuries, it is really surprising that they should have preserved so much of their native tongue. Grellman, referring to a vocabulary contained in his work, says:—

“The words only have been learnt from the gypsies within these very few years; consequently at a season when they have been near four centuries away from Hindustan among people who talked languages totally different, and in which the gypsies themselves conversed. Under the constant and so long continued influx of these languages their own must necessarily have suffered great alteration, more especially as they are a people entirely raw, without either writing or literature. One word after another must have crept, from the others, into their language; consequently, by the frequent use of foreign words the gypsy word of the same sign was more rarely used, and by degrees entirely lost from their recollection, by which circumstance the original composition of their language became entirely deranged; which is the reason why, as anybody may convince themselves by inspection, all kinds of languages and idioms, Turkish, Grecian, Latin, Wallachian, Hungarian, Slavonic, German, and others make part of the above vocabulary,” etc., etc.§

When I assert that at least one fourth part of the gypsy language may be traced to the Indian languages, I am, perhaps, rather under the mark. In the Mithridates of Adelung|| are given three forms of the Lord's prayer in gypsy, one of which is taken from a MS. in the University of Göttingen. The latter contains 64 words, 40 of which may be traced to the Hindústání and other languages of Hindustan. Of the remaining 24 six occur twice, so that there are only 18 words unaccounted for. If Mr. Crawford doubts this fact, I refer him to Adelung. Did the

\* *Gypsies of Spain.*

† Ilmenau, 1827.

‡ The Manchou contains not more than 16,000 words; the Malay, 13,000; the Hebrew, 5,642; the Hindi, 6,000; and the Egyptian, 4,000.

§ *Historischer Versuchungen über die Zigeuner* (Zweite Ausg.), Götting, 1787, of which there are translations in French and English.

|| By Vater.

gypsies become acquainted with the languages of Hindustan in Europe ? It would be absurd to suppose a people whose features, manners, customs, etc., bespeak their oriental origin, suddenly appearing in Europe (like the armed men who sprang from the dragon's teeth, sown by Cadmus), and speaking languages of Indian origin. Mr. Crawford tells us that the Indian words which exist in the gypsy language are by no means so numerous as the Latin ones found in the Welsh and Armorican, or in the Irish or Gaelic. The comparison is absurd when it is taken into account that the Irish contains 50,000 words, the Welsh about 40,000, the Gaelic about 23,000, while the gypsy does not exceed 4,500. But what would it prove ? Say that not more than one-eighth of the gypsy language is of Indian origin, and that one half of the words found in the Celtic languages may be traced to the Latin (or rather Greek and Latin), still they are languages. Indeed, considering the ignorance displayed by Mr. Crawford in his paper on the Celtic languages, read a short time since before the British Association, perhaps the less Mr. Crawford says on those languages the better. The author of the paper further says :—

“There are absent from it (the gypsy language) also terms which ought to be Indian, if the gypsy language were of Indian origin. Thus the name for rice and cotton, the peculiar products of India, are represented, not by Hindu words, but by terms of untraceable origin.\* It is the same with the names for wheat, iron, copper, brass, tin ; objects familiar to the Hindus in any age that we may fancy the gypsies to have emigrated from India. In the same manner the days of the week are not Hindu, but either fabricated or drawn from some unknown tongue. We miss altogether the names of the ‘heaven’ and the ‘hell’ of Hindu mythology, although they are found in the languages of the remote islands of the Indian Ocean.”

As I have before said, when we take into account the length of time that the gypsies have sojourned in Europe, and the numerous languages and dialects in which they have been compelled to converse, it does not seem at all unreasonable that they should have ceased to use many of their native words, and that they should have borrowed others from the nations among which they have dwelt. Although the gypsies have no native name for the metals enumerated, nor for wheat, rice, or cotton ; they have words for gold, silver, barley, sugar, salt, milk, water, and fish, all derived from the Hindústání. I do not know whether the gypsies wear shirts, and I cannot, therefore, say if they have any use for the word cotton ; and they doubtless prefer a nice young pullet from the farm-yard to either rice or oatmeal.

\* Why untraceable ? The Gypsy word for “rice” is *reiso*, which in Ger. is *reiz*, Lat. *oryza*, Gr. *ορυζα*, Eth. *rez*, Arab *aroz*.

"The names which the gypsies have assumed themselves, or which have been given to them by strangers (says Mr. Crawford) will not much help us in tracing their origin. Not one of them can be traced to any Hindu language." . . . "The farthest country east to which we can trace a specific name for the gypsies, is Persia, through which they must have passed in their transit, and in which it is known that they sojourned. Their name in Persia is Zengari and Zingarie; this, through the Turkish which has adopted it, is the source of most of the names by which they are called in the languages of Europe, however much these may be corrupted. Thus in Moldavia we have them as Tzigani, in Hungarian as Chingari, in Germany as Zingener (Zigeuner?), in Italian under the different form of Zingari, Zingani, Cingari, and Cingani; and in Portuguese Cigari. I think it even highly probable that the most frequent name which the gypsies give to themselves, Sicalo or Sicaloro, is no other than a gross corruption of the Persian word." . . . "In Turkey they take the name of Rum, which is but the Persian corruption of the Latin Roma, applied by oriental nations to the Turkish empire."

The appellation *Roma*, however, rather signifies "men", and is most probably derived from the Coptic. The gypsies likewise call themselves Sinte, perhaps as coming from the banks of the Sind<sup>h</sup>, i.e., the Indus;\* and Kola, according to some, from the Hindí *kālī*, black; but this latter name may be the same with Koli, Koolí, Kúlí, erroneously Kollee, the appellation of a wild and predatory tribe in the forests and wilds of Guzerat; or, perhaps, even from the Sanscrit *kula*, a family, race, tribe. In the eastern provinces of Khorassan the gypsies bear the name of Karashmár, and in some parts of India Luli or Luri; also Kauli (a supposed corruption of Kabuli, i.e., one from Cabul); and Karáchi. The gypsies of Europe correspond in their habits with the curious tribes called Nuts or Nats, who live by feats of dexterity, sleight of hand, fortune-telling, and the like; and are numerous in Bengal, Behar, Bundelkund, Malwah, and Guzerat. They are commonly known (says a late writer) by three names—1, Nat,† a rogue, one who leads a wandering life; 2, Beriā, a dancer or tumbler, Berin, a female dancer or songstress; 3, Bāzigar, a player or juggler. The two first are Hindí names expressive of their characters; the third is a Mohammedan or Urdú appellation, of the same tribe, from the Persian *bāzi*, play, *gar*, an affix of agency. The Nuts have two languages; one for the use of the craftsmen of the sect; the other, general among men, women, and children; both are based upon the Hindústání. The first in general is a mere transposi-

\* The Gypsies, in their language, call themselves Sind; and their language has been found to resemble some of the dialects of India.—*Bombay Transactions*, 1820.

† Sanskrit *nata*, a dancer, actor, tumbler, a public performer.

tion or change of syllables ; the second is a systematic conversion of a few letters. The following is a specimen of both :—

<i>Hindústání.</i>	<i>Form 1.</i>	<i>Form 2.</i>	<i>English.</i>
Ag	Ga	Kag	Fire
G'hur	Rug,hu	R,hur	House
Sona	Na-so	Nona	Gold
Mas	Sama	Nas	Mouth
Omr	Muroo	Komr	Age

According to Richardson, the Panchpeeree or Budeea are considered as appertaining to the same class as the Bazeegurs, and are also termed *Nuts*. They differ from the Bazeegurs in many points ; though probably in their manners there will be found a stronger similitude to the gypsies of Europe, than in those of any other tribe.

The gypsies also resemble some of the tribes of Hindustan in their fondness for carrion.

A writer in *As. Res.*, vol. vii, 179, says: "Both the gypsies and the Nuts are generally a wandering race of beings, seldom having a fixed habitation. They have each a language peculiar to themselves. That of the gypsies is undoubtedly a species of Hindoostanee, and so is that of the Nuts. In Europe it answers all the purpose of concealment. Here a conversion of its syllables becomes necessary. The gypsies have their king ; the Nuts their *Nardar Boulah* ; they are equally formed into companies, and their peculiar employments are exactly similar ; viz., dancing, singing, music, palmistry, quackery, dancers of monkeys, bears and snakes. The two latter professions, from local causes, are peculiar to the Nuts. They are both considered as thieves, at least that division of the Nuts whose manners come nearest the gypsies. In matters of religion they appear equally indifferent, and as for food, we have seen that neither the gypsies nor the Budeea Nuts are very choice in that particular, and though I have not obtained any satisfactory proof of their eating human flesh, I do not find it easy to divest my mind of its suspicion on this head. Indeed one would think the stomach that could receive without nausea a piece of putrid jackal could not well retain any qualms in the selection of animal food. Though in the *Encyclopædia Britannica*, Grellmann's theory is thought slightly of, the similarity of language being deemed but inconclusive evidence, yet in this instance, even in opposition to such authority, I will venture to consider it as forming a basis of the most substantial kind. It is not the accidental coincidence of a few words, but the whole vocabulary he produces, differs not so much from the common *Hindoostanee*, as provincial dialects of the same country usually do from each other. Grellmann, from a want of knowledge in the *Hindoostanee*, lost many opportunities of producing the proper word in comparison with the gypsy one."

Another writer says: "In Turkey and the Levant the gypsies are called *Tchingenes*. It is now generally believed that the gypsies migrated from India at the time of Timur Beg; that in their own country they belonged to one of the lowest castes, which resemble them in their appearance, habits, and especially in their fondness for carrion and other unclean food. Pottinger, in his travels, saw some tribes resembling them in Beloochistan. There is a tribe near the mouths of the Indus called *Tchinganes*." Mr. Crawford tells us that "the language of the gypsies contains a very few words which are Hindi or Hindustani, without being at the same time Sanskrit; while the majority of the Indian words are both Sanskrit and Hindi, but in the mutilated form of the latter." Does the reader comprehend this? I do not. One of the points which Mr. Crawford says is put forward as a reason of the supposed Indian origin of the gypsies, is the history of their migrations, but this is assuming the whole question. Mr. Crawford commences with statements of others with which he seems partially to agree, but which he afterwards endeavours to refute, and concludes his paper without arriving at any conclusion as to the origin of the gypsies.

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#### PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL SOCIETY.\*

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At the meeting of May 5, 1864, M. Broca gave a description of the deformed cranium found at Voiteur, which he observed reminds us of the most extravagant deformations seen in the crania of the ancient inhabitants of America. M. Bonté presented to the Society a treatise by M. Joulin *On the Pelvis of Mammals*. He said that three cardinal facts were the results arrived at by M. Joulin as regarded anthropology. First, That the human pelvis, even in the most degraded races, differed completely from that of the Simian tribes, including the anthropomorphous group; secondly, That the pelvis of the negroes had no ways that animal form ascribed to it by Vrolik and his followers; and thirdly, which is more important, That it is absolutely incorrect, that in the negro race the antero-posterior diameter of the superior inlet, is more developed than the transverse diameter (contrary to what is observed in the white race); that the *predominance is transverse in all human races*, and that the varieties of the shape of the pelvis in animals do not admit of making this anatomical character the base of any classification.

\* Continued from vol. iii, p. 325.

Vrolik and Weber have asserted the contrary, but M. Joulin says, that they are in contradiction with the elements they have themselves furnished.

M. Pruner-Bey, in his recent work on the negro, agrees with Vrolik, Weber and Prichard, though he expresses his opinions in different terms. In his *Mémoire* (p. 298) he observes, "The cranium, imperfectly balanced, is elongated from in front backwards and laterally compressed, as is the thorax and the pelvis." He adds (p. 304), "The pelvis is remarkable for its lateral compression; the bones are very massive, the cavity is cuneiform, and inclined from the front backwards." Finally (p. 336) he says, "The lateral compression of the thorax and the pelvis, etc., are characteristic features of the Nigritian race." Now it is evident that there can be no lateral compression without the predominance of the antero-posterior diameter.

M. Joulin hoped that the Society might afford him an early opportunity of proving his assertions, not from books but from nature itself.

The Secretary then gave an analysis of Dr. Thurnam's important treatise "On the two chief forms of Ancient British and Gaulish Crania," which gave rise to the following interesting discussion.

M. Lagneau wished to know whether Dr. Thurnam in his *Mémoires* made mention of the local distribution of the two kinds of monuments in the British islands; for the presence of round barrows or tumuli in the south-eastern region of England and the south of Ireland, would give support to Dr. Thurnam's opinion that the latter were the work of a people come from Belgium. It is known that tribes who settled in the south-east of England had Belgian names. One of these peoples called themselves Belgians; another bore the name Atrebates, a tribe of which latter inhabited Belgian Gaul (Artois). In Ireland, also, the Firbolg occupied the south of that island.

M. Broca regretted, that owing to the absence of a map he was unable to follow the geographical indications of Dr. Thurnam, and to give a satisfactory reply to M. Lagneau's question.

M. Pruner-Bey said that Dr. Thurnam's treatise had raised doubts about the solution of certain questions which we had reason to believe had long been solved; that he had long been acquainted with the ideas of this his eminent colleague, and that he found it the more necessary to refute them since they had found an advocate in the person of their respected general secretary. M. Pruner-Bey then read the following paper.

Touching the question of the pre-existence in Europe of brachycephali, there is, as in all questions relating to the races of mankind, much that is certain, much that is probable, and much that is uncer-

tain. What is certain has been clearly established in Scandinavia. There the brachycephali have preceded the dolichocephalic peoples. There the former are characteristic of the stone period, which is separated from the other periods by the absence of domestic animals, excepting the dog. Consequently the brachycephalic skulls, the absence of metals and domestic animals, correspond with the features of the stone period in the North.

There are in Southern Europe positive traces of an identically similar stone period. Implements made exclusively of stone or bone, no traces of domestic animals, fragments of human bones, belonging chiefly to a brachycephalic race, are found in France, Belgium, etc. But, as regards the succession of ages in Western Europe, science does not possess facts so positive as those relating to the North. I mean that, on leaving the field of palæontology, the separation of ages cannot be so clearly demonstrated. On the contrary, we find here the marks of a transition; and here it is that the confusion concerning the succession of human types commences. In point of fact, no sooner do objects of metal appear, than they are found either intermixed with stone implements, or, where they are isolated, they are also found associated with types of crania resulting from intermixture of the two races.

Accident may give rise to error. Supposing, for instance, that in England or elsewhere there are found in graves a certain number of elongated skulls exclusively associated with stone and bone implements, and, inversely, brachycephalic crania accompanied by metal objects, we might then feel authorised to assert that the dolichocephali had preceded the others. Has this really happened? Nearly all English anthropologists support this theory; they believe that the order of succession is in their country *inversely* that of Denmark. But this theory is open to objection.

1. The Celts of the British Islands have used stone weapons down to an epoch very nearly approaching our own. In Irish legends the "leah-mileadh" (sling-stone carried in the girdle) plays an important part in the poesy of the bards. The various terms for spear are also reducible to the root signifying stone. Consequently the association of stone implements with the elongated crania of the British Islands, only proves to me the Celtic origin of these crania.

2. As regards the pre-existence of the brachycephalic type in these islands, the facts relating to this question are, to the best of my knowledge, not numerous, and are often advanced by authors under the influence of preconceived opinions. Thus Mr. Wilde, the founder of anthropology in Ireland, an eminent *savant*, hesitates to accord to the brachycephali pre-existence in Ireland, chiefly on account of the development of the forehead being greater in the brachycephali than in



the dolichocephali. Similar views have guided Eschricht in characterising the Danish brachycephalic type; he considered it as of Caucasian origin. It is here noteworthy, that it is precisely in those Irish graves which most resemble the Scandinavian graves of the stone period that, so far as I know, no human bones were found; thus the question, as regards Ireland, is still an open one. Prehistoric Scotland has been revealed to us by the remarkable work of Dr. Wilson. This author acknowledges the presence of two cranial types in his country in prehistoric times. He has given a good table, in which he classifies the crania which appear to him typical of the extremes. But, whilst he admits the prehistoric existence of these two types, he cannot get rid of the historical race of the Celts; and he consequently places his Celtic type between the two extremes, and associates with them very dolichocephalic crania. This procedure is very significant. It shows, on the one hand, that, in consigning the true Celtic type to the prehistoric races, we must make use of the intermixture between the Celts and brachycephali. Mr. Wilson, nevertheless, speaks with the reserve of a *savant* on the question of the pre-existence of either type, keeping the question open until we are in possession of a greater number of facts; and he is quite right.

3. Very recently the London Anthropological Society has published in its *Review* (February), a fact which alone clearly proves the existence of a brachycephalic race in Scotland during the stone period. The skeleton found at Bennet Hill, the cranium of which was carefully compared with Danish crania by our eminent colleague, Mr. Busk, furnishes another proof of the great caution needed in the treatment of the present question. We have here a brachycephalic cranium approaching very nearly the Danish type, also rude flint implements, *kjökken-møddings*, as in Denmark; in short, all the characters which tend to establish the high antiquity of the brachycephalic race in Scotland.

4. As regards England, I cannot take upon myself to reply to so conscientious an observer as Dr. Thurnam, and one who deserves so well of our science. Nevertheless, the proofs hitherto furnished as regards the inverse order in which England is said to have been peopled, compared with Denmark, appear to me insufficient. So long as the successive ages in that island are indicated solely by implements, I must, for reasons already given, reserve my opinion. Supposing, even, that after the arrival of the Celts in England, some brachycephalic colonists, acquainted with the use of metals, had then arrived in England, say from France or Spain; such exceptional cases would by no means tell against the general and well established order in which Western Europe had been peopled.

It were desirable that the same importance should be attached to

palæontological facts in England, as is now done in France; the question might then receive a solution, tardy, perhaps, but positive. We may rest assured that such will be the case, for our sister society of London contains all the elements requisite for the definitive solution of the problem under consideration.

M. Broca said that it was not without a certain astonishment that he saw M. Pruner-Bey approach the tribune, with a written paper in reply to his analysis of Dr. Thurnam's memoir. He would, in the first place, tell M. Pruner-Bey that, in his quality of secretary-general, it was his duty to give a faithful account of Dr. Thurnam's opinions, without, however, constituting himself the advocate of the views of the honourable English anthropologist. He fully concurred in some of the opinions enunciated, but entirely dissented from others. Resuming now his character as a member of the society, he would enter into the discussion on his own account.

I cannot accept, continued M. Broca, the explanations of M. Pruner-Bey. The stone age is not a period of which the beginning entirely resembles the termination. It had its distinct phases. At first, rudely worked stones occur, without any vestiges of domestic animals; then are found better polished stones, together with the bones of animals now no longer existing in our climate (the reindeer); and finally stone implements of finer workmanship, no longer associated with the bones of the reindeer, but with those of domestic animals.

Whenever a grave contains human remains in either of the above conditions, without any traces of metal, this appears to me incontestable proof that it belongs to the stone period. If this applied only to a single grave or a small number of graves, I could understand the doubts; but such is not the case. In the north as well as in the south, in Central as well as Western Europe, a large number of such graves are found, all resembling each other, all containing the same stone implements, worked in the same fashion, with or without the traces of animals, domesticated or otherwise. The absence of metals cannot, therefore, be ascribed to accident; and it appears to be demonstrated, that these various graves are indicative of the progressive civilisation of peoples acquainted with the use of stone only. So far from denying, I am rather disposed to believe, that the stone period is connected with the bronze period by a transitional epoch, which enables us to find domestic animals and stone implements associated with metals; for which reason I have put the question to our archaeological members, whether their researches have established as a certainty that the first Indo-European invaders knew the use of metals? Their reply was sufficiently favourable to allow of the assumption that the transition period then commenced. It seems to me, therefore,

logical to infer that, if the graves devoid of metals contain dolichocephalic types, this dolichocephaly is foreign to the so-called Celtic period, and that it is at least contemporaneous with the brachycephalic types found in Sweden and Denmark. It follows, therefore, that the dichotomy of Retzius must be accepted with great reserve—an opinion already expressed by me, on the occasion of my depositing in the museum the sixty Basque crania which M. Velasco and myself had collected. Contrary to a long prevalent idea that the Basques were brachycephalic, it has been demonstrated by actual measurement, that the dolichocephalic type greatly predominated. As these crania came from a locality in itself a sufficient guarantee of the authenticity of their origin, I still retain my opinion, despite the observations of M. Pruner-Bey, who only assimilated one purely brachycephalic cranium to the Iberian type, referring those bearing a decided dolichocephalic character to the Celtic type, probably derived from Ireland or France, and comprising under the name of Celto-Iberians all cases where dolichocephalic shape is less distinct.

Our colleague has a very simple theory. Every pre-Celtic cranium must be brachycephalic, and every dolichocephalic cranium must be Celtic. The Neanderthal man is a Celt, because he is dolichocephalic; the woman of the dolmen of Meudon is of the Celtic race, for the same reason; whilst the brachycephalic man in her company is of the pre-Celtic race. The dolichocephalic cranium of Chamant is also Celtic. Thus the Celts have with us preceded the bronze age. M. Pruner-Bey should tell us clearly what he thinks of this. The Basques ought to be brachycephalic, since they speak a pre-Celtic language. According to his theory, the Basques of Z——, who speak Basque but are dolichocephalic, immediately become a colony of Celts; the dolichocephali of Britain become Celts, simply because they are dolichocephalic; the long barrows of the stone period, in which only dolichocephalic crania are found, immediately become Celtic monuments. The convictions of our colleague are so decided, that he found himself in a condition to refute the memoir of Dr. Thurnam when it was still unpublished. And upon what are his convictions based? Upon a theory which itself is questionable.

M. Pruner-Bey: I shall examine the arguments of M. Broca successively, but in an inverse order. As regards bronze, and, I may add, copper, as a characteristic of the Celtic period, I entirely agree with the archaeologists, as stated in the note which provoked the reply of our honourable colleague. I am still of opinion that human crania, when they present in the cerebral skull as well as in the face a type so definite as that of the Celts, are at least as indicative, and even still more so, than the objects found along with them; and, from my

former writings, it will soon appear that I do not consider a cranium Celtic simply because it is dolichocephalic. As regards the stone period, and the inference to be drawn from the fact that stone weapons are in certain graves found with dolichocephalic skeletons, I must enter into some details to explain my doubts on this subject. The circumstance of our finding in certain ancient graves stone implements associated with bronze instruments, proves that the two periods were not abruptly separated; in other words, we must admit a transition period. This is sufficiently proved by the researches of Mr. Wilde in Ireland. He has, in fact, not only demonstrated the existence of a large quantity of copper instruments, but he has established the fact that the most usual and the rudest among them are imitations of analogous stone implements. From these two series of facts, we may infer as follows: Although the Celts were acquainted with the application of the above metals, it does not follow that in our latitude they made exclusive use of them; and consequently, if skeletons, in my opinion Celtic, are associated with stone weapons, it does not necessarily follow that we are face to face with a stone period pure and simple—an age which is lost in the darkness of night, while its end almost approaches our period. In point of fact, the inhabitants of Great Britain made partial use of stone weapons in the conflict with William the Conqueror, and even the French had stone-axes; whilst the stone-hammer had scarcely commenced to disappear to Germany. Moreover, might not the preference have been given to stone weapons in selecting such as were to be deposited in the graves of the departed?

I must recur to the sixty Basque crania, for which the society is indebted to the generosity of our Secretary General. This collection consists of three classes of crania, the first and smaller portion is brachycephalic; the second forming the majority is dolichocephalic; whilst the third, resulting probably from a mixture of the two extreme types, is mesaticephalic. The results of this classification accord completely with what we have been told by competent observers (M. de Gobineau, M. de Montague) on the multiplicity of the Basque type. M. d'Abbadie, himself a Basque, and a scrupulous and practised observer, maintains that there exists no uniform Basque type, and that he had distinguished at least three which differ by the *ensemble* of their characters. Is this anything else than the incontestable indication of intermixture? Moreover, I have myself studied the history of that country, and have also been informed by the *savant* just cited that, however exclusive the Basques may be as a general rule, they have accorded the right of citizenship to the Irish, and in fact an Irishman once established amongst them enjoys all the rights of a native. All

this leads me to presume that the brachycephalic stock represented, both in the crania and in the living in the Basque provinces, is that of the ancient Iberians, and that the elongated crania there found in certain spots are of Celtic origin. I have thus a wider basis than had the late M. Retzius.

There is, however, a means of coming to an understanding on the question of the dolichocephali whom M. Broca and Thurnam consider as pre-Celtic. Let those who are of this opinion first clearly define the Celtic type, and then show us by one of the craniometric methods now adopted the differences which separate their pre-Celtic dolichocephali from the genuine Celts. Then only shall we be able to discuss the reality and the value of these differences, and place this interesting question on a solid basis. But as long as we employ only general terms we shall be far from attaining our object. For my part I have always abstained from complicating these questions, and until I am better informed I shall maintain, in reliance upon history, that the west of Europe was and is still preferentially occupied by Iberians and Celts differing as regards crania, stature, hair, etc. As regards the Celts, I have already had occasion to demonstrate that their crania, though dolichocephalic, on the whole, present, at least, three varieties. The ancient brachycephali, in the study of which I am now engaged so far as the materials at hand permit, and shall have the honour shortly to submit the results to the society, also present different states according to the epoch to which they belong. These variations are, as among the Celts, met with over the whole area formerly occupied by this group; we are not, however, on that account justified in giving an opinion on the unity or plurality of this stock. One word more as to the proper or improper application of the term stone-age to the relics found in graves. I admit that appearances are against me when I contest the propriety of the term, when by the side of the skeleton stone implements alone are found. Nevertheless, the archaeological and historical considerations which I have just indicated justify my doubts in lack of better information, and, on the whole, I believe that craniology is entitled to the last word on this subject.

M. Leguay: I concur in the opinions expressed by M. Broca as regards the monuments of the stone period, and I dissent completely from the views of M. Pruner-Bey. I do not agree with those who hold that there was one, and only one, stone period. As regards France, while accepting the theory that the arrival of the Celts, or rather that the period called Celtic, coincides with the arrival of domestic animals, my opinion is that the latter have preceded by many centuries the introduction or the discovery of bronze, which it is believed was introduced by the Celts or *pseudo-Celts*.

Three, I might say four, distinct stone periods have hitherto come under our observation. They may be determined by the nature and the comparison of the various objects they have produced. Two of these are palæontological.

1. The first, contemporaneous with the quaternary strata, preceded the great revolutions which have transformed the surface of that portion of the globe we inhabit; I pass over, as not sufficiently proved, the recent discoveries of M. Desnoyers in the tertiary strata.

2. The second stone period, much nearer to us, followed the above revolutions. This epoch, contemporaneous with extinct as well as some existing animals, has left numerous traces in the caverns. The presence of the rein-deer, *ursus spelæus* and large *felidæ* characterise this epoch. The horse and the deer also were not unknown.

3. The third succeeding age may be subdivided into two periods :  
*a.* The one prehistoric, entirely resembling the preceding age as regards the material, viz., *flints*, differs from it completely as to the form. The horse and the deer only now and then occurring in the preceding age now appear under all circumstances with the *Bos primigenius* and a large number of domestic or wild animals. The reindeer has disappeared, or rather it has not yet been met with. *b.* The second period approaching to or forming part of the so-called Celtic or bronze period shows only domestic animals. Was bronze already known at this period? I cannot tell; the graves of this period do not contain any. This last period has continued as a stone period during the bronze age, during the iron age in the time of the Romans, and even later flint was used for a variety of purposes. . . .

M. Dureau said that he shared M. Pruner-Bey's opinion that the stone age can be much better studied in the north of Europe, Denmark and Sweden. Concerning the division of the stone period into several epochs, he believes it impossible, in the present condition of archæology, clearly to establish such a division.

M. Leguay replied that the stone periods might be determined by two modes, the fauna and the flints, the monuments and the implements of each epoch. The flints always coincide with the fauna. In the first age which can be determined by the fauna, or rather by geology, the flints contemporaneous with antediluvian animals are in harmony with them. We then find the rude hatchets in the deposits of the quaternary epoch. Some knives and other flints are found with them, but in a rudimentary state, and when they are compared with those of the succeeding period it is immediately seen that they cannot have been produced by the same individuals,—this is the age so well studied by M. Boucher de Perthes.

The second age is characterised by flints of far superior workmanship.

It might, perhaps, be called the knife age, for knives are found in such numbers that the other implements form, as it were, the exceptions. What mainly characterises this epoch is the presence of carved bones of the reindeer and stag antlers. An attentive study of these objects shows that there existed an artistic sense sufficiently developed to denote a relatively advanced civilisation which is not shewn in the succeeding age. The fauna of this period distinguishes it from that which succeeded it quite as clearly as the flint implements. Pottery is absent. It ought to exist, and its disappearance is a fact which still requires explanation. The numerous discoveries of this epoch have been made by Messrs. Lartet, Christy, de Vibraye, Garrigou, Brouillet, Millet, etc.

The third age comprises two divisions, which differ little as regards the flint implements and the pottery. The flints of the first portion resemble those of the second age, but they are associated with coarse pottery mixed with pebbles, cinders, and even bones, whilst the second portion of this period is distinguished by well-finished objects, and those polished hatchets so much sought after. . . . In the first division of this age occur the dolmens and other monuments of the so-called Celtic period. . . .

From these facts the different stone periods may in a general way be determined.

M. Gustave Lagneau then read a paper on the deformed cranium found at Voiteur.

At a meeting of the society, May 19th, M. Lucien Biart, correspondent at Orizaba, sent from Mexico a chest containing fossils and two crania obtained from the grotto d'Escamela at Orizaba.

M. Perier then read the following note "On the Annamites of Lower Cochinchina," written by a physician :—

Lower Cochinchina is, in consequence of several revolutions, inhabited by a mixed population. There are met with in all parts of the Annam Empire Chinese and natives, Kambodjians, Fankins, etc. The primitive population still exists ; it possesses a peculiar physiognomy, apart from the characters common to all the Indo-Chinese races. The general form of the head is cylindrical, the top is flattened ; the antero-posterior diameter is smaller than is the case with Europeans, and an examination of the cranium shews that the occipital foramen is behind the median line.

The face is flat and broad, owing to the development of the cheek-bones, which are prominent and rounded ; forehead broad and arched, eyes small, nose flattened at the root, mouth large, lips thick, inferior jaw strong, specially below the zygomatic arches. Beard weak, and appears very late ; hair jet black.

The trunk is uniformly square, so to speak, from head to foot. The

Annamites have, as it were, no figure. The pelvis is very wide, which imparts to their walk a somewhat theatrical swagger. The women, as is natural, have this part of the body more developed than the males, and this conformation is frequently met with on so exaggerated a scale that the axes of rotation of the thighs are so wide apart that each step is accompanied with a double movement of rotation in a semicircle right and left.

The limbs are not deficient in development, specially the thighs, which, in some cases, seem as thick as those of Europeans. But the muscles, though voluminous, are flabby and far from being an indication of strength. A peculiar structure of the big toe on each foot is often met with; these diverge from the others to such an extent, that when the feet are close to each other, the two big toes overlap. So placed, the toes seem susceptible of a certain education, and certain Annamites frequently use the foot as a prehensile organ. The colour of the skin is yellowish, and the stature low, which, combined with the absence of the beard, give them a juvenile appearance. It is said that they live to an advanced age, and according to the natives centenarians are by no means rare. They have less tendency to grow fat than the rest of Indo-Chinese. Obesity is, however, still considered a beauty amongst them as among all their race.

The Annamite has a gay and noisy disposition, he is intelligent and adroit, but lazy and a liar. Under the influence of fear he becomes humble, cringing and passively obedient to an incredible degree. With them the noble organ is not the heart, but the liver; of a brave man they say: he has got a liver. (Zinguetti, *Méd. maj. Une année en Cochinchine, dans le Recueil de Mém. de Méd. de Chirurg. et de Pharm. Milit.*, Fevr. 1864, t. xi, p. 98-100.)

*Recruits for the Army.*—Dr. Guibert, of Saint Brieuc, transmitted to the society some remarks relative to the discussion on the examination of conscripts, which had taken place at the meeting of February 4. M. Broca, M. Boudin, and others, who have written on exemptions from military service by reason of not coming up to standard, have based their calculations on the total number of the conscripts examined which has been compared with that of the number rejected for being below the fixed height. Dr. Guibert is of opinion that only the latter number should be compared with the number of conscripts declared fit for service, inasmuch as the persons exempt from service on account of diseases and infirmities are not measured at all.

M. Boudin and M. Broca both concurred in the opinion expressed by Dr. Guibert.

*Plaster Casts.*—M. Broca, in presenting to the society six plaster casts of crania, which he had ordered for the purpose of facilitating



exchanges with other societies, called attention to errors which might arise as regards measurement. That plaster expanded was well-known, but he was not aware that it took place to the extent which he found to be the case. In comparing the six casts with the six original crania he found the former considerably larger than the latter. All the diameters had increased, the antero-posterior had, for instance, become longer by from two to three millimeters. And what is worse, the increase of volume is not proportionate to the volume of the crania; he suggested, therefore, that when casts were sent they should be accompanied by a table showing the principal dimensions of the original crania; this he had just done in the case of some casts sent to the London Anthropological Society.

M. Gratiolet said that the expansion varied according to the degree of purity and hardness of the plaster, he would, therefore, ask whether the result indicated by M. Broca may not fairly be attributed to the inexperience of the moulder.

M. Broca replied that the casts had been made by M. Talrich, the modeller to the faculty of medicine; the casts were otherwise excellent; he thinks, therefore, that the dilatation had taken place after the casts had been taken from the moulds. At all events, whether the differences subsisting between the models and the casts depend on the skill of the moulder or not, the casts should always be accompanied with a table of the measurements of the original crania.

M. de Quatrefages then read a paper "*On the tradition of the Tiguex concerning the sacred tree of the Mexicans.*"

*The transversalis pedis in the foot of the Gorilla.*—Report by M. Alix on a treatise sent by Mr. Thomson, which had previously been submitted to the Medical Society of Victoria (Australia).

Riolan gave the name of *transversus pedis*, *transversalis pedis* to that muscle in the foot of man described by Cruveilhier as the transverse abductor of the big toe, and which Chaussier called the transversal metatarso-subphalangean of the great toe. Tyson said that this muscle did not exist in the chimpanzee, an error which seems inexplicable, as no minute examination is requisite to find it. Duvernoy (Arch. du Museum), whose treatise Mr. Thomson inadvertently ascribes to Is. Geoffroy Saint Hilaire, mentions its presence in the gorilla genus; and Mr. Thomson, who does not appear himself to have dissected a gorilla, quotes this authority in support of his proposition. This fact being established, he draws two inferences. First, that Tyson in his enumeration of the differences between man and monkey has given one point of difference too much, in which we agree with him. The second inference which Mr. Thomson draws from the existence of this muscle, is that it becomes an argument against those who maintain that man

cannot possibly be the descendant of the gorilla. His own words are "I may, nevertheless, take the opportunity of observing that the theory which would deny the possibility of a derivative origin of a higher order of beings from the gorilla must be erroneous in as far as it is deduced from the alleged absence of the transversus pedis muscle."

We cannot in this respect agree with Mr. Thomson. One of the great principles of zoological classification, is the subordination of characters. Now the absence of transversus pedis would in our view be but an insignificant point in presence of other differences of another character which distinguish the foot of man from that of the ape. But this muscle exists in both in order to show at once the unity of plan which unites them and the variations which separate them.

It might be easy to conceive the foot of man deprived of the transverse abductor, this little muscle, as Cruveilhier calls it ; an anatomist might even consider it an accessory muscle.

Such is not the case with apes, whose big toes are greatly divergent, so that the foot becomes a prehensile organ. The transverse abductor in them is wider, whilst when relaxed it presents greater length at the level of the first inter-metatarsian space, when it assumes the aspect of the abductor pollicis of the hand. In monkeys it really becomes a muscle of the big toe, and its absence would in them be less conceivable than in man.

In man there exists another abductor of the big toe—this is the oblique abductor of Cruveilhier. This starts from the tarsus and the posterior portion of the metatarsus, and takes an oblique inward direction towards the great toe ; it is manifestly separated from the transverse abductor, a triangular space being left between these two muscles. In apes this space is filled up, the muscular fibres are continuous, and at first sight they might be looked upon as forming a single muscle ; but in dissection it is seen that the oblique abductor reaches and covers the inferior portion of the transversus. It is probable that Tyson has included the whole mass in the oblique abductor. . . . In these muscular dispositions it is impossible not to recognise organs, constructed, it is true, of the same materials, but adapted to different ends, adaptations which cannot be the results of successive metamorphoses, not acquired but pre-ordained, and that between the disposition which characterises man and that which characterises the ape there obtains an impassable gulf.

M. Perier read a memoir "on Ethnic Intermixture."

The meeting then adjourned.

*(To be continued.)*

## Miscellanea Anthropologica.

*The Memoirs of the Anthropological Society.*—An article appeared in the December number of our contemporary the *Ethnological Journal*, purporting to give a review of the Memoirs of the Anthropological Society of London. We desire to refrain from expressing any opinions on such a performance. Mr. E. Sellon, the author of one of the papers published in this volume of *Memoirs*, writes to us thus:—"The attack is so much more in the spirit of a Calvinistic preacher and Puritan, than either a scientific man or a polite scholar, and betrays such a profound ignorance of the subject under review, that it would be lost labour for me to endeavour to dispel the mephitic vapours of intolerant cant, prejudice, and conventionalism displayed in that article."

Mr. W. T. Pritchard also writes:—

"Referring especially to the comments upon my own papers, let me point out certain misrepresentations the reviewer has made, and certain 'delusions' he has advanced.

"He remarks, respecting my first paper, that 'it is the result of fifteen years residence in what is popularly called the *Fiji group* of the South Seas; but it gives also an account of the two nearest groups to them—the Tongan Islands, and the Samoan Islands.' Now, if the reviewer had read carefully, he would have seen it clearly stated that I simply collate the results of my personal observations while *residing amongst the islanders of the Pacific*, not in the Fiji group only, during a period of fifteen years. I wrote of groups where I have personally resided, whose people, languages, manners, and customs, I know intimately; and I refrained from offering a mere compilation from the observations of others, or giving stories collected during only a passing visit at other groups.

"The reviewer observes that, 'so long as I confine myself to what I have seen with my own eyes, I am both graphic and accurate.' I thank him for his testimony; but, to know whether it is worth anything, I would ask, has he himself visited the islands? If not, how comes he to *know* the description is 'accurate', and to be able to give so decided a testimony on the subject? That it is 'accurate' I know, and those know who *have visited* the islands. But, judging from the reviewer's subsequent intimation, that only a 'few words' of the Malayan have 'been detected in their languages', I am led to suspect he writes on the subject without any competent knowledge of the South Sea Islanders.

"On the subject of the *origin* of the islanders in question, the reviewer seems, indeed, wholly at sea. I beg him to read my paper again more carefully, and to note that I merely *state* my opinion of their origin, and then relate certain traditions and facts. But whether or not it be a 'delusion to trace the fairer races of the Polynesian Islands to the Malays, on the slender evidence of a few words having been detected in their languages', as the reviewer voluntarily alleges,

let me call in the authority of one whose opinion will certainly carry as much weight as that of the reviewer. Mr. Crawford, in his *Indian Archipelago*, says, 'Interesting hints are supplied to us from the collation of language.' In vol. ii, page 78, speaking of the 'great Polynesian language,' he distinctly says it is a 'language which extends its influence from Madagascar to New Guinea and the *South Sea Islands*,' quoting at page 90 from the *Tongan dialect* (amongst others), to prove his position. And then at page 93, he adds, 'The Polynesian language can be traced only as it is scattered over a thousand living dialects.'

"It happens, however, that the example instanced by Mr. Crawford is mis-spelt by him, and does not mean in the Tongan dialect what he states it does. He gives the words *wulu* or *bulu* as the Tongan for *hair*. The letter *w* does not even exist in Tongan; and *bulu* is a *gum* used for caulking canoes; it is also the *husk of the cocoa-nut*. In Tonga, *ulu* is the *head*, as totally distinct from the *hair*. And in this sense, *ulu* becomes the root of many composite words, e. g., *ulu-ua*, *uluhina*, *uluhi*, &c., &c. In all these instances the idea is of the *head altogether*, as distinct from the *hair alone*. The word for *hair* is *lou-ulu*, and conveys the idea of the *hair of the head only*, as quite distinct from the head (*ulu*). For hair on any other part of the body, the word is *fulufulu*; by adding *buaka*, or *moa*, &c., it comes to mean the *hairs of a pig*, or the *feathers of a fowl*, &c. In Samoan, the head is *ulu*; hair of the head, *lau-ulu*; hair on any other part of the body, *fulu* or *fulufulu*; on one particular part, *fugu* (=fungu).

"In Tahitian, *uru* is limited to the *skull only* (as also *apuroro*); *upoo*, the head (as *ulu* in Tongan and Samoan); *rouru*, the hair of the head; *huruhuru*, the hair of any other part of the body (also *hete-hete*). In each dialect the word for hair of the body, as distinct from the hair of the head, comes to mean the hair of any other animal, or the feathers of fowls, by the addition of the name of the animal or fowl. In Fijian, the head is *ulu*, or *uluna*; the hair of the head, *drau-ni-uluna* (literally *leaves of the head*); the hair on any other part of the body, *celua* (=thelua); hair on one particular part, *vulua*; the hair of any animal other than man, *vutika*, or *vutika-ni-manumanu*; and when applied to birds, this also means feathers.

"Mr. Crawford gives *bulu* as the Malayan for *hair*. I should like to compare notes with him on this word, as well as on others which may occur in the East and in the Pacific, and trace them out together. Why the origin of the 'fairer races of Polynesia' is still so obscure, is simply because men (like our reviewer) who know nothing of the subject, write nonsense, while those whose knowledge, if brought together, would elucidate the question, keep their knowledge for the most part to themselves. This is to be regretted.

"I must, therefore, take exception to the reviewer's 'dogmatism,' as well as to his delusion, to say nothing of his grammar. And, supported by the great authority quoted above, not to name Pickering and others, I think I may safely apply his own words to himself, and tell him that 'he blunders like a mere innocent' when he says 'The truth is, there is no more ground for ascribing a foreign origin to the inhabitants of the isles of the Pacific than to the black swans of Australia.' I am

almost inclined to think, since the 'delusion' is so 'dogmatically' thrust into his comments, that 'the truth is, the reviewer took occasion of my paper to make a hit at Mr. Crawford's opinions rather than at mine,' as it is Mr. Crawford who uses the 'slender evidence,' impugned.

*Professor Phillips and the British Association.*—We have received a communication from Professor Phillips requesting us to insert the word "council" for the word "officer" in the report of his speech at the general committee of the British Association (see vol. iii, p. 361, line 24th from top.)

We have much pleasure in calling attention to this wish of Professor Phillips, as it removes the inconsistency of which we complained and to which we called attention: that gentleman not being at the time an "officer" of the Association. The paragraph will now read that the privilege of introducing a motion affecting all future legislation without giving the least notice of such intention, "had never yet been denied to the council of the Association." We regret to perceive that this correction does not at all lessen the inexpediency (to use no stronger expression) of such legislation. We trust that Professor Phillips will see the expediency of withdrawing the resolution so hurriedly passed last year, and allow the British Association to be governed, as heretofore, by the General Committee.

We understand that the following are the contemplated arrangements for the reading of papers before the Anthropological Society of London during the next quarter.

On January 16th, J. Meyer Harris, Esq., "On the Gallinas, a tribe of Sierra Leone," and G. W. Marshall, Esq., LL.M., "On Genealogy in its relation with Anthropology." On February 6th, H. J. C. Beavan, Esq., Hon. Sec. A.S.L., "Notes on the People inhabiting Spain;" Hyde Clarke, Esq., LL.D., "On Moravian Wallachia," and "Observations on the Materials for Anthropology at Smyrna." On February 20th, L. O. Pike, Esq., M.A., "On the Psychical Characteristics of the English People." On March 6th, W. H. Wesley, Esq., "On the Iconography of the Skull;" A. Higgins, Esq., "On the Orthographic Delineation of the Skull;" C. Carter Blake, Esq., "On a Skull from Louth," and Dr. Paul Broca, "On a New Goniometer." On March 20th, George Petrie, Esq., "On the Pre-historic Antiquities of Orkney," and Joseph Anderson, Esq., "Report on the Ancient Remains of Caithness."

The anniversary of the Anthropological Society will be held on Tuesday, January 2, at four o'clock. Afterwards, the Fellows of the Society and their friends will celebrate their third anniversary by dining together at St. James's Hall.

The Anthropological Society of Madrid held its first ordinary meeting on Sunday, the 17th of December last. The outbreak of cholera prevented their meeting before; all the schools and societies being closed by order of the Government. This Society already numbers three hundred members. In our next issue we shall give an account

of the papers read before this Society. Don Matias Serrano is the president, D. S. Castro the vice-president, and Don F. Delgado Jugo the secretary.

*The Antiquity of Man and Pre-Historic Times.*—We have received from Sir Charles Lyell proofs of some pages of the new edition of his "Antiquity of Man," which relate to a matter touched upon in a review of Sir John Lubbock's "Pre-historic Times," in the October number of the *Anthropological Review*, p. 388. The following remarks are made by Sir C. Lyell at the close of his preface, after mention of the authorities on whom he principally relied in describing the Danish shell-mounds:—"It was impossible for me, with the aid of such able investigators, to overlook any of the most striking discoveries and conclusions which had been made before 1860; but I gladly took advantage of the later numbers of Keller's 'Pfahlbauten,' and of Mr. Lubbock's 'Memoir on the Danish Kjökkenmöddings,' printed in the October number of the 'Natural History Review' for 1861, to improve the wording, and occasionally the subject-matter, of certain passages for which M. Morlot had already supplied the principal data. I had no space, without disturbing my type, for entering on a single new field of inquiry, or any new deductions furnished by Messrs. Keller, Lubbock, or other writers. Had I attempted to do justice to them, or to any authors of later date than the summer of 1860, I must have expanded the plan of my whole book, and seriously delayed the publication of the first edition, as well as of the subsequent issues." In a note later on, mention is also made of Sir J. Lubbock's paper in the "Natural History Review" for October 1861:—"Mr. John Lubbock published in the October number of the 'Natural History Review,' 1861, p. 489, an able paper on the Danish 'shell-mounds,' in which he has described the results of a recent visit to Denmark, made by him in company with Mr. Busk."

The facts of the case may be profitably stated to show how such misunderstandings may arise. It seems that Sir Charles Lyell drew up his account before Sir J. Lubbock's paper in the "Natural History Review" was written, and when it appeared he inserted a note to the effect that he had been unable to make use of it. In giving the finishing touches to his proofs, however, he afterwards did make use of it to some slight extent, but inadvertently left standing the note which had now become incorrect. Upon this, Sir J. Lubbock rejoined in the preface to his "Pre-historic Times," in the passage our review commented upon. But we understand that on becoming aware of the real state of the case, he had this note cancelled, so that only the first few copies of his work were issued with it.

Our review was written with no wish to take the side of either of the two eminent scientific men who had unfortunately come into collision, but spoke in the interest of the readers of both, and we are happy to find that the whole discussion arose out of a mere oversight, and has been set right in a friendly spirit.

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RACE IN LEGISLATION AND POLITICAL ECONOMY.

"Of all vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences."—MILL, *Principles of Political Economy*.

It is a most mistaken idea that Anthropology is purely speculative and abstract. It is, on the contrary, more intimately related than any other branch of science to the sympathies of humanity, and, we may add, the utilities and requirements of society. It enters into every question connected with religion, government, commerce, and culture, which are all more or less affected by racial endowment and proclivity. This, however, is a comparatively new idea, on which the statesman and the legislator are yet scarcely prepared to act, and to which the theologian manifests not merely indifference, but repugnance. Practically, indeed, the element of race has not yet obtained recognition, as one of the underlying conditions and modifying forms of civilisation. We must not blame the world for this. Scientific Anthropology is a thing of yesterday; nor is the study of it yet sufficiently advanced to justify its believers in claiming the reverent attention of duly cultured minds to their hastily formed conclusions. They must be content to wait and work, sowing the seed of truth to-day, that mankind may reap its golden harvest on some far off to-morrow. In the meantime, however, its advocates will only be performing a proper duty in occasionally enforcing its claims on the attention of our more advanced thinkers, preparatory, let us trust, to their full recognition by the general voice of civilised society.

In this endeavour to commend Anthropology to more general acceptance, we must not hide from ourselves that two great schools are, on principle, decidedly opposed to our pretensions. These two

influential parties, while differing widely from each other on many other points, at least cordially agree in discarding and even denouncing the truths of Anthropology. They do so because these truths are directly opposed to their cardinal principle of absolute and original equality among mankind. The parties to which we refer are the orthodox, and more especially the evangelical body, in religion, and the ultra-liberal and democratic party in politics. The former proceed on the traditions of Eden and the Flood, and on the assertion, that of one blood God made all the nations of the earth; the latter base their notions on certain metaphysical assumptions and abstract ideas of political right and social justice, as innocent of scientific data, that is, of the fact as it is in nature, as the wildest of the theological figments which set Exeter Hall in periodical commotion, at the never-failing anniversaries of missionary enterprise.

We fear that it is in vain to argue with the religious portion of our opponents. People whose opinions are based on dogma possess a fortress not easily assailed by reason. They know in what they believe, and from the vantage ground of a supernatural revelation can afford to laugh at the indications of history and the deductions of science. They are persuaded themselves, and they have persuaded a very large section of society, that one religion, their own, will do for all mankind to the end of time. And society believes them, or, at all events, is too ignorant or too busy to oppose this tremendous assumption. And so we subscribe a million a year, and send out good men and true into all climes, it may be truly said, in denial of the past and defiance of the present.

Our political opponents are not exactly persons of this stamp. They do not profess any particular faith in written records. They are not prepared to enthrone an eastern myth on the denial of modern science. They do not intentionally prefer dogma to fact. Opposed to an hereditary aristocracy in the body politic, they are prone to deny the wider and more-enduring aristocracy of race. Believers in the omnipotence of circumstances, they refuse to recognise the aids or the obstacles of inherent endowment. To them, humanity is one from the educational stand point, as it is also one to the theologians from the creational stand point. The latter assert that a Negro or a Mongol will make as good a Christian as the most finely-developed Caucasian, and the former equally affirm that, with proper training, he will make as good a citizen, as skilful a craftsman, as fine an artist, and as able a poet or philosopher. We do not mean to say that the latter put their conclusions exactly into these words. They dare not. The plain practical good sense of society would prove too much for them were they to do so. But their assertions, as far as they mean



anything, imply this, and are indeed mere idle rhodomontade, if they do not.

And here, perhaps some of our Anthropological friends may be of opinion, that in seriously opposing such absurdities, we are guilty of the folly of the worthy Knight of La Mancha, when he ran a tilt at the windmills. But in truth these absurdities, from their wide acceptance, are gradually becoming productive of very grave consequences. The stupendous claims of the Romish hierarchy to the sacerdotal supremacy of the world, are based on the prior assumption of a possible unity among all nations in religious belief and practice, and on the mundane and unending mission of Papal Christianity. The atrocities of the Spaniards in Peru and Mexico were but the dark conclusions, wrought out by the logic of events, from these startling premises. The wars of the reformation were humanity's assertion of its right to differ,—were, in short, the counter-proclamation of the Teuton in opposition to the claims of the Roman. The watchwords of modern revolution, "liberty, equality and fraternity," more especially the two latter, together with all the absurdities and impossibilities of communism, are but the sinister yet legitimate progeny of the principle of primal and organic equality. The mischief of such views, indeed, is not and cannot be confined to the sphere of speculation. They of necessity invade the field of action, where thought ultimates itself in deeds. They influence most of the colonial enterprises of modern times ; and they were at the foundation of the recent civil war in America, and underlie not only the claim of the freedmen to the suffrage, but all the contemplated horrors and abominations of miscegenation.

We have, in a previous paper on Race in History, already touched on some of the errors of one of the schools to which we have been alluding, that of the Political Economists and Legislative Reformers. But, in doing so, we confined our remarks almost wholly to the works of one of the youngest of its disciples, the historian Buckle. But he was only an echo of his masters, Jeremy Bentham and John Stuart Mill, as they are but a continuation of Helvetius and the French Encyclopedists, who were again but a far-off reverberation of Democritus and Epicurus. There is a terrible tyranny in ideas. Your principles, even though they be the most fallacious assumptions, will ultimate themselves in legitimate conclusions sooner or later. John Stuart Mill cannot help claiming the suffrage for the Negro—and the woman. Such conclusions are the inevitable result of the premises whence he started. And had he paused at such a *reductio ad absurdum*, his school would not. That school, as we have said, dates from the remotest antiquity. The omnipotence of circumstances

and the natal equality of mankind are not new doctrines. They are simply materialism, and the philosophy of the external ultimated. He who starts from atoms, guided by chance, must end in absolute democracy, that is, in racial and individual equality. It is simply the completion of the circle, from chaos to chaos.

It need scarcely be said that such a school can only exist in words or upon paper, for it is in direct contradiction to fact. Nature is a grand hierarchy of cosmic and telluric organisms. Her suns rule their subordinate planets, surrounded again by their subject satellites. The vegetable and animal kingdoms are a succession of organic stages, separated, as Swedenborg would say, by "discrete degrees." While at the very apex of this pyramid of form and function, we find regal man, the virtual king of the earthly sphere. And are we to suppose that this hierarchical arrangement ceases here; that there are no innate and hereditarily transmissible diversities among men? Reason as well as fact revolts at so absurd a conclusion. Had we, from our limited geographical range, experience only of one race, we might most legitimately conclude there were others in the distance,—a conclusion now adequately substantiated by geographical discovery. But John Stuart Mill cannot see this. His intellectual prepossessions are too strong for such a grasp of veracity. His mind is so filled with the *idola* of Codification and Political Economy, that he cannot see the simple yet unspeakably important facts of Anthropology.

Let not these remarks on Mr. Mill be misunderstood. He is the last man to intentionally maintain an untruth. Privileged to own one of the clearest and most logically constituted heads, and we may add, one of the noblest hearts in Christendom, he unites the deductive power of the race whence he descends, and we may add, of the school to which he belongs, with somewhat of their infirmity, in the too facile rejection or assumption of premises. No man marches more carefully from the major to the minor; the process, in such hands at least, is unerring. But, alas for the major. It may be the sublimest of truths, an axiom on which the universe could repose unshaken for eternity, or, as in the present case, a fallacy so transparent, that the simplest cabin-boy, on his homeward voyage, would see its infantile absurdity.

The rejection of truth is perilous, perhaps we might say fatal, to all men. But it must prove especially so to the priesthood of intellect, —to those sages and philosophers, who as legislators, political economists, historians, and men of science, endeavour to explain the truth and the right to others; for when the shepherds go astray, it is no wonder that the flock generally follow. To write of men, and to legislate for men, while rejecting the science of man, is certainly a most extra-

ordinary and by no means commendable procedure. And yet it was that of Jeremy Bentham and Thomas Henry Buckle, and is that of John Stuart Mill. The first drew up a code, or shall we say, laid down the principles of codification in the abstract—ignoring diversity of race. The second wrote his otherwise admirable history, and the last has given us the principles of Political Economy, together with sundry treatises on Liberty and Representative Government, not only ignoring, but directly and almost offensively denying the great truth of racial diversity. Ignoring the fact in nature, that men differ in the relative proportion of their passions, affections, sentiments and faculties. Ignoring what is patent, not only to the Anthropologist, but to the soldier, the sailor, and the man of business, that the races of mankind differ in the force of their propensities, in the strength of their sympathies, in the power of their principles, in the accuracy of their perceptions, and in the clearness and the vigour of their thoughts. Ignoring not only the conclusions of the man of science, but the practical experience of all widely-travelled persons, that there are distinctly marked Ethnic diversities, in virtue of which the grander divisions of mankind differ in the persistence of their will, in their power to resist temptation, in their susceptibility to impulse, in their ability for work, and in their innate capacity for literature, science and art. And ignoring therefore what the experience of ages has demonstrated, and what the true wisdom of the present would dictate, the necessity for a diversity of religion and government corresponding to this diversity of race, whereby the formal institutions of a people are brought into harmony with their mental constitution.

These are severe remarks. Let not their spirit be misunderstood. It is because we respect their advocates, that we are so harsh in our judgment of the doctrines. Error is formidable in proportion to the ability, and, we may add, the virtue of those who hold it. The fallacies of men like Bentham, Mill, and Buckle, cannot be harmless. Such minds cast the halo of their glory around even their grossest errors, and just in proportion as we revere them for the good which they have accomplished, must we be stern in our opposition to the evil of which they are unintentionally the authors. Of such it may be truly said, "if their light be darkness, how great is that darkness!" If their views be founded on error, how widely diffused must that error be! It is the very greatness of the men that necessitates our more serious antagonism to their fallacies. They are too powerful, too influential, to allow us to pass over their mistakes in silence. The voice which has been oracular for the truth, becomes doubly formidable when employed as the trumpet-blast of error.

In the history of Philosophy, in so far as we can be said to possess

anything deserving of the name, nothing is more remarkable than the power of the schools. Like religious sects, they take the individual helplessly captive, and lead him whithersoever they will. They close his eyes to one phase of truth, and they open them to another. Nor does any amount of talent or attainment appear to constitute an adequate safeguard against this despotism. It only makes the individual a more or less apt instrument for the acceptance and promulgation of their doctrines. He is obviously the organ of a greater power, that sees beyond him, and uses him for a grander purpose, than anything of which he is conscious. This is the case with Mr. Mill. It was equally so with Jeremy Bentham. They are the organs of negation. In reality, the champions of matter *versus* spirit. It is their vocation to proclaim the weight and value of *quantity* as opposed to quality. They ignore the ONE. They enthrone the *many*. They do not stand alone in this. They have not only a large following, but they have had many able precursors, and they have many powerful coadjutors. They represent the spirit of the age. Their works are simply Protestantism, logically ultimated in the political sphere. Fourier went beyond them, and carried it into the social, where it eventuated in communism. Let it not be supposed that in saying this, we pass a judgment of condemnation upon these truly great and deservedly illustrious men. Their cause is perfectly legitimate. It represents one of the two great poles of universal truth. But it is only one pole, and that not the *positive*. These are rather daring assertions. We know it, and must now proceed to their confirmation.

It was a grand saying, that all minds are either Platonic or Aristotelean, subjective or objective, spiritual or material in their essential character and tendencies. This, however, is only saying that men must obey the laws of polarity, the most gifted and earnest being generally the most strongly pronounced in their proclivities. But it is not only men as individuals, but men collectively, who have to obey these laws, and so manifest the spirit of the ages. In a sense, as was shown in some former numbers of this Journal, the entire movement of humanity, in the North-western march of civilisation throughout the historic period, was, intellectually speaking, a descent from the highly spiritualised theosophy of the Orient to the thoroughly-materialised science of the Occident. Now it is this movement in its ultimates, which is represented by Mr. Mill. As we have said, it is a great and legitimate movement, and even in its extremes, deserves to have such a champion to stand up for it. As the protest of reason against dogma in religion, as the testimony of *à posteriori* fact against *à priori* assumption in philosophy, and as the claim of the rights of the many against the tyranny of the few in

politics, it was a great and noble cause, deserving of all honour and worthy of all success. But when, overstepping these boundaries, it proceeds with its political logic to the denial of inconvenient facts, it is no longer a legitimate movement, but, on the contrary, one demanding strenuous opposition, and deserving utter and shameful defeat. It has reached this stage in the hands of Mr. Mill and his coadjutors. They deny the facts of race, and hence our opposition.

We thus see that this great movement is in conflict with itself. Its several sections are no longer in harmony with each other. Its religion and its politics are at war with its science. We have arrived at the beginning of the end. In the fervour of religious propagandism, it demands one faith for all mankind. And in its enthusiasm for liberty, it proclaims that all men may be politically free, when they have been adequately educated. In attempting to maintain these stupendous assumptions, it does not condescend to investigate observed facts; but meets the testimony of travellers, and the conclusions of Anthropologists by the annunciation of abstract principles, in reality by a process of *à priori* reasoning, as opposed to the evidence of *à posteriori* experience. By the dread compulsion of a false position, it is driven to the desperate alternative of ignoring nature and denying phenomena. It does so, because nature and her phenomena are opposed to its conclusions. Again, we admit these are very severe remarks. But they only express the simple truth, and hence our reason for their publication.

We make our appeal to nature. Let us hear what she has to say. The earth, at her different zones of latitude and longitude, or shall we say in other language, on her several areas, has specially characterised types, vegetable and animal, bestial and human. These specialities are obviously not accidental. They are transmissible and enduring, and far antedate all history. The law of distribution is yet beyond us; but it is evident that there is such a law, for we see its effects. And we see them in the human sphere as distinctly as in any other. The men of one Ethnic area are not to be confounded with the men of another. Nor are these distinctions simply physical and organic, they extend also to habits and capacities. We know that this is denied by Mr. Mill and his school. But such denial necessitates the rejection of history as well as of science; for history is conclusive as to racial diversity, its annals being in truth but a record of the result of that diversity. For example, to affirm that a Negro is in every way as good a man as an European, is to deny the historic testimony of five thousand years, seeing that in all that time no Negro nation has ever, either with or without assistance, reached the civilisation, again and again achieved in the great centres of Caucasian

culture. To say after this that Negro communities *might* have done so, is simply to beg the question, and take for granted the very thing in dispute. They have not done so, even with the tuition of Egypt and the example of Carthage; and if our inquiry is to be conducted on *à posteriori* principles of investigation, we must accept the fact of their non-civilisation as in so far conclusive of their incapacity. They have been tried and found wanting. But this historic evidence is corroborated by their organic inferiority. The comparative anatomist agrees with the historian in placing them on a lower level than the European. And the phrenologist agrees with the comparative anatomist. We know that Mr. Mill does not believe in phrenology, nor we presume in physiognomy. He cannot. Either the one or the other would dissipate his day-dream of racial equality within an hour of its acceptance. The inferior character of the Negro is as distinctly stamped on his organisation as on his destiny, and only minds blinded by the *idola* of preconceived ideas could fail to see the one as well as the other, and to find in both unmistakeable evidence of the Negro's lower position in the scale of being.

Similar remarks may be made on the Mongolian races of Eastern Asia. Their structure, while superior to that of the Negro, is inferior to that of the European. It is less developed. As the type of the Negro is foetal, that of the Mongol is infantile. And in strict accordance with this we find that their government, literature and art are infantile also. They are beardless children, whose life is a task, and whose chief virtue consists in unquestioning obedience. Were Mr. Mill an anthropologist, we might point out to him the very important physiological fact, that an immemorial civilisation has utterly failed to Caucasianise either the Chinese or Japanese, they being still as essentially Mongolian as the rudest nomad of the northern steppes. But he would place no value on such a fact. It could have no significance from his standpoint. Form and function are to him matters of as much indifference as colour, which he avowedly ignores. He cannot understand why a Chinaman, under adequately favourable circumstances, should not become as good a sculptor as Phidias, or as inspired a poet as Shakspeare. And the reason why he cannot understand this is, that he ignores the racial element in humanity; in other words, he allows his *preconceived* idea of aboriginal unity and essential equality to dominate all structural evidence of diversity, and all historical evidence of inequality. This we know is equivalent to saying that his mind is not open to the truth when nature is the witness, and her testimony is opposed to his cherished ideas and favourite speculations. A severe sentence to pass on England's greatest living logician. But it is out of his own mouth we convict him. It is on the evidence afforded by his own works that we pronounce his condemnation.

Now let it be distinctly understood that we say this of Mr. Mill only in his representative character, as the chief of a rather extreme school of political economists. As an individual, no living man has a greater regard for veracity. Even in his gravest errors he is perfectly honest, and when blinded to the truth by his deepest prejudices, feels fully persuaded that he is simply consistent in maintaining a principle. Moreover, it should be remembered that he does not stand alone in ignoring racial diversity. His views, however erroneous, are not individual crotchets, but the well considered and avowed opinions of a large and influential school of thinkers, and as such deserving of the most respectful consideration, even from anthropologists, who so clearly see the egregious fallacies on which they rest. We must not blame men for differing from us. It is our business to provide them with such evidence, as shall suffice to produce a conviction of the truth, and if we fail in this, the fault is not theirs but ours.

What then is the gravamen of our charge against Mr. Mill and his friends? And we reply the unwarranted application of experiences, obtained only from the European race, to the whole of humanity. And as an accompaniment of this, the substitution of art in the place of nature in the process of legislation. As already remarked, these errors are due to the preponderance of abstract ideas over concrete experience. They result from that process of hasty and incautious generalisation, against which Francis of Verulam especially warned his followers. Because certain kinds of government, and certain processes in legislation, have proved successful in Europe, it is at once concluded, that they are abstractedly right and good, and should with all convenient speed be applied to every other family of man. And as these governments are representative and this legislation has been senatorial, it is supposed that such forms and modes of transacting matters gubernatorial, must be the acme of perfection in the way of example, and to which, therefore, the rule of all peoples should be made to gradually approximate, the only consideration being, the kind and degree of culture they may have previously undergone in the way of preparation. Of innate fitness or unfitness, of organic aptitude or inaptitude, these sages of the closet know nothing. Of hereditarily transmissible types of body and mind they are happily ignorant. For ineradicable proclivities, they have a sovereign contempt. "*Racial specialities*" they hold to be a figment of the anthropological imagination, and for which they would substitute "*educational differences*". To their view, races, or as they would say, nations are what circumstances have made them, and consequently alter the circumstances, and in due time you change the race! As already remarked, the logic is sound, but the premises are faulty. They are so, because they fail to take an important element

of the problem into account, we mean the subject-matter on which the circumstances are supposed to operate.

Let us see indeed for what such logic would suffice, were the premises obtained from another ethnic area. Asia has been immemorially the seat of despotism. Its idea of authority is essentially unitary. Its codes, in so far as they have grown, are the cumulative result of the successive edicts of absolute sovereigns. But in their grand outlines and fundamental principles, they were the products of a single legislator, some divinely inspired Menu, Moses, or Mohammed, who derived his authority not from without but within, not from the people but from God, and whose short but effective preamble was "thus saith the Lord." Now whether under Assyrian or Saracen, this was doubtless esteemed the better way. But conceive of its application to Greek, or Roman, or Teuton, above all to these same Anglo-Saxon free-thinking political economists themselves! Again we must remind Mr. Mill that there is a religion and a government, a literature and an art, which is specially adapted not only to the outward circumstances but to the inherent and innate qualities of each of the grander divisions of mankind.

In these illustrations we have hitherto purposely omitted any allusion to the more savage races, all quite susceptible of civilisation according to the principles of Mr. Mill, who will not admit that the Australian, the Andaman islander, and the Hottentot labour under any *inherent* incapacity for attaining to the highest culture of ancient Greece or modern Europe! Their present inferiority is an accident, due to a combination of unfavourable circumstances. They might have been the foremost men of all this world but for certain untoward influences. To say anything about the Andaman head and the Hottentot brain is only "a vulgar mode of escaping from the consideration of the effect of *social* and *moral* influences on the human mind!" Now anthropologists do not deny the power of social and moral influences, but they affirm that in conjunction with these the organic conditions and the transmissible mental constitution of their human subject-matter must also be taken into the account. This Mr. Mill denies, and hence his errors, both theoretical and practical, which we must now proceed to examine in detail.

In his otherwise excellent treatise on "Representative Government," Mr. Mill speaks of savage people and civilised people, and of the means by which the former may be gradually raised to the condition of the latter. Of the possibility of this process he has not the smallest misgiving. The idea that there are *savage races*, adapted by structure and temperament, by habit of body and constitution of mind for the savage state, has obviously never occurred to him. He thinks a savage tribe



is like an ignorant individual, in want only of education, simply that and nothing more. It is the same with his idea of civilised races. He clearly thinks they might be absolutely savage. Taking the past upon trust, like a true closet-scholar putting unquestioning faith in his *books*, he closes his eyes to the present. Having read certain vague traditions about the ancestors of the Greeks and Romans, French and English having once been in a savage state, it has never occurred to him to test the accuracy of this statement, by looking round upon the world of to-day, to see if there be such a phenomenon as a really savage people of Caucasian type. We can readily understand that such a procedure would be in opposition to all his established habitudes of mind, and of this we do not complain. Only we say that such a thinker will prove a very unsafe guide as to the government of any race save his own.

In the same work he speaks of the arrestment of certain civilised nations at the stage of a paternal despotism, instancing the Egyptians and Chinese, with whom he contrasts the far more free and progressive Jews. The stagnation of the former he attributes to the strength of their institutions, which would not break down to permit of national growth, while the unorganised institution of the prophets among the latter people, by ensuring a greater degree of liberty, permitted also of more effective progress. All which is, no doubt, quite true. But then it is not the whole truth, only that, indeed, which lies on the surface. It does not tell us *why* the institutions of the one people were so restrictive and those of the other so comparatively elastic. This, as every anthropologist knows, must be sought in diversity of race—in the ethnic fact that the Chinese are a Mongolic people, and that the higher castes of Egypt were clogged by a numerically preponderant mass of African aborigines; while the Jews, and we may add the Phœnicians, were the most vigorously constituted of all the Asiatic Caucasians, and, indeed, present so many European elements in their national character, that the perfect purity of their oriental descent is still open to considerable suspicion. But of all this Mr. Mill and his school know nothing, and want to know nothing; and while obtaining full credit with the yet more ignorant public for being very profound, are in point of fact childishly superficial in their habitual treatment of this and all similar topics. They stop short at effects, and mistaking these for causes, think they have exhausted a subject, of which in truth they have scarcely broken the surface.

Mr. Mill's rejection of race, like the errors of all decisive minds, is thorough. It pervades his entire system. Hence he treats even of slavery without an allusion to this important element. Thus he speaks of the facility with which slaves, when manumitted, assumed the position and discharged the duties of freemen among the Greeks and

Romans, which he attributes to the existence of an industrious class who were neither slaves or slave-owners. Now there is no doubt that this was a very favourable circumstance, but what would it have availed if the freedmen had differed from their owners and the industrious middle-class, as the Negroes of the States do from the Caucasian population around them? The learned freedmen of Rome were often, racially speaking, of as good blood as their masters. And there is no doubt that even the Helots did not differ from the Spartans more than the Anglo-Saxons from the Normans. Under such circumstances, the individual emancipation of superior slaves, is perfectly easy, nor is there the least wonder that the well-educated among them at once assumed a respectable and recognised position in society. Nor with such conditions is there ultimately any insuperable difficulty in the emancipation of the whole class, either gradually, as throughout south-western Europe during the middle ages, or even suddenly as in Russia and Hungary in our own day, by an imperial edict or by a senatorial decree. The absorption of such liberated bondsmen, into the class of freemen, is comparatively easy, because their inferiority is simply social and not organic. But it is quite otherwise, where the inferiority is stamped upon the organisation, and where consequently the freedman and his children's children to the remotest generation, bear indelible traces of their descent from the servile caste.

Now again we say that the deservedly illustrious name of John Stuart Mill, ought not to cover the grave errors into which he has been led on this subject by his unwise rejection of the racial element, a rejection which by enabling him to speak of slavery in the abstract, has permitted him to confound the purely domestic institution of the better days of Greece and Rome, with the grosser chatteldom of negro slavery in our own times. This, for instance, is his portraiture of the slave proper:—

“A slave properly so called, is a being who has not learnt to help himself. He is, no doubt, one step in advance of the savage. He has not the first lesson of political society still to acquire. He has learnt to obey. But what he obeys is only a direct command. It is the characteristic of *born* slaves to be incapable of conforming their conduct to a rule or law. They can only do what they are ordered, and only when they are ordered to do it. If a man whom they fear is standing over them and threatening them with punishment, they obey; but when his back is turned, the work remains undone. The motive determining them must appeal not to their interests but to their instincts; immediate hope or immediate terror.”

Now it need scarcely be said that this is a picture of negro slavery, and that, too, in its very worst form, that of the recently imported African savage working on a plantation. Here again it is obvious that

Mr. Mill has been misled by the undue predominance of abstract ideas over concrete experience. His "slave" is, in reality, an abstraction covering the immense gulph which separates a Plato, who was once sold as a slave by the order of the elder Dionysius of Syracuse, from a Congo negro. Assuredly, with all his subservience to ideas and his indifference to facts, Mr. Mill must know that the Greek or Circassian slave of a Turkish emir is a very different being from the woolly haired and thick-lipped Ethiopian, who occupies a yet lower servile position in the same household. Though equally slaves, as being bought with a price, they are yet inherently and essentially wide as the poles asunder, as their rude and ignorant but nevertheless practical master clearly perceives. History informs us that the Mamelukes of Egypt were all purchased slaves from the Caucasus. Does Mr. Mill think their ranks could have been as well recruited from the countries south of the Sahara? But there is no need of multiplying instances. The man who does not know that the social condition of the slave, both during his serfdom and after his manumission, is largely influenced by his racial relationship to, or difference from, his master, has yet, not only his anthropology but his history to acquire.

Closely connected with his deficiencies and misconceptions on the subject of slavery, and originating doubtless in the same fundamental error, is the omission by Mr. Mill of any allusion to hybridism, as an obstruction to the formation and maintenance of a stable government. It is, of course, quite legitimate in *logic*, for the man who does not believe in race, to deny or ignore the existence of half-castes. But, unfortunately, nature will not so ignore them, as Mexico and the South American republics have found to their cost. Where the parental elements are very diverse, the hybrid is himself a fermenting monstrosity. He is ever a more or less chaotic compound. He is in conflict with himself, and but too often exhibits the vices of both parents without the virtues of either. He is a blot on creation, the product of a sin against nature, whom she hastens with all possible expedition to reduce to annihilation. He is not in healthful equilibrium, either mental or physical, and consequently cannot conduce to the stability of anything else. He is ever oscillating between his paternal and maternal proclivities. His very instincts are perverted. He unites the baseness of the negro with the aspirations of the European; and while the creature of ungovernable appetite, longs for that liberty which is only compatible with self-command. Such are the many-coloured many-featured "curs" that abound in most of the colonial populations of modern times, produced, as we have said, by our having overstepped the boundaries of nature in the mixture of races.

Now in any work on Liberty and Representative Government, it

surely behoved the writer to take such an element as this into account. And the fact that he has not done so, renders these otherwise admirable productions of Mr. Mill of very inferior value, even in reference to the very subject which they profess to elucidate. Judging by the time-honoured examples of Egypt and India, the only safe procedure with such a population of hybrids, is the institution and rigid maintenance of caste, to which, under such circumstances, things naturally tend, as we see among our transatlantic brethren at the present day. It was, perhaps in part, for the want of this regulation in adequate force, that Carthage ultimately succumbed to Rome; for while his splendid Numidian cavalry undoubtedly helped Hannibal to some of his earlier victories, the mingled mobs at home contributed yet more effectually to his final defeat.

And thus we are brought to the great question of political and individual liberty contemplated from the ethnic stand-point. Now it need scarcely be said even to the tyro in anthropology that this is pre-eminently a question of race as well as culture, while Mr. John Stuart Mill treats of it throughout as simply a matter of collective educational preparation. Liberty and slavery are with him equally the possibility of all peoples. That the higher races are inherently more qualified for both political and individual liberty than the lower, he ignores in one place and denies by implication in another. In this he is quite consistent. It is an unavoidable corollary from the premiss of equality, but then, as already remarked, this premiss is itself an assumption of which those most familiar with anthropological science have the most doubt.

Were it not that we are steeled by habit to such proceedings, it might, perhaps, prove matter for grave reflection, that in the midst of our inductive era a school of thinkers can still be found, who independently of all detailed examination of the fact, dare to make the great affirmation of racial equality. That the religious world should do this does not surprise us. It is an accordance with the mediæval proclivities of theological thought. But it is otherwise with Mr. Mill and his followers, of whom, but for their uninquiring subservience to preconceived ideas, we might expect better things. Only think what this affirmation implies. Nothing less than a detailed knowledge of the passional impulses, the moral principles, and the intellectual faculties of all the various divisions of mankind. Why, the collective information of all the Anthropological Societies in existence, lands us only at the very threshold of such knowledge. And that collective information, be it remembered, as year by year it gradually increases, only brings us the more surely to a settled conviction of *existing* diversity, which is, moreover, so marked and found to consist in such very important anatomical

and physiological differences, that the growing conviction among most anthropological students is, that this so strongly marked diversity, is aboriginal, and consequently ineradicable. But whatever may be the value of these convictions, those who hold them have at least been guided in their search after truth by the laws of induction. They have examined the facts, they have investigated the data, and have deduced their conclusions from the elements so obtained. While Mr. Mill, disdaining such laborious processes, leaps at once, according to the old high *à priori* method, to the magnificent assumption of racial equality, and then proceeds in undoubting confidence to all its far-stretching conclusions and momentous consequences.

But postponing for the present any further consideration of his processes, let us glance at Mr. Mill's assumption, that the capacity for liberty is simply a question of educational preparation, and with which, race has nothing whatever to do. What says history on the aptitude of the various divisions of mankind for political liberty. And here we must carefully distinguish between the wild license of the savage and the legalised liberty of the civilised citizen of a constitutional state. There is, no doubt, plenty of the former in the Indian wigwams of America, or the Hottentot kraals of South Africa, but such license is only a prelude to the direst despotism, at the first dawn of civilisation, as we see in the case of the Indian monarchies of Peru and Mexico. It is the same with the rude freedom of the Mongolic nomads, which at once degenerates into the paternal despotism of China, as soon as they have exchanged their migratory habits as shepherds, for the settled occupations which accompany agriculture and its necessary concomitants in the mechanical arts. Leaving savagism then behind, where, in truth, we do not so much see the presence of liberty as the absence of government, what Negroid or Mongolic peoples have ever developed constitutional freedom such as that once existing at Athens and Rome, and now enjoyed in Britain and the United States. Nay, what people far removed from the Ethnic area of Europe have ever accomplished this? For the Ionian Greeks, the Jews and the Phœnicians, together with the Carthaginian descendants of the latter, were at least Mediterranean races; and as we have already observed, with many European characteristics. And of the peoples of Europe, do all show an equal aptitude for liberty? Leaving out the classic type, as being in a sense historically past, do the existing Teutons, Celts and Slavons manifest the same capacity for achieving and retaining liberty? We would not however dwell too forcibly on the diversities in this respect, at present attaching to the various members of the great and nobly-endowed European family, as we are quite willing to admit, that many of these specialities are

largely, if not wholly due to educational accidents. And indeed we are prepared to acknowledge, that all Caucasian types on the European area, may, with due preparation, be found fit for working the complex machinery of a constitutional monarchy. History, however, informs us that the Classic and Teutonic divisions alone have yet shown any decided and inherent qualification for political liberty, and that where there is not at least a large admixture of one or both, liberty is either wholly absent or enjoyed by a very fitful and uncertain tenure.

But distinct from, if not above and beyond political liberty, is that which attaches to the individual. Men may be politically free, yet socially enslaved. They may not dare to say or do what the law allows, being overawed by the despotism of fashion or the prescription of precedent. This is the state of the great majority of respectable persons throughout Europe. But history narrates instances where this authority of custom has been fossilised into law. Egypt and India are notable examples. Here again Mr. Mill treats this subject in the abstract, quite independently of all considerations of race, and yet, as in the case of political liberty, it obviously has some connection with type. Some races submit far more slavishly to the tyranny of custom than others. In the lower types, indeed, individuality, in the nobler sense of that very expressive and much-embracing term, is, strictly speaking, unknown. This is a subject deserving of far more investigation than it has yet received. There is obviously more individuality in the Teutonic than the Celtic type. There was, perhaps, more of it in the Roman than the Greek, and there is decidedly more of it in the European than the Asiatic. Speaking nationally, there is more of it in England than in France, and more of it in lowland Scotland than in England.

In the treatment of this subject we must carefully distinguish between those moral monstrosities who are only marked by oddity, by crochets in thought, and eccentricities in action, from those truly individualised personalities, really characterised by originality and by its accompanying independence in thought and conduct. The latter are doubtless rare in all races, and when carefully studied are generally found to present *physical* as well as moral attributes indicative of peculiarly effective development, at least in certain directions. The head and face of Cæsar, were, no doubt, especially Roman. He did not depart from his racial type by anything at all abnormal. Yet he was a unique individuality. He was so because he was the most strongly pronounced, shall we say it, the most distinctly specialised, mentally and physically, of all his racially vigorous countrymen.

This matter goes down to great depths. We would not willingly fatigue even the general reader by a set treatise, aiming to be

exhaustive; but without a few more remarks and illustrations, it is impossible that our meaning should be fully understood. Specialisation is the test of development. From the zoophyte to man the march is steadily in this direction. In the vegetable kingdom it is the blossom and the fruit that constitute the individual—never fully born out of the maternal matrix, the plant proper, being strictly speaking, a congeries of imperfectly developed individualities, that never advance beyond the foetal stage. We have the analogues of this in the corals, the polypi, and the mollusca, and growing fainter, in the spawn of fish. This, however, is simply the stage of physical aggregation, above and beyond which is that of the moral sphere. The ant and the bee have no distinct individuality of will and character. They are the blind and unresisting instrumentalities of a common purpose. They are the integral parts of a larger whole—the hill or the hive. Now, among men, the community is the plant, the hive, the moral matrix, whereto all its human blossoms still inhere.

We begin now then to understand how it is that the higher races manifest more individuality than the lower; they are less foetal in their character, both morally and physically. It has been long observed that the Negroid and Mongolic races are far less distinctly marked physiognomically than the Caucasian. They keep much closer to the common type; we may add, in mind as well as body. And among Caucasian peoples, the same remark applies to the Slavons, who are, it may be observed parenthetically, to Europe, what the Mongols proper are to Asia, the imperfectly-developed children of the North-eastern wilderness.

Again in this inquiry, as in that connected with the aptitude of various races for political liberty, we must carefully distinguish between the uncultured rudeness of the savage, and the true individuality of the vigorously constituted citizen of some free, yet civilised community. The first is only raw material waiting for the stamp of social despotism. It is simply wax, wanting nothing but the seal. Neither must we wholly ignore the influence of institutions, on the spirit of successive ages. Thus, for example, we quite agree with Mr. Mill that our more immediate present, is less favourable to individuality, at least in the outward life, than some ages which have preceded it. We are less under the tyranny of power, but we are more under the despotism of fashion, than the men of the eighteenth century. These oscillations are unavoidable, even in the highest races, whose strongly individualised members constituting but a small minority, are ever liable to suffer by "the pressure from without," on the part of the numerically preponderant mediocrity, by whom they

are surrounded. But this is something very distinct from the inherent tendency to fossilisation manifested by Asiatics, more especially those of the farther Orient. Yet, from his neglect of all racial considerations, Mr. Mill confounds these two things, and falls into precisely the same error as Dr. Draper, whose fallacies as to the cyclical repetition in Europe of the course of thought and action characteristic of China, were exposed in some remarks on race in history in our October Number (xi) for 1865. Towards the conclusion of the third chapter of his otherwise admirable work on liberty, where he is speaking of "individuality, as one of the elements of wellbeing," Mr. Mill warns us that "the modern *régime* of public opinion is, in an unorganised form, what the Chinese educational and political systems are in an organised ; and unless individuality shall be able successfully to assert itself against this yoke, Europe, notwithstanding its noble antecedents, and its professed Christianity, will tend to become another China." Here it is very obvious that the acute logician is in blissful ignorance of any ethnic distinctions as attaching to Mongolic China, or Caucasian Europe. In other words, he proceeds in his argument on the utterly fallacious assumption, that the racial element in the problem is identical in both instances, whereas, the merest tyro in Anthropology could inform him that the diversity is not only great, but greater than it is yet possible to define in all its elements of corporeal structure and mental constitution, and in the far-reaching consequences resulting from them.

But, lest we should labour under any misapprehension in this matter, Mr. Mill thus proceeds in his next paragraph. "What is it that has preserved Europe from this lot? What has made the European family of nations an improving, instead of a stationary portion of mankind? *Not any superior excellence in them*, which, when it exists, exists as the effect, and not as the cause ; *but their remarkable diversity of character* and culture. Individuals, classes, nations, have been extremely unlike one another: they have struck out a great variety of paths, each leading to something valuable." And farther on, "Europe is, in my judgment, wholly indebted to this plurality of paths, for its progressive and many-sided development." Oh, Anthropological reader, how shall we proceed to define such science and such *logic* as the foregoing? How speak with due severity, yet with proper respect, of such *self-contradictory* utterances, more especially from the mouth of the master? Shall we leave the matter, duly emphasised with italics, which, of course, are our own, to speak for itself, or shall we endeavour to make such palpable absurdities still more palpable. For the Anthropologist, most assuredly, nothing more is needed than the quotation, its own all-sufficient answer. Not,



however, to be too severe on Mr. Mill, we may observe that the direct contradiction involved in the italicised divisions of his sentence, arises from the fact, that in accordance with the principles of his school, he regards character as being *wholly* the product of circumstances, and not of circumstances acting on organisation. We must remember that he does not believe in ethnic areas, nor in zones of population. That the earth, in virtue of its telluric, climatic, and other influences, can and does produce different kinds of plants and animals, he would readily admit. But his political idols utterly forbid his applying the same principles to, or seeing correspondent facts in man. If a Chinaman differs from an Englishman, this, according to his philosophy, is altogether due to an accident of education, and not in any measure to inherent proclivities, dependant upon hereditarily transmitted specialities of structure and function, these very specialities being in large part due to racial type, itself the distinctive product of a given Ethnic area. In short, Mr. Mill does not believe in race; and hence the grave errors of his otherwise-admirable works.

And yet there are sentiments, even in some of his earlier writings, which might well have guarded him from these mistakes of his later years. Here, for instance, is an extract from his article on Bentham, in the *London and Westminster Review* for August, 1838, and reprinted in his Dissertations. "For the philosophy of matter, the materials are the properties of matter; for moral and political philosophy, *the properties of man, and of man's position in the world.*" And farther on in the same paragraph, "If in his survey of human nature and life he has left any element out, then, wheresoever that element exerts any influence, his conclusions will fail, more or less, in their application." Precisely so. Mr. Mill in his otherwise masterly "surveys of human nature and life," has left out the very important element of race, and as a necessary result, "wheresoever that element exerts any influence, his conclusions fail in their application," that is, however, truthful to his own race, the Teutonised Celts of Britain; they are, more or less, inapplicable to all other races, more especially those separated from us by such broad lines of demarcation as the Negroid and Mongolic populations of Central Africa and Eastern Asia. Of course, Mr. Mill and his friends will reply, that in the passage in question, and in others of similar import, which might be readily found scattered through his writings, he was not speaking of man in his *physical* relationships at all. And we readily grant this. It is not a part of his philosophic vocation to contemplate man under a material, or, to speak somewhat more definitively, a corporeal aspect. It rather suits his purpose, or shall we say, it better comports with

his frame of mind to speak in "vague generalities" about "human nature" and other "abstractions," which "he has not translated into realities," or subjected to "an exhaustive method of classification," to use some of the pet phrases of the great master of codification, whose life and labours constitute the subject-matter of the article from which we have just been quoting.

Mr. Mill very justly accords great praise to Bentham for never "reasoning about abstractions till they have been translated into realities." Will he pardon us for hinting to him that the abstractions, "man," and "human nature," need such a translation. When we, as Anthropologists, hear of man, we want to know what kind of man. That he is of the GENUS *homo* is not enough for us, we want to know his *species*, and, if possible, the very variety to which he belongs. And any naturalist will inform Mr. Mill that he requires precisely the same kind of information about an animal, before he can pronounce in any detail upon its qualities and attributes, upon its structure and its habits. We can, however, quite understand, that all these things are infinitely beneath the notice of Mr. Mill and his school, who, from the lofty empyrean of their closet philosophy, can afford to look down with unutterable pity upon people who concern themselves about such trifles as the development of the Negro brain, and the possible correlationship of mind to so insignificant an organ! What, forsooth, has the proportion of the viscera in different races, to do with "Political Economy," saving and except that some stomachs are more prone to a carnivorous diet than others, and so, perhaps, cost rather more for their sustenance to the body politic? And what have strong or weak impulses, dominant passions, or predominant principles to do with law making, more especially that which is done in the closet. Having your chart of "human nature," can't you codify at your ease, for all times and countries, all climes and races? What is to hinder you? Nothing, my esteemed friend and most profound philosopher, absolutely nothing, we reply, except that most inconvenient of all possible obstructions, FACT; the world-old and world-wide fact of racial diversity, which has hitherto bid defiance to prophets and priests, to princes and legislators, in their benevolent endeavours to convert all mankind to one religion, and subject them to the beneficent restraint of one form of law and government.

The perversity of Mr. Mill in rejecting anthropology as an instrument for investigating the diversities of national character is something marvellous, as an instance of what may almost be called judicial blindness of intellect. Listen to his oracular utterances in the same article from which we have just been quoting: "That which alone causes any material interests to exist, which alone enables any body of human

beings to exist as a society, is national character." And in the next page, "A philosophy of laws and institutions, not founded on a philosophy of national character, is an absurdity." Amen, and again amen, say we, from the anthropological standpoint. Why this is the very pith and marrow of the whole matter. It is what we have been preaching from the very first. It is the burthen of our discourse. It is the very truth which we wish to impress upon statesmen and legislators, and we may add upon political economists, if it be right to name them apart from the foregoing. Oh, Mr. Mill, how nearly transparent is the veil, which nevertheless hides us from each other! It is very obvious that the great logician sees everything, but the fact in nature of organic speciality. To that, from his bookish education, he is blind, perhaps hopelessly so now. Shall we then blame him? Certainly not, but with all his greatness, we must yet, from the very depths of our soul, pity him. To be so near the truth, and yet from a prejudgment to miss it! To be forced to accept a conclusion, and yet from inveterate prejudice, to ignore the very data on which it is based! What will a more enlightened posterity say to the melancholy humiliation of so sad a position!

But, to use the words of Mr. Mill when speaking of Bentham, "it is an ungracious task to call a great benefactor of mankind to account for not being a greater." Mr. Mill is so enlightened and so liberal, with such a breadth of culture and such a true catholicity of sentiment on almost every other subject, that we are almost ashamed to take him thus severely to account for his deficiencies and prejudices on the subject of race. But as anthropologists we cannot but regard it as very important, and indeed we may say without exaggeration, all important, in reference to the very topics treated of, in all other respects, so ably by the great master of logic and political economics, and while we have not the smallest hope of converting him from the error of his ways, we would fain preserve some of his pupils and followers from falling into similar mistakes. We are not lacking in respect for Mr. Mill, nor we trust, wanting in the power to appreciate his great and commanding abilities, and the truly noble purposes to which, with lifelong assiduity, he has applied them. But we cannot blind ourselves to his egregious fallacies, nor can we persuade ourselves that these fallacies, bearing as they do directly on practical questions, are wholly innocuous. They have led him, and they have led inferior men, to make demands for the ruder races, such as science, the science of man, cannot sanction,—demands founded on ignorance of the great facts of race, and in opposition to the laws of nature. Demands all the more dangerous, because coinciding with that pseudo-philanthropy of our age, which starting from groundless assumptions, enthroned as first

principles, proceeds to their stupendous conclusions, in defiance alike of the revelations of science and the teachings of experience. A philanthropy that aims at uniformity where there is diversity ; and which, disregarding alike anthropology and history, endeavours to set up the creed and code of Caucasian Christendom as the sole standard to which humanity in all its varieties must hasten to conform. A philanthropy based on the absurdity of a dogma, and which, therefore, can only end in the mortification of defeat, while productive of incalculable mischief in the process of experimentally demonstrating the fallacy of its principles and the groundlessness of its expectations.

We have, in the earlier part of the present article, spoken rather severely of the school to which Mr. Mill belongs. Let it not, however, be for one moment supposed that we would apply these remarks, in all their severity, to him individually, even in his speciality as a writer on legislation and political economy. He has too much good sense, and we may add, too much good feeling, to allow the errors of his school to wholly dominate his better nature. He is in the noblest sense the master of this school, for he is conducting it *through* many of its old errors into higher truths. He sees as clearly as any anthropologist the utter absurdity of attempting to impose European institutions on Asiatic slaves or African savages—in their own country. But because he persistently regards their disqualification for the immediate possession of political liberty, with its equal rights and representative government, as simply a matter of defective education, he does not hesitate to claim the franchise for the recently liberated Negro of the Southern States of America. To him in this connection, the term Negro simply implies a person who has, till within the last few months, unfortunately held an inferior *social* position. But it does not imply, as it does to the anthropologist, a being of inferior *organic* constitution, in whom corporeal function and animal impulse too readily dominate moral sentiment and intellectual aptitude, a being who is not merely a barbarian in his *habits*, but a savage in his *hereditary* proclivities. To this phase of the question, Mr. Mill is both blind and deaf. He will not or he cannot *see* the facts of racial diversity for himself, and he refuses to listen to the statements and conclusions of those who have made this subject the study of a life. To their scientific investigations and the results so far obtained by most carefully conducted observation, results steadily cumulative, he responds, on the old *à priori* method, that is from the seemingly impregnable stronghold of a preconception, in the very foolish words which we have prefixed to this paper. Now these words may perhaps be quite worthy of the school which Mr. Mill so ably represents, and we can conceive of his followers and admirers applauding them to the echo, but they

are not worthy of him. The ablest logician of the nineteenth century should not be so childishly facile in the assumption of his premises. Reasoning, to be of any value, demands something more than unassailable *concatenation*. It must have a tenable *basis*. It must have unassailable data. Now the data in reference to race are the concrete *facts* of race, not *abstract* political principles; they are facts obtained by the process of induction, not first principles evolved by a process of thought. Mr. Mill, in short, has overstepped his province. He has intruded into the domain of science, and hence the unpleasant necessity laid upon us, of warning him off, we trust with respectful civility, but we also hope in words "of no uncertain sound".

We had intended to make some remarks on race in relation to the principles of codification, as laid down by Jeremy Bentham, but such a subject demands special treatment, and could not with advantage be brought in as subsidiary to anything else. It is, however, a matter so intimately connected with, and we may say so entirely dependant for its application on, the facts of race, that we should fail in our duty as anthropologists, were we not to recur to it. At a more convenient season, then, we propose to again direct the reader's attention to legislation and political economy, and the important bearing of anthropological science on these two great departments of thought and action.

## ON THE ORIGIN OF LANGUAGE.\*

SOME time since the Rev. Frederic W. Farrar published a work on the *Origin of Language*, in which he enforced, with much strength of argument, the onomatopoeitic theory. In 1861 Professor Max Müller delivered, at the Royal Institute, a series of lectures on "the Science of Language", wherein he endeavoured to trace its origin to the possession by man of general ideas represented in language by *roots*, as opposed to the theories of imitation and interjection. These lectures have called forth a reply from Mr. Farrar in another work, entitled, *Chapters on Language*; and we think his endeavours to meet the various objections to the onomatopoeitic theory have been attended with no small degree of success. Mr. Farrar, after endeavouring to show that

\* *Chapters on Language*. By the Rev. Frederic W. Farrar, M.A. London: Longmans. 1865.

language is a human discovery, and after dwelling on the "Experiment of Psammetchus", which we think he is rather too sanguine in accepting as a fact, proceeds to show the necessity of onomatopœia in the naming of animals, which he considers was that in which man first exercised the faculty of speech. He then gives a sketch of the infancy of humanity, and traces the psychological development of thought, giving examples of the several modes of expressing it, and explaining the operation of sound as its vehicle. The natural sensuous life of man expresses itself in interjections, imitations, and *Lautgeberden*, or vocal gestures, the three kinds of natural language. Of interjections, which are defined as "the arbitrary expression of subjective impressions," our author asserts that they form the roots of many words and that they were probably the very first sounds "to acquire the dignity and significance of reasonable speech". He does not however dwell long on the interjectional theory of the origin of language, for he affirms that the interjectional and onomatopœiotic theories "are not in reality different, and that both of them might without impropriety be classed under the latter name ; "for," he adds, "the impulsive instinct to reproduce a sound is precisely analogous to that which gives vent to a sensation by an interjection." We have already seen that, according to his view, speech had its first exercise in the imitation of the sounds uttered by animals. The same principle operates in the verbal representation of other natural objects which attract attention by sound. Not that there is an exact reproduction of the sound. The imitation is "purely subjective, and merely reproduces the *impression*" the sound causes. The diversity in the articulated attempts of nations to reproduce one and the same sound is explained by the different impression it makes on different minds. Our author illustrates this position by the various words used to denote thunder, which it can hardly be doubted, notwithstanding the meaning of the Sanscrit root from which the word *thunder* is said to be derived, have had an onomatopœiotic origin.\* In developing his theory, Mr. Farrar asserts that there must have been an original connexion between language and sense, and

\* The word "thunder" is neither from the Sanskrit *tan*, to stretch, nor from the Greek *tonos*. In the Gotho-Teutonic languages it is found under the several forms of *thunder*, *thunor*, *donner*, *donder*, *dunder*, *dundren*; in Latin, *tonitru*; and in Persic, *tundar* or *tundur*. The *d* is perhaps casual, and the whole word is without doubt onomatopœiotic. *Tonos* is not from *tan*, but like *sono*, is derived in the same way. In the following eleven dialects of the Missouri valley, the word for thunder is probably an onomatopœia. In the Blackfoot, *kris-le-kum'*; Shyenne, *mo-no'-ma*; Arápopo, *be-ha'-ni-ta-it* (to); Atsi'na, *pa'-a*; Pawnee, *tôh-i'-ri-ru*; Ari'kara, *wa-rûh-te*; Dakota, *wa-ki'-an-o-tûmp*; Assiniboin, *o-lé*; Crow, *su'-a*; Minnitaree, *ta'-ho*; Omaha, *ing-re'-ho-ta*.

therefore "any sound which would at once express and convey even the simplest sensation, must necessarily be a spontaneous *natural* sound ; *i.e.*, it must be either imitative or interjectional." The most natural way of naming an object is by copying its characteristic mark, not that, on the onomatopoeitic theory, language is due solely to the instinct of imitation, but chiefly to the activity of the intellect, which "reproduces the imitative at will as the sign of a fixed representative and so as a word," which word "no longer calls attention to the sound, but stands for the whole conception of the object."

After explaining the theory of onomatopœia, our author carefully states and meets the several objections raised by its opponents, and chiefly those of Professor Max Müller. The objection that "the onomatopœias in our language are few in number" is answered by proof to the contrary. Were it not so, however, it must be remembered that words once distinctly imitative, must, by constant wear and tear, have "often lost every possible external trace of sensuous origin." This is illustrated by the analogous case of the origin of the Hebrew letters of the alphabet, each of which, according to our author, "is the name of some object, and the form of the letter a rude representation of the form of the object," and by the possible loss of resemblance of the letters to the things represented. Another objection that has been made to the onomatopoeitic theory is that in the names of many animals we do not see any similarity to the most striking sound uttered by them. The answer to this objection is that not only the large majority of animal names,—especially in Sanskrit, Hebrew, Chinese, and the languages of savage tribes, are onomatopœias, but also that most, if not the whole, of the names cited by Professor Max Müller in opposition to the theory have had an onomatopoeitic origin. A third objection, and the one which to us appears the most difficult to answer, is that "onomatopœias are *sterile*, and are unfit to express anything beyond the one object which they imitate." In reply to this objection our author cites, among instances of onomatopœias which are not sterile, the early human sounds *ma*, *pa*, *ta*, *da*, *ba*, as being most marvellous in their fruitfulness. That *all* onomatopœias are sterile would hardly be affirmed by even Professor Max Müller himself. We doubt, however, whether the real objection, *viz.*, the *comparative* sterility of onomatopoeitic roots, is met by Mr. Farrar, but we shall have to refer to this point hereafter, and, therefore, leave it for the present. The objection to the imitative theory, that "the most obvious onomatopœias are generally modern and often undignified, and that onomatopœia could never, therefore, have been a leading principle of language;" and *that* arising from "the difficulty and illusoriness of the search" for onomatopœias, we think Mr. Farrar has satisfactorily

answered ; so with the objection of fancifulness in finding imitation where there is none, as in the case of the word *sugar*, such apparent onomatopœias being merely accidental. This objection, in our author's opinion, only strengthens his argument, as it shows "that language reverts to its primary instincts. The earliest sounds were imitative, and after long deviations from their primitive sound, after being subjected to a thousand varying influences, they yet tend to become imitative again."

As a last objection, Professor Max Müller asks how, on the onomatopœiotic theory, "are all things which do not appeal to the sense of hearing—how are the ideas of going, moving, standing, sinking, tasting, thinking, to be expressed?" To prove how these ideas could have had their origin in onomatopœia our author shows that signs denoting kindred ideas have had an analogous origin in the Chinese language, in which "*extension, growth, increase*, were figured by clouds, the firmament, and vegetables ; *motion, agility, slowness, idleness*, and *diligence*, by various insects, birds, fish, and quadrupeds. In this manner passions and sentiments were traced by the pencil, and ideas not subject to any sense were exhibited to the sight." We think our author is right in denying that verbal roots, such as going, moving, tasting, etc., were the earliest. The formation of the noun must have preceded that of the verb. It would seem probable that "at first roots stood for any and every part of speech, just as the monosyllabic expressions do, and just as they do to this day in that language of arrested development, the Chinese." In accounting, therefore, for the origin of words expressing ideas of going, standing, etc., on the onomatopœiotic theory, its advocates have not to account for the *verbal* roots, but only for the roots which express the simple act. Those which our author has dealt with—the ideas of going, standing, tasting—we think he has satisfactorily explained the origin of, on the imitative theory. He shows also how potent an aid to onomatopœia, in the formation of words to represent natural objects not appealing to the eye, is found in the intimate connection between the different senses, which he asserts to be really but one sense, that of feeling. As our author puts it, two sensations, for example, a sound and a colour, "are but states produced in a thinking-subject, and, therefore, the brain, which is affected by the sound, can use sound as a means of expressing the effect of the colour also. Hence, we find throughout all language an interchange between the words which properly belong to different senses." Our author shows how wonderfully language is indebted to metaphor for its richness. Instead of invention being called into play, "the permutations and combinations of the few roots already supplied by onomatopœia and interjections were found



amply sufficient" to name "the abstract, the ideal, the spiritual, the mental, the imponderable, the unseen."

We see then how on the onomatopoeitic theory the most voluminous language may ultimately be derived from comparatively few imitative roots. There may be reason to doubt whether Mr. Farrar's conclusion expresses the exact truth, but his line of argument recommends itself so strongly to the reason, that we hesitate not to affirm that substantially it must be received as a satisfactory answer to those opponents of the onomatopoeitic theory with whom he deals. Language must have had its origin, either in imitation or in something near akin to it. When, however, we arrive at this point, a difficulty presents itself, which arises from Mr. Farrar's own reasoning. He affirms that no language can exactly imitate the sounds of nature, what we call word imitations representing rather "the impressions produced than the sounds which produced them," all such imitations being, in fact, coloured by the subjective faculty. He thus, as we have seen, accounts for the difference between the words used in different languages to represent the same idea. It is evident, then, that something more than simple imitation operates in the formation of language roots. The mind seizes on the most striking characteristic of an animal, which, in most cases, is the sound it utters, and instinctively seeks to reproduce it, or rather, the impression it makes. Have we not, however, here something very much resembling interjection? What are interjections, but the "instinctive expression of the subjective impressions of external nature." Imitation and interjection, taken as the origin of language, are, in fact, both instinctive. Our author himself asserts this fundamental analogy between them, in words we have before quoted. It is true he reduces interjection to imitation, but may not imitation itself be reduced to simple interjection? Ordinary interjection, as the outward expression of subjective feeling, takes its *peculiar* form, because it has nothing to imitate, whilst imitative interjection takes its *peculiar* form, because it has already something by which it can be moulded, in the sound it imitates. It must be so, unless we suppose that an operation of the reason precedes the act of imitation. It seems to us, that by reversing our author's notion of the relation between interjection and onomatopœia, and taking the interjectional view of the origin of language, we have a means by which the opposing theories of Mr. Farrar and Professor Max Müller may be reconciled, at the expense, however, of much which they may suppose to be essential to them. The latter affirms that "names, though signs of individual conceptions, are all, without exception, derived from general ideas," the general being the first thing really known, and

that every word "expresses a general idea peculiar to the individual to which the name belongs." If, by this, is meant that we actually have and recognise in our own minds general ideas, before we know particular objects, Professor Max Müller's position is quite untenable. If, however, it is merely intended that there are certain general notions in the mind, which instinctively shew themselves when particular objects are presented to it, we are taught a great truth. When objects are presented to the mind, it intuitively clothes them with the general notion already existing, and instinctively performs that act which "separates man from other animals, the *naming of a thing*, or the making a thing knowable." If, however, this naming instinctively follows the presentation of an object to the mind, or, in other words, the perception of one of its qualities which agrees with the general notions before in the mind, we have only to affirm that the perception of that quality is intuitive, and its representation in language instinctive, and Professor Max Müller's theory is reduced to one of interjection. For what is this *naming* but the instinctive expression of the sensation accompanying the perception of an external object—in other words, an act of interjection?

On the other hand, to enable the supporters of the imitative theory to meet successfully the objection that onomatopoeitic roots are sterile, or the more fundamental objection that the ideas which do not appeal to the sense of hearing cannot be expressed by onomatopœia, we must reduce imitation itself to interjection. Metaphor doubtless is a powerful auxiliary when language has been once formed, but to assert, that, because the impressions received through the senses act upon a "sensorium commune," or, in other words, because both a sound and a colour "are but states produced in a thinking subject, the brain, which is affected by the sound, can use sound as a means of expressing the effect of the colour also," does not meet the fundamental objection to the onomatopoeitic theory. Such an explanation is simply that, as all sensations affect one brain, the impressions received through all the senses may, and in fact must, originally have been represented by the same language signs, which, as they must have an analogy to the sensation, must be imitations of natural sounds. But suppose that, although our several senses may ultimately be reduced to the simple one of feeling, the impressions received through them are different, as they must be to enable us to distinguish between them, where is the necessity for the representation of such varying impressions by the same sound? Rather, as the impressions are different, we should suppose the instinctive expression of them to take different language forms. There is no more reason why

the first men should not have intuitively reproduced the impressions made on their minds through the medium of the eye, than that they should have represented sensations received through the ear. If, however, they did so, it must have been by interjection, as there would be no sound to imitate, and the impression reproduced must have been that of some striking quality of the object presented through the sensation. It is only so far as language sounds thus represent the qualities of objects, that they can be said to be necessarily fruitful. That they must be fruitful is evident, from the fact that, as the same quality is possessed by innumerable objects, the word denoting that quality can be applied to each of those objects, it being, indeed, in its very nature the expression of a generalisation. Of purely onomatopoeitic roots this cannot be affirmed, and hence the charge of sterility made against them with, we think, much truth. Mr. Farrar has certainly made good his position that such roots are not *necessarily* sterile, but we think that he has not answered the real objection. In fact, we much doubt whether the examples which he chiefly relies on—the early infant language sounds—are onomatopoeitic at all. At their origin, *ma*, *pa*, *ta*, etc., are much more like interjectional sounds than imitative ones. They are the “instinctive expression of subjective impressions,” and we think, therefore, they must be classed with the interjections, amongst which must also be placed the original and true onomatopœias of primitive language, which have, on our author's own showing, so near a relation to interjections, that he would leave the *latter* out of view, or rather merge them as a class in their more fortunate rivals.

The advocates of the onomatopoeitic theory can not be surprised at the charge of sterility when they assert that, “words can tell us nothing whatever about things,” nor even “about ourselves and the modifications of our consciousness.” No wonder—if all we can know of things without us, even their bare existence, is still within us, and is “only a thought, a something thought of by ourselves,” and if “the subject is and must ever remain for us as incognisable as the object!”

Space will not permit us to enter into the nature of the *ego* and the *non-ego*, further than to point out the fallacy that, as we can only know “the modifications, changes, accidents, sensations of the *ego*”, therefore, we cannot know the *ego* itself; and that, even if “qualities of objects” exist outside the thinking subject, as we can only know those qualities, we can know nothing of the object. If the qualities of the object and the activity of the subject are essentials of their existence, in like manner as the existence of each single faggot (to quote an analogy of our author's) is essential to that of a bundle of

faggots, and if to remove every faggot is to remove that which they in combination form, is not the knowledge of those qualities or that activity, a knowledge of the object or the subject itself? So far, then, from words telling us nothing "about ourselves and the modifications of our consciousness," each onomatopœia, as our author asserts, represents the "impression produced" on the receptive mind, and what is that but a "modification of consciousness," or a "sensation of the ego"? And if words can tell us "nothing about things," they are, in the words of our author, "the starting point of our higher intelligence," without which, "no great intellectual achievement would have been possible,"—not, however, because words are onomatopœias, or, as our author calls them, rude signs to represent approximately what *we think* about the relations of things, but because each word is the embodiment of a general idea expressive of a quality which may be predicated of an infinitude of objects, and because language is therefore a fit instrument for the infinite development of thought.

Other instances than those mentioned by Mr. Farrar of the article becoming tacked on to the noun might, if necessary, be given: as *nag* from *an hack*, from *eg-uus*; and *leisure* from French *l'oisir*, from *otium*, whence *cise*, *ease*. In the fifteenth century occur many curious examples of this kind.

Mr. Farrar might, had he thought it desirable, have given a far greater number of words from some roots: thus, from the simple sound *ma*, we have also *matter*, *material*, *Madeira*, *matricide*, *matriculate*, *metropolis*, *matrix*, *matrimony*, *matron*, *mother*; whilst from the root *pa*, we have also *patrician*, *patriarch*, *patron*, *patronise*, *patriot*, *patrimony*. We are sorry to find Mr. Farrar imbued with the Aryan heresy; the term Aryan having no more definite meaning than that of Caucasian, which it replaced. Aryan races, Aryan languages, Aryan metaphors. At no distant date, we may expect to hear of "Aryan dinners at the shortest notice."

As an etymologist, Mr. Farrar can be generally relied on; but we think we can point out a few errors. Speaking of the fertility of onomatopoeitic roots, he says: "In Greek, we have βαβαζω, βαμβαλιζω, I stammer; in Hebrew, *balal*, confundere, Babel, Babylon"; but Babel is with more reason derived from Persic *báb-bel*, the gate or court, i.e. the city of Bel or Belus. We are told that the root *wilwan*, "to plunder", furnishes both the Latin *vulpes*, and the German *wolf*; whereas *vulpes* is more probably from αλωπηξ, preceded by the Æolic digamma, and *wolf* from the Gothic *wulfs* (Scand. *ulf*); doubtless a metathesis of *lupus*. Comp. *forma* from μορφη; Gr. κληρος, Lat. *glarea*, from Heb. *gerel*; lædo, from δηλεω. Again, *barbarian* is derived from the Sanskrit *varvara*, a jabberer or confused

talker, and the word *wälsch* from the Sanskrit *mlêch*; but the former is rather from the word *berber*, and the latter from O. G. *walch*, peregrinus (A. S. *wealk*), from *wallen*, peregrinari, migrare, errare, vagari. We learn that 'soul', the German *seele*, is probably from the same root as the word *sea*, and the Greek *seiw* (to shake); whereas *seele* (Ice. *sal*, *sial*) is from the Gothic *saiwala*, which Junius renders "source of life;" and "sea" (Francic *se*, *seo*, *seuu*, Ice. *see*, *sior*) is more likely from the Tatar *sou*, water.

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### LIVINGSTONE AS AN ANTHROPOLOGIST.\*

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We are not surprised to hear that the public has somewhat coldly received Dr. Livingstone's new work. The experiences of six years could not be expected to yield such variety of incident as the experiences of sixteen. Nor is the spectacle of a government official, with a well appointed retinue, ascending a large though unknown river in a steamer, so romantic as that of a poor ruined missionary toiling across a continent attended only by some faithful blacks. It is not the author's fault that his second work should be far inferior to his first; but, with the mass of his readers, this circumstance has provoked a feeling of disappointment, and in many cases of unreasonable discontent.

It must also be admitted that *The Zambesi and its Tributaries* is not, from the circulating library point of view, a very interesting book. The subscriber to Mudie learns with a vague awe that the expedition, of which Dr. Livingstone was the gallant chief, made some most important geographical discoveries, but to his ordinary mind the book presents a flat surface, no result stands out in relief; a lake has been discovered, it is true, but he no longer cares for lakes, unless, like Speke's and Baker's, they may be supposed to contain the sources of the Nile; he is informed that the Kew gardens have been considerably enriched by the plant-products of the expedition, but he wants to see something out of the way, like the stuffed gorillas in the *Field* window. The fact is that, since Dr. Livingstone's first work appeared, Central Africa has lost its virgin freshness: a large number of works

\* *The Zambesi and its Tributaries*. Murray. 1855.

have been produced, and those who read many books on Africa, arrive at the same conclusion as those who have travelled through many different regions of that continent. A sad monotony prevails. One may pass from Angola to the Mozambique, perhaps even from Abyssinia to the coast of the Senegal, without encountering so vivid a contrast as is afforded to the Englishman who lands at Dieppe, or to the European who crosses over from Gibraltar to Tangiers. One may soon exhaust the varieties of African landscape; the muddy river with its mangrove swamp, and the virgin forest all around; the desert with its sea of sand and its oases of waving palms; the undulating southern plain with its thorn jungles, its masses of grey rock, and antelopes moving in the distance. One may still sooner exhaust the varieties of African men. All savages closely resemble one another; to the uninitiated eye, it is always the same animal yet saddened face, the slim graceful form, the dark skin streaked with paint and covered with the coarse bijouterie of beads. The savage has no *character*; he possesses no more individuality than other creatures which live in herds: examine a thousand minds, and you will find always the same cunning, curiosity, sloth, and that good-natured dishonesty which prefers pilfering to theft with violence, and the telling of agreeable falsehoods to unpalatable truths. The first sight of tropical scenery, or of naked natives in a canoe, and the first perusal of a work on African travel, are decidedly epochs in one's life. But when once the first feeling of novelty has passed, eye and mind seek for sensations in vain, and one is obliged to return to Europe to be amused. We have tasted the *ennui* of civilisation—for instance, the last fortnight of a London season—and the *ennui* of savage life. We must own that we prefer the former. In the same manner, we imagine that people not specially interested in Africa, will turn from Livingstone's *Zambesi* even to the second series of the *Gentle Life*, or to the new selection of Mr. Tupper's works, with feelings of positive relief.

The members of the Geographical Society have reason, on the whole, to be tolerably well satisfied with the results of the expedition, which in some measure they assisted to launch. It is clear that Dr. Livingstone's crotchets on cotton and Christianity served to hinder exploration; and on one occasion he expressly states that he did not push on as he might have done, his object being less to explore than to gain the confidence of the natives, whom he was attempting to convert to his views on agriculture and theology. Still, geographical science has been enriched by the efforts of the expedition; and Dr. Kirk has displayed an industry in collecting plants, which cannot be too highly praised.

Anthropologists find little in this work to notice except some serious

blunders, which we shall presently expose. On the other hand, we can cordially recommend it to all nigger worshippers, missionary exporters, and other Exeter Hallitarians. In Dr. Livingstone's first work, he showed both sides of the missionary question; and when he spoke of the slave-trade or other African abominations, it was merely to offer practical hints for their suppression, without indulging in rancorous remarks against those who hold different opinions on the subject from himself. But now he taunts the Oxford and Cambridge Missionary Society with having abandoned their hopeless mission, after the sacrifice of several noble lives; he accuses Capt. Burton of saying things which he does not mean; and makes other vulgar and petulant remarks, for which he has made himself responsible, but which we hope, for Dr. Livingstone's sake, have emanated from his pious brother, of whom we trust that we are not likely to hear again. We hope, also, and we sincerely believe, that a veteran African traveller acted under the pressure of evil advice, when he attacked and robbed a party of natives of the only property which they possessed. It is true that these natives were slave-dealers, and their property slaves; and that Dr. Livingstone received no lucrative benefit from the outrage which he committed. But, in so doing, he violated the law of nations, which sanctions the capture of slaves upon the high seas, not upon land; and we think he violated a higher law as well. We do not sympathise with the slave-trade, but we are unable to condemn the poor ignorant natives who engage in it, and who cannot be made to understand that it is wrong. To them Dr. Livingstone's proceeding must have appeared an act of violent rapine; and the expedition was afterwards in its turn attacked by the natives, who evidently regarded Dr. Livingstone as a wandering bandit, and Bishop Mackenzie as a white fetish man, who desired to seize a portion of the soil, and people it with captives taken in war. It was this one act of violence which was followed by such disastrous consequences to the mission, and for which Dr. Livingstone was by other missionaries, not altogether unjustly, blamed.

We have nothing more to say against the explorer, but with the author we have some serious faults to find. In his first book, Dr. Livingstone was content to describe what he had done, what he had seen, and what he had heard: he has now thought fit to tell us what he thinks, which has considerably lessened the value of his work. We accept Dr. Livingstone's facts with pleasure, but we would prefer to have them unadulterated with his ideas. We admit at once his qualifications for the life of a pioneer in difficult and savage lands; his laborious boyhood as an artisan; his constitution hardened in Africa from a very early age; his indomitable energy; and his courage,

which we believe to be unrivalled. But, although he enjoyed a medical education, the best basis of a scientific training, he left England before he had had time to build anything upon this excellent foundation-stone. He went out to Africa as a raw student, his memory doubtless stored with "insertions" of muscles, and minute branchings of nerves, catalogued with "cases", and well acquainted with the composition of drugs. But soon he was forced to bury himself among an inferior race, learning their language till he had almost forgotten his own, and dividing his life between the duties of a herdsman and a village schoolmaster. Deprived of all literature but the Holy Scriptures, and of all European society save an English "squatter" or occasional Dutch Boer, it is scarcely to be expected that he would become a man of very enlarged views.

Such an existence would of necessity leave the muscles of the mind untrained, and the brain empty, or filled only with religious cobwebs. Dr. Livingstone appears to suppose that the gift of reasoning can be acquired late in life; that, because he has collected a multitude of facts, it is also in his power to deduce conclusions from them; that, because he has picked cotton in Africa, at the peril of his life, he is able to sit down to the brain loom, and weave his raw material into elegant fabrics for the requirements of European thought. He appears to suppose that he, with his poor naked mind bedaubed with the chalk and red ochre of Scotch theology, and with a threadbare, tattered waistcloth of education hanging around him, can compete with the gigantic intellect of Burton, who has not only made splendid explorations, but who is one of our greatest linguists, and who is armed from head to foot with almost all the gear of human knowledge. A Burton may be allowed to reason (though, like all men, he may sometimes reason wrong); but a Livingstone must only describe, and even then his mind will sometimes blind his eyes. We must warn our readers that his remarks upon the west coast of Africa, with all that he says about Christian missions in those regions, are absolutely worthless: he is not one of those men who can grasp a subject at a glance, and he only glanced at Sierra Leone. That he should have been deceived by the Christian converts of that charming colony, does not surprise us in the least. But when Dr. Livingstone, possibly stung by the praises which Capt. Burton has lavished upon the Mohammedans, declares them to be inferior to the Negroes, we must own that this is a triumph of faith over fact, which would have done Dr. Livingstone great credit in the middle ages.

Those who are acquainted with Africa, must be aware that his travels have been almost exclusively confined to that part over which Mohammedans have obtained no sway. He is, therefore, not com-



petent to judge of the Mohammedan religion at all, still less of its influence upon the heathen mind. Had he visited those vast regions through which Barth travelled ; had he even, when he was on his flying visit to Sierra Leone, taken a short journey into the interior, he could scarcely, we imagine, have asserted that the ignoble fetish-worship of the Africans was superior to a religion which Locke termed a heresy, so closely does it resemble Christianity—a religion which has been as widely propagated among the nations of the East, as our own has been among the nations of the West ; a religion which was believed in by the only civilised nations of the dark ages ; a religion which has produced the Koran, with its attendant host of abstruse and eloquent works, its minute commentaries, and a controversial literature which rivals that of our own theology ; a religion which is, in fact, compounded of Judaism and Christianity, and which has had not only its bandit conquerors with the fire and the sword, but its missionaries, who have journeyed among pagan lands with only the Koran in their hands, and its martyrs, whom gentle Christians have ere now banished, tortured, and burned alive at the stake.

But Dr. Livingstone prefers the superstitions of the Negro to a religion which, in the abstract, is second only to Christianity, and which is better suited to a savage people than our more elevated form of faith. For instance, he says, p. 522 :—

“ Though cheerless enough to a Christian, the African's religion is mild in its character. In one very remote and small corner of the country called Dahomey, it has degenerated into a bloody superstition. Human blood there takes the place of the propitiatory plants which are used over nine-tenths of the continent.”

Now, it so happens that the custom of human sacrifice is not peculiar to Dahomey, but prevails in Ashanti, and, we believe, more or less among all the tribes of Northern Guinea. Each king sacrifices a number of slaves, criminals, or captives taken in war, according to his means. Dahomey has monopolised the reputation for this kind of thing with the public at large, and with such African travellers as Dr. Livingstone, who furthermore tells us, that the cases of cruelty recorded in Speke's travels are also quite exceptional. As Dr. Livingstone has not yet visited the remote corner of the country through which Speke's explorations extended, we prefer to accept in the meanwhile the testimony of the latter traveller.

From the passage quoted above, the general reader would infer that the Africans, as a rule, never offered up anything more highly endowed with life than a flower or a shrub. Dr. Livingstone avoids mentioning the sorcery superstition, which, from our own experience, we can assert to be rife in Pagan Africa, from the Gambia to Angola,

and which, as we glean from other books, is to be met with among countries with which Dr. Livingstone is well acquainted. Briefly, it is this. Whenever a man of importance dies, the fetish-man is summoned, and is ordered by the relatives of the deceased to find out by whom his death had been caused. The fetish-man fixes upon some unfortunate person, who is subjected to an ordeal, which usually results in the murder of the accused. But upon this subject we might fill pages, accumulating facts upon facts. The character of the native African is mild, it is true; he is naturally averse to bloodshed; but, when he commits a cruelty, it is almost always in the name of that which Dr. Livingstone calls his religion. Again, he says:—

“They are not, like the Mohammedans, ostentatious in their prayers. The African retires from view somewhat like the Christian, who enters into his closet, and when he has shut the door, prays to his Father who sees in secret.”

Setting aside the fact that Christians are the only religious sect who put on their best clothes to pray in, we are perfectly willing to admit that the Africans are not ostentatious in their prayers. We have spent days and nights in their company in a canoe, without ever detecting them at their devotions; and a very indecent dance, for the purpose of exorcising an evil spirit from a young woman, was the only religious ceremony which we ever saw.

“From boyhood upwards,” continues our author (p. 513), “we have been accustomed from time to time to read in books of travels about the great advances annually made by Mohammedanism in Africa. The rate at which this religion spreads was said to be so rapid, that in after days, in our own pretty extensive travels, we have constantly been on the look out for the advancing wave from north to south, which it was prophesied would soon reduce the entire continent to the faith of the false prophet. The only foundation that we can discover for the assertions referred to, and for others of more recent date, is the fact that, in a remote corner of North-Western Africa, the Fulahs and Mandingoes, and some others in Northern Africa, as mentioned by Dr. Barth, have made conquests of territory; but even they care so little for the extension of their faith, that after conquest no pains whatever are taken to indoctrinate the adults of the tribe.”

We should be glad to know upon what authority Dr. Livingstone makes the last assertion. For our own part, we can only say this: We have been in the Fulah and Mandingo countries, which, not having been visited by Dr. Livingstone, we shall at once confess to be “a remote corner” of the continent. We have seen there the converted villages and the unconverted villages side by side. In the latter the buildings were dirty hovels; the lands were untilled; the women did just sufficient work to keep their husbands from starvation.

These gentlemen slept all the day, danced, sang, played musical instruments, and drank palm-wine all the night. Their chieftains, when enriched by trade, had sometimes as many as a hundred wives: not a man was honest, not a woman was virtuous among them. While, among the Mohammedans, the drinking of strong liquors, the marrying of more than four wives, theft, lying, harlotry, and all other vices, were sternly forbidden. In every village was a school, in which the children were instructed in the Koran, and in writing Arabic, and taught maxims of morality.

Thus it is not without surprise, and somewhat of contempt, that we read in this work (p. 515): "The moral tone of the followers of Mohammed is pitched at a lower key than that of the untutored African." And again: "The only religion that now makes proselytes is that of Jesus Christ."

#### FLOURENS ON THE SCIENCE OF MAN.\*

So diversely, within the last few years, has it been thought necessary to treat of the science of man, that, though anthropologists are thoroughly alive to its real meaning, the general public still remains profoundly ignorant of its true scope and aim. While some view it from a purely materialistic standpoint, and limit its sphere to an examination of man's physical constitution, eliding, or but superficially contemplating his mental attributes and nature; others regard it in the light of philosophic generalisation, and interpret it to signify the study of the laws of historical progress and civilisation. The science of man is not uncommonly confused, also, with a general anecdotal description of his habits portrayed by a fanciful pen from old books of travels, and other equally trustworthy sources. That the proper study of the science of man involves the most minute examination and careful comparison of a series of facts in which day by day some trifling change may affect the whole science, seems to be an idea quite foreign to the average inquirer. The problems of man's origin—his capacities for progress and happiness, his antiquity and his future, rise like dreadful phantoms, and men of science turn and flee before them in dismay. But the study of anthropology or the science of man would be unnecessary, did its followers confine themselves to

\* *Science de l'Homme*. Par Gustave Flourens. Première partie, tome premier. Bruxelles. 1865.

the limits of ethnography, or shackle themselves by traditionary legends testifying to their own truth upon their internal evidence only, and hence the necessity for a more philosophical appreciation of historical anthropology.

The broad field of anthropology comprises many harvesters, and among these the philosophers who seek to unravel the laws of man's being by a close examination of his history and so inferentially to arrive at an approximation to man's *origines*, form no inconsiderable section. While Germany has produced her Lessing, Goethe, Herder, and Schlegel, and while Sismondi and Roscoe in their several departments have illustrated special portions of the philosophy of history,—France has not remained behind. To the names of authors upon this branch of anthropology, we have now to add that of M. Gustave Flourens, of whose work, so far as published, we shall now proceed to give an account.

We are met at the outset by one difficulty, which time alone can remedy. We have here but a fragment of the first section of M. Flourens' proposed work, and, in the present state of anthropology, the very portion on which it is desirable to exercise the greatest caution. The author describes the design of his work to be as follows:—

“The first part presents the action of humanity: first, the means of arriving at the true knowledge of human events, the production of these events, the influences by which they may be modified, the origin of nations, their comparative antiquity, the value of history; next, man's past subsistence on the earth, and that of each nation down to our epoch—the eras of humanity; and finally, man's future as founded upon the labours of the past and the aspirations of the present.

“The second part is devoted to the determination of the varieties of the human species, or races, and of their divisions, as afforded by the characteristics of the mind and body.

“The third portion comprehends material facts: the body of man and the other bodies constituting the universe, both organic or inorganic, studied from a human point of view. This point of view, alone true and worthy, should finally everywhere replace the theological point of view.”

Now, while coinciding in the last few words in which M. Flourens describes the scope of his work, we cannot but regret that the third and concluding part had not had the prior position assigned to it, and the more so, as on the very first page M. Flourens subscribes to the doctrine that the study of entire humanity is best initiated and most practically carried out by the contemplation of man as an individual, passing thence through family relations, to national life and race distinctions. To begin with broad generalisa-

tions was the fault of bygone students, and we confess it surprises us to find so accomplished a writer pursuing a method which, even in metaphysical Germany has been abandoned, of late years, for a greater degree of minuteness. A succession of monographs upon particular subjects cannot immediately lead to the clear establishment of a science on a broad basis; it would, in the present state of anthropology, be more prudent to avoid hasty conclusions drawn from the premises contained in a conspectus which must necessarily remain very incomplete for years to come. With this protest we may turn to the examination of the instalment before us.

No men know better how to put truisms in a brilliant way than Frenchmen. The reader is carried on with enthusiastic admiration at the clearness and cogency with which doctrines apparently new are laid down; and a kind of involuntary admiration causes this mirage of truisms to be accepted by him as novel reasonings. In this new world, which is the old—as Tennyson has it—the new form glitters and becomes the cynosure of every eye that it meets. But snatch away the veil and wash off the paint, and the old familiar verity of “nothing new under the sun” stands disclosed, raising in our minds such emotions as the special intellectual constitution of the individual looking on may call forth. Yet, the sophistical art has its uses too—in its beneficial office of varying the expression of dog-eared facts by wit, and sometimes turning up a diamond from the dung-hill. Eastern poetry derives its charms in the minds of those who read it, not from the multitude of ideas it presents so much as from the vast numbers of ways in which the same figure may be offered to the mind by the employment of synonyms.

The anthropomorphous tendency displayed by some writers is worthy of much more careful study than it has yet received. In one shape or other the habit of looking at everything as related to man's bodily form, is constantly evinced by writers of widely different views. The last century produced a man, whose scientific attainments have been unjustly obscured by a singular theology, subsisting in our days as a religious sect. In his youth regarded by many as a practical and profound anatomist, Swedenborg carried into his theological speculations the idea of a universal man in the form of which he averred the whole cosmical universe, interior and exterior, subsisted; and in the present day, carrying the substantially same idea into social life, we find some American writers, beginning their reconstruction of society by insisting on the sovereignty of the individual as the basis of a staple form of political association. In like manner the man of science, studying the problems of the past with a view to the necessities of the present and the possibilities of the future, commences

best with the investigation of man's intimate nature, physiologically and psychologically. But, we fear, that the opposite course of taking large groups of men in a corporate capacity, and reasoning from them to the individual, will only complicate and confuse the work to be accomplished. But a very few years ago facts, universally accepted at the present day, were not only unknown, but unsuspected; and we have every reason to assign a much greater antiquity to the dawn of civilisation in Europe than was possible before the discovery of the Swiss lake habitations. This led to further researches, and, but recently, somewhat complicated machinery of wood referable to prehistoric times, has been discovered in Upper Italy.\* Again, we read of traces of prehistoric civilisation in Italy; at a depth of thirty feet foundation walls of human habitations and tools were discovered in Modena; below that, at a depth of seventy feet, other fragments of human habitations were found, and still lower, removed a hundred feet from the surface, there were traces of a still more remote culture.† And yet, in the face of these discoveries, the infinitely delicate problem of human *origines* is proposed to be solved by mere deductions from the history of the migrations and anthropological characteristics of known historic peoples; modern, indeed, when compared with the builders of the structures to which we have referred! It is too soon to come to definite conclusions.

"Nations perish," says M. Flourens; "but history perishes not. Amidst the ruins which encumber its path, it advances with a firm step. Perhaps it sheds a few tears upon the ashes of a great people; but it has faith in humanity, and shaking off this dust sometime instinct with life, it resumes its way."

It is not desirable to occupy the reader's time with such anthropology as this, nor need it to have been quoted, except for the curious subjective illustrations of anthropology, it, in some degree, affords. M. Flourens here is completely anthropomorphistic in his eloquence. To individualise history would seem rather the function of an artist than that of a man of science.

"History perishes not, though nations" (objective forms capable of sight and touch) "perish. History advances amidst" (subjective) "ruins with" (subjectively) "firm steps. History sheds tears!"

History has even a religious faith, and a will of its own! Really, in the face of such a passage as this, we are tempted to much risibility.

It may be true that the concrete action of humanity is subject to definite laws of which we, as individuals, have no consciousness; but

\* Gastaldi, *Lake Habitations*, pp. 110-112.

† Vollgraff, *Ethnologie, Anthropologie, und Staats-Philosophie*. Erster Theil; Anthropognosie, p. 40. Marburg. 1851.

surely to set up vague forms of misty splendour should be left to some other hands than those of the student of the strict science of man. We should agree with the frank fearless words of Reich, so instinct with the spirit of impartiality, and the free acceptance of a materialistic destiny—should this exist—rather than bow down at the shrine of a vague generalisation.

“If we desire,” observes Reich, “to investigate the causes of phenomena, we must take up a standpoint external to them; we must not permit ourselves to be drawn into the region of phenomena, and our verdict must not be the result of our own peculiarities. And for the very reason that it is so unusual to find investigators leaving their own personality out of the inquiry, it happens that the universe in its magnitude and entirety is always judged with reference to individual relations, and construed according to the greater or less area of the partial observer. All philosophical systems, hitherto built up outside of the path of exact natural investigation, all cosmogonies written without frank recognition and valuation of the facts conquered by the aid of sciences, show themselves to be the faithful mirror-picture of individual modes of private cogitation; and these, being devoid of a true basis, suffer *ab initio* from the evil of insolidity, as also from the weakness of inherent contradiction, because, instead of proceeding from the Great All, they have the individuality of their founder for their angle of incidence; for these reasons were they endowed with only an ephemeral existence, and the first breath of impartial inquiry was enough, not alone to shake them to the foundation, but to destroy them altogether.

“The man ignorant of nature, wrapped in his sublime fog, and over-estimating his species, regards himself as the centre of the world. The impartial philosopher knows of himself that he is scarcely of that significance in the universe which is possessed by a grain of sand in the ocean; and in the process of inquiry, he assumes his own value to equal zero. Hence it is not at all wonderful that the results obtained are diametrically opposed.”\*

Such a mode of investigation, we think, is likely to be much more fertile in results—though less flattering to man’s vanity—than the *à priori* reasoning of an Oken, or the baseless speculations rising out of oral tradition or assumed revelation, befitting a period when the tendency of thought was of an entirely different nature.

M. Flourens, in the work before us, makes the remark that “the study of man is not a problem of geometry, or of mathematical reasoning, but of observation and experience.”† Very true and very trite, but the whole question hinges upon the mode of observation. No two men exactly observe or record their experiences in the same way; there are few who are not biassed by early education, even if not by

\* Reich, *Die Allgemeine Naturlehre des Menschen*, p. 1, sq.

† Flourens, p. 301.

personal interests. A devotion to an impartial science of man, to be sincere and fecund for future observers, involves—amidst the fleeting struggles of life—a daily and hourly social martyrdom. We appear, in one sense, to be ever at the threshold of our enterprise ; to be proclaiming for ever the necessity of impartial observation founded upon induction, without making a step in the right direction by fearlessly investigating the human organism *per se*, subject to no theories as to origin, pandering to no passing prejudice, pointing to no vague political paradise in the dim mists of the future.

It is useless to attempt to assign laws, when the guiding principle remains concealed from us. It is not impossible that observation may ultimately unriddle the riddle of the inherent antipathies and sympathies of human races (which exercise so powerful an influence, and, in fact, constitute the problem) ; but to endeavour the solution of the riddle of the sphinx, involves eventualities from which system-builders alone refuse to recoil, and which ultimately lead to destruction and confutation.

After a few preliminary considerations, pointing to the gradual peopling of the world from the Orient, and the subsequent population of America by Europe in its turn, M. Flourens defines the domain of history to consist in “the study of those great ideas which crush peoples under their pressure, and remodel them according to their pitiless decrees”, and in the consideration of “those instinctive movements of nations which change the face of the world.”

“History,” he continues, “cherishes centuries which know how to suffer, and battle to increase by a new moral conquest the patrimony of the human race. But vulgar conquerors, whose ambition is their sole motive, find a severe judge in her. She pardons no attempt upon the life of nations ; she leaves to politics their legal fights ; but, in the lowest tribe of savages, as in the most civilised of nations, the rights of man are respected by her.

“History has in her hands as a sacred deposit, not alone the facts of human existence, the past of nations, but also the reward of the labours of every man. The past belongs to history ; the present is about to belong to her ; she leaves to man nothing but the future.”

In the second chapter, M. Flourens defines the foundation of history to be the belief in the testimony of man transmitted by oral tradition or by written monuments : this belief is innate in man's nature, as shewn by the veracity of children before having any ideas of honour or virtue ; while the instinct of credulity is necessary to the mind, for, deprived of it, it would refuse all instruction, and there would then be no longer any society nor human wisdom. But joined with the instinct of belief, reason should be exercised to distinguish between the true and the false engendered by the interests of men.



Here we would pause to remark, that sometimes in historical matters the very misrepresentations made by men in the course of events become history in themselves, and therefore truly part of it. Of this we would remind the reader, in order to prevent the unnecessary writing of history as it *ought to be*, not as it *is* or *was*. Though no one of unprejudiced mind would be disposed to admit the policy of doing evil that good may come of it, yet it is impossible to be blind to the fact that, in large sections of time, gross crimes and events of immediate evil have resulted in the evolution of ultimate good to humanity in the aggregate. But when M. Flourens writes that "reason should exercise an absolute empire over history", he is only expressing an axiom universally admitted, and, of late years, the rule in practice. "History," as he afterwards says, "is only concerned with facts." But, possessing these, it is not enough; these facts would remain incomplete if their origin be not discovered. This consists in the human will, which has the power of choosing between reason and passion—both equally tending to the good of man, but by different ways. M. Flourens draws attention to the constant confusion of various ideas under the name of causes. There can be but one cause—the will, but the generating facts are the motives. "Their power is real, but it should not be admitted without examination; the order of events is not any mark of their origin." Finally, in leaving this subject, he says: "Chance cannot be wholly banished from history; but it should occupy a very small place therein."

M. Flourens commences his third chapter by saying that "if man were a pure intelligence acting upon other intelligences, it would be sufficient to determine the principle of his activity to find in it the entire origin of human events. But man consists at once of intelligence and matter: matter, which is the sphere of his activity, necessarily exercises an influence upon his body, which transmits a portion of it to the mind itself. The mind has, therefore, to combat this influence and reconquer its liberty without cessation." Material agents intervene in the production of human events as influences, and occasionally become motives. Among these last, M. Flourens instances the Baltic catastrophe, which forced three hundred thousand Kymry down upon the Roman empire, and led to the campaigns under Marius; also the destruction, in more recent times, of the Danish colonies of Greenland by the lowering of the temperature; these events, and similar facts in universal history, however, he considers to belong rather to a wider range of history than that of humanity alone.

Geographical circumstances M. Flourens counts among the main causes of the prosperity of great cities; in this confusing the effect

with the cause, for, as man was free to fix upon his dwelling-place, it was only natural that he should select the most favourable locality, and that this should continue, unless disturbed by some convulsion of nature, to form an important centre for human intercommunication. Many years ago M. Kohl, the well known German traveller, pointed out the permanence of capital cities, rarely removed very far from their ancient sites, and then only in obedience to the changes in the course of rivers, or other natural events.

M. Flourens proceeds, in the fourth chapter, to show that this eternal flux and reflux of events form character; and thence he passes from individual to national life, and from biography proper to history. Mixed races, according to M. Flourens, possess but a precarious existence; they have no vital endurance, and gradually fall before pure races, who are more susceptible of civilisation. Here we cannot agree with M. Flourens. The facts are against it; it is the mixed races who play the most distinguished part in the history of civilisation. England and North America are more composite in their ethnic characteristics than any other civilising powers, and yet we see no falling off in the anthropological characteristics of the races of those political entities. The composite character of the British populations, has recently received ample demonstration at the hands of Mr. Macintosh, in the pages of this *Review*; and no doubt further researches would materially confirm his conclusions. The time may come when all the nations of Europe will receive similar searching scrutiny; and we are not disposed to think that M. Flourens will be found confirmed in his observations.

We do not propose here to enter upon the dangerous ground of monogeny and polygeny; but we transfer a few words from M. Flourens to this place, in order to show his bias on that question.

"The human species," says he, "is one: in appearing, the races have constituted the species. The races appeared at various periods, simultaneously, and in several primitive distinct tribes, or original divisions. Species is not an abstraction of the mind; it is a reality proved by facts. The broad features of humanity are everywhere the same: no variation is apparent in man's nature (*aucune variation n'atteint l'homme profond*). There are not in humanity those essential differences which, in other beings, separate beings of the same genus. The soul still more distinctly reveals its unity; no matter the diversities of colour, of language, of civilisation, the ideas of the species always correspond to the human voice. The existence of nationalities (*peuplades*) formed by the product of mixed races, proves specific unity. These products are imperfect; but they have been able to subsist separated from their stocks, and to reproduce themselves throughout numerous generations, as long as no foreign influence had weighed upon them."

We must confess that the way in which M. Flourens inaugurates his quest into the science of man, as we have before said, does not impress us with any vast idea of his originality. We must, however, wait with patience for the portions of his book yet to follow. Fascinating as the philosophy of history necessarily is to the philanthropist, important as it is to the statesman, it is yet but in its infancy, the haze of metaphysics having so long obscured the plain practical facts of the science of mind from the eyes of the student.

We quite agree with M. Flourens in his recommendation of induction as the only guide to any true science of history ; but, with so incomplete a knowledge of that mysterious past, which is the storehouse of human error and human weakness, as well as the repository of man's greatest triumphs and noblest efforts, how can we expect with any confidence to apply inductive processes to large periods of time, without a more distinct knowledge of man as a physical being, without the light of archaic anthropology, and the support of anatomical science as a basis ?

Through the four hundred pages of this book, M. Flourens continues his purely historical discourse. We regret that our space does not enable us to present many brilliant and acute passages ; but it would be premature, at the present stage of the work, to pass any final opinion upon its contents. We must reiterate our regret at the arrangement adopted by the author, though we shall await the development of his method of treatment with confidence, and suspend our judgment.

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## ON THE HISTORICAL ANTHROPOLOGY OF WESTERN EUROPE.\*

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ONE of the most interesting, as well as one of the most instructive departments of anthropological science, is that in which the relations of the various races and nations who inhabit the globe are investigated. The study of the existing races of man, and of the influences which each exercises on those immediately in contact with it, although a more certain science, is often less interesting than the examination of the remarkable facts which history affords to us. When the historical mode of investigation is applied to many of the races of mankind, little or no results await us. An Australian savage, or the inhabitant of Tierra del Fuego, possesses no traditionary evidence of his own, whereon an account of the past history of his nation can be based; and the period of time during which he has been in contact with Europeans is too short to enable us to determine with certainty any facts regarding the events which have produced the dispersion, migration, increase, or extinction of his race. Yet, doubtless, there are important facts which would be disclosed to us, if we could tell any reliable information respecting the time when the early inhabitants of our tropical forests first contended for existence with the animals around them; and the conditions under which human life survived, whilst in South America, species of animals then contemporary with man, and now extinct, passed away. The method of inquiry which permits us to investigate these questions, falls legitimately within the scope of anthropology. It may be, and often has been, perverted. To search for the evidences of the existence of the first man who absolutely existed in any special quarter of the globe, would be a hazardous task, and probably one which an illogical mind would conceive. For modern science is so strongly imbued with the idea of the invariable sequence of general events, in the same manner, and governed by the same laws as at present, that a search after the remains of the first man would be as absurd an endeavour, as would be the attempts of the geologist who searched the Azoic rocks for the proofs of the existence of the first form of animate life. Modern science discourages these attempts to pierce into the "dead beginnings of things." Although the popular mind would very much like to have precise in-

\* Abstract of a paper read before the Hastings and St. Leonard's Philosophical Society, January 10, 1866, by C. Carter Blake, Esq., F.G.S., F.A.S.L., Foreign Associate Anthropol. Soc. Paris, Spain, and Moscow.

formation when the first man appeared in Western Europe, it is in the essential nature of scientific analysis to preclude the fulfilment of this childish longing. In the nursery puzzle which asks whether hens or eggs first came into existence lurks a profound moral, which I would fain commend to the attention of all those who seek to fix a precise limit in time to the origin or geographical distribution of the human race in any special locality.

But in Europe traditions of a different description are afforded to us. The Norman, the Dane, the Saxon, the Briton, are all races who possess a certain amount of individuality, and who have exercised an amount of influence on human history almost greater than that produced by any other group of mankind. The amount of education which every one amongst us owes to Hebrew, Greek, and Roman civilisation, is doubtless great; but the indelible race-characters which are impressed on the physical structure, as well as on the mental peculiarities of the Englishman or Irishman, rest on an amount of evidence which is deeply fixed in our popular mind. The race-antagonism which exists between the so-called Celt and the Saxon at the present day, is as high as at any time during the period of history. When an English anthropologist descants on the inaccuracy of the genealogies of the Irish kings, which Celtic historians assume to have existed throughout countless ages, the impulsive son of Erin replies, as Mr. John M'Elheran has done, that the Saxon is a "flaxen-haired, bullet-headed, stupid, sulky boor". To investigate the truth of this charge, it would be necessary to compare much moral and mental evidence, which would perhaps lead me rather into the sphere of comparative, than of historical anthropology; still the fact remains, that, even in the limited geographical space covered by the British Isles, races exist who hate each other "like brethren", and who, during the whole time that they have been in reciprocal contact, have kept as aloof from each other as political necessity would permit.

Again, we are met in polite conversation, in which a little diluted science is always more or less acceptable, with such expressions as "What a classically Norman countenance Reginald de Courcy has! How his black hair and eyes contrast with the flaxen locks of Roger Clutterbuck!" In this assumption there lurks a fallacy deeply impressed on much of our popular teaching. We are not entitled to affirm that the Normans were actually of darker complexion than the Saxons. The descendants of Norwegians, who for two hundred years had inhabited Neustria, can be expected to differ very little in physical character from the Norwegians left behind in Norway, whose descendants are flaxen-haired. The existing population of Normandy is composed of individuals of precisely the same complexion as those of

South-eastern Sussex. It is to the introduction possibly of a Southern French element with the Conqueror, that we can attribute the conventional ideas of the Norman type of countenance. We shall, in process of time, doubtless realise the fact that the change in the dominant population of the British Isles, which took place after the Norman conquest, was a change acting rather upon the laws, customs, and language, than on the people themselves. The imaginary individuals who are depicted as Cedric and Front de Bœuf, if placed side by side, and divested of the accessories of dress, would puzzle each of us to tell which was the Saxon and which the Norman.

Another popular expression is often used. A "Milesian" type is frequently spoken of, as applied to the natives of the Green Isle, and you are certain to know that the frequency of the use of this word varies in the ratio of the speaker's ignorance of its definition. For there is no precise meaning to be attached to the term Milesian. No Irishman is more related to the inhabitants of the isle Miletus than he is to the inhabitants of Yorkshire. We cannot find the relatives of the modern Hibernian in the Greek archipelago. There is no foundation for the tradition of a Milesian descent for the Irish. Still less do we comprehend the statement more clearly when it is hinted to us that Milesian in some way means "Spanish." There is no historical proof of migration from Spain into Ireland, other than the fact that we have in Munster men with dark crisp curly hair and dark eyes. The amount of evidence which would associate ancient Irish with ancient Spaniards, and give them the name of ancient Greeks, is very small.

One of the most interesting problems connected with the historical Anthropology of Western Europe is the prevalence of many outlying and scattered peoples, separated from each other by the neighbouring more powerful and more important nations. The most prominent amongst these is doubtless the Basques. This people has been alleged, upon a certain ground of probability, to have been of the same group as the great Iberian nation that prior to the Roman conquest covered nearly the whole of Spain. Now cabined, cribbed and confined at the foot of the Pyrenees in the extreme north of the Peninsula, they have long attracted the attention of anthropologists. Their singular language, composed like some of the languages of Lapland and Finland by the agglutination of separate words in one word or sentence, has led many to suppose that they represent the traces of a nation which inhabited Europe from the North-cape in Lapland to the straits of Gibraltar. We find traces of allied peoples, it is said, in the Rhætian Alps of Switzerland. The theory which presupposed the existence of this primitive "allophylian" people has been carried

to a great extent in Germany where it was invented, in France where it has been discussed, and in England where it has scarcely yet been comprehended. But the test which a comparison of the cranial forms of various peoples affords to us, serves to show that this theory, even enjoying as it did the approval of the illustrious Retzius, has very little foundation in fact. I am not here about to institute a comparison between the skulls of the Basques and those of the Lapps, but merely to indicate as a broad result the conclusion which was arrived at by the illustrious M. Broca after a due and diligent comparison; that the presumed affinity existing between the existing Basques and the modern Lapps is very small. This is interesting, and the only reliable fact that historical anthropology affords to us is that we have widespread over the whole of Spain, traces of the diffusion of the Basque language. Mr. Blake proceeded briefly to notice the hypothesis which Professor Phillips had recently propounded, that the *Cynetæ* of Herodotus might have been possibly one of these allophylian tribes. As we had little more absolute information respecting the *Cynetæ* than the mere fact that they were found with the *Celtæ*, he thought this theory extremely wild. He alluded to the testimony of Cæsar, who spoke as follows: "*Britannia pars interior, ab iis incolitur quos natos in insula ipsa memoria proditum dicunt.*" Tacitus, in his Life of Agricola, had spoken of the traditions which existed of Iberian immigration into South Wales, Gallic to our South East Coast, and German to the Grampian hills. No direct affinity could be inferred between the South Welsh and the Spaniards, and perhaps less between the inhabitants of the Grampians and that of every known part of Germany.

He next adverted to the Atlantic population, taking the extinct Guanches of the Isle of Teneriffe as an example. We have perhaps a right to infer that the mysterious Basque nations, instead of being the relatives of Northern populations, are actually the relatives of such tribes as the Guanches. Those theorists who had speculated on the existence of an Atlantis might, if this theory be correct, have some solid ground for their hypothesis.

In France are to be found many races of men who have attracted of late considerable attention, and who have been known under the collective title of cursed races (*racés maudites*). The Alans, the Suevi, the Visigoths, the Huns, the Iberi, the Vandals, the Saxons, the Neustrians, even the Phœnicians, have left elements which Lagneau considers to be distinctly recognisable in the French population. The Saracen element in France during the years 806—975 left many descendants. It is said that some of the Saracen legions settled themselves near Macon, where under the names of Burhins

and Chizerots, they still inhabit some part of the district. The Burhins have a dark complexion and are of medium size, with small bright eyes, sharply cut features, bushy eyebrows, and thick hair: the Chizerots are coarser in their physiognomy. The most interesting of these tribes are undoubtedly the Cagots of the Pyrenees, so persecuted by the authorities in Béarn in 1596. These have often been confused with diseased idiotic subjects like the *crétins* of the Alps, from whom they differ in many respects. *E.g.* the *crétin* is usually afflicted by *goitre*, and possesses an extremely small semi-idiotic brain: but the Cagot is apparently a normal example, and the intelligence of many male, and beauty of many female Cagots, have become proverbial. They are specially characterised by a peculiarly formed ear, sessile with, yet brusquely exserted from the head, small bright blue eyes, very large skulls, often of considerable breadth, short necks and frequently bowlegs. Two sorts exist, one with white skin and flaxen hair, the second deeply bronzed, with crisp woolly hair, grey eyes, and high cheekbones. It has been thought that the Cagots (caas goths; gothic dogs, or gothic hunters) were the descendants of the Visigoths, who fled to the desert places after their defeat at Vouille, and the subsequent conquest of Spain by the Saracens, or perhaps after the disastrous war of Charlemagne to the South of the Pyrenees. But all those who are acquainted with the Mohammedan polity will admit that the Arab conquerors of Spain were not persecutors, as the Roman and Gothic laws were allowed frequently to be kept amongst them. The Cagots have also been alleged to be of Saracen origin. They were frequently termed *Christaas*, and have been thought to be the descendants of Christians of the primitive Church persecuted and driven into the hills. Finally they have been considered to have been the descendants of the Albigeois, or Albigenses, against which heretical sect the civil law was rightly put in force between 1208 and 1226. The Gavaches, who may be considered as identical with the Cagots, speak the *langue d'oil*, allied to the modern Northern French, in the midst of a *langue d'oc* country. It might have been imagined that in the little Republic of Andorra, concealed in the Pyrenees, some trace of Cagot manners would have been found; but the Andorrans merely speak a debased Catalan Spanish, and do not differ in any way from the adjacent population. Again, no affinity seems to exist between the Cagots and the Basques. Mr. Blake alluded to the isolated state of the Cagots, and the manner in which by a defiance of the municipal law of France, the neighbouring population precluded them from possessing land.

The Phœnician element might be expected to be considerable in N.W. Europe. The Phœnicians founded Marseilles and many Medi-



terranean ports. Much had been said in favour of the hypothesis of their trade with Cornwall. This was not so certain as was formerly thought, in spite of the erudite treatise which Sir Henry James had recently promulgated. That learned author had endeavoured to show that the island Ictis, to which Diodorus Siculus alludes, was the present St. Michael's Mount, and not, as had been frequently thought, Vectis, or the Isle of Wight. It might have been expected that if Phœnician or other Syrian influences had existed for many years in Britain, some Semitic taint would be observable in the language, yet none such exists. Lysons had recently attempted to prove the contrary; an author who rather preferred to believe that the name of the village of Ore was derived from the Syrian root of Aurora, than from the ironworks which once existed in S.E. Sussex.

Mr. Blake briefly alluded to the traces of early population in W. Europe. He criticised the opinion which Retzius has so widely circulated, that the early Celts were a long-headed (dolichocephalic) race, in opposition to the short-headed prehistoric population of "Turanian" affinity who inhabited western Europe, prior to the arrival of the Celts, and whose modified descendants were supposed to be identifiable with the Basques, Laplanders, Rhætians, etc. This theory of course rests on its own basis. It has been recently so severely criticised and ably defended in Paris, that Mr. Blake called attention to the fact that a certain long-headed type of skull is conventionally associated in our minds with the idea of the "Celt." He was, of course, aware that many early Briton (undoubtedly ancient) remains (*e.g.* those described by Dr. B. Davis from "Celtic" burial places in Northumberland) exhibit a short-headed form of skull. He was far from denying that the true typical Celt—in England at least—may be brachycephalic; but the confusion which has arisen on this subject appears rather to rest upon the supposition that one uniform race of men overspread western Europe prior to the great Teutonic, Slavonic, and Roman migrations. So far as regards France, M. Paul Broca has overturned this theory. He has shown that widely distinct races of men inhabited France at the earliest period; the researches of Dr. Thurnam *On the Principal Forms of Gaulish and British Skulls*, appear to lead to a similar result. Under these circumstances, he was content to admit the fact that in Ireland we have an extremely ancient dolichocephalic form of skull; in England, an extremely ancient brachycephalic form; in both countries, other and discordant types are to be discovered in riverbeds of the highest antiquity; turning eastward, the most ancient caves of Belgium appear to afford us another and distinct long-headed type, as well as a co-existent brachycephalic one; whilst the Danish tumuli present to us a form which, although brachycephalic, differs

most entirely from the brachycephaly of such ancient English skulls as those from Gristhorpe or Codford. At Alnwick, in Northumberland, Mr. T. Tate, nephew of their learned President, had, however, recently found skulls whose characters close accord with those of the Danish tumuli. Any of the above types of skull may be considered by an observer as "Celtic;" and should this word hereafter be proved to have any meaning, which may be reasonably doubted, anyone will be at liberty to select that skull which he chooses to represent the typical Celt. He remarked on the extreme tendency which modern anthropology presented minutely to subdivide the races of men. M. Broca had applied this investigation to France, and had distinctly shown the difference between the Gauls, *e.g.*, and the Kymri.

Did the so-called "Celtic population" ever extend into Eastern Europe or Asia Minor? The usually cited examples were of course the Cimbri, and the Galatians. Now he (Mr. Blake) confessed that he did not know any good reason to infer that the Cimbri of Denmark had anything to do with the Kimmerioi of the Crimea; more than the mere semblance of name. The Galatæ were, however, to be treated on their own ground, and he confessed that he thought the broad generalisations which had been made in a recent commentary on S. Paul's Epistle very wild indeed. Even supposing that the apostle had been addressing the aboriginal population of Galatia, which he does not appear to have done, there was nothing which could lead one to infer that there were at any time Celts in that country. He thought that the word Celt had merely been applied to them by the Greeks, in the same sense that the Chinese include under the name of "Fanqui" (barbarians) many diverse races, without assigning any special classification to them.

Mr. Blake concluded by remarking: Some may ask, what are the conclusions which I draw from the few illustrations I have cited from the vast series of facts at our disposal. There is a custom which I regret to see is too prevalent, to depreciate the accumulation of mere facts unless their interpretation "leaves upon the mind any distinct law-principle or new theory." This is a very curious phenomenon, even in the present phase of science. It can only in my mind be interpreted by one of two suppositions. Either he who sneers at the recordal of facts is constituted an authoritative and infallible guide, and possesses within himself all knowledge past, present, and future, comprehensible and incomprehensible. Science, however, rarely meets with these gifted teachers; and where we are all students, each man labouring with an earnest desire to make known the little he can discover by the faculties entrusted to him, few would arrogate to themselves those attributes of omniscience.

But another solution is I think the true one: He who scoffs at the known fact and craves hungrily for the new theory or the brilliant generalisation is often amongst those to whom the recital of a fact is tedious and incomprehensible. Lord Stanley recently said, "There are a great many people who if you give them a new idea, receive it almost as if you had offered them personal violence. It puts them out. They don't understand it, they are not used to it." These words really reveal the cause for the yearning which many still have for some wonderful "royal road to learning" which will enable those who cannot with ease enlarge their minds so as to comprehend the facts before us, to acquire an amount of knowledge far transcending that which a mere worker like myself can ever hope to attain.

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#### ON THE CAROLINE ISLANDERS.

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WITH reference to the article which appeared in the January number of the *Anthropological Review*, on the "Skulls of the Caroline Islanders", I beg permission to offer a few remarks (the result of my personal observations in the Pacific), which may perhaps tend to support the views of the writer.

The allegation to which reference is made, that the hair of certain islanders in the Pacific, variously described as Oriental Negroes, Negrillos, Negritos, and Papuans, grows, not equally spread over the scalp, but in tufts with bare spots between, is one which I very much question. So far as I have been able to learn, the hair grows spread equally over the scalp; and I think it will be found that the "spiral tufts" are directly the result of an artificial process, as described by your writer at p. 59 of the *Review*. It has been explicitly stated to me by natives of the Loyalty and New Hebrides groups, that their hair grew equally all over the scalp, and that the tufts were the result of training, as I stated in the *Athenæum* of December 23, 1865. "A party of ten natives from various islands in the group just named, were left in Fiji by a sandalwood trader, and employed by Dr. Brower, the U.S. consul, on his sugar plantation at Wakaia. Every hour that these men were not at work, they spent in plaiting, twisting, and training their hair into 'separate spiral tufts'; and they stated that such was the custom of their country, and that their hair *did not grow* in 'separate spiral tufts'." Another party of thirteen natives from the same groups, also left in Fiji by a sandalwood trader, *did not* train

their hair with "separate spiral tufts", but "teazed out their crisp locks into an immense bush", after the mop fashion—the prevailing style of the Fijians. In this they did not imitate the Fijians, but followed what they alleged was also a custom of their own islands.

It thus appears that on the same islands both customs or fashions are simultaneously existent. In the words of your writer, the hair "is generally exceedingly fine and slender, and of that structure which Mr. P. A. Browne denominated *eccentrically elliptical*." The consequence of this form of its section is, that it naturally twists into corkscrew locks. These the natives avail themselves of, and produce the "separate spiral tufts", or the immense mop-headed bush, as their fancy or vanity may prompt. "Those having any kind of crisp or woolly hair, which grows sufficiently freely, might adopt either custom, irrespective of its springing in tufts" (p. 59). I have known Fijians, whose hair is "crisp or woolly", produce these "separate spiral tufts", after having grown tired of their own common mop-headed fashion, and then revert to the mop-headed style after having in turn become tired of the "tufts".

At p. 59, it is remarked, "no straight-haired people would follow either of these fashions." I have known pure Samoans and Tongans (fair-skinned Polynesians)—whose hair is not in the least "crisp or woolly", but, on the contrary, quite straight and smooth, or at most wavy—produce sometimes the separate spiral tufts, sometimes the mop-fashion. In all the instances which thus came under my personal notice, the spiral tufts, I must confess, presented the appearance of a natural growth, and there was also the appearance of the bare spots between the tufts. A young Samoan, who was several years in my service, has cultivated both styles in the course of three months, the common flowing style of the Samoans being adopted in the interval. His name at the period to which I refer was Tui. Lately he has become head of his family, and as such (tulafale) has assumed the official or hereditary family name—Tamaalii, and belongs to the town of Fasitootai, on the island of Upolu. Naturally, his hair is neither crisp nor woolly; it is not even wavy, as is that of many Samoans; it is perfectly straight, though not so coarse as that of the generality of his countrymen. To produce the spiral tufts, a few hairs were closely and carefully twisted round a piece of the fine rib of the cocoanut-leaf, and the end tied with a strip of soft native cloth (*Brussonetia*). When the whole head was done, it was left in this state some ten days, the peculiar construction of the native pillow not interfering with the arrangement of the locks at night. The cocoanut ribs being removed, the hair was bathed with a mixture of scented cocoanut oil and bread-fruit gum (in Samoan, *pulu*), and after a careful and tedious manipu-

lation and arrangement of each separate pendant, there were these wonderful "separate spiral tufts" and the intervening bare spots, as natural to all appearance as a production of nature herself. I have personally known other individual instances in Samoa, with precisely the same conditions as the foregoing. The mop-headed fashion of the Fijians is not unfrequently cultivated by the fashionable and fast young men of Tonga, as well as by young Samoans, and is greatly admired in both groups as *the Fijian mode*. Yet, cultivated as it is occasionally only by the *exquisites*, it cannot be said to be a prevailing custom thus to tease out the hair in Tonga and Samoa in the mop-headed style. Nor is the style or mode of the "separate spiral tufts" precisely the same in all the islands. At Tana, Niua, Futuna, and Aneiteum, the tufts terminate in curls or ringlets, which are absent in some other islands. Without the remotest possibility of question, the crisp frizzly hair of the dark-skinned Fijians *does not* grow in separate spiral tufts; and if, as alleged, they are Oriental Negroes or Papuans, the allegation that the hair of this race grows in tufts, does not hold good when tested by fact. Neither will Mr. Earl's remark, as quoted at p. 60, bear the test of fact; since not only Fijians who are the offspring of parents, one of whom is a dark-skinned Papuan or Oriental Negro, and the other a fair-skinned Polynesian, but also pure Tongan and Samoan Polynesians, produce the "separate spiral tufts" with the apparently bare spots between, when they choose to apply the artificial process. I have, however, observed that the more crisp and woolly, or rather frizzly, the hair, the longer it will remain in "separate spiral tufts" without the repetition of the process which produces them.

Admiral Erskine, at p. 339 of his *Journal*, says that at Uea (Loyalty group) he observed "about an equal number of crisp and flowing haired heads, and was told on inquiry that the latter could not be artificially frizzled." The author of this information is not given. Nevertheless, I have no hesitation in repeating that my personal observation tells me that the flowing hair of the Pacific islanders can be, and is, artificially frizzled, and also trained into "separate spiral tufts". I must add, however, that I do not at this moment remember having met with instances of this artificial process to the eastward of the Tongan and Samoan Polynesians.

With reference to the *colour* of the hair, I do not know how far scientific observations on specimens forwarded to Europe from the Pacific may be affected by the custom, more or less prevalent in all the islands, of *dyeing the hair*. On some islands various kinds of clay are used; on others, various juices extracted from the barks or roots of trees; and on others, again (more commonly among the fair-skinned than among the dark-skinned islanders), the colour of the hair is regu-

lated by the application of coral lime. A man to-day has what in common parlance is called *black* hair; to-morrow he is seen with his head plastered all over with lime—snow-white; and so for five or six days successively, fresh lime is applied every morning. At the end of a week, after a thorough washing in the sea or the river, and a copious libation of cocoanut oil, the black hair has become auburn. In fact the natives, speaking generally (though the fair Polynesians somewhat excel their darker neighbours of the west), can produce any shade of colour, from black to light brown or auburn, just as they please; and these shades remain as long as the dyed hair lasts. But the *new* hair, as it grows after the dyeing process has been discontinued, is dark; and hence a man may often be seen with six inches of brown hair and six inches of dark hair in the same length at the same time on his head. Does the influence of the lime penetrate the skin, and more or less affect the growth, texture, and colour of the subsequent hair?\*

Your writer remarks, that the “*hypsi-stenoccephalic* crania are sometimes seen in an extreme form in the skulls of the Loyalty islanders” (p. 55); and that “it must remain for future investigators to determine the degree to which this peculiar type prevails in these groups. As far as can at present be ascertained it is general, yet marked with different shades of intensity in different cases, etc. (p. 56). Throughout the Loyalty, New Hebrides, Salomon, and other groups and islands, there has been more or less fusion of the dark- and fair-skinned peoples, the Oriental Negroes or Papuans, and the Polynesians. This intermixture is authenticated by positive genealogical traces of ancestry to Tonga and Samoa, by the commixture of customs, by philological affinities even to the prevalence of identical words, by the variety of the shades of colour of the skin, by the degrees of crisp and flowing hair, and by tradition. Now, does this intermixture affect the development and prevalence of the peculiar

\* It may not be uninteresting to mention that, on those islands where lime is most commonly used to dye the hair, there are more natives with defective eyes than on any others. And I may add, though it is somewhat irrelevant, that pulmonary affections are, in proportion to the population, more prevalent in the mountainous islands, where the land-breeze and the dew of the night sweep from the interior to the coasts, than on the lagoon or aboll islands, where there is no land-breeze nor dew, or but very little. The land-breeze and the dew have the same name, *sau*, *kaa*, or *hupe*, in Polynesian dialects; *caucau* (*taauthau*) in Fijian. It is also remarkable, that those islands where vaccination had been introduced, were passed by small-pox, when it travelled from the Sandwich Islands and Tahiti to the westward; and that the attacks of severe influenza, which have occasionally passed through the Pacific, can be traced in successive stages from east to west.

type of crania your writer describes? and does it account for the "different shades of intensity in different cases"? And, if the type is not "universal" in these groups, is it limited to particular islands or tribes, where there has been no intermixture? It is remarkable that the skull which is said to present the most savage type, is that of a young man belonging to Vaté, or Sandwich Island, where there has been a large intermixture of the fair- and dark-skinned islanders.

On this question of crania, it would be well to bear in mind the practice, so prevalent throughout the Pacific, of squeezing the heads of infants into the locally admired shape, which shape varies more or less in every island, or, at any rate, varies in every group. Before a child is a month old, its head is made to assume a totally different shape from that which nature designed, whatever that might be. In some cases, the tender skull is squeezed on the sides, over the ears, to make the head elevated in the centre. In some islands, it is pressed on the top and on the forehead, to make the head project behind. In other islands, the forehead and the back of the head are pressed. I think it will be found that, among the fair-skinned islanders, the prevailing custom is to squeeze the top and the back of the head and the forehead, to make the head (as they allege) round and low; and that, among the dark-skinned islanders, the prevailing custom is to squeeze the sides over the ears, and the upper part of the forehead and the lower part of the back of the skull, to produce (as they allege) a long, high head, which they fancy best displays the artificial spiral tufts, and the immense mop-headed bushes of hair. Does this squeezing process affect the form of the brain as well as the form of the cranium? The Tongans, Samoans, Tahitians, and Sandwich Islanders, for the most part squeeze the heads of infants in the former manner, while the Fijians adopt generally the latter. And yet the Fijians, said to be Oriental Negroes or Papuans, are not in mental or physical capacity inferior to their fairer-skinned neighbours, the Polynesians. When remonstrating with the mothers and grandmothers, whose duty it is duly to press the heads of the new-born babies into the admired shape, they have generally replied with indignation, "would you have the child grow up *ugly and foolish?*" It is certainly the general opinion of the islanders, that the particular way in which they each squeeze the heads of their infants, adds to the mental capacity, as well as improves the physical aspect. The pressure is performed by hand, every day, for three or four weeks—in fact, until the desired form is attained.

Throughout the Pacific, instances are occasionally found, where the hair has been "eradicated from the *labia*" by means of a small clam-shell, the same as used to eradicate the beard; and I have heard of

rare instances, where sometimes the *labia*, sometimes the parts immediately contiguous, were tattooed. This, I think, is more frequent among the fair-skinned islanders, though it is by no means a common practice in any of the groups of Eastern or Western Polynesia. And I could never discover any cause or motive for either practice, other than the mere fancy or vanity of the individual. It is, however, common to find women, especially ladies of rank, slightly tattooed high up on the inner parts of the *thighs*.

All the dark-skinned islanders bore their ears, and the lobes are as frequently inordinately stretched as left in the natural size. As we go eastward, the size of the hole and of the lobes becomes smaller, until the fair-skinned islanders simply make a hole large enough to carry a little flower or two, generally the sweet-scented *Gardenia*. In Fiji, Dr. Seemann and I found the chief Kuruduadua (Kurunduandua) of Navua, on the south coast of Viti Levu, with a huge cotton-reel, inlaid with white, blue, and red beads, hanging from his left ear, where it had been for many years, at once the pride of the chief, the admiration of his wives, and the wonder of his tribe.

From such information as I was able to collect (without myself visiting the precise locality), there seems no doubt, as your writer suggests, that the various grouplets classed under the general name of Caroline Islands, are peopled by dark- and fair-skinned, crisp- and flowing-haired natives—a fusion of the Oriental Negro or Papuan and the Polynesians. The latter, drifting in their frail canoes, amalgamated more or less with the former on the islands they reached, just as in the more southern groups of New Hebrides, Loyalty, Salomon, and other islands. The result is, the variety of hair, of shades of skin, and of language, now found to exist.

WILLIAM T. PRITCHARD.



## ON THE LANGUAGE OF THE MAGYARS.\*

THE language and literature of the Magyars have suffered greatly, partly from political causes, partly from the imposition of the Latin language. Upon the conversion of the Magyars to Christianity, the foreign clergy not only introduced the Latin into exclusive use in the public worship, but, through the power which they exercised, succeeded also in making it the language of the Court and of the government. We are led to believe indeed that for several centuries the native language was only in use among the lower classes, and that the Latin monopolised the field of literature till the close of the eighteenth century. But perhaps this is going too far, for we find a great many works in the Magyar language prior to the commencement of the present century. Not only is poetry well represented, but we notice also works on most of the arts and sciences, and many translations from French, English, Latin, Greek, Turkish and Arabic.† Joseph II endeavoured to supplant the Magyar language by decreeing the use of German in the schools, courts of justice, and administration, an attempt which seems to have produced effects the reverse of those anticipated; and it is from this period that the cultivation of the Hungarian language is said to have commenced.‡ In 1806 the Magyar was substituted for the Latin as the language of the courts and of public documents; and later, in 1831, the native language received a still further impetus through the laudable efforts of the Hungarian Academy.

There are many theories as to the origin of the Hungarians and their language, one writer tracing them to the Caucasus, another to Parthia, and a third to Palestine. Again, some have endeavoured to establish a connection between the Magyar and the Scandinavian languages, and even with the Arabic, Hindústání, Sanscrit,§ and

\* At our request, Dr. Charnock has kindly favoured us with the following remarks on this interesting subject.

† Fejer wrote a work called *Anthropology and Logic*, but I do not know the date of publication.

‡ A late writer says: "The most decided and permanent excitement of the Magyar literature was received from these decrees of Joseph II, which were intended to overthrow it. The mandate 'Let the Magyar language perish', was construed by every patriot Hungarian into 'regenerate your mother-tongue', and it was regenerated."

§ There are Sanscrit roots in the Mongol, but it is doubtful whether any of them have found their way through the Kalmuck and the other Tatar dialects into the Magyar.

Chinese. A late writer says, "The Magyar language stands alone and remote from every other. We do not believe the story of Don Cossacks having lately wandered into Hungary, where they found, we are told, no difficulty in understanding and being understood by the Magyars. We have ourselves compared the Magyar with most of the dialects spoken in the south and east of Russia, and have ascertained that the resemblances are faint and few. In structure it bears a slight affinity to the Finnish, Laplandish, and Esthonian, and elaborate industry has discovered some words apparently of common origin. The same is the case with the Chudish, the Teutonic, and the Slavonian. But the distinguishing characters of the Magyar are solitary, and its roots cannot be traced to any hitherto discovered source. Much of the political history of the Magyars may be followed in the foreign words which are found in their language."\* This writer might have been of a different opinion had he consulted the principal works on the Hungarian language which had seen the light at the time he wrote the above. Considered grammatically, the Hungarian has considerable affinity with the Lapponic and the Finnic proper, and to some extent with the Finnic and Finnic-Tatar dialects spoken by the Votyáks, the Cheremisses, and the Vogúls; also with the pure Tatar dialects and their offspring, the Turcic and Basque. The resemblances between the Magyar and the Turcic have been already pointed out by M. Vámbéry. Those between the Magyar and the pure Tatar dialects are but few on account of the paucity of the grammatical forms in the latter. In the Magyar there is only one conjugation for all regular verbs. In Mongol there is only one conjugation for both primitive and derivative verbs. The principal affinities between the Magyar and the Lapponic are in the termination of the nouns and the adjectives, in the absence of gender in the nouns, in the declension and conjugation, in the comparison of adjectives and adverbs, in the pronouns, the numerals, and the suffixes. The Hungarians, like the Lapps, are fond of reduplication.† [This is also the case in the Mandshu.] In declension and conjugation the Magyar agrees to some extent with the Esthnic. The Magyar forms some diminutives like the latter language, and agrees with it as it does with the Lapponic in the comparison of the adjectives. In the Magyar, the comparative degree is formed by adding *bb*, if the last letter of the positive ends in a vowel, and *abb* or *ebb*,

\* See an article entitled "Language and Literature of the Magyars", *For. Quart. Rev.*, vol. iii, p. 28, 1829.

† Among other examples, Gyarmathi gives the following: Lap. *japest, japai*. Mag. *esszendöröl, esszendöre*, de anno in annum; Lap. *orron, orroje*, Mag. *örökkön, örökké*, in æternum.

if it ends in a consonant. In the Lapponic, if the last letter of the positive is *e* or *a*, it adds *b*; if in *es*, it adds *eb*; if in *as*, *atz*, or *os*, it adds *ab*. In the Dorpat dialect of the Esthnic the comparative is formed by the addition of *mb* to the positive. The Magyar agrees also with the Esthnic in its numerals and adverbs, and with the Basque, as with the Lapponic and Finnic, in the absence of gender in the nouns,\* and also in the declension, in which it is liable to take, according to some, ten, according to others, thirteen cases.† The terminations of these cases have also certain resemblances, but somewhat more so in the Lapponic than in the Finnic. In conjugation it agrees considerably with the latter. The Hungarian and Lapponic express the idea "I have" as in Basque, Hebrew, and Arabic; thus, for "I have," they say "It is to me." In the first person of the present of the indicative, the Magyar agrees with the dialect of the Cheremisses, and in the formation of the infinitive, which always terminates in *ni*, with the dialects of the Votyáks, the Permians and the Syrjaens. There are also other resemblances in conjugation between the Basque, the Mordwinen, the Vogúl, and the Hungarian. Again, in the Magyar and Finnic (and especially in the former) takes place what has been termed the sympathy of vowels. In these two languages the vowels will only associate with the vowels of the same group, the soft with the soft, the hard with the hard; thus in Magyar the nouns *láb* (foot), *ember* (man), *bor* (wine), in the plural become *lábak*, *emberek*, *borok*.‡ In the Basque there is also a sympathy of the vowels, but it only takes place with those of a different group. Prince L. L. Bonaparte§ aptly illustrates this law: "Les dures avec les douces et les douces avec les dures, c'est là la règle du basque: l'ANTAGONISME. Les dures avec les dures et les douces avec les douces est celle des langues finnoises: le DUALISME." Again, in the Finnic, Lapponic, and Magyar, the terminations *ats*, *ke* are analogous to those in Basque, not only in position, but also in signification. There are also some affinities between the Magyar numerals and those of the Votyáks, the Permians, and Cheremisses, and with the latter in the suffixed possessive pronouns, and sometimes in the form of the pronoun itself. On account of the formation of the plural of their nouns in *k*, an affinity between the Lapponic of Finmark and the Basque has been suggested, but this may be merely accidental. It is said that anciently the Magyar

\* No Finnic dialect distinguishes substantives by gender.

† The Mongol declension has ten cases.

‡ The plural termination in the Magyar is not employed when preceded by a noun of number.

§ *Langue Basque et Langues Finnoises*. London: 1862.

had no plural, and when it was necessary to convey the idea of number the word *sok*\* (many) was attached, and that in time *sok* became abbreviated, and the last letter only was used to denote the plural form. If so, in order to establish any affinity in this respect, it must be shown that the Basque termination is also derived from *sok*, which cannot be done. One of the properties of the Magyar is in the extensive use of suffixes. Almost all the modifications of nouns, verbs, pronouns, and prepositions being produced by an addition to the termination without the use of auxiliaries: thus, a monosyllabic root often becomes lengthened to a word of eight or ten syllables, *e. g.* from *lat*, he sees, we in time get *láthatatlanságának*, to his unseeableness. The same takes place in the Basque, in the dialects of the Cheremisses and the Mordwines, and also in some of the American languages. In Basque the verb is capable of expressing the subject and the régime direct. The same can be done to a certain extent both in the Magyar, the Vogúl, and the Mordwinen. In Magyar there is scarcely any law of syntax. In the arrangement of the words the Magyar admits of greater variation than any other European language. Wékey gives six, Márton sixteen, different variations in the collocation of *Az atyám eladta a házáat*, "my father has sold his house." The arrangement of the words, however, is generally governed by the emphasis required. In the names of persons, the baptismal always follows the ancestral name; thus, Kossuth Lajos (Louis Kossuth), Schvarcz Gyula (Julius Schvarcz). With the pronouns, when associated with nouns, verbs, or prepositions, a singular process frequently takes place. They are cut in two, and the word to which they are attached is placed between the halves; for example, *mienk* (our) *atyé* (father) becomes *miatyenk* (our father). In concluding this part of the subject, I will merely add that similarities of structure have also been remarked between the Magyar and the Armenian, and that there is a closer relationship between the former and the Slavic languages, as there is between those languages and the Finnic, than is generally supposed.

The Magyar vocabulary contains about 18,000 words. Of these, at least 500 may be traced direct to the Greek, Latin, German, French, Wallachian, and Italian; and about forty or fifty to the Turcic. A few words are also derived from the Persic, the Hebrew, and the Gipsy language, and a great many by means of onomatopœia. Taking the dictionary as it stands, I find 882 words in more or less affinity with the Lapponic, 219 with the Finnic, 477 with the Esthnic; and in these proportions in the dialects spoken by the following

\* Probably the same as the Lapponic *kukke*, long.

peoples, viz., Vogúls 100 ; Cheremisses 124 ; Votyáks and Chuvashes 161 ; Syrjaens, Permians, and Mordwines 92 ; Ostyáks 39 ; Samoyedes\* 69. The affinities of the Magyar with the Slavic languages are in about the following proportions : Russian† 923 ; Serbic 465 ; Bohemian 364 ; Polish 243. The affinities with the pure Tatar dialects do not amount to more than 240. Words pertaining to agricultural matters have been mostly borrowed from the Slavic dialects ; those relating to the arts of civilised life, from the German. In ecclesiastical matters many of the terms are of Latin origin, whilst, among other words borrowed from the Turcic, are some of the names for dress.

Rémusat classes the Tatar languages under four heads, viz., the Tibetan, the Mandshu, the Mongol, and the Ouighour (Uigur), which include some forty or fifty dialects. In 1730 Von Strahlenberg published his *Nord-und-Ostliche Theil von Europa und Asia*, containing a Polyglot table of 32 Tatar dialects, together with a Kalmuck vocabulary. In this table, however, two-thirds of the Finnic and Finnic-Tatar dialects before referred to are included. The Tatar dialects which I have principally consulted are those spoken by the Kalmucks, the Yakuts, the Nogai or Krim Tatars, and the Tunguses, of which there are several. The three first are included under the terms Mongolian and Uigur, the last under that of Mandshu. The follow-

\* Many words are found in several of these dialects. Out of one hundred and ten words found in the dialects of the Ostyáks and Samoyedes, thirty-five are common to both.

† Many of the words in these four dialects are common to two or three of them, which would perhaps reduce the Slavic affinities to about 600 or 700 words. When I speak of affinity with so many Slavic words, I think it probable that the Magyar has actually borrowed most of them. At the end of his *Lexicon*, Dankovszky gives a summary showing primitive words in the Magyar amounting to 4,668 ; viz., 962 Magyar primitives, 3,706 foreign primitives, made up as follows :—

Slavic .....	1898
Greek ..... 701 }	889
Greco-Slavic ..... 188 }	
Latin .....	334
German .....	288
Italian .....	268
French.....	25
Hebrew .....	4
	<hr/>
	3,706

But this can hardly be depended upon, the Lapponic, Finnic, and Finnic-Tatar words, being here ignored. For a list of the foreign words in Magyar, see *Über die Fremdwörter im Magyarischen*, von Johann Zahourek, Prag., 8vo. 1856.

ing is a specimen of words which may be traced to the German, Latin, or French :—

<i>Magyar.</i>	<i>German.</i>	<i>Latin.</i>	<i>French.</i>	<i>English.</i>
Angolna		anguilla		an eel
Benn	binnen			within
Bival		bubalus		buffalo
Bodnár	büttner			cooper
Bognár	wagner			wheelwright
Cseza			chaise	seat
Czeremónia		ceremonia		ceremony
Egzhás			église	church
Tábla			table	table

The following is a specimen of words found in affinity with the Lapponic, Finnic, or Esthonian :—

<i>Magyar.</i>	<i>Lapponic.</i>	<i>Finnic.</i>	<i>Esthnic.</i>	<i>English.</i>
Anyá	eana			mother
Atya	attje			father
Csont			kont	bone
Fa			pu	wood, tree
Farkas	varg, vargas			wolf
Hal		chala, kal	kalla	fish
Hild, hfd			sild	bridge
Hold	hald, kold		[tion) hone (habita-	moon
Hon			jaa	country
Jég.			käsi, kae	ice
Kéz	kez	käsi, kesi		hand
Kő	kü, ku			stone
Méreg			murk	poison
Méz		mesi		honey
Szarv, szaru			sarw	horn

The following is a specimen of words in affinity with either the Tatar or Turcic :—

<i>Magyar.</i>	<i>Tatar.</i>	<i>Turcic.</i>	<i>English.</i>
Alázatos	alascha		humble
Anyá (formed anyám)	auna, aunám; ana (Uigur)	ana	mother
A'rpá	arpa (Uigur)	arpah	barley
Atya	ata (Uigur)	atá	father
Bátor	batir		bold
Cserfa (formerly tsere-fa)	tschara-fu		oak
Czifra		sifr	cipher
Ét	it; et (Uigur)	et	flesh
Falu	aul		village
Homok	kumák		sand
Jó		áyú	good
Kalap, kalpag	kalpag	kalpak	hat
Kapu	kapu, kapu	kapú	door
Szakáll	sagal, tzakal, zakal, sagkal	sakál	beard
Szalma	saman (Uigur)	saman	straw

The following is a specimen of words in affinity with the Slavic :—

<i>Magyar.</i>	<i>Russian.</i>	<i>Serbic.</i>	<i>Bohemian.</i>	<i>Polish.</i>	<i>English.</i>
Abrak			obrok		fodder, forage
Asztal	sztol			stol	table
Bán			pan		governor, ban

<i>Magyar.</i>	<i>Russian.</i>	<i>Serbic.</i>	<i>Bohemian.</i>	<i>Polish.</i>	<i>English.</i>
Bánya	banja				teeth
Bárany	baran				lamb
Bükfa	buk			bukiew	beech
Cseléd			celed		servant
Grob			hrubi		coarse
Gyantár	jantar				amber
Járom	jarem, jarmo	jarem			yoke
Kard		grad	kord		sword
Kert					garden
Király		korol, kral			king
Méz	med				honey
Pára				para	vapour
Sin, sing	arsin				a Russian meas
Szalma				slama	straw
Torony	tjurma	toron			tower
Vagda	vojewode				voivode

It may be as well here to give the habitat, and to make a few remarks upon the dialects of the nations or tribes which have more or less affinity with the Magyar. The Tchuds or Finns inhabit separate portions of Russia. Most of them are settled on both sides of the Gulf of Finland, and both Finns and Laplanders occupy the country north of the Gulf. The Lapps have three dialects; the Norwegian or Fin-Lap; the Swedish or Lap Proper; and the Russo-Lap. The latter greatly resembles the Fin-Lap, which is spoken in Finmark, and is the most ancient and most pure; the second has undergone so great a change that in Russian Lapmark little is understood of the neighbouring dialects. Generally speaking, the language spoken by the Lapps differs from that of the Finns of Finland, not only in many words which are peculiar to it, but also by the sounds and the inflexions of the words. The whole grammatical structure is more ingenious in the Laponic than in the Finnic branch. The Fin-Lap is richest in derivative words. The Esths inhabit Esthonia, one of the three Baltic provinces of Russia, having east the government of St. Petersburg, south Livonia and Lake Peipus, and north the Gulf of Finland. The Esthnic is a Finnic language, but has become more germanised than the Finnic. German being the idiom of the conquerors, is spoken by the nobles and the inhabitants of towns, etc. The native idiom is only spoken by the peasantry. The Esths having been long separated from the Finns, they understand each other no better than the Danes and Swedes, or the Germans and Dutch. The Chuvashes and Cheremisses dwell in the neighbourhood of Casan, on both sides of the Volga. The Chuvashes are chiefly settled on the western, the Cheremisses on the eastern side of the river. Single families are found as far south as Saratov. The dialect of the Chuvashes has a large number of roots common to the Finnic, but has also many of Tatar origin. The dialect of the Cheremisses has more Finnic roots than that of the Chuvashes, but there are also many from the Tatar. The Mordwi

or Mordwines dwell west of the Chuvashes, on both sides of the Sura, which falls into the Volga between Nishnei Novgorod and Casan. On the west they extend to the banks of the Oka. The Mordwines and the Cheremisses have been included in the Bulgaric branch of the Finnic stock. The Ostyáks (*i.e.* the people of the As or Ob) occupy both banks of the Ob (Obi), from Obdursk upwards to the confluence of that river with the Irtish; and even south of Obdursk are found some families. Their language has several dialects, which have more or less resemblance with those spoken by the Vogúls, and the Mordwines. The Vogúls or Vogúlich dwell west of the Ostyáks, occupying both declivities of the Ural chain, between 58° and 60° north latitude. They are said to be of Mogul origin. Their language may be called Finnic-Tatar, and has great affinity with that of the Magyars. The Vogúls, Magyars, and Ostyáks have been included under the Ugric branch of the Finnic stock. The Permians inhabit the Russian government of Perm, which is partly in Europe, partly in Asia, but chiefly in the former, being separated by the Ural into two unequal portions, enclosed by the governments Vologda, Viatka, Orenburg, and Tobolsk. The Votyáks or Oudumurt, *i.e.* men, are settled west of the Permians, on both sides of the upper courses of the Viatka, and in the country about the source of the Kama. The dialects of the Votyáks, the Syrjaens, and the Permians have been included in the Permian branch of the Finnic stock. The Syrjaens inhabit the country between the upper course of the Kama and the Vycheгда, an affluent of the Dwina, and particularly both banks of the Vycheгда, as far west as the mouth of the Sinola. Although they have preserved their own dialect, they generally speak also the Russian language.

The Samoyedes are one of the most widely spread nomadic nations of northern Asia. Those of the north wander about the western coast of Siberia; those of the south inhabit that part of the Altai, which extends from the sources of the Tshulyshman, one of the principal branches of the Ob, to the south-western extremity of Lake Baikal. The Samoyedan tribes speak different dialects of the same language, which varies much from those of all the neighbouring nations, though it contains many roots which occur in the languages of central Asia. We now come to the tribes which may be considered as wholly of Tatar origin. With the exception of the Buriates, the Yakuts are the most populous of the nations of Eastern Siberia. They live in the country of the Tunguses. The language of the Yakuts has few words in common with the Mongol, and has been considered to have the same base as that of the Osmanli-Turks. According to Erman, out of 297 words of the Yakut language, only 114 do not occur in the dictionary of Turco-Tatar; and he thinks it can



hardly be doubted that a Yakut born on the Altai could make himself understood by an Osmanli of Constantinople. But this is going too far; two-thirds of the Turkish language being derived from the Arabic, Persian, and other languages. The appellation Kalmucks is given by the Russians to the principal branches of the division of the Mongols which bears the general name of Olöth or Oirat. Tribes of the Kalmucks occur over all the countries of Upper Asia, between 38° and 32° north latitude; and from the most northern bend of the Hoang-Ho to the banks of the Volga. Their language has considerable affinity with the Mongol. The Tunguses\* are the most widely dispersed of the native tribes of Siberia. They occur even in Da-uria, particularly between the Onon and Argun, and the northern districts of Mandshuria are also peopled with them. Farther north they are in possession of the country that encloses Lake Baikal on the north; and hence they extend to the Polar Sea. Along the banks of the Yenesei they are found from some distance below Tunguska, and along the shores of the sea of Okhotsk from the boundary-line of the Chinese empire to the town of Okhotsk. Some parts of this extensive country are exclusively occupied by them; in other parts they are found by the side of the Yakuts. The dialects (of which there are eight) of all the tribes of the Tunguses differ little from each other, and may be classed under Mandshu. The Nogai or Krim Tartars inhabit the Crimea and the steppe which extends north of the Peninsula. They are also dispersed east of the sea of Azof, and along the northern base of the Caucasus. Grammars, vocabularies, etc., of the Finnic, Finnic-Tatar, and Tatar dialects, and treatises relating thereto have been published by Ahrens, Beregszasz, Boehtlingk, Bonaparte (Prince L. L.), Castrén, Euren, Faehlmann, Fiellström, Friis, Gabelentz, Ganander, Gyarmathi, Hunfalvy, Hupel, Ihre, Kalmár, Kellgren, Klaproth, Lönnrot, Márton, Medemann, Müller, Possart, Rask, Regul, Renvall, Roehrig, Sajnovics, Schiefner, Schott, Sjögren, Stockfleth, Strahlenberg, Strahlmann, Tengström, Wékey, Wiedemann, Vhael and Zylander.

\* They call themselves *Donki* (people), of which *Tungus* is a corruption; they are also called *Boye* (men).

## ROMAN INTERCOURSE WITH IRELAND.

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IN our last number there is a paper by Mr. Thomas Wright, the well-known antiquary, on the *True Assignment of Bronze Weapons*, which had been read before the British Association at Birmingham in 1865. The next article in the review is a notice of Professor Sven Nilsson's, the celebrated Swedish anthropologist, work on the *Primitive Inhabitants of Scandinavia*, in which the manufacture of bronze implements and weapons is directly applied to the Phœnicians, who, according to the professor, established factories, introduced Baal worship, built temples, and remained in Scandinavia till, by intermixture, they became totally absorbed in the mass of the native population.

There is, in all probability, no person in England holding a higher position, as regards some branches of archæology, than Mr. Wright; and most certainly there is no one from whom we would more deferentially presume to differ. Nevertheless, we feel compelled to contradict him most flatly and pointedly in one, and not the least important, of the sentences contained in his paper. Speaking of Ireland, he says, "Where, by the way, it has been somewhat too hastily asserted that the Roman arms never penetrated, seeing that we know little of the *history* of our islands under the Romans; that Juvenal, speaking as of a fact generally known, asserts—

‘Arma quidem ultra

Littora Javernæ promovimus,’—

and that Roman antiquities are now found in Ireland."

To say that we know little of the history of our islands, under the Romans, is simply begging the question altogether. What we know is from the Roman historians alone; and we most decidedly deny that anything at all worthy of the name of a Roman antiquity has been discovered in Ireland. Of course, if the bronze, leaf-shaped swords be Roman antiquities, as Mr. Wright asserts, they are found more plentifully in Ireland than in any other part of the British islands; most of the leaf-shaped swords, now in the British Museum, were found in Ireland. But let us see what the historian says. Tacitus, the son-in-law and, we may say, panegyrist of Agricola, tells us that in the fifth summer's campaign (A.D. 82) Agricola made an expedition by sea.

"He embarked in the first Roman vessel that had ever crossed the estuary, and having penetrated into regions till then unknown, he defeated the inhabitants in several engagements, and lined the coast which lies opposite to Ireland with a body of troops; not so much

from an apprehension of danger as with a view to future objects. He saw that Ireland, lying between Britain and Spain, and at the same time convenient to the ports of Gaul, might prove a valuable acquisition, capable of giving an easy communication, and of course strength and union to provinces disjoined by nature."

The estuary that Agricola embarked upon and crossed was the estuary of the Clyde. A glance at a map is quite sufficient to acquaint us with what Tacitus meant by that part of Britain *quæ Hiberniam aspicit*. There cannot be a shadow of doubt that Agricola wintered his army in the peninsula formed by Lough Ryan and the Bay of Luce. Indeed, the remains of the earth works he threw up at the narrow isthmus between the above-mentioned bay and lough to prevent a surprise in force, according to the predatory tactics of his enemies, are still in existence. There Agricola passed the winter of 82-3 A.D., while the *Voluntii* of the Irish coast, in all probability, kept anxious watch and ward, gazing from hill and artificial mound to espy the first movements of the dreaded and world famous war.

Agricola experienced no difficulty in obtaining information respecting the country he intended to invade from merchants, who were well acquainted with its coasts and harbours. Like an old edition of an old story, a fugitive Irish prince was already in Agricola's camp, whom the clever and politic Roman, under a show of friendship, detained to be used as a fitting tool when occasion served.\* Agricola was confident of success. Tacitus, who relates the story, says that he frequently heard him declare that a single legion, with a modicum of auxiliaries, would quite suffice for the conquest of Ireland. And such an occurrence, he continued, would greatly contribute to bridle the stubborn Britons, who then would see with dismay the Roman arms every where triumphant, and every spark of freedom extinguished round their coast.†

But it was not to be. Instead of invading Ireland in the spring of 83,‡ Agricola was compelled to lead his forces to the eastern shores of Scotland to repel the Northern Britons, who during the winter had penetrated the line of forts previously constructed by the Roman general, and made harassing inroads into the southern districts, then under Roman sway and protection. Perceiving, then, that Scotland must be completely conquered previous to his carrying on operations against

\* Agricola expulsum seditione domestica unum ex Regulis gentis exceperat ac specie amicitiae in occasionem retinebat.

† "Idque etiam adversus Britanniam profuturam, si Romana ubique arma, et veluti e conspectu libertas tolleretur."

‡ There is a difference of one year in assigning the dates to the numerical order of Agricola's campaigns. The above is, however, the generally received date, and is sufficiently accurate for our purpose.

Ireland, Agricola occupied the summer of 83 A.D. in subduing Kinross and Fife, as a necessary preparatory movement towards his grand object of reducing the entire northern part of Britain in the following year.

In 84 A.D. Agricola, his right flank supported by his eastern fleet, marching northwards, fought and won his great battle with Galgacus, and this victory gave him command of all Britain. The fleet, by Agricola's orders, sailed round the north of Scotland, took possession of the Orkneys and came into the Irish Channel, surveying the coasts and collecting information by the way. His motive in sending the fleet round was connected with his intended invasion of Ireland; but Domitian, jealous of the great General's fame, recalled him to Rome, and the terse and talented Tacitus had no more to relate of his father-in-law's deeds in these countries.

Though Cæsar spoke of Britain as an island, the Romans had no positive knowledge on the subject till Agricola accidentally discovered the fact by a remarkable event that took place during the Galloway campaign of the year 82. A cohort of Usipean\* auxiliaries mutinied, murdered their officers, seized three small vessels and put to sea. The pilots, with true Roman firmness, refusing to aid the deserters, were put to death; and the latter ignorant of navigation, drifted about at the mercy of the winds and waves, occasionally landing on the coast to plunder provisions. One of those vessels actually drifted round the north of Scotland into the German Ocean, and from thence into the Baltic, thus practically proving the insular character of Britain. Some of the wretched men were still alive at the end of this extraordinary voyage, having subsisted on the dead bodies of their companions. Seized as pirates, and sold as slaves, they were soon sent back to the Roman authorities; but on account of their sufferings and remarkable voyage, they were received not as mutineers and deserters, but as heroes and explorers.

Neither Tacitus nor Dion, who also tells us the same story, says where these mutineers started from. But that they went from the coast of Galloway there cannot be a doubt. And as early, accidental discoveries are of great importance to the anthropologist, I may just allude here to a still more remarkable fact related by Pliny, how certain natives of India who had embarked on a commercial voyage were shipwrecked on the coast of Germany and given to Metellius by the King of the Servians. Whether those adventurers had found their way round the Cape of Good Hope or made a north-east passage I need not stay to inquire. The story will be found in the second book.

\* The country in which the modern Cleves is situated.

This then is what history tells us of one intended invasion of Ireland by the Romans. After the departure of Agricola, the history of the Romans in Britain is for a considerable time a complete blank; we do not even positively know who was his successor in the Propraetorship; but as it is known that he left the province in peaceable subjection, it is supposed in this tranquil state of affairs the Romans passed over into and subdued Ireland. This fancy, for it is nothing more, is founded on the lines in Juvenal quoted by Mr. Wright; for where the historian is silent, the satirist is at least the next best authority. Juvenal, when contrasting the power and progress of the Roman arms abroad, with the shameful and enervating vices prevalent at home, says, "We have, indeed, carried our arms beyond the shores of Ireland." This is just what he says, neither more nor less, and it sounds very like a poetical license. That the Romans may have claimed a nominal sovereignty over Ireland, through the submission of some exiled chieftain is probable enough; but that they ever occupied any part of the island by force is positively contradicted by the utter absence of their usual great public and private works, which ever seem, even at this day, to have been constructed in defiance of time itself. If Agricola had landed with his small force of a legion and a modicum of auxiliaries, what would he have done? He would have built forts and roads, received certain tribes as auxiliaries, and pitted them against the others, and would no doubt have reduced the island to subjection in a short time. But not one trace of a Roman exists on the soil of Ireland, not one fort, one road, one earthwork, one engraved stone; not one of the well-known Roman relics, so plentifully found in England and Scotland, have ever been seen in Ireland. Scarcely even a Roman coin has been found, those *denarii* which the Romans seem to have sown broad-cast amongst their remains in England.

We have, however, a very significant glimpse of the relations existing between the Irish and Romans during the tranquil periods after the departure of Agricola, which is utterly incompatible with subjection on the one side, or domination on the other. Four legions only, with their attendant auxiliaries, were required to maintain order in Britain, and they were permanently posted in the places which they retained till almost the end of the Roman dominion. Of these the twentieth was stationed at Deva, the modern Chester, to hold in restraint the Welsh, the Brigantian mountaineers of Cumberland and Westmoreland, and protect the country from the Irish pirates, who usually landed in the river Dee. The second legion was stationed at the Silurian Isca (Caerleon in Monmouthshire) to keep in check the unconquerable Welsh "mountain-people," and defend the shores of the Severn against the Irish pirates. For the Romans, in their own

estimation at least, were warriors and conquerors, the outside barbarians were murderers, robbers, and pirates. And it appears highly probable that the Roman Retigionum, now the modern Stranraer, commanding the isthmus between Lough Ryan and the Bay of Luce, was a most important defensive post, established to prevent an advance into the interior of Scotland by any Irish piratical invaders who might land at any point between Corsewall and the Mull of Galloway.

Towards the close of the second and early part of the third century was the palmy era of the Roman rule in Britain, which then was certainly the richest and most flourishing province of the whole empire. The abundance and variety of mineral wealth, the luxuriant crops afforded by a virgin soil to even an inferior cultivation, the adaptability of the earths for ceramic manufactures, attracted numbers of adventurers from all parts of the empire to the British shores. Merchants, mechanics, miners, and agriculturists led the way, and were soon followed by professional men, architects, artists and artisans, as labour and industry created wealth and luxury; and then magnificent towns, temples, palaces, villas, baths, and theatres rose up over a peaceable and productive province. It is most reasonable to suppose, indeed, it would be contrary to the very nature of things to doubt that the wealthy, intelligent, mining, manufacturing, and mercantile Romano-British people maintained a considerable traffic with Ireland; and that many of them visited it as political envoys, traders, travellers in search of information, or, with the errant disposition of man, as physicians or handicraftsmen seeking adventure in a country less advanced in civilisation than their own. Ptolemy's description of Ireland, though written in the second century, is surprisingly copious and exact. He tells us of the coasts, inland towns, and native tribes, leaving hydrographical accuracy out of the question, it is probably not too much to say that the Romans knew as much, or even more, of Ireland than we now do of Madagascar.

The early state of what is called Irish art, the interleaved triangle, the star of eight points, the wave and spiral have evidently been acquired from Roman specimens, which may very well have happened without any Roman conquest of the island. A quantity of silver coins, all Roman, with some engraved specimens of silver metal, were lately found in Ireland; these were unmistakably the property of some travelling silversmith. A Roman medicine stamp has also been found in Ireland, denoting that most probably some travelling physician had found his way thither. Some sixty of those stamps have been found in France, Germany, Africa, England and Scotland; but, as I believe, like the bronze swords, not one has been discovered in Italy.

Some of the bronze leaf-shaped swords in the Museum of the Royal

Irish Academy are so sharp as to distinctly testify their readiness for a lethal use even at the present day. There is a remarkable woodcut, the pride of the collection of the late Mr. Douce, representing six Irishmen, with the imprint *DRAWN AFTER THE QUICKER*. A row is just commencing, two of them have drawn their swords, and they are leaf-shaped ; those swords that are undrawn, still in their scabbards, represent exactly those which are upon the tombs of the Irish King O'Connor at Roscommon, as engraved in *Walker's Historical Essay*. The engraving shows even the very small handle of the sword, it being held by the person on the extreme right by only two fingers, or at the most three. The features are unmistakably Irish ; it cannot be older than the Elizabethan period, and it bears every mark of having been drawn from the quick or living subjects.

The Irish historians relate stories of occurrences that happened in Ireland previous to the deluge, so we may very well leave them alone. General Vallancey in the last century, struck by what he considered the most anomalous circumstance of writers endeavouring to show that the Irish were a Celtic nation, derived them at once from the Magogian Scythians, who, according to the General, were the first astronomers, navigators, and traders after the Flood. They settled first in Armenia, sailed down the Euphrates to the Persian Gulf and Indian Ocean, finding their way into the Red Sea, and eventually into the Mediterranean, where, after sailing round Africa and discovering the Cape 600 years before our present era, they established themselves as Phœnicians at Tyre and Sidon. To a people that had sailed round the Cape the discovery and settlement of Ireland was but a trifle. Sir William Betham, in almost our own time, derives the Irish from the Phœnicians through the Etrurians ; and speaking of Vallancey, says : "The result of his labours are an invaluable magazine of materials, of which a critical and judicious writer may avail himself with great profit and advantage."

These words almost seem prophetic in their application to Nilsson's work. He is in fact the critical and judicious writer, who has availed himself with profit and advantage of the results of Vallancey's labours. There is, however, a little known but much better Richmond in the field. One Aylett Sammes in 1676 published a large folio work, entitled *Britannia Antiqua Illustrata*, in which he distinctly derives the early inhabitants of Britain from the Phœnicians. Curiously enough, while the previously-mentioned writers depend particularly upon philology, for the results acquired by them, stating that the language of a nation is the most recognisable of its remains, forming a chain of evidence that cannot be totally lost, displaced, or obscured, that even after the people are gone and lost for ever, it still remains in the names

of places in the country,—Sammes as boldly and utterly disclaims it. He says: "But if in truth I may deliver my opinion, there is no way more fallacious and deceitful than deriving the names of places from the language of the people, for I scarce think there is a town but by fertile heads may be derived from some word or another that is now in use among the present inhabitants; every place yielding something either by situation, soil, prospect, custom, manner, a battle or building from whence they may be deduced."

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### SPANISH ANTHROPOLOGICAL SOCIETY.

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#### TRANSLATION OF THE PRESIDENT'S ADDRESS.

GENTLEMEN,—The existence in public life of the Spanish Anthropological Society commences to-day, and at so important a moment it seems but natural, that he who has been chosen your President, more from a feeling of friendship on your part than merit on his, should address a few words to you. I feel the responsibility of the undertaking, and without false affectation I can assure you that I hesitated long before accepting a charge whose weight I shrank from having imposed upon me. At length I have yielded to your wishes, but you must be contented to accept the slight sketch I am about to trace out for you, in place of the magnificent picture which some other, more competent than I, would have laid before you.

I appreciate the picture, and would paint it, if I could only realise it to you, as it passes like a lightning flash through my own mind; but, as Foscolo said, in one of his well-known books, "Ah, if I were but a painter!" so now, at this moment, struck by my own weakness, I exclaim, "Ah, if I were but learned!" If it were but in my power I would, with a few magical touches, draw out for you a plan of the voyage we are going to undertake. The spirit of the age, or as it might be well called, the universal passion for truth, has assembled us together to attempt an undertaking of immense magnitude in proportion to the mediocrity of the materials we have at our disposal. But this happens frequently; great deeds are wrought by small means. The child typifies the man; Columbus, in a fragile bark, discovered a new world, and a few poor fishermen, inspired by God, opened for man the gates to Paradise.

Why does this happen? because in reality there is no such thing as uniformity of material; there is no lever, no instrument of physical force, which can equal for marvellous power the strength of thought



and the free growth of intellect. We ourselves are provided with aught else, have only our own free will to carry us through this journey, but we shall arrive at our destination.

But what is our destination? what do we aim at? what do we propose? what horizon is to smile upon us as the goal of our labours. Allow me, though with unsteady hand, to trace on the blank page some lines which you can correct and shape into harmony, as an orchestra, from imperfect preludes, perfects the artistic work, as time evolves the perfect flower and delicate fruit from the seed.

Anthropology is the study of human nature, not of nature alone or humanity alone, it is the synthesis of both ideas. Here, then, we have one solitary ray of light which shall guide us across the vast main of human learning.

Man! indeed a great object, the immense connecting link between two narrow points, all things and nothing, which runs untrammelled from one to the other, now proudly, anon humbly, here boldly and fortunately, there cowardly and miserably, distinguishes him from God and from the mere brute creation, and unites him with both, in unequal proportions, which lives and realises itself individually as well as collectively, having not one single history, yet comprehending a universe.

Man is, in fact, the object of our studies; not man in the abstract as separated from nature, but as bound up within her, living and breathing. Metaphysics, psychology, are beyond the limits of our operations; we may attain to them when we enlarge our limits, but they are not comprehended in our dominions. Our sphere is the natural, the real, the positive, the experienced—this is the atmosphere in which we live, and this limit of the idea of man is the *punctum saliens* which constitutes the definition of anthropology.

But how shall we define nature herself, who has been called in to define the study of anthropology. Nature, like man, is a grand whole (cosmos), her bosom the receptacle of all creation. She is the grand mirror of the spirit, which, when stedfastly gazed at, seems to disappear, and only allows herself to be seen in the immense reflection. She typifies the mystical waters over which the spirit of God hovered, or the ocean, which bears on its surface the crown of light. Nature forces us out of ourselves, into undefined, eternal, and indestructible space, a law of love and attraction; she imposes herself on us, and unites us to herself by a force which is relaxed only to attract us with still greater vigour; a law of imperfection and limit, which, whilst it controls us, excites an antagonism which is the living fountain of inspiration and art.

Nature is so vast, that she has not wanted advocates, who have

pronounced her illimitable, absolute, and eternal, created and creating; the work of God, but working as a god, a pantheistic idea, the reverse of the ideal pantheism of the unity and the spirit. But Nature, vast as she is, does not comprise all; her immensity does not belong to her. Eternity, infinity, force, and life, come from her bosom solely as reflections, as an incarnation in which the material reveals itself, revealing something else. She imposes on others by imposing on herself.

To distinguish and identify then between man and nature is the first task of anthropological science. Man is distinguished from nature, which is his external world, his macrocosm, and at the same time identifies himself with it, because he is also a world, a microcosm. Nature has neither intelligence, liberty, nor responsibility. Man is intelligent, free, and responsible; but, besides that, he requires bodily substance, and so falls into the category of Nature.

Nothing is easier than to make the simple and absolute distinction, or the simple and absolute identification, but nothing more difficult than to draw the line to the exact limit which identity requires, and *vice versa*. And yet, that which is real and positive, is difficult; while the ideal and fantastic are easy. The mind naturally fixes itself on one horn of the dilemma, but to the necessity is opposed another, which convinces by force of reason, gives it impulse, and makes it appear precisely the contrary to what it had for a moment appeared determined.

Thus, carried away as by a whirlwind, we know and understand, affirm and deny, but affirm and deny nearly always too much; this it is which requires examination. Man is not, then, separate from nature, but he has his own nature; he is a natural being, an example in himself of the duality of the universe, he is object and subject, body and spirit. Anthropology studies man, as he naturally is, as an object a body, as the scene in which in fact invisible actors represent the drama of life, voices are heard, forms meet, yet all are echoes which come from vacuum, and which return to one as great, that of an indefinite surface which springs from time, but consolidates itself in space.

Space belongs to us, experimental analysis allows us to divide and subdivide it, and continually to enrich the inexhaustible variety of figures, numbers, and qualities of the things which belong to man generally. The varieties startle us by their prodigious number, everything carefully examined appears different, nothing is exactly identical, no two events, no two contemporary societies, no two human faces are alike. But in the midst of this diversity analysis reigns, law is established, so many discords produce at length harmonious concord in the

ears of the philosopher. Thus the anthropological thread is woven ; the centre we hold in our hands, but the beginning and the end are hidden in the bosom of the Eternal.

We do not profess merely natural history, nor are we excited solely by interest in medicine or chemistry. Let us leave the task of zoological classification to the naturalist, who places man one step higher than the quadrumana ; let us abandon to medicine the weight, the measure, the exterior characterisation of human functions ; let us look on with indifference whilst they discuss life, as some mechanical power ; and finally, let us abstain from interfering with chemistry, in its task of decomposing, transforming, and recomposing all that is possible of the organic substance of man. Discarding thus from the present the direct study of medicine, chemistry, and natural history, in themselves that is, that of organic beings living and sensible, though not intelligent, our object fixes itself on man, not only as material, vegetative, and sensitive, but as such, modified by superior intellectual, reflective, and moral qualities, and not thus even will we analyse him in the abstract, but in the form realised in nature.

We will not encumber ourselves with any metaphysical, logical, or psychological doctrines, but it is our duty to respect them, and not to forget the laws which they impose on us. We ought really to make great advances in our study, although we are overruled by an evil philosophical spirit, just as a good picture does not lose its merit from being placed in a bad light.

But how much more should we gain both in facility and quickness of judgment, and also in a feeling of certainty if we hail the good fortune to lean on solid, unchangeable, and general principles. At some future time, perhaps, we shall gain these principles for ourselves, by means of the problems, well or ill attempted, which we have proposed to ourselves to solve. At all events now, we have no right to wander away from our path, in trying to form and introduce a system which ought to form a part of, and govern us. Let us at least look upon our views as only partial and limited to a certain extent, up to which they are true, although the truth may not positively extend itself beyond the circle in which it rules. The facts which we lay aside will not absolutely prejudice universal order, which we shall only examine in one of its elements, in the grand creation of man with all his rich endowments, leaving the question of the Creator as not to be defined in material form, of whom and whose relations with the created, other branches of science occupy themselves, particularly that science of sciences, philosophy. We will also, and with stronger motives, exclude the religious element from our studies. Faith is not science, though it is compatible with it, and not only compatible, but

in some measure necessary to it. Try as we might, it would be as impossible to destroy it as for evil to supplant good. Science is, and appears antithetical to religious faith, but when united constitute a synthesis indispensable to humanity.

For the present, let us avoid not only all impiety, but even the misdirected piety which holds out a friendly hand to rationalism. Respecting in every way the opinions of others, we shall acquire the right to have our own respected. In marking out our boundaries, we will not invade the territories of others, but neither will we allow others to invade ours. All that we can discover of the races inhabiting the world, all that is revealed to us by their inanimate remains, all that is hidden in the heart of the earth, relative to man's organisation and physiological functions, belongs to us. These are sufficient landmarks for us to trace out, complete and perfect, all that is possible of the history, not of man as animal only, but of that intelligent being who was the crowning and most perfect work of creation.

From what we already know, and from facts which have accumulated with careful examination, we may judge not only of what has been, but what will be—that is to say, what will be in all probability; but this can never be converted into certainty, and we must except those innumerable events which the future hides from us, but which will continue to form new successive periods when the existing world of anthropology shall have passed away.

Immense task! which does honour to human activity, and which after having completed like the symbolical serpent the circle of human knowledge, appears to study itself. That such an aspiration ever had birth, shows a mature reflection, a life and vigour, that justifies the hope that our labour may really bear fruit. Let us go still a little deeper into this first definition of anthropological science; let us define the principal lines more strongly, so that some of the points which claim your attention may be seen, if only in distant perspective.

The various questions which anthropology comprises must first of all be conveniently arranged.

I will not enter into arguments, as neither the time nor the place permit it; but I will point out to you (and perhaps remembering some of those ideas I have just touched upon, you will agree with me without the necessity of stronger proof) that an anthropological question should be well planned, that started with the supposition of complete ignorance on the subject, and that would conclude without aspiring to attain complete knowledge. To know something more, to verify experimentally some of the thousand more or less plausible hypotheses which are evoked by passing events, should be our unceasing object, the aim of our scientific life, which we are certain to attain in some

measure, though never in its totality. What answer should we give to the question? Is man one of the animal species, or is he something distinct from all animal species? The distinction between man, and all species purely animal, is a granted and indisputable fact; but the external characteristics which establish it have their limits, taken as a whole, of which analysis deprives them without being able to separate them entirely, or to exhaust their number or diversity.

In our conception, man is not what he is to the naturalist, merely an animal of an elevated grade in the scale of animal life; for us, he is a rational being; but starting from this basis let us study his rationality in a natural state, and let us seek for positive and external facts, to enlarge and unfold the ideal and Divine power which has painted material substance with such eloquent touches, giving form and substance to human history.

Shall we ever solve the great question?—No. In the first place, because it is already solved as much as it ever can be—that is, partially so; and secondly, because it is not granted to us, that we should extend knowledge until it reaches those confines which Eternity has reserved to itself. Since both ideas appear realised by experience, man must necessarily be distinguished from the animal, but experiments are inexhaustible, and always limited by others still farther off, and analogies and differences successively unfold themselves in a panorama, vast in proportion, as anthropological questions are increased and deepened.

Such is the result which sustains our hopes and activity; a sufficiently satisfactory result, without having recourse to imaginary hypothesis. Let us not therefore desire a positive separation, or a positive union between man and animals, disregarding what we know now because it is only partial and relative. The idea of *absolute nature* is the most absurd possible, causing us to wander about disconsolately seeking what we are carrying in our own hands. The man who was exclusively animal, or not animal at all, would not be a man. It is only by examining to the utmost the identity and distinction in the different ranks of mankind that we can attain rest from our labours.

But what do events themselves say? How can we best observe those analogies and distinctions which resemble those palpitations of the ocean which we call ebb and flood, or those febrile pulsations, which, under the form of waves, heave the bosom of the giant liquid mass. Physics, chemistry, anatomy, physiology, natural history, point at one and the same moment to this constellation of science, and at each moment are surprised by some new change and alteration. Ideas take form, knowledge increases; but, following in her steps, ignorance springs up as a necessary limit to her progress. Mystery

restrained in one part bursts forth in another, but in the end we are gaining more data, greater extent of knowledge, more minute distinctions, and more elevated generalities ; such is our task.

Placed in the centre, let us ask from each of the auxiliary sciences in their turn, to explain to us that enigmatical phrase, which reproduces itself so tenaciously, and which will not return to chaos, till it has produced a ray of light in its struggle with the world. Absolute truth does not show us even her garments, excepting in glimpses, which are snatched with greedy solicitude by most patient seeking, but these glimpses are a kind of gala dress for us, and increase in magnificence and beauty as we accumulate them, skilfully using them to cover the inborn nakedness of our minds.

I have already discussed too long the question of the analogies and differences between man and animal ; I will now briefly indicate some others ; but, in my opinion, all should be carried on in the same spirit, and be governed by the same method of arrangement, discussion, and solution.

Is there unity or plurality of the human race? How can we reconcile its unity with the diversity of organisation, languages, customs, history, and religion? Granted the *unity*, how many groups constitute it? How have they arisen? What has been their development? How have they been mixed and confounded together? Up to what point have they endured, and can they endure without change?

The hypothesis of unity possesses the charm of universal brotherhood, that of plurality isolates and separates us instantly by the supposed variety of origins. The first begins with one single trunk, from which the branches spread ; the second plants its branches in the earth, and then raises them into one common trunk. Which is truth? which is absolute fact? This only revelation can declare and faith establish. Science looks backward as well as forward, to the past as much as to the future, and takes an indefinite course resting at will in those spots which circumstance makes available. But the journey is pleasant and profitable, and supplies us with knowledge and beliefs which are none the less valuable for being scarce.

In this, as in other questions, faith and science, which at any moment may appear divided, always end by reconciliation, as the ivy is separated from the trunk that supports it, only to turn around again with stronger ties.

Yes ; at the present time, human nature is a unity as well as plurality, brother and enemy, members united by love but alienated by war ; this is in various degrees and with distinct conditions which analysis determines.

It may have been, or may be in the future, more or less identical

and distinct, and it may *actually find itself* represented at any epoch by a single pair, or even by one undivided, which is most probable. Science, enlightened as she is by investigations, always open to fresh events, should answer this. But there is no possible answer beyond tradition, and that, obscured by the night of ages, partakes of the character of revealed dogma.

In the meantime, let us not wait for science to give us clear and direct evidence of the unity of origin. We are all brothers, we are all of one flesh; for even the animals, even inanimate matter, identifies itself with us under some aspect; with how much stronger bonds, then, are we united to our fellow creatures. Nevertheless, brotherhood will only produce fratricide, unless the form of division which rose in the depths of patriarchal unity, does not flow in harmony to perfect light which illumines our yet imperfect societies, and which, rashly carried from the field of ideas to that of impossible practice, destroys the chimera of socialism.

For our part, without lifting the veil too much, let us content ourselves with the accumulations of the vestiges of ancient races; their analogies and differences, the gradual transit from one to the other; their preservation, etc., constantly proposing to ourselves new problems for solution, as the only way of not falling into error. The investigation of the past is most especially interesting to us in an historical point of view, but it is still more important in its application to the future. What are the laws for the development of humanity? Can we flatter ourselves with the positive hope of incessant progress?

Without submitting historical evolutions to the action of unchangeable laws, we cannot do otherwise than confess at once, that duty imposes continual improvement upon us as a moral law, and that if *good* is not necessarily increased every day, at least, the wish that it should, ought to exist amongst us, in preference to the imperfection which in all cases forms our normal condition.

In view of this moral law, the Anthropological Society imposes on itself the obligation to seek for those physical and external conditions which shall lead to the greatest possible perfection of the human species. This vast object for meditation and study, is sufficient in itself satisfactorily to occupy our active labours.

Around this centre of investigation are grouped a multitude of subjects, each one more interesting than the other: the influence of geographical, geological, and climatic laws; that of food and beverages; that of the hybridity of races and families; their respective longevity; the statistics of the duration and sudden changes of human life, when sustained under different conditions; the same preservation in distinct conditions; the antithetical limits to this proposition; the influence of civilisation, of

acclimatisation; the advantages and defects in industrial, commercial, and agricultural pursuits; the spread of popular diseases; the sanitary condition of the world: all these and many other questions, determined with increasing clearness, permit laws to be dictated, which secure to the human race a more prosperous life, and also one more real and complete in all its functions.

Thus, a science which began seemingly studying problems for pure amusement, which studies the analogies and differences of languages, discovering productive systems in them, such as the Chinese, Indo-Germanic, and Semitic, corresponding to all possible aspects, to the phonetic realisation of thought (material juxtaposition, intussusception, and lively flexion), which continues studying written language till, with Champollion, it penetrates to the mysteries of the hieroglyphics, and, in our own day, proposing to itself the interpretation of the signs inscribed on the "megalithic" sepulchres, which seeks in skulls, utensils, and monuments of European towns, the distinction of the Celtic, Gallic, German, Basque, Arabic, and African origins, and the designations of more ancient: such a science, we say, will end by proposing to itself problems of more immediate application, whose solution would constitute the moral, intellectual, and physiological conduct of man, constituted as he is in society.

By so many diverse roads, the progressive unfolding of the points which define the idea of human nature, leads us to the real and positive characterisation of the species, or of man in general. We started with a vague, but necessarily a distinct, notion of rationality, reflection, and morality, united synthetically in an organism, and progressing on every side. We come at length to a vaster science, one more realised in its details, though still incomplete, because it never can be completed and perfected. . . .

Bring canvas and colours, hasten to collect photographic apparatus. Every day seize some new attitude, some gesture, some peculiarity of that Colossus called humanity. But let your pictures be exact and not all venially done, and do not look at them yourself in other light than as images of a reality, always indefinable, however we may have the power of defining it partially. It is a glory to our age that we have succeeded in perfecting these pictures to a marvellous degree. But let us observe one delicate point; let us not forget that to the idea we are indebted for a geometrical characterisation of facts. The invention of photography in our time seems a providential revelation to our minds. At first, it was thought photography would dethrone the pencil of the artist. Vain idea! The sun knows no history, has no idea. The ideal springs spontaneously from intelligence, and is realised by the hand inspired by genius. What does this fact teach



us? that it is a necessity that inspiration aid our science also, moderating the illegitimate pride of a knowledge whose truth even may always be error.

Scientific faith should be ours, in proportion as we strengthen ourselves in the vast fields of reflection; but, subjective faith should have its flight moderated, according to Bacon, though it should not be entirely restrained. Science is simply the atmosphere in which liberty lives, and when she is stifled by the might of knowledge, knowledge dies with her, like the organic structure which gives way crushed under the weight of the material.

But I cannot forget that there are still some modifications to be made in the plan I have presented to you. We are Spaniards, and it is our duty to occupy ourselves principally with the application which may benefit Spain in these grand anthropological questions.

How much we might, and ought to do! Our country, the boundary of Europe, is her bond of union with other continents, and offers one of the most advantageous situations to make herself the centre of the world. Thus we find that all the great changes of humanity have been unequivocally manifested on her soil. Invaded from the earliest historical times by the numerous nations inhabiting the coasts of the Mediterranean; so it was afterwards by the tribes from the north, and the Saracens. From her shores the discoverer of the New World started; and on her soil, at the beginning of the present century, were the magnificent scenes of the grand international drama represented. Spain thus offers grand objects for study in the diversity of the races which have peopled her, in those varieties which still inhabit her and her colonial possessions, in the results of crossings and acclimatisation, in the customs and traditions of so many varied populations and in the anthropological influence of so many distinct laws.

Our soil also presents the united conditions of the polar and equatorial climates, an immense variety of characteristics and productions. On one side, extensive coasts, rich rivers, and most fertile plains of fruitful land; on the other, arid and barren tracts and snowy peaks, and chains of mountains which isolate many provinces; others, which are easily communicated with by means of navigation; some, populations active and industrious; others, indolent and apathetic, different qualities of the mind; in fact, sufficient statistics to define the anthropological ideas without leaving the soil of Spain, and that, too, with a vigour and precision which other countries could not pretend to.

Our language, from the standpoint of ethnological etymology, is also an inexhaustible source for curious investigation. In one part of our dominions, we still preserve the ancient language of the "Basques". We have a language derived from the Arian, and which has passed

through the Latin, Provençal, and Romance forms, taking something from the Semitic peoples, whose civilisation maintained with the Indo-European the most obstinate and tremendous struggle that the world has ever seen. How a language, conformable with the most noble type for the necessities of ulterior progress has proceeded from this lingual knot, only a most patient and careful analysis can discover.

Such, and so many studies applied to our own country will naturally lead to the most important practical results. Of what physical perfection is our race capable, in order that moral and intellectual improvement may be facilitated? Up to what point is emigration to America, Africa, and the Oceanic Islands useful, which depopulates our provinces and returns us individuals modified by other climates? What reforms are necessary in the hygiene, marriage laws, education, and the means of subsistence for all classes? How can the greatest commercial and industrial benefits be conferred without bringing attendant evils?

It is quite certain that all these abstruse problems, all these agitating questions of real existence, in proportion as they affect man, offer a subject of consideration to any Society professing to study man, not merely under a psychological or material aspect, but in proportion as his nature reacts upon art, upon thought, and, above all, on the immaterial and spiritual nature which is united in him and which also suffers from any consequent reaction.

We are observers, men of positive science; but let us study absolutely for humanity. Do not let us dictate laws; but let us collect the materials for composing them. If in this collection we are happy enough to be of use to our country, accelerating those measures which will raise it to a higher state of civilisation, it will be no small share of glory we attain, and at least the satisfaction of our own consciences will never be wanting; and, after all, that is the most pleasing and lasting reward of duty fulfilled.

What more can I say, gentlemen, but to ask pardon for my insufficiency. This is not the occasion (nor would I if I could) to unfold to you more exact ideas, new and wonderful facts, or brilliant and abstruse problems, and philosophical propositions. I know no more of anthropology than the wish to study it. But I have simply told you the manner in which, in my opinion, the general question should be argued, in order to have a free and open field for study. I have not aspired to found any new thing, but only to offer you the ground free from rubbish, level and clear, as a faithful servant would present to his master the canvas on which he is to paint.

So many words for a blank canvas; in truth, I feel that I am merely apologising to you. Call it, then, what you like; but I think at least,

that the rubbish accumulated on the old edifice of human science, on a foundation already weary of sustaining it, required some force of will to discover a new and solid foundation, yet without entirely destroying the character of the old. For the present, I believe I have proposed a means, which, unworthy and slight as it may be, I shall be content to have obtained. If you like to call my proposition the method and system of anthropology (I say method and system purposely, because, in a measure, they are one and the same thing); if you like to consider it so, then my discourse will not have appeared so barren to you. I shall now conclude, with one observation on method, and likewise avail myself of the occasion to give you, by way of epilogue, a brief formula of philosophical doctrine, which is, in my opinion, the true one.

The method or system in anthropology, and, generally speaking, in all philosophy, if it is to be worth anything, must begin by confessing itself undetermined. That is of no one method in particular. Afterwards it gradually defines itself, and this is method; the result is the definition, and this is system. But system can neither define or be defined entirely, and method consists in acknowledging this in defining the undefined, in doing and undoing.

It is, then, method to do and undo; and I, by undoing, have prepared and arranged for you, who with strength and intelligence may do and re-make better.

Will, method, and system. At the commencement, I counted upon the first; to-day, I flatter myself we shall have the second; and these premises granted, I do not doubt but that we shall attain some doctrine, and form a scientific body which will not be an entirely unworthy part of the universal system. Let us, then, try in freedom and confidence to fulfil this duty.

You have associated yourselves, hoping everything from your own strength, without asking extraneous aid, or trusting to official support. You have asked from Government only what they have already granted—tolerance and legal liberty! This point of support is enough, and if to that has been added, as it has to us, unexpected benevolence, an approbation of our scheme, in all senses valuable, which you are going to realise, you will return a hundredfold this proof of deference by services to your country and scientific progress, and have fairly won this good opinion which you have known how to deserve, and which you will not fail to justify.

MATÍAS NIETO SERRANO.

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PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL  
SOCIETY.\*

M. BROCA offers some additional observations on plaster casts and on the errors to which the subsequent dilatation gives rise. He took this opportunity of rectifying the calculation respecting the capacity of Schiller's cranium. From the measurement of the plaster cast, he was led to fix the internal capacity of the cranium at between 1856 and 2150 c.c.; but as every diameter had probably increased two millimetres, the above calculation was too high, and the internal capacity must be reduced to from 1802 to 2072 c.c. The cranium of Schiller would be, even after this reduction, one of the largest ever measured.

*Statistics of Greenland.*—M. Boudin read a communication he had received from M. Etzel, who had published at Stuttgard, in 1860, a work entitled, *Groenland Geographisch und Statistisch Beschrieben aus Dänischer Quellenschriften* (Greenland Geographically and Statistically described after Danish Documents).

According to the last census, taken on the first of October, 1855, the population of Greenland amounted to 9644 natives and 248 Europeans. The increase of the native population since 1820 is indicated by the following table :—

1820 .....	6,286 inhabitants	1840 .....	7,877 inhabitants
1824 .....	6,331     "	1845 .....	8,501     "
1830 .....	6,997     "	1850 .....	9,185     "
1835 .....	7,356     "	1855 .....	9,644     "

Within a period of twenty years, namely from 1833 to 1853, in a population of 2,504 belonging to the parishes of Godthaab, Frederickshaab, and Julianchaab, the average mortality per month was :—

January .....	3·5 deaths	July .....	4·3 deaths
February.....	3·2     "	August.....	6·8     "
March.....	3·5     "	September .....	6·3     "
April.....	2·7     "	October .....	7·6     "
May.....	3·1     "	November .....	7·5     "
June.....	4·1     "	December .....	4·3     "

Respecting the causes of the deaths, M. Etzel enumerates them as follows in 4,770 cases :—

Died whilst engaged in seal hunting .....	415
Otherwise drowned .....	59
Frozen to death .....	8
Violent deaths .....	29
Died in consequence of being ill-treated .....	2

\* Continued from No. xii, p. 108.

Accidents .....	37
Poisoned by eating seal-flesh.....	36
Disputes .....	5
Suffocated during sleep .....	16
Old age .....	384
Throat diseases .....	21
Phthisis .....	230
Hæmoptysis .....	84
Chest diseases .....	139
Pleurisy .....	471
Influenza.....	622
Typhus and typhoid fever .....	16
Whooping-cough .....	96
Dropsy.....	30
Gout and rheumatism .....	3
Diarrhœa.....	11
Stones in the bladder .....	2
Cancer.....	6
Suicide.....	3

About one hundred Danish labourers and seamen, says M. Elzel, marry native females. These marriages during a century have given rise to a pretty numerous race of cross-breeds of various degrees, so that it is not always easy to distinguish them from the natives. They have, nevertheless, generally a European physiognomy. The greater portion of them resemble Southern Europeans as regards the hair and the colour of the skin. Some hybrids have light hair and a fair complexion, and can scarcely be distinguished from Northern Europeans. Fine figures are occasionally seen among the males. Intellectually the Mongrels approach the natives. The Greenland women married to Danes never learn the language of their husbands, still less do their children learn it. It is stated that the descendants of Danish fathers are more cleanly and more submissive to their parents than the native children.

In reply to M. de Moussy, who wished to know whether M. Elzel makes mention of epidemic variola among the Greenlanders, M. Boudin said that M. Elzel simply stated that variola existed in Greenland.

*Who are the Celts?*—M. Broca, in proposing this question for discussion, said,—In several of the discussions the terms Celts and Celtic race very frequently occurred. But the numerous speakers used these expressions with such different acceptations that opinions nearly identical appeared contradictory and *vice versa* opinions perfectly opposed to each other appeared to coincide. For these reasons it appeared to him necessary in the interest of science to provoke discussion on the various acceptations of the term Celts, so that when a speaker made use of the term it might be known what kind of Celts he meant. Within historical times there existed a people called Celts,

who occupied that portion of Gaul which lies between the Garonne and the Seine, and who stopped for some years the progress of the legions of Julius Cæsar. Such as take the name of Celts in this historical acceptation say that the Celts were above the average height, and that they had dark hair and eyes. . . . These are the *Celts of history*. But Cæsar was not the only writer who spoke of Celts. Many writers, from Herodotus downwards, have spoken of the existence of such a people, but in a vague and contradictory manner. The country of the Celts they believed was somewhere in Central and Western Europe. Sometimes they placed it above the Pyrenees, or on the sources of the Danube, the banks of the Po, or even on the shores of the North Sea. . . . These are the *Celts of tradition*, a people who are found almost everywhere, and can be fixed nowhere. Again philology has established that the Gauls and the Belgian Celts spoke of not the same language, at least nearly allied languages, akin also to the languages of the British islands. This group of languages required a name, and they were all called *Celtic languages* even before it was known that they were of Asiatic origin. The language of the Gaulish Celts is that which is least known, only a few words having been preserved. The name of Celtic languages being now sanctioned by use, all the people who speak or have spoken these languages are now called Celts.

There yet remain the Celts of *Archæology* and the Celts of *Craniology*. As regards the Celts of Archæology, he would distinguish those of archæology twenty years ago and of the present archæology. Twenty years ago all the monuments of Western Europe anterior to the Roman period were ascribed to the Celts, namely, the dolmens, the tumuli, the menhirs, the cromlechs, and all implements, whether of bone, stone, or metal; but the progress of archæology has proved that monuments twenty years ago reputed Celtic date from quite a different era, and that some of these had been raised by people who were ignorant of the use of metals. These were considered by archæologists as the primitive inhabitants of Europe, and the use of bronze was supposed to have been introduced by more civised peoples. As a name must be given to these emigrants, they have been called Celts, inasmuch as the languages called Celtic are the most ancient Indo-European languages. The prehistoric period formerly called Celtic had thus been subdivided into two distinct epochs: the Celtic period commencing with the bronze age, and the pre-Celtic period corresponding to the stone age. There remain further the Celts of Craniology.

The illustrious Retzius, by comparing the crania of the stone period with those of the bronze age, found that in the region of the Baltic the former were brachycephalic and the latter dolichocephalic, whence he

inferred that the pre-Celtic populations were, without exception, brachycephalic, and that dolichocephaly had been introduced in this part of the globe by the first Indo-European conquerors, that is to say, by a people whom, according to their language and their archæology, he designated Celts, among whom he included all the populations of North Central and Western Europe with dolichocephalic crania, such, at least, as existed prior to the arrival of the Teutonic and Germanic races. Dr. Thurnam, on the other hand, gives as the result of his archæological researches that in Great Britain all the monuments of the bronze period had been constructed by a brachycephalic people. Thus whilst the Celts of Retzius are dolichocephalic those of Thurnam are brachycephalic. The denomination Celts has thus received a variety of contradictory acceptances. The Celts of history are the peoples of the central confederation of the Gauls.

The Celts of philology occupy a much more extended area, as in them are included all peoples who spoke or still speak the so-called Celtic languages.

The Celts of archæology are the people who inaugurated the bronze period in Europe. And finally the Celts of craniology have, according to Retzius, introduced dolichocephaly among the brachycephalic autochthons of Europe, whilst, according to Thurnam, they introduced brachycephaly among the dolichocephaly of Great Britain.

All this shows the necessity of examining and discussing the following questions :—

1. Who are the ancient Celts, and in what part of Europe have these people, whose language and knowledge are unquestionably derived from Asia, first appeared under the name of Celts?

2. Is any proof existent that any people bearing this name have ever occupied or invaded Denmark, the Scandinavian peninsula, and the British Islands?

3. What are the physical characters of the ancient Celts? Were they tall or short, brown or fair, brachycephalic or dolichocephalic?

The President announced that these questions would be discussed at some future meeting.

*Human Hair as a race character.* By M. Bonté. This paper was, in point of fact, a critical analysis of M. Pruner-Bey's treatise on the same subject, which has already appeared in the *Anthropological Review*. We extract a few of the introductory remarks, and the conclusions arrived at by the author; hitherto, observed M. Bonté, hair had not been supposed to possess a specific character, by the aid of which, we might, in an irrefragable manner, determine race.

It was known that the hair of the Negro is elliptic, that of the Mongol round, and that of the Aryan, more or less oval. It was

known that in some races the *pulp* is more or less absent ; in short, the hair was only considered as possessing a specific character for the determination of different original stocks.

So the question stood in 1863, when appeared the treatise of M. Pruner-Bey inserted in the memoirs, and in which he lays down the following principle :—"A single hair, when it presents the average form, characteristic of the race, may enable us to determine it." But soon flinching from so bold an assertion, he added :—"Without pretending to such a degree of certainty, it is nevertheless indubitable that the hair of the individual bears the stamp of his origin."

It is this conclusion which M. Bonté had tried to verify, and he regretted to say that he was far from arriving at the same results. After examining in detail the various propositions laid down by M. Pruner-Bey, M. Bonté concluded in the following terms :—

We are indebted to our colleague for the patience with which he has analysed and measured the hair of different races, but such as have read his memoir carefully, can only come to the following conclusions :—

1. The section of the hair of any race, or of any individual, is far from bearing the stamp of his origin, since, even according to M. Pruner-Bey, we find in the same race, and frequently upon the same head, different forms ; and also in the section of the hair of very different races, the most perfect similarity. If hair be any character, it is only so as regards the determination of what we call *stocks* : the hair of the Negro, the Mongol, and of the whole race, differ unquestionably.

2. The question is still in the condition in which it was left by Browne.

3. It appears to be impossible to lay down principles so absolute as those formulated by M. Pruner-Bey from observations, confined only to a few subjects. In fact, in 16 races out of 37, these observations refer only to one head of hair, and in 12 to two heads of hair.

Science is encumbered with many errors, because it adapts facts reposing upon slender foundations. M. Bonté concludes by expressing the hope that the question would be further examined, as his only wish was, to elicit the truth and nothing but the truth.

M. Broca said that without constituting himself the defender of M. Pruner-Bey, whose absence he regretted, he could not help recognising the importance of the treatise which M. Bonté had subjected to such severe criticism. Before M. Pruner-Bey's time, the hair had been chiefly studied as regards length. Pruner-Bey studied the circumference, and by means of transverse sections, he discovered



many curious facts; the conclusions may perhaps be erroneous in some details, owing to the small number of individuals examined. But the contradictions pointed out by M. Bonté signify little. There exists in Anthropology no absolute character. Even the craniological characters are, despite their importance, not absolute. Among the most orthognathous races are found prognathous individuals, and we cannot expect to find a greater fixity in the characters drawn from the structure of the hair. But these characters possess, nevertheless, great importance, which is shown in the treatise of M. Pruner-Bey.

One great fact has been demonstrated by microscopic examination, namely—the elliptic form of the transverse section in the hair of the Negro, whence it results that frizzling is fundamentally and essentially different from curly hair, as seen in other races. This character is the more important, since Prichard, from some superficial microscopic examinations, asserted that the hair of the Negro resembled that of the European. By demonstrating that what was called the wool of the Negro, had not the structure of lamb's-wool, Prichard thought to have established the identity of the hair in all races. The researches of M. Pruner-Bey have rectified this error.

After a short discussion, the Meeting adjourned.

June 16, 1864. Dr. Gillebert d'Hericourt, on his return from Algeria, presented to the Society a Memoir, containing anthropological observations on 17 Kabyles, 6 Mozabites, 8 Town Arabs, 23 Tribe Arabs, 4 Kouringlis, 12 Negroes, 6 Jews of Algiers, and 2 Chinese. He brought with him 23 specimens of the hair of all these individuals, and a beautiful collection of drawings of tattooing, copied from nature. The Memoir contains also observations on the hair, eyes, colour of skin, stature, conformation of hands and feet, and on the degree of resistance to cold, possessed by the Arabs and Kabyles. Memoir remitted to a Committee, composed of MM. Anselme, Perier and Bertran.

M. Pruner-Bey announced the reception, from Commander Duhousset, of 40 specimens of hair of Kabyles.

M. Pruner-Bey replied at some length to the strictures of M. Bonté on his treatise on human hair as a race character; but as M. Pruner-Bey promised that he would shortly publish a second and more extended series of observations on the same subject, we pass it over for the present.

July 7, 1864. The Secretary-General, in announcing that by an imperial decree the Anthropological Society has been pronounced an establishment of public utility, said such a recognition is ordinarily only granted to institutions which have existed for many years. The exception made in our favour abundantly proves the utility of the work we have undertaken. The thanks of the Society are especially due for

the favour to the enlightened views of M. Duruy, minister of public instruction, who by his writings has rendered important services to the science of anthropology.

*A New Process for Solidifying Friable Substances.* By — STAHL. Paris, 1864.

M. Pruner-Bey called attention to the utility of M. Stahl's process in the preservation of ancient crania. He produced a bone of a fossil reindeer, broken asunder, one portion of which in its natural condition crumpled into dust, whilst the other saturated with M. Stahl's liquid acquired the hardness of recent bones.

Dr. Moreno Maiz, late surgeon in the Peruvian army, presented to the Society a perfect Peruvian mummy and other objects found in a *huaca* (grave) of the ancient inhabitants of the northern coast of Peru. The mummy is of the race denominated by MM. de Rivero and Tschudi, Chinchas. The territory formerly occupied by this race extended from the desert regions of Tumbes in the north to the sands of Atacama in the south, between the tenth and the fourteenth degrees south lat. The three vases sent with the mummy are called *huaqueros*.

The President recommended a careful examination of this mummy, for which purpose a committee was appointed.

Dr. John Thurnam (who was present at this meeting) offered to the Society a perfect cranium found in a long-barrow at Dinnington (West Riding of Yorkshire) of the stone period. This cranium is very dolichocephalic, as shown by the following dimensions:—

Diameter of antero-posterior maximum .....	205
„ transverse maximum .....	143
„ vertical maximum .....	144
„ frontal minimum .....	96
Total occipito-frontal curve, from the nasal suture to the posterior border of the occipital foramen .....	413
Transverse bi-auricular circumference .....	460
Horizontal circumference .....	561

The cephalic index is from 69-75. The internal capacity is enormous, amounting to 1818 centimeters cubes. This cranium presents a considerable development of the occipital region.

*Is Religiousness a Human Character?* M. Pruner-Bey made the following remarks on this question, which had been touched upon by M. Boudin in his paper on serpent-worship. If by religion we understand the relations in which man thinks that he stands to an invisible world and the attribution of supernatural powers to inorganic and organic bodies (demonology and idolatry) there can scarcely be said to exist any people altogether deprived of religion. And if religiousness be the faculty of conceiving or adopting any religion, then this faculty is inherent in human nature.

With regard to the inhabitants of Southern Africa, especially the Kaffirs and the Bechuanas, Livingstone loudly protests against the ideas spread by the Moslems on the absence of religion amongst these people; and M. Casalis, in his work on the Bassutos, a branch of the Bechuanas, gives a detailed account of the religious system of these nations. Nevertheless all travellers in these countries have been struck with the total absence of temples and places devoted to *public worship*. Moreover, which is better, to have none at all or a sanguinary worship? This protest does not, however, exclude another series of facts. There exist, no doubt, among human races living more or less in a state of nature, individuals, and probably whole tribes, in whom religious ideas are but little developed or are absent(!); just as amongst us there exist materialists and spiritualists. Still all this by no means invalidates the rule, and man in a savage state may, in his own fashion be as religious, if not more so, than civilised man.

Report by M. Alix on a memoir submitted to the Society entitled *Cavernes du Périgord, objets gravés et sculptés des temps préhistoriques dans l'Europe occidentale*.

This memoir, of which an analysis had been presented to the *Académie des Sciences* by M. Milne Edwards, has for its object to demonstrate the existence of man in Central France at a period when that part was inhabited by the reindeer and other extinct animals. All the localities which have been explored by MM. Lartet and Christy are situated in the *Arrondissement de Sarlat* (Dordogne).

The most important discoveries have been made in the grotto of Eyzie, and in deposits near the slopes at Langerie-Haute and Langerie-Basse.

After a detailed account of the objects found, such as flint implements worked in different fashions, weapons made of bones or antlers of the reindeer, teeth of the *Megaceros hibernicus*, finely engraved utensils, etc.—the report continues thus:—The facts we have enumerated relate to two separate questions, the one geological, the second anthropological. It belongs to geology to determine the age of the beds in which the objects were found. The anthropologist might infer from this the antiquity of the human race upon the globe.

The discoveries of MM. Lartet and Christy prove that people who knew not the use of metals inhabited our country contemporaneously with animals now extinct. The question as to the period when this population and this extinct fauna lived contemporaneously will only be solved when geologists are no longer divided in this respect.

Anthropology asks other questions. What was the nature of the people the contemporaries of extinct animals with respect to their intelligence? Were they essentially inferior to their successors, or were

they their equals, if not in knowledge, at least by their natural qualities? Does science force us to abandon the hypothesis of the primitive dignity of man, that hypothesis which inspired Milton when in his poetical enthusiasm he depicted Adam as the most perfect of men, and Eve as the fairest of women?

“ So hand in hand they passed, the loveliest pair  
That ever since in love's embraces met;  
Adam the goodliest man of men since born  
His sons, the fairest of her daughters Eve.”

The researches of MM. Lartet and Christy show us people who manifested their intelligence by their designs, engravings, sculpture, who produced works of art and gave a regular form and a curve of a certain beauty even to common utensils. These people thus possessed a sense for the beautiful, so that M. Lartet says we find amongst them real artists, and the most civilised nations need not blush to acknowledge them as their ancestors.

In conclusion, science has, by the research of MM. Lartet and Christy, acquired the following three facts:—

1. Men have inhabited France contemporaneously with the reindeer.
2. They have lived at a period anterior to that of which the Greeks and Romans have written.
3. These men, whatever may have been the simplicity of their habits, have left behind them remarkable proofs of their intelligence.

*Discussion on the Celts.*—M. Girard de Rialle said, our honourable Secretary, M. Broca, has proposed the question, “Who are the Celts?” I reply, they are the first tribe of the Aryan stock, who arrived in Europe long before the Germans, the Pelasgi, and the Slavonians.

These first Aryans certainly did not call themselves Celts. Cæsar gives that denomination only to those confederate Gauls who were localised between the Seine and the Garonne, in a wooded country (the Celtic word is derived from the Gaelic *koille*, forest). But, right or wrong, the ancients denominated Celts all inhabitants of Western Europe.

Later all the peoples who spoke Gaëlo-Kimric languages—that is to say, the Gauls, the Belgians, the Britons, the Scotch, and the Irish—were called Celts; in the same way as the Bactrians, the Persians, the Medes, the Armenians, the Kurdes, etc., are said to belong to the Iranian race, from the name of a province *Iran*, which word signifies the earth properly so called. Again, the Greeks, the Italiots, the Eperotes, the Thracians, the Phrygians, the Ionians, are called the Pelasgian race, from the name of one tribe, the members of which called themselves Pelasgi.

The Celts are Aryans, there is no doubt about this—their languages

prove it. They consist of two groups, the Gaëls and the Kimris. The idioms of these two groups resemble each other so much, that they can only belong to peoples nearly allied. The Gaëls were the first who arrived in this part of Europe; for the traditions, clear enough as regards the Kimris, are silent as regards the Gaëls. The Gaëls established themselves in Europe, in Gaul, England, and Ireland. The language of the Highlanders and the Irish is a purely Gaëlic dialect. These Aryans, no doubt, found in Europe an autochthonic race. Were these the people of the stone period? for the Gaëls belong to the bronze age. And this I prove by the Gaëlic language, in which are mentioned four metals, the names of which evidently belong to the primitive Aryan, though corrupted in the Celtic languages. The Celts knew *airain* (brass), the name of which was among the Germans and Celts afterwards given to iron (steel). *Airam*, *ayas* in Sanscrit, stands for *ADYAS*, itself a corruption of *ADAS*; so that the knowledge of metals existed in Arya at an immeasurably remote period. *ADAS* stands for *A*, purative, and *DAS*, subdued (*dompté*); *airain* (brass). *Ayas* is therefore the unsubdued, *i. e.* the metal hard *par excellence*, which we find again in Rome and Italy under the names *ais*, *aes*; it corresponds with the Gothic *eisarn* (Aryan, *ADYAS*!). This Aryan word becomes in Gaëlic *IARUNN*; whilst the Gothic *eisarn* becomes the German *eisern*, and the English *iron*.

Copper is in Gaëlic called *coiremor*, which reminds us of the Sanscrit *kamala*, which has the same signification. The interversion of syllables is frequent in our race, as well as the interchange of the soft liquid *l*, for the hard liquid *r*. This word, then, seems to be derived from the radical *KAM*, to love. *Coiremor* and *kamala* thus signify the loved, precious metal.

Finally, when we compare *AIRGIOD*, silver, in Gaëlic, with the Greek *APYPOΣ*, the Latin *Argentum*, the Sanscrit *r'g'aton*, the Zend *erezata*, we can only derive them from the same radical *r'g*, "to glitter", and conclude that all the Aryans knew, before their separation, a white glittering metal—silver. We are likewise, as linguists, obliged to unite under a common radical the Gaëlic *oir* and the Latin *aurum*, to be convinced that the primitive Aryans possessed objects in gold.

[To be continued.]

## Miscellanea Anthropologica.

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**ANTHROPOLOGICAL SOCIETIES.**—The Anthropological Societies of Spain and of Moscow have both commenced their labours. We have given the opening addresses of the former Society, and in our next we hope to be able to give a translation from the Russian of the first proceedings of the Moscow Society. We are also in a position to announce that there are several other Anthropological Societies in course of formation. It would be premature to give details at present, but in our next we expect to be able to record the birth of more than one Anthropological Society, not only abroad but in Great Britain. The arrangements of the Manchester Anthropological Society, we understand, are nearly completed, and Dr. Hunt has been invited by that Society to give an inaugural address. Similar societies are being formed in other large cities of this country. We understand that these societies will be independent bodies, although affiliated on the parent Society.

**ANTHROPOLOGICAL SOCIETY'S MEETINGS.**—The following arrangements have been made for reading papers before the Anthropological Society during the present quarter:—On April 3rd, John Cleghorn, Esq., "New Reading of Shellmounds and Graves in Caithness." Robert I. Shearer, Esq.; Joseph Anderson, Esq.; George Petrie, Esq.; and Dr. James Hunt "On Human Remains from Keiss, Caithness." On April 17th William Bollaert, Esq., "Introduction to the Anthropology of America". Captain R. F. Burton "Notes on an Hermaphrodite". On May 1st, Major S. R. I. Owen "On Hindu Neology". Dr. John Shortt "On a Living Microcephale". E. Sellon, Esq., "On Sacti Puja". R. B. N. Walker, Esq., "Notes on the Fecundity of Negro Women". May 15th, Hodder M. Westropp, Esq., F.A.S.L., "On Analogous Forms of Flint Implements". Colonel Beauchamp Walker, Lieut. Ardagh, and Mr. C. Carter Blake, "On a Kjökkenmödding at Newhaven". Capt. R. F. Burton "On a Kjökkenmödding at Santos, Brazil". Rev. W. H. Brett "On a Tumulus at Essequibo". On June 5th, John Beddoe, Esq., M.D., "On the Headforms of the West of England". June 19th, Dr. Berthold Seemann, V.P.A.S.L., "On the resemblance of inscribed stones at Veraguas to those in Northumberland".

The lamented death of Mr. George E. Roberts on the 21st of December last has led to the formation of a small subscription amongst his numerous friends in the Anthropological and Geological Societies, with a view to engrave the portrait which is issued with this number of the *Journal of the Anthropological Society of London*.

The second volume of the *Memoirs of the Anthropological Society of London* will soon be published, and will be copiously illustrated with woodcuts.

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ON THE COMPARATIVE ANTHROPOLOGY OF SCOTLAND.

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THE earliest accounts which we possess of North Britain are to be found in the writings of the Romans ; and, although these are of considerable importance to the man of science, who makes man his study, yet, upon the whole, he finds them rather vague and meagre, so far as regards that kind of information which he especially requires. Tacitus describes the Caledonians as a red-haired, large-bodied people ; and, from that loose observation, infers them to be of German origin ; he assigns also a Spanish origin to the Silures on account of their dark features. Writers who seem to have had but an indifferent knowledge of the nature of analytical inquiry are not certainly high authorities to serve as guides for a modern scientific investigator. Indeed, it may be doubted whether history so-called is more serviceable than romance or tradition to him who would seek light on the distinguishing characteristics of races, nations, and peoples. That red hair was conspicuous among the ancient Caledonians we may believe, just as it is among modern Highlanders ; but that it was more prevalent than in our own times we may very well question. The considerable proportion of red hair that abounded among this people produced a strong impression on the Romans, and led them to conclude that a prominent characteristic was a universal one ; a fallacy of which careless observers are guilty in all ages and in all countries.

The Caledonians, according to Tacitus's own account, were armed in a very different style from Germans ; carried long swords, and were so expert at throwing the dart, that had not the Romans closed with them in such a manner that their long swords were of little avail, the victory was sure to be theirs. Writers of the middle ages mention bows and arrows as weapons in the use of which the Highlanders

were extremely skilful. Nicolay d'Arfeville, a French writer, in a work published by him in the year 1583, expresses himself respecting them in the following terms :—" Their arms are the bow and arrow and some darts, which they throw with great dexterity, and a large sword, with a single-edged dagger. They are very swift of foot, and there is no horse so swift as to outstrip them, as I have seen proved several times both in England and Scotland." From these remarks we readily perceive how much the Highlanders of the sixteenth century correspond in character with the Caledonians who encountered Agricola and the Romans at the foot of the Grampians. But one weapon is there, the dagger, which was wanting in the arms of the Caledonians. Did not the contests with the Romans lead to the invention of the dirk, that weapon which was such a favourite with the Scotch Gael of the middle ages? The swiftness of foot ascribed by Nicolay d'Arfeville to the Scotch Gael of the sixteenth century, is ascribed by Harald Gille, son of Magnus Barefoot by an Irishwoman, to the Irish Gael of the twelfth century. On mentioning the extraordinary swiftness of the Irish to some persons at the Norwegian court, Magnus, the king's son, doubted his word. Harald repeated his assertion,—“ It is true that there are men in Ireland whom no horse in Norway could overtake.” So to prove his saying he runs a race on foot with Magnus the king's son mounted on his swift runner, and outstrips him thrice; and it is said in the Saga, “ Then Harald ran quickly past the horse and came to the end of the course so long before him that he lay down and got up and saluted Magnus as he came in.” On this occasion King Sigurd addressed his son in the following words :—" Thou callest Harald useless, but I think thou art a great fool and knowest nothing of the customs of foreign people. Dost thou not know that men in other countries exercise themselves in other feats than in filling themselves with ale and making themselves mad, and so unfit for everything that they scarcely know each other.”

Swiftness of foot, then, seems to have belonged to the Gael at various periods; and this agrees with the superior development of foot and leg which Dr. Knox, and other able writers on race, have clearly shown to be characteristic of Celts. The love of strong drink seems to have been a failing of the old Norwegians of the days of Harald Gille, as it is at this day of many of their mixed descendants in the British Isles.

In considering the original population of Scotland before Teutonic invasion took place, it is desirable, so far as it can be done, to investigate the qualities by which it was distinguished from that of other countries, and to what extent those qualities agree with, or differ

from, those which are peculiar to the present inhabitants ; also, to what extent the present Scotch differ from pure Teutonic nations in manners and character. On the decline of the Roman empire, the south-east of North Britain was invaded and seized upon by Saxons and Angles, while portions of the west and south-west were conquered by the Scots from Ireland. As these Scots constituted an important element in forming the nationality of Scotland, some inquiry into their history may throw light upon both Scottish and Irish ethnology.

The people anciently called Scots, called themselves *Gaedal*, *Gael*, or *Gaoidhil*, as Gaelic speaking Scotch and Irish do at the present day. They called themselves, also, *Feinn*, and sometimes *Sciut*. These three names are, in old Irish writings, applied to the self and same people. The word *Gaedal* is formed from *cia*, a man, and *deal*, a root, meaning light, clearness, or whiteness ; the name, therefore, signifies a white or fair man. *Deal* or *dheal* (in Gaelic *dh* and *gh* have the same sound, which bears the same relation to *g* hard that *ch* in German does to *c* hard or *k*) has passed into *geal*, white or clear. In the Gaelic language, whatever is loved is figuratively called *geal*, white ; and whatever is hated, *dubh*, black ; so from *geal*, white, comes *gaol*, love, friendship, relationship ; hence Gael, one of the kindred, a fair man, from which the Latin Gallus. Celtæ is from *gaolta*, relatives, men of the same nation. It may be interesting, in connection with a race which has retained its characteristic name for thousands of years, to trace the close analogy subsisting between the numerous words derived from the root *deal*. *Dile*, love, friendship ; *dileas*, beloved, faithful ; *deal*, friendly ; *deala*, friendship, kindred ; *dealan*, lightning ; *dealradh*, brightness ; *dealt*, dew. By mutation of the initial letters peculiar to the Celtic languages, the *d* in these words becomes, according as the word is affected, *dh*. It will further illustrate the transformations which the name Gael has undergone to produce instances of the manner in which it is spelt in the Dean of Lismore's book. The dean's orthography is peculiar, and differs widely from the old Irish and modern Gaelic spelling. "*Gaywill, Geil, Zeillew, Gyle,*" are the various forms of the name in the dean's book. A foreigner, or one who is not of the kin, is called *gall*, a word rather closely allied in sound and spelling to its opposite. It is spelt in the Dean of Lismore's book, *Gyill, Zall, Gallew, Gaule, Zallew*. Its root is probably *dall*, blind, without light or lustre. Kindred words, *gal*, *gul*, grief, weeping ; *galar*, disease ; *goill*, a harsh expression ; *gailionn*, coarse weather. It is rather a curious fact that many words in Gaelic which express opposite ideas vary but slightly from each other. This fact illustrates beautifully that love of minute discrimination which is so strong a trait in the character of the Celtic races. The

following are examples of this peculiarity. *Deal*, light ; *dall*, without light ; *fèile*, generosity ; *foill*, treachery ; *aill*, agreeableness ; *oil*, disagreeableness ; *fior*, true ; *fiar*, crooked, false ; *nèamh*, heaven ; *nimh*, poison ; *cavin*, amiable ; *càin*, to traduce ; *coir*, justice ; *coire*, harm ; *ceart*, right ; *cearr*, wrong ; *sgath*, slaughter ; *sgàth*, shelter, protection ; *gean*, pleasure ; *cean*, want.

The other name by which the people have been known, *Feinn*, is identical in meaning with the preceding. The singular form is *Fiann*, and another plural form is *Fianntai* or *Fianntaidh*. *Fionn* means white or fair, and *Fiann* is a white or fair person ; *Feinn* or *Fianntai*, signify, therefore, the white or fair people. This is the name given to the old Gael in all their ancient ballads—the ballads which supplied Macpherson with materials for those works which have gained such a wide world celebrity. It is also the name of one of the ancient Gallic nations, who were skilful navigators, had superior ships, and fought gallantly by sea and land against Cæsar and his Roman legions. They had intercourse with Britain, whence they obtained auxiliaries against the Romans, and there is little room to doubt that the Gallic Veneti were the same race with the Scotch and Irish *Fianntai*, or Gael. The name of their chief town, Dariorigum, is Gaelic ; it is *doire righ*, grove of kings or chiefs. Although, generally speaking, the Celts are not disposed to seafaring pursuits, yet there are varieties of them to which a sea life is more or less attractive. The ancient Irish visited the shores of Britain, in the time of the Romans, both for the purpose of plunder and commerce ; and, at a subsequent period, found their way into Iceland before Norsemen had ever set foot upon the soil.

*Scot, Sciut*. This name, by which the Gael of Ireland were known to the Romans, and by which all the natives of Ireland were known for several centuries after their conversion to Christianity, signifies the ruling men, or the men of power. *Scot* or *sgod*, is the sheet of a sail, and figuratively implies power or superiority. The Gael, *Feinn*, or *clanna milidh*, were the ruling people or *squit*. The word is somewhat allied to *sgiath*, a shield, a word used, also, metaphorically for a warrior or ruler. The word *Scot* has softened down into *Seod*, which now means hero.

The names given to a people by strangers are to be cautiously handled. Whether the name *Scot* was exclusively applied by the Romans to natives of Ireland may be doubted ; but it would be a great mistake to suppose that the race to which the name of Scots was applied in Ireland did not abound in Britain before the arrival of the Dalriads. The first name given by the Romans to the bravest and most prominent people in North Britain, was Caledonii, *Gael*

*daoine*, the fair or kindred men, which, it will be observed, is identical with one of the names, *Gael* or *Gaedal*, by which the Irish Scots were distinguished. And as it may be inferred from Tacitus's remarks that they were fairer than the rest of the Britons, the name *Gael daoine*, or *Geal daoine*, was in every respect appropriate; indeed, from Tacitus's description, and from the accounts of the ancient Gael or Feinn handed down by tradition and old Irish writings, it must be concluded, inevitably, that both peoples were of the same race, and that, in this respect, the Dalriads did not differ from the Picts, on whom they encroached. The name of Picts, latterly applied to the Caledonians by the Romans, is from the G aelic word *feadh*, an army. The *Gwyddhil ffichti* of the Welch is *Gaidhil feachda*, that is, the Gael of the army, or the Gaelic soldiers. *Cruithne* or *Cruithneach*, is another name that is rather puzzling, but it is nothing more or less than the Gaelic equivalent for Brython, and might have been applied in the past as *Gael*, *Eileannach*, *Eireannach*, and *Albannach*, are applied at the present day. An illiterate Highlander distinguishes himself from a Gaelic speaking Connaught Irishman by calling himself *Gael* and the other *Eireannach*. He distinguishes his own language from that of the Irishman by calling it *Gaelig*, while he calls that of the latter *Iris*, a corruption of the English word Irish; on the other hand, the Irishman distinguishes himself from the Scottish Highlander by calling himself *Gaidheal*, and the latter *Albannach*; or *Eileannach*, an islander, if from the Hebrides. In the past, in the same manner, a Gael from North Britain would be called *Cruithnach* or *Briton*, in Ireland, and so would be confounded with other British races. Whether the Irish *Cruithne* were ancient Scottish Gael or Cymry may admit of some dispute; but they are as likely to have belonged to the former race.

*Language of North Britain previous to the Dalriadic invasion.*  
With regard to the language of North Britain at the time of the arrival of the Irish Scots, there are good grounds for inferring that it was a dialect of Gaelic, having more in common with Cymraeg and other British dialects than the language of Ireland. In the east and south the language was probably intermediate between Gaelic and Cymraeg. It may be observed here that there are no grounds for believing that all the dialects of South Britain were nearer Cymraeg than Gaelic. The Bretons do not call themselves Cymry, and their language they call Breton; while they call the French language Gallec. It is extremely probable that all the old British languages passed into one another by imperceptible shades, and that the old dialects of the south and east of Scotland would form connecting links between the Gaelic and Cymraeg branches of the Celtic stock.

The part which the Dalriads played in North Britain seems to have been similar to that played by the Normans in England at a subsequent period. They were Scots, chiefs or ruling men, not hewers of wood and drawers of water; they did not enter North Britain to remove the native population, but to become its chiefs and rulers. In the past a ruling people that would not toil as menials could not but necessarily encroach. Conquerors they were, and sought merely to remove other chiefs to make room for themselves. The Dalriads did not manage to master North Britain in a single battle as the Normans did with the southern portion of the island several centuries later, but where they did not conquer by the sword they prevailed by intellectual superiority. They were Christians, and the Picts were not; and having been somewhat humanised by the influence of the new religion, they granted an asylum to one of their own royal race, who sought a conquest of a different kind from that of Fergus Mor Mac Eirc—the conversion of the Picts to the Christian religion.—This was *Calum Cille*, or St. Columba, one of the O'Neill dynasty which ruled Ireland for five centuries. Having obtained Iona for his residence, *Calum Cille* there trained moral soldiers, through whose aid he effected a conquest more important in its results than the physical territorial subjugation of the mailed warrior, as the conversion of the Picts was followed by that of the Saxons of Britain, and from Iona proceeded many of those Scots who laboured in the seventh, eighth, ninth, and tenth centuries to enlighten the nations of the continent in letters and religion. As the Normans were found everywhere in England, before the arrival of the conqueror, as bishops, heads of monasteries, etc., so the Dalriads were found everywhere in Pictavia as religious teachers and ruling men long before the union of the two kingdoms under Kenneth Mac Alpine. It is usually supposed that the people of Argyle, Galloway, and Ayrshire are the descendants of the Irish Scots, and the northern Highlanders those of the Picts; but this theory requires to be considerably modified, as the Dalriads, as has been already observed, were men who sought to rule but not to toil. The Dalriadic infusion of blood extended to every part of Scotland, although, doubtless, more remained in those parts near Ireland than extended to other districts; but it was nothing more than a fresh infusion of Gaelic blood, and merely increased the quantity of that which formerly existed.

*Anglo-Saxon Dialect of Scotland.* In taking a view of Scotland we find it inhabited by two peoples who speak two different languages;—the one Anglo-Saxon, and the other Gaelic;—and this fact has led many writers to draw erroneous conclusions regarding the races with which this country is peopled. In examining Scottish history, on

which much light has been thrown of late years by Messrs. Skene and Innes, and, more lately, by Mr. W. Robertson, in his *History of Ancient Scotland*, it will be found that the ancient bounds of the Gaelic language included the whole of the country north of the Frith of Forth, besides the most of the south-west. From the south-east the Anglo-Saxon dialect extended north and west, and gradually gained ground owing to its having become the court language, and being, besides, the speech of the more fertile districts of the kingdom. The language was changed, but not the race; but the Saxon, through time, was gradually intermixed with the Gael and other British races that abounded in the land; while the invasion of the Danes in the east infused more Teutonic blood into the people, and helped to modify the language which was spoken by them. The lowland language has borrowed many words from Gaelic and British, and has undergone the corruption which a language undergoes when it becomes that of an alien people. Idiomatic phrases are the test of original purity of language. A blundering use of *shall* and *will* is so characteristic of Scotchmen, both Highland and Lowland, as to become the shibboleth by which a North Briton is known after having lost the most of his dialectical peculiarities. A celebrated essayist asserts that a London apprentice boy can use these words more correctly than they are used by Hume and Robertson; and there are many fairly educated Scotsmen who can hardly appreciate the delicate absolute *shall* of Shakespeare's English *Coriolanus*, and, doubtless, it would be a puzzle for the old Roman also. A glance at Barbour's *Bruce* and at Burns's poems will readily show how much the Anglo-Saxon language of Scotland has altered from the days of Barbour to those of Burns. The language of Barbour is good Anglian; that of Burns is one peculiar to Scotland—a new speech formed out of a foreign one by a people who had formerly used a different tongue. Those words associated with feeling are sometimes retained when almost every trace of the old language is lost; and hence broad Scotch has retained the old British words, *dad*, father; *mammy*, mother; as well as the Gaelic words *ingle* (ainneal), a fire; *beltin*, the first of May, etc. The same process which has gone on in Gaelic with regard to borrowed words has affected the whole broad Scotch—that is, a breaking down of the consonants. In Gaelic, Scripture names have altered much the same as in French;—Moses has become *Maois*; Adam has softened into *Adhamh*, pronounced *Aaw*; Solomon into *Solamh*, pronounced *Solla*, etc. In broad Scotch all words ending in *l* have lost the final letter; thus, full, fall, careful, frightful, have changed into *fu'*, *fa'*, *carefu'*, *frightfu'*; the consonants are also lost in the middle of words—wonder, thunder, London, are transformed

into *Lon'on*, *thun'er*, *won'er*. From these, and other analogous mutations, the proportion of vowel sounds to consonants is greater in Lowland Scotch than in English; a fact which clearly shows how a foreign language acquired by a people is affected by the characteristics of the one which it had displaced. Mr. Ellis, in his *Essentials of Phonetics*, makes the following remarks on the Lowland Scotch:—"The great difficulties of pronunciation centre in the numerous vowels, in which the Scotch is even richer than the French if the nasal vowels be excluded." This preponderance of vowels is also peculiar to Gaelic; and, like French, it has its series of nasal ones. It may be observed that all the vowels are nasal, both in Scotch and Gaelic, before *m* and *n*.

The languages usually spoken by Celts imply that they belong to races fond of precision and universality. The orthography of Scotch and Irish Gaelic obeys one rule—which is, that if one syllable of a word ends with a broad vowel the next must begin with a broad one; and if with a small one the next must begin with a small one. There are five vowel letters altogether, of which three, *a*, *o*, *u*, are called broad, and two, *e*, *i*, small, from the peculiar character of the sounds which they represent. The following are instances of this rule, which admits of no exception: *iongantach*, wonderful; *amaideach*, foolish; *figheadair*, a weaver; *eireachdail*, handsome. In Scotch Gaelic, the accent of all words not compounded, is on the first syllable, and all such words are monosyllables, dissyllables, and trisyllables. In Welsh mostly all the words are accented on the penultimate; indeed, the Celtic mind seems to seek the absolute in everything; rules, laws, and governments complete in themselves and independent of exception, leaving no room for doubt or discussion. Like French, Italian, and Spanish, modern Welsh and Gaelic have no neuter gender, a fact which indicates that the races that speak these languages are strongly emotional. Like French, the adjective is placed after the substantive in Welsh and Gaelic—the universal before the particular, implying races more deductive than inductive in intellect. A future tense distinguishes Welsh and Gaelic from English and German, as it does Italian and French. The mutation of the initial consonants in Gaelic and Welsh would seem to have an analogy to the silent character of final consonants in French words before other words beginning with consonants. Both peculiarities may be traced to a love of euphony in the races that speak the foresaid languages. Imaginative races cling to inflections of speech, which express past and future time; so Scotch Gaelic has lost its present tense, but retains its past and future. The past and future are the regions through which imagination takes her flights; the present is the centre



round which memory and observation revolve. A future and conditional tense are common to both French and Gaelic :—

FRENCH.	GAELIC.	ENGLISH.
<i>Future.</i>	<i>Future.</i>	
Je vendrai,	Reicidh mi,	I shall or will sell.
<i>Conditional.</i>	<i>Conditional.</i>	
Je vendrais,	Reicinn,	I should or would sell.

Races may change their language and adopt that of an alien one, but the acquired tongue is sure to be modified to accommodate the mental requirements of those whose speech it has become. The French language, manufactured out of Latin, is as Celtic in character as Welsh or Gaelic; the structure of the Spanish indicates a Celtic element in the people, and a Basque scholar could, perhaps, show that the speech of Spain is as Celtiberian as the people. The Irish, who have lost their old speech, retain the *brogue* of the old one, along with many of its idioms; while Dumfriesshire and Galloway men have often mistaken Argyleshire people for natives of their own districts, and many of the inhabitants of the northern counties, whose mother tongue is English, speak it with as strong a twang as the Gaelic-speaking Highlanders of Inverness-shire. The Scotch are not two nations, but one consisting of two peoples, who are one mixed race, with the original elements mixed in various proportions, and speaking two different languages. As Scotch nationality is altogether of Celtic origin, and had a vital existence before Scandinavian invasion took place, the Celtic characteristics have been first discussed before entering upon those of Teutonic origin.

*Types.* The east and west of Scotland present peculiarities of form and feature widely differing from each other; but extremes meet here as in other things. Many of those peculiarities of form, features, and complexion, are shown by scientific inquiry to be intrusive, and traced by historical research to an original source. Wonderful, indeed, and multifarious, are the features, forms, and complexions, presented by the various districts of Scotland. But pervading the whole, science discovers a network by which all these are united. The north-east of Scotland and the west, notwithstanding the wide difference which is observed in the features of the population of both, still present bodily shapes and countenances which are amazingly like each other. Whence this diversity and identity? and how is the matter to be explained? Is it peculiar to all countries? Do Norwegians, Danes, and Swedes present such diversities? Do Laplanders? do Esquimaux? do Chinese? do Japanese? From what distinguished travellers tell us in their writings, and from our own limited observations, we can very confidently say no. But in entering upon this

argument, the question is suggested, what is a type? to which the reply is, that it is a peculiar form of body susceptible of variation, as any mathematical curve, such as an ellipse or parabola is. There may be an infinite variety of ellipses, hyperbolas, and parabolas, as well as of other curves; but the mathematician is always able to distinguish the one kind of curve from the other, even when arcs of different ones are combined. So it is with the types of the human form. Once having got a hold in the mind of the lines that constitute an elementary one, it can, henceforth, be followed in its various gradations, and when it intermixes with others, it can be traced in the same manner as the different parts of a figure, made up of portions of various curves, could be traced.

With regard to Scotland there is one type to be observed among its mixed race which can be found elsewhere absolutely pure, and that is the Scandinavian. Sweden, Norway, insular Denmark, the north of Jutland, and Iceland, are inhabited by a race which may be considered nearly pure; so that by comparing the Norwegian type with those prevailing in Scotland (the Norwegians being the purest Scandinavians), we shall be able to ascertain the extent to which the Scotch nation has been modified by the infusion of northern blood. But at the outset it will, perhaps, be preferable to direct attention to those types which were indigenous before historical Scandinavian invasions took place; that is the types usually called Celtic. In the Highlands two types, not Teutonic, may be almost everywhere observed, and these are decidedly dominant ones. As that type which is historically Celtic is not absolutely decided, I would call the one dolichocephalous, and the other brachycephalous Celt; not that the latter is, perhaps, absolutely brachycephalous, but relatively to the other it may be called so. The dolichocephalous type is frequent in the isles, very conspicuous in Man and the Southern Hebrides, the western portions of Ross and Sutherland; the brachycephalous in the north-eastern parts of Argyle, in Perthshire, and the northern Highlands. There is a third type found occasionally everywhere in the Highlands, rather frequent in the outer Hebrides, very prevalent in the west of Ireland, and not seldom met with in the Lowlands of Scotland; and as it is not a dominant one, seldom being seen when pure but among those of inferior station, it may be as well at the first to discuss its distinctive features. Of this type the portraits of Sancho Panza will give a good idea. The stature is generally low, although sometimes tall, with dark skin and complexion; the head is long, low, and broad; the hair black, coarse, and shaggy; the eyes black or dark brown, or grey, with fiery lustre; forehead receding, with lower part of face prominent; nose broad and low; eyebrow

running off obliquely from the nose ; feet not well shaped ; legs short and much bent. Warmth of feeling, fierce temper when aroused, and a considerable amount of cunning. Very fond of money, which individuals of this race manage to hoard amidst apparent poverty and wretchedness. Diligent and industrious when it can be clearly seen that gain shall be the result ; otherwise indolent and indisposed to application.

In Ireland and the Highlands of Scotland this race is found mixed in various degrees with the two previously mentioned, and with the Scandinavian ; but in the Highlands of Scotland the proportion which it bears to the other races is inconsiderable. The first type I would consider the truly Celtic one, to which belonged the Galli of the old Roman writers and the Celtæ of Cæsar. The dolichocephalic Celt is of various sizes, but often tall ; he is of various complexion, ranging from fair to dark ; the colour of the skin varies from a ruddy white to a swarthy hue, and is sometimes rather dark ; the shape of the body is often graceful ; the head is high and long, often narrow, and can seldom be called broad in proportion to the height and length ; the face is frequently long, and the profile is more or less convex—the convexity being sometimes so little as to approach a straight line ; the lips are usually full, often thick, and more or less projecting ; the chin and lower jaw are obliquely placed, and the contour of the lower jaw, taken from its junction with the neck, is but slightly curved, and looks often to the eye as if a straight line ; the chin sometimes approaches roundness, but is seldom round, and generally has something of the shape of a trapezoid ; the forehead, viewed in profile, gradually increases in prominence from the coronal region towards the eyebrows ; region of the face, from the external orbital angles to the point of the chin, long—a characteristic of which the old Gael, Feinn, or Scots seem to have felt rather proud. (See “Lay of Diarmid,” *West Highland Tales*, translated by J. F. Campbell, Esq.) The nose is frequently large and prominent ; eyebrows prominent, long, slightly arched, sometimes closely approaching a straight line ; cheekbones large and prominent ; eyes more frequently grey and bluish grey, but sometimes dark grey and dark brown ; lustre of the eye strong, but tempered with a peculiar softness of expression ; hair reddish yellow, yellowish red, but more frequently of various shades of brown, of which yellow is the ground colour ; sometimes, when it appears altogether black, a yellow tinge is discovered when closely examined ; not unfrequently the colour is almost a pure red or yellow ; when mixed with the second or third type the hair is coal black, but hardly ever so when pure. The leg and foot are usually well developed, the different parts being very proportionate ; the

thigh is generally long in proportion to the leg, the instep is high, and the ankle is well-shaped and of moderate size ; the step is very elastic and rather springing, the heel being well raised and the knee well bent in walking, and that to such an extent, indeed, in some cases, that as the individual progresses the head descends and ascends. Rather quick in temper and very emotional, seldom speaking without being influenced by one feeling or another ; very quick in perceptive power, but less accurate in observation than the Scandinavian. Persons of this type are clear thinkers, but deficient in deliberation. They are often endued with a fertile and vivid imagination ; they love the absolute in thought and principle, dislike expediency, and are strongly disposed to centralisation. Disposed to make no allowance for opinion or doubt, and dissatisfied until they rest in conviction. Strong sympathy for the weak side, which they are too ready to believe is the right one. Although very patriotic, this race is strongly biassed by universal sympathy, strongly moved by chivalrous notions and glorying in suffering for what they believe to be a right cause. Disposed to a sentimental melancholy, from a strong love of that which is past and gone, and a vivid sympathy with misfortune and suffering, but always taking a bright view of the future, as the sentiment of hope is strong in them. The talented among them are often brilliantly witty and eloquent ; they love the animal kingdom, and sometimes excel in zoological science. In No. 10 this type predominates, and is mixed in various degrees with the Scandinavian, in Nos. 2, 3, 4, 5, 12, and 13 ; and with the brachycephalous Celt in Nos. 7 and 9.

*Brachycephalous Celts.* In these the head is broad and rather square ; the profile is straight, with broad and large cheek-bones ; the chin is frequently prominent and angular, or pointed ; the nose is generally sinuous ; and the lower jaw is always narrow in proportion to the upper jaw ; the forehead is broad and square, sometimes rather flat ; the face tapers rapidly from the cheek-bones to the chin ; hand square, with prominent finger-joints ; calf of leg large, thick, and strongly developed ; foot and ankle well formed ; legs generally short and more or less bent ; chest square and broad ; lips usually lying close to the teeth, sometimes, but not often, prominent ; complexion dark or sallow ; skin swarthy or brown ; hair reddish-brown, red, and frequently raven black ; eyes far in, often small, seldom large, dark grey, dark brown, or black. Great circumspection and forethought, strong passions and feelings, over which there is good control, but which burst forth violently if much tried. Strongly attached to friends and relations ; very clannish and patriotic ; and little disposed to mix freely except with their friends, intimate acquaintance, and

countrymen. Strong national pride. Generally economical and prudent. Rather apt to take gloomy views of the future. Will bear no insults to their creed, clan, or country. Not so impulsive as the dolichocephalous Celt, but fully more fervent ; being rather disposed to brood long over afflictions, losses, and insults. Strong thinkers ; but not so imaginative as the forementioned race. A strong vein of humour is characteristic of them ; as flashing wit and vivid pleasantry are of the other. It is from this race that the Scotch derive their cautious and clannish character ; and it is its mixture with the preceding one that supplies the “ingenium perfervidum Scotorum”. They glide along with a shuffling gait, the body progressing as if carried ; the step is very elastic, and the foot traces a curve as it moves along, coming to the ground with the greatest imaginable ease. In No. 8, this type is very conspicuous ; it predominates in Nos. 7, 9 and 11 ; in No. 11, however, the chest is partly of the Scandinavian type.

The Saxon invasion of Britain was followed in the eighth century by that of another people—the Norsemen. These attacked the east of England and Scotland from Denmark ; while from Norway, in the ninth and tenth centuries, they descended upon the west of Scotland and east of Ireland, which they seized and conquered ; establishing their sway in this manner among the Celts, intermixing with them, and so effecting a union from which—very unlike a political one—there can be no repeal. Norwegians and Danes are a seafaring race ; so that the anthropologist who happens to reside near the sea-coast of the Highlands of Scotland, has ample opportunities for comparing the pure type of Norway and Denmark with the mixed one of Scotland. He can take his observations of the crews of Norwegian and Danish vessels, as well as of those of French ones ; and so can compare Norwegians, Danes, and Frenchmen with Highlanders, so as to be able to ascertain how far they agree with, or differ from, each other. He has also ample opportunities of comparing Welsh and Cornish miners with Highland ploughmen, shepherds, sailors, and mechanics.

*Scandinavian Type.* Stature various ; seldom low, frequently tall. Skin generally pure white, with fair and florid complexion. Shoulders strongly and largely developed. Tall individuals have long arms and legs ; mostly all have long arms. Hair flaxen and sand colour, from which it passes into various shades of brown. Eyes blue and bluish-grey ; occasionally hazel and brown ; larger and more prominent than in the Celtic type, but flatter and less lustrous. Eyebrows more arched, and not generally so prominent as in the Celts. Profile usually straight ; forehead between round and square, well arched horizontally. Face square or oblong, else tapering in a curve towards the

chin ; contour arched, hardly presenting any angularity. Cheek-bones broad and flat. Nose usually of average size, but sometimes large, varying from being slightly sinuous to being considerably aquiline. Mouth well formed ; sometimes small, seldom or ever large, with slightly pouting lips ; lips, however, sometimes straight, and lying in towards the teeth ; often thin, but seldom thick. Chin often prominent, and nearly semicircular in shape. Lower jaw strongly arched, so that it appears to the eye to join the neck as a curve does its tangent. Walk, not seldom awkward, but usually firm and decided. Leg thrown forward in walking, with little bending of the knee or raising of the heel. Foot strongly formed, and often broad, but frequently low in the instep and thick in the ankle. Bones of the leg strongly developed, but calf not in proportion. Strong digestive organs, which give immense physical energy to the race, and account for the proverbial eating and drinking propensities ascribed to them. Deliberative and cool ; doubts numerous, and convictions few. Very accurate observers ; being never biassed in their observations by emotion or prejudice. Powerful local memory, which gives the intellectual portion of the race a talent for geometry, astronomy, and navigation. Impartial in their decisions ; not because they are more conscientious than other races, but that they are fond of truth, in fact, and scorn to be biassed by emotion or feeling. Strong in attachment, but not equally so as the Celts ; and, although less irritable, not so ready to repent or forgive. Excessively fond of personal independence ; to secure which they will encounter the greatest difficulties and hardships. Often rather rough ; but mostly always respectful in manner. Rather dogmatic in opinion ; but very tolerant so far as regards that of others. Fond of the vast and grand ; but rather disposed to turn the marvellous and mysterious into ridicule. Possessed of a genial vein of humour, which hardly ever forsakes them in danger or suffering. Immense firmness and self-reliance, which neither torture nor death can shake. Nos. 1, 3, 4, and 6, are specimens of this type in its purest Highland form ; in Nos. 2, 5, 12, and 13, it is mixed in various degrees with the dolichocephalous Celt.

*Intermixture of Types.* The various types here described are hardly ever found pure in Scotland. When it is said that a person is of the Scandinavian type, it is merely understood that this type predominates in him ; for no Scotchman, Englishman, or Irishman is Scandinavian in the same sense that a Norwegian, Dane, or Swede is. Everywhere the Scandinavian type is found intermixing with the Celtic ones in various proportions ; but in stronger proportions in all those districts where there is access by sea, and where good harbours abound. In Islay, Colonsay, Mull, Easdale, Lismore, in Stornoway,

in Lewis, and in Harris, the Scandinavian type is very conspicuous. In the northern Hebrides, the dark complexion and eyes of the brachycephalous Celt, are observed combined with the features and form of the Scandinavian. On the small island of Minglay, south of Barra, the dolichocephalous Celt, mixed in different degrees with the Scandinavian, is the most prominent. In the islands of Barra and Uist, the race is principally a mixture of dolichocephalous and brachycephalous Celts, with here and there a sprinkling of Scandinavians. The third type described in this paper, frequently abounds in various degrees of intermixture with the others. In the west of Sky, the Scandinavian type is very predominant; about the middle of the island, the people seem to be half-and-half, Scandinavian and dolichocephalous Celts; while in the east, dark hair, dark features, and the peculiar characteristics of the brachycephalous Celt become apparent. In Ayr and Galloway the dolichocephalous Celtic type is frequent; in Lanark and Dumfries, the brachycephalous type is found mixing in various proportions with the dolichocephalous, the Saxon, the Frisian, and Scandinavian types. In Aberdeenshire, Banffshire, Kincardineshire, and Murrayshire, the people are principally a mixture of Scandinavians and brachycephalous Celts, with a sprinkling of the other races. In Kintyre, the Saxon and Frisian types are observed mixed with the Celtic and Scandinavian; a fact which may be accounted for by the colonisation of that peninsula from the Lowlands in the reign of James VI. The Scandinavian type is very predominant about Loch Fyne side; a fact which proves how great the influence of the Norseman was wherever a haven was to be found.

From the various facts here adduced, it seems evident that the people of Scotland are a mixture of two races, here called Celtic, with which the Teutonic elements, Scandinavian, Frisian, and Saxon, have intermixed in various proportions. The Saxon and Frisian elements are principally confined to the south-east, although there is a sprinkling of them everywhere; which sprinkling is pretty considerable in many parts of the north-east, east, and south-west. From these various types no uniform type has ever been produced; they mix with each other in various degrees, and in such a manner that one member of a family is mostly of the one, and another mostly of the other type. In consequence of this unequal mixture of the elementary characteristics of various races, the complexion of one race frequently combines with the features of another; the eyes of one with the hair of another; the forehead of one with the lower face of another; the foot and leg of one with the chest of another. The colour of the eye, the form of the nose, the shape of the chest, the gait of the body, may be traced through several generations, and identified in third, fourth, and fifth

cousins. When features disappear in a family, they often reappear in the third and fourth generations. Blue eyes are observed in the members of a family whose parents and grandparents had none; and these are ascertained to be inherited from a great-grandmother, whose other great-grandchildren have also blue eyes inherited from her: and numerous instances illustrative of this alternation, which extends to all human characteristics, can be easily adduced. In the mixed race of the Highlands, therefore, and also in that of the Lowlands, every shade of variation is to be observed, from the pure Scandinavian to the pure Celt.

*Family and Christian Names.* Family names may occasionally render some aid to the anthropologist; but they are of such mutable character that, unless their origin is carefully traced, they are sure to lead to erroneous conclusions regarding the ethnology of a country. How far Highlanders have Anglicised their names, is a question of some interest to the student of the science of man, as the solution of it may help to correct the wrong conclusions of those who attach too much importance to names and language. *MacCalman*, meaning the son of Colman or Calman, is transformed into Dove; calman being Gaelic for dove or pigeon. Those of the name of *MacIain*, son of John, call themselves Johnston; believing the latter name to be the same as their own. *Mac a' Ghobhann*, son of the blacksmith, is converted into Smith. *Mac an Cheaird* (Caird) is transformed into Sinclair by a process rather peculiar, and which cannot be very well understood without reference to Gaelic. Owing to that peculiar law by which the initial letters of Celtic words pass into kindred ones, *s* and *t* are both changed into *h*; so that *Tinkler* and *Sinclair*, were they Gaelic words, would at times be pronounced *Hinkler* and *Hinclair*, two sounds not distinguishable. The word *ceard*, which originally meant a worker in metals, a smith of any kind, has in recent times been specially applied to travelling tinkers, called in Lowland Scotch tinklers. On this loose foundation the Sinclairs, who settled in Argyleshire from the north, and the Macincairds, who were a native clan, commingled names and became one; the Sinclairs calling themselves *Macancheaird* in Gaelic, and those of the name of *Macincaird* calling themselves Sinclair in English. Among several others of the native men of Craignish who signed obligations of manrent to Ronald Campbell of Barrichibyan, representative of the old family of Craignish April 8th, 1595, are, "Gilchrist Mc.incaird" and "Johne Mc.illichalum vc ean vc incaird". Many Highland names have dispensed with the Mac, and by so doing have lost the original Gaelic characteristic; while, in other instances, son has been substituted. MacDonald is sometimes changed into Donald and Donaldson, MacGilchrist into



Gilchrist, MacNichol into Nicholson, MacMichael into Carmichael, and McIntailier into Taylor. Among those who signed the forementioned "Obligation" is "Donald McIntailier for himself and his successioun." *Macan Leigh*, son of the physician, is Anglicised Livingstone. There is also an Irish name Anglicised Dunlevy, *Mac Dhon Sleibhe*, which may be the same as *Mac an leibhe*, also Anglicised Livingstone. The mutation of the initial consonants renders it difficult sometimes to arrive at the original form of a Gaelic name; since after *Mac*, the changed forms of *c, g, d, f, s, b, m*, can hardly be distinguished in sound from each other. Owing to this, *MacMhuirich*, son of Muireach, has been confounded with *MacCuireach*, son of *Cuireach*, Curry; *MacThorcadail*, son of Torkatil, a Norseman, becomes by the same process MacCorquodale; MacKinnon is properly *MacFinguine*, son of Fingen or Finguine. From the peculiarities already mentioned, the sounds of *f* and *g* have been lost in this name; so that it is pronounced like the word *ionmhuim*, *loved* or *beloved*. In consequence of this similarity of sound, the name MacKinnon has been supposed to mean son of love; and accordingly persons of the name have translated it *Love*. In a contract by which Archibald, seventh Earl of Argyle, gives his bond of maintenance to Lauchlan MacKinnon of Strathordile, and receives the latter's bond of manrent in return, in the year 1601, the chief signs his name in old Gaelic or Irish characters, "*Lachlan misi McFionguine*", *Làchlán, I son of Fionguine*. The name is found in the writings of the Irish annalists. "*Lochene McFingen m. Cruithne, r. (?) A.D. 645.*" *Annals of Tighearnach*. "*Lochene McFingen r. Cruithne obiit A.D. 644.*" *Annals of Ulster*.

*Lughaidh* is an ancient Gaelic name, which plays a prominent part in old Gaelic ballads and stories: *luadhadh*, a word resembling it in sound, signifies fulling cloth; so *MacLughaidh*, son of Lughaidh, was imagined to mean son of the fuller, and, as a matter of course, it has been metamorphosed into Fullerton. The number of translated names is endless. The following are examples:—*Mac an t-saoir*, son of the wright, Wright; *MacGhille dhuibh*, son of black servant, Black; *MacGhille bhain*, son of white servant, White; *MacGhille ruaidh*, son of red servant, Reid; *MacGhille ghlais*, son of grey servant, Grey; *Mac a'chleirich*, son of the clerk, Clarke; *Mac an fhleisdeir*, son of the arrow maker, Fletcher; *Mac an fhuchdadair*, son of the fuller, Walker; *MacThomais*, son of Thomas, Thomson. From these instances, it will readily be perceived how erroneous a test family names and language would be in estimating the amount of Highland blood in the Lowlands of Scotland. Irish Gaelic names have undergone similar transformations.

The translation of christian names contributes to the darkening of

knowledge in a similar manner. Norse christian names, of which there are many retained by the Highlanders along with Norse blood, are completely spoilt in translation. *Tormaid* is converted into Norman; *Somhairle*, Somarled, into the Hebrew Samuel; *Eachann*, Hacon, into the Greek Hector; *Raonailt*, Ragnhild, into the Hebrew Rachel; *Iomhar*, Ivar, becomes Edward; the Gaelic *Domhnul* is confounded with the Jewish Daniel.

The names of places in the Highlands may be said to bear a fair proportion to the intermixture of blood. Norse names abound in all districts where the Norsemen settled; and, in some instances, the name is half Norse half Gaelic, as in *Caonag-airidh*, the King's height; in other instances the Gaelic and Norse names combine into one, as in *Eas Fors*, the first part of which word, *eas*, is Gaelic for waterfall, and the latter, *fors*, Norse for the same.

From the philological, historical, and physiological facts placed before the reader in this article, it will surely be sufficiently evident that the Scotch are not two different races or nations, to be designated the "Saxon" and the "Gael", but one race of a mixed character, and one nation, consisting of two kindred peoples speaking two different languages.

HECTOR MACLEAN.

### VOLLGRAFF'S ANTHROPOLOGY.\*

As it is not likely that the inquiring reader will find the titles of these works (excepting, perhaps, ethnology) in any dictionary, we may as well inform him that by anthropognosy the author means *general* anthropology, treating of man's nature in the *abstract* as contradistinguished from *special* anthropology. The same distinction applies to ethnognosy and ethnology, and to polignosy and polilology. The former constituting the general philosophy of jurisprudence and political science, the latter is their special or comparative philosophy. The three works, although separately published at intervals of two years, and each complete in itself, form thus a sort of anthropological trilogy.

We now proceed to give some of the main features of this remark-

\* *Anthropognosie. Ethnognosie und Ethnologie. Polignosie und Polilogie.* By Dr. Karl Vollgraff, Professor of Jurisprudence and Political Science in the University of Marburg. 1851, 1853, 1855.

able work, and as far as possible we shall closely follow the author's exposition.

The starting point of the author is simply this:—"That the *outer* or physical man is the *product* of the *inner* man or the soul. But the *energy* of the soul, which varies in strength, may, as regards the human species, be reduced to four primary degrees, which the author calls primordial temperaments (*ur-temperamente*). These four primordial temperaments are respectively called *Träge*, *Regeame*, *Thätige*, and *Lebhafte*, literally translated indolent or lazy, mobile or irritable, active, and vivacious. These four primordial temperaments gave rise to the four *chief races* composing the human species; in fact, these four chief races are simply the physical reflexes, or the physical products of the four degrees of the energy of the soul.

The reason which induced our author to reject the current terms, phlegmatic, melancholic, choleric and sanguine temperaments, was that they were merely physiological denominations applying to *individual* temperaments, terms not applicable to the four degrees of psychical life.

The first or lowest degree of human vital energy, namely, that of *indolence*, is realised and represented by entirely uncultured savages. The second grade, that of *mobility* or *irritability*, is represented by half-cultured nomads. The third grade, that of *activity*, finds its representatives in the settled cultured industrial peoples; and, finally, the fourth or highest grade, the *lively* or *fiery* type, is represented by the highly-civilised "humanised-peoples" (*Humanitäts-Völker*) of the old world.

It is not meant that the peoples representing the lower grades of the scale are altogether deficient in *humanity*, but simply that the peoples of the fourth degree are pre-eminently *humanised*, because amongst them morality, philosophy, art and religion have flourished and been matured, and that amongst them industrial culture has been used as a means for a higher object. By culture in a restricted sense is meant that development of the instinct of self preservation showing itself in satisfying only physical or material wants; but there is a higher degree of culture, manifesting itself in morality, philosophy, art, religion and language; this is *civilisation*, and is the result of culture. Culture, in fact, stands to civilisation in the same relation as the understanding to reason. Without a history of culture we can have no theory of civilisation.

Each of the four chief races, *i. e.*, the representatives of the four primordial temperaments, is to be subdivided into four classes; each class into four orders; each order into four tribes or nations; and each nation again into four individual temperaments.

As regards human action we are informed that all human efforts have their root in the *natural instinct of self-preservation*, which manifests itself in four different directions. I. Physical well-being; II. Psychical and moral well-being; III. Continuance *here* by propagation; and IV. Blessed continuance hereafter. These four gradations of men represent also the ages of man *in abstracto*. Uncultured savages represent *childhood*; nomads, *boyhood*; industrial peoples, *youth*; humanised peoples, *manhood*. The four autochthonic, or chief races, spoke only four chief languages. Each of these split subsequently into four class languages; then again into four order languages; and each order language into four national languages, and these into innumerable dialects. There are also four chief religions.

We thus perceive that, according to our author, four autochthonic races of men have been created. Upon this point he observes:—

“There exists an absolute line of demarcation, psychically and physically, between the four grades of mankind, so that none of the inferior can rise to the grade above it, just as little as a man of a phlegmatic temperament can by any effort of his own change it to an irritable temperament; hence may be explained the natural antipathy of the four gradations to each other. The often asserted absolute perfectibility of all races is thus a speculative absurdity; each grade is only capable of a limited degree of development, according to its natural endowment. Thus, a perfect savage of the lowest grade cannot even be converted into a pastoral nomade, much less into an agriculturist. The theory of absolute perfectibility is also absurd, because if it were possible it would lead to perfect equality, which would at once arrest all culture and civilisation.

“All attempts to domesticate savage Australian boys have failed; despite their having for years enjoyed all the comforts of our civilised life, they escaped, whenever they had an opportunity, into their native forests. The Negro may be trained for labour, but if left to himself he relapses into his congenital indolence. The West India Islands, where the emancipation of the Negro\* is now an accomplished fact, can scarcely escape the fate of St. Domingo. The liberated Negroes, forming the great majority, will eventually refuse to work for their living, they will rise as did the blacks in St. Domingo, they will take possession of the plantations, and allow them to go to ruin as did the Negroes in St. Domingo. This latter island would now be in a state of hopeless decay, were it not for the great number of Mulattoes who form the dominating population. There are probably, among the Negro population in Haiti, a number of Mandingoes, Joloffs, etc., who possess considerable aptitude for agriculture.”

Of the various results obtained by his method, the author lays some stress upon having clearly demonstrated that neither culture nor civilisation would exist had not men been created with disparate

\* This, it must be remembered, was written nearly twenty years ago.

mental and physical capacities ; in fact the author, as he tells us, commenced his researches with the following question : Why do men live in political and civil societies ? The ancient philosophers answered, because man is a social being. But the question still remains : Why are men social beings ? the answer to this is, because they require the help of each other. But even this reply is insufficient, for it may be further asked ; Why are they dependant on each other's help ? to this there can be no other reply than this : because spiritually and bodily they are differently endowed.

Were all men equal in mental and physical energy, they would be equally poor or rich ; none would be willing or able to serve another, for every man would be everything to himself ; men would thus have remained savages without any culture or civilisation. This natural disparity is not merely the *cause* but the *indispensable condition* of all social intercourse and of labour.

Our author lays claim to originality, both in conception and execution. We confess that, apart from the quadripartite formalism which pervades the whole work, and which, as the author admits, is partly derived from Oken's *Physio-philosophy*, we find little to justify these claims. His very starting-point, that the soul is the architect of the body, is a mere revival of the creative idea of Plato, the *impetum faciens* of Hippocrates, the *entelechia* of Aristotle, the *archæus* of Van Helmont, the *anima plastica* of Stahl, and *nîsus formativus* of Blumenbach. The assumption is, in short, an anachronism, as it ignores all recent researches concerning the so-called vital force. Nor can we find any originality in the fundamental idea "that the instinct of self-preservation is the root of all human efforts." Dr. Vollgraff must have well known that the theory of self-preservation lies at the basis of Herbart's *Psychology*, and that his "selbsterhaltungstrieb" differs very little from the self-love of Helvetius.

"Self-interest or self-love," says Helvetius, "is the lever of all our mental activities. Even that activity which is purely intellectual, our instinct towards the acquisition of knowledge, our form of ideas rests upon this ; a system of ethics which does not involve the self-interest of men, or which makes war against it, must necessarily remain barren."

It appears therefore, to us, that so far from being strictly original the whole work betrays a want of self-reliance on the part of the author ; for at every step he appeals to a number of authorities in support of his position. The work, in fact, groans under the weight of a mass of quotations, culled from not less than one thousand authors.

But although we cannot credit the author with the merit of having discovered any primordial principles, we are in justice bound to

admit that in the development of his position he has shown rare ingenuity. His learning in history and philosophy is multifarious. With genuine German industry he has collected a large amount of information scattered through an immense number of books, and we can readily believe, as the author informs us, that the work is the result of fifteen years labour. Despite the hard words which abound in the book, the style is throughout perspicuous if not graceful.

It is no disparagement to our author that he has not succeeded in his task of creating "a synthetic science of political philosophy founded upon a scientific ethnological classification." The time has scarcely arrived for uniting into one harmonious whole all the diversified subjects relating to the science of man. As an anthropology the work is simply a failure, the results obtained being not at all in proportion with the great object aimed at. In physiology, especially, the author is not up to the mark. Nevertheless, despite all that can be urged against the value of the work as a text book of anthropology, we have no hesitation in saying that, owing to its encyclopædial character, the work is fully entitled to a prominent place in the library of every anthropologist.

Dr. Vollgraff seems also to labour under an incurable Anglophobia. Some of his sketches of the English character are highly amusing from their very absurdity. There are, however, some home thrusts which cannot easily be parried. Thus he tells us (p. 760):—

"The present aristocracy of England is mostly an ennobled money aristocracy, whose ancestors had by industry and trade acquired wealth and landed property, and then assumed the names of the old Norman nobility, so that but few noble families can trace their pedigree further back than the sixteenth century. The pride of this new aristocracy and the contempt with which they look down upon the industrial classes is supremely ridiculous. Bulwer has well said that in England to be poor is to possess no virtue. Money is in England and America the loadstone; and hence it is that theory of the acquisition of wealth has been so fully developed by Adam Smith.

"None but an Englishman could have so deeply penetrated into the mystery of wealth. A mere philosophical treatise on this subject would have met with no success. Whatever is not attended with practical advantages is not esteemed in England; hence the contempt for speculative philosophy and for the scholastic profession generally."

In the introduction to *Ethnognosy* the author recommends scientific expeditions for the advancement of anthropology, in the following terms:—

"England alone is able to equip and protect such expeditions. A scientifically instructed and methodically conducted ethnological expedition would be more advantageous to its trade and industry than all private undertakings of this kind in which Englishmen have

already distinguished themselves as pioneers in geography and ethnography. All expeditions of this kind are sadly in want of scientific instructions and the supervision of a central institution. The millions which England spends on Bibles and missions in order to raise peoples of inferior grades to a higher civilisation, would be more effective if they were applied to expeditions for inquiring into the wants of the respective peoples as they actually are."

This suggestion reflects the greatest credit on Dr. Vollgraff, considering that it was thrown out in 1853, before anthropology was much cultivated in this country.

In conclusion, it may be stated that Dr. Vollgraff is the author of numerous important works, all more or less crotchety. His chief work, *The System of Practical Politics*, is full of speculations. In one of his later publications, *Die Täuschungen des Repräsentativsystems* (The illusions of the representative system), he endeavours to show that the representative system is an "ungerman" institution, not at all adapted to the German nations. This bold assertion greatly excited the ire of the Marburg radical students, who straightway settled the question by making a bonfire with their professor's books; forgetting that they were thus to some extent illustrating the truth of their professor's teachings.

We neither think better nor worse of the author because of this literary *auto-da-fé*. Many better books have experienced the same fate, but their respective authors were generally in advance of their age, and this also seems to be the case of Dr. Vollgraff.

### DR. LATHAM'S WORKS.\*

THE original documents whence we derive our anthropological knowledge of the races of man are scattered through an enormous mass of books, of which they seldom form more than a small part distributed here and there amidst a wilderness of other matter. It is so heavy a task to pick out from histories, books of travel, missionary records, etc., details as to the character of races, that anthropologists who collect and concentrate such knowledge, do most valuable service to their science. In England, Prichard's *Natural History of Man*, and *Physical History of Mankind*, Latham's *Varieties of Man*, Pickering's

\* *Descriptive Ethnology*. By R. G. Latham, M.A., M.D., F.R.S. 2 vols. London: Van Voorst. 1859. *Elements of Comparative Philology*. By R. G. Latham, M.A., M.D., F.R.S. London: Walton and Maberly. 1862.

*Races*; in Germany, Klemm's *Culturgeschichte*, and Waitz's *Anthropology*, now in process of translation and publication by the Anthropological Society, are among the principal books of reference. The newer anthropological work of Dr. Latham's now before us, his *Descriptive Ethnology*, claims a place with these among the books of value to the working student. It is not a new book, but such books in the present state of our study are not superseded, like novels, by newer comers. It will probably be useful to describe shortly its plan and character, and to make particular mention of a few salient points, which will interest readers who would be more apt to refer to it under particular heads, than to go through it *seriatim*.

Dr. Latham puts together a mass of information about a great variety of races in Asia, Africa, and Europe, but with little plan beyond geographical enumeration, and with little attempt to do more than collect and digest facts. He uses physiology to some extent in making out the character of tribes, but depends especially upon language. From the fallacy, however, of taking language as a positive criterion of race, few writers are more free, and he puts this matter in several passages, which are wholesome reading for those who would be likely to fall into the very prevalent heresy of Bunsen and Prichard. "The blood lineage, pedigree, genealogy, descent, or affinity, is the primary ethnological fact. The language is the evidence in favour of it. This may be conclusive, or the contrary. It is rarely conclusive when it stands alone." (Vol. i, p. 357.) Speaking of the question of German and Slavonic race and nationality, he makes the pertinent remark, that half Germany, if it did but know it, is "Slavonia in disguise." Much to the same purpose are his remarks on the Keltic race, which, as he points out, may increase in America, both in numbers and strength of blood, by the marriage of Irish or part Irish settlers with new immigrants of the same race, while, nevertheless, this Irish blood will carry no Irish language with it at all.

"In this way the Kelt family, as tested by its genealogy, may increase; whilst, as tested by its language, it may fall off. Whatever may be its fate in this respect, it is clear that its outward and visible characters have not only a decided tendency to change, but that, these being lost, little is left but an abstraction. Hence the Keltic family, like the Negrian, must be looked upon as the family of a diminishing area." (Vol. ii, p. 505.)

As to Dr. Latham's treatment of language in philological evidence, we cannot, however, speak with more than a very partial approval. He is too easily content with comparing very short vocabularies of languages, twenty to forty words for instance, and deciding by their apparent likeness or unlikeness whether or not such languages are



allied. Now this method, it is true, works in many instances very tolerably—better than it deserves, we had almost said. By keeping to one series of words for comparison he gets at least a fair average, and avoids the dangers of the old practice of comparing any similar words picked out through the whole range of a language, which, as it is possible to find a few words nearly alike in almost any two languages in the world, led of course to absurdly false results. Where, for instance, he compares a short vocabulary of the languages of a tribe North of the Affghan frontier, the Aimak, with a Mongol language, the Kalka, and gives the names for 1, 2, 3, 4, 5, in the one, *Nikka*, *koyar*, *ghorban*, *dorban*, *tabun*; and in the other, *nege*, *khoyin*, *gurba*, *dürba*, *tabu*, (vol. i. p. 330), there is hardly any possible room for doubting the real connexion of the two languages. Or again, where he compares the Singhalese with the Sanskrit, and the Hindustan with the Marathi, by means of his specimen vocabulary, the inference would hardly be resisted by any one that the languages in question were closely connected dialects. But in such cases, why could he not have clinched the argument by the proper and necessary appeal to grammatical similarity? Yet it is only in such cases as these that this method really answers at all. Let us take the compared vocabulary of the Jurui of the Malayan peninsula, where, out of twenty words, five, *med*, 'eye,' *litig*, 'tongue,' *tong*, 'hand,' *mitkakok*, 'sun,' *bulan*, 'moon,' are like Malay, the rest not (vol. ii, p. 486); or the sixteen word vocabulary of Albanian and Romaic (vol. ii, p. 25), where there is no similarity at all. Such a comparison proves nothing to speak of, either for or against, for five words out of twenty are no proof of radical connexion, and, on the other hand, many languages have this radical connexion which might fail to show five similar words in the twenty. So confident is our author, however, in this method that he actually takes the trouble to print an elaborate list of the percentage of similar words as counted out of Siamese, Anamese, and a number of other vocabularies. He even speaks of the Singhalese as being "far more Sanskrit than either the Tamul or the Malayan," a remark which would make the very hair of an ordinary philologist stand on end with horror, at the idea of the relations of a language to the family it does belong to, being compared as mere matter of more or less with its relations to a family it does not belong to at all.

Among the physiological data which Dr. Latham sets down in his account of one race after another, is a series of details of the transmission of racial peculiarity which has so much anthropological interest, that we give an abridgement of the particulars (Vol. i, p. 201), which Dr. Latham quotes from Mr. Crawford as to the first generation, and from Mr. Yule as to the second and third. The

grandfather, Shive-maong, was a native of Laos; the chief of the country had given him, when five years old, to the King of Ava as a curiosity. When grown up he was of ordinary stature (5 ft. 3½ in), slender, rather delicate, and fairer in complexion than is usual among Burmese. His forehead, cheeks, eyelids, and nose were covered with lank, silky, silver-grey hair, from four to 8 inches long. This remarkable covering extended over the whole body, except the hands and feet, being most plentiful over the spine and shoulders, where the hair was 5 inches long, but more scanty elsewhere. It was permanent. Although but 30 years of age, Shive-maong looked 60, this being due to the peculiarity of his teeth. He had in the lower jaw but five teeth, namely, the four incisors, and the left canine; and in the upper, but four, the two outer ones of which partook of the canine form. The molars were of course totally wanting. What should have been gum, was a hard, fleshy ridge; and, judging from appearances, there was no alveolar process. The few teeth he had were sound, but rather small; and he had never lost any from disease. He stated that he did not shed his infantine teeth till he was 20 years of age, the time of his attaining his full physical development, when they were succeeded, in the usual manner, by the present set. He also expressly asserted that he never had any molars, and that he experienced no inconvenience from the want of them. This hairy man had good features, and was intelligent in mind. At birth, his ears alone were covered with flaxen hair 2 inches long, that on the rest of his body growing afterwards. At 22, the king made him a present of a wife, by whom he had four daughters. The first and second died young, but neither in them nor in the third was there any abnormal characteristic. But the youngest was born with hair on the ears which soon increased all over the body.

Years afterwards, Mr. Yule carried on the description. This daughter, Maphons, had now fully developed her hairy peculiarities, no part of the face but the extreme upper lip being visible for long, hanging, silky hair. In spite of this strange skye-terrier appearance, she was a pleasant and intelligent young woman. Her husband and two boys came with her, the elder an ordinary child, the younger taking the family characteristics, and promising to represent this curious race of "hairy orbits" to the third generation. His mother's dental peculiarity corresponded with her father's in the absence of canines and molars, but she contrived to make the hard ridge of the back part of the gums serve to chew pawn with, like her neighbours.

To pass to questions of the development and degeneration of civilisation, several interesting facts and arguments on these objects are brought forward by Dr. Latham. He looks upon certain of the lower races as outcasts, physically and morally degenerate, and compares,

for instance, the Bushmen of South Africa with those Tungus of Siberia whom loss of domestic animals has thrown down at once in prosperity, and in the scale of civilisation.

"Let a Tungus of any kind live in a steppe or a wood and his habits are modified. Let a rich man become poor, and he goes on foot instead of driving or riding. Erman gives a saddening and sickening account of a poor Tungus and his daughter, in a lone hut, desolate, and isolate. They had simply lost their cattle, and hunted, apart from their fellows, in solitude. A Bushman who has lost his herds is a Tungus without his dogs, reindeer, or horses, and the history of an afflicted family in the South of Africa is, *mutatis mutandis*, the history of an afflicted family in the North of Asia." (Vol. i, p. 272.)

The civilisation of that most remarkable and peculiar country, China, Dr. Latham maintains with considerable force, cannot justly claim the immense antiquity which has, indeed, been recognised by later ethnographers as, at any rate, monstrously exaggerated, and he moreover suggests the denial of its originality, ascribing it in great measure to contact with post-Christian civilisation, particularly across Asia, which has left, in the often noticed resemblances between Buddhist and Roman Catholic ceremonies, clear traces of Nestorian influence in the early days of Christianity. Without going fully into the long discussion necessary, we think that Dr. Latham's view has in it a partial truth, and that the entire independance of Chinese civilisation has probably been put too strongly; but that, on the one hand, its very peculiar character, its possession of arts so foreign to the rest of the world, that of making cast-iron kettles, for instance, which only date from the last century in England, and on the other hand the absence in China of arts such as alphabetic writing, which they would have adopted from abroad had they been a people prone to adopt, tend in two ways to make Chinese civilisation in great measure a system *per se*, affected to a considerable extent (as in Buddhism and its belongings) by foreign influences, but nevertheless to a large extent peculiar and original.

As to the general question of growth and decrease in human civilisation, the following passage, with which we conclude our remarks on and samples of Dr. Latham's Descriptive Ethnology, is not only a good specimen of his peculiar turn of thought and style, but conveys a piece of practical advice, which, though it does not do justice to much good work which has really been done, and grossly exaggerates the deficiency of our knowledge, is nevertheless, we are sorry to admit, a good deal to the purpose.

"Now, although all inquirers admit that creeds, languages, and social conditions, present the phenomena of growth, the opinions as

to the rate of such growths are varied—and none are of much value. This is because the particular induction required for the formation of anything better than a mere impression has yet to be undertaken—till when one man's guess is as good as another's. The age of a tree may be reckoned from its concentric rings, but the age of a language, a doctrine, or a polity, has neither bark like wood, nor teeth like a horse, nor a register like a child." (Vol. ii, p. 322.)

To turn now to Dr. Latham's *Elements of Comparative Philology*, we may describe this book shortly and effectually, by saying that it is what the author himself intimates, in the first page of his preface, that is, an expansion and continuation of Adelung's *Mithridates*. This accounts at once for its merits and its faults. It contains information about a great variety of little known languages, but the method by which they are handled is now behind the times. The best way in which we can treat the work is to set before our readers a few points which have most struck us among its contents.

Among Dr. Latham's remarks on the general principles of philology, we may notice him taking such phrases as *catch'em, je l'aime*, and pointing out that it is only by what he fairly calls 'printer's philology,' that these phrases are cut in pieces by the apostrophe, whereas, if left to themselves in spoken language they would have become examples of what we call incorporating or polysynthetic words when we meet with them in the languages of American savages (p. 520). On the next page he refers to the view that similar grammatical phenomena turn up again and again in different parts of the world, and under the most varied circumstances.

"The doctrine, then, that the differences in grammatical structure are differences of degree rather than of kind, and that there is nothing in one language, which either as a fragment or a rudiment, is not to be found in another, is contravened by nothing from America."

Dr. Latham does not believe in the extreme antiquity of the Chinese language, as represented by its oldest known books. He thinks the dialect would have changed more in so long a lapse of time as the thousands of years claimed for the antiquity of those early documents.

"The difference between the Mandarin of to-day, and the oldest classical Chinese is (roughly speaking) the difference of two centuries, rather than two millenniums—assuming, of course, anything like an ordinary rate of change." (P. 65.)

This is of course mere guess-work, but still it is worth consideration. From a similar point of view, Dr. Latham discusses the language of the Hebrew scriptures, and puts very pertinently the three alternatives by which he would seek to account for the fact of the almost absolute philological identity of the Hebrew language of those non-Chaldee books which are held to be the earliest of the canon, and those to which a date later by hundreds of years is assigned. They

may, he says, have been brought up to the modern standard of language, when from time to time they were transcribed, as has been done with old English compositions. Or the newer writings may have been written upon the model of the old, just as Ciceronian Latin is written by late Italians. Or the language may have held on for ages with exceptionally little alteration, as has been the case with the Icelandic. This question is of a great deal of importance in Biblical criticism; for, unless one of these alternatives has really taken effect, the similarity of the language of the various Hebrew books of the canon must bring their times of composition much closer together than is commonly supposed.

Among the mass of compared vocabularies of which Dr. Latham's work is full, we may select one of especial interest to the student of human races, that, namely, which shows the close connexion between the languages of the Guanches of the Canary Islands (Lancerotta and Fuerteventura) and the Shelluh of the African continent (P. 541).

<i>English.</i>	<i>Canary.</i>	<i>Shelluh.</i>
Barley	temasin	tumzeen
Sticks	tezzezes	tezezerat
Palm-tree	taginaste	taginast
Petticoat	tahuyan	tahuyat
Water	ahemon	amen
Priest	faycag	faquair
God	acoran	nikoor
Temple	almogaren	talmogaren
House	tamoyanteen	tigameen
Hog	tawaen	tamouren
Green fig	archormase	akermuse
Sky	tigot	tigot
Mountain	thener	athraar
Valley	adeyhaman	douwaman

To those who deny the validity of the existing evidence for what is called the Aryan theory, which deduces most European languages in quality from some lost tongue, most nearly represented by the existing Sanskrit, and in space from some region of Asia, Dr. Latham offers an argument from what he considers the insufficiency of the evidence. He thinks (p. 611) that there is indeed more presumption that Sanskrit came from Europe, and (p. 651) that Greek is indigenous in Southern Europe. He honestly admits, however, that he has not worked out the evidence on which the Sanskritists base their views. If any student who has really mastered this evidence, and can prove that he has done so, will then undertake to plead the cause of the disbelievers in the Aryan theory, he will certainly make a sensation in the philological world. Merely to say, however, "I am sorry that I have not been able to spend the time and labour wanted to understand the evidence, but my opinion is, that the Sanskritists are all wrong," is a fair way of stating an author's view, but is hardly likely to produce much effect on the external world.

# VON BAER ON ANTHROPOLOGICAL EXPLORATIONS.\*

THERE is no scientific expedition, which could be undertaken within the Russian empire, which would be received with greater favour by Europe at large, and would have as many claims on the gratitude of our own country, than an expedition having for its main object the study and, if possible, the geographical determination of the traces of the earliest immigrations of peoples, and their different degrees of civilisation, and how far these have still been preserved on the Russian soil. It is not intended to search for fresh written documents, either for comparison or for the enrichment of authenticated historical records. For this object, much has already been effected under the reign of the late Emperor Nicholas ; and researches in this direction are still being continued. The prehistoric times of the human species, for which there exist no other documents than the relics of man himself preserved in the soil, his implements and industrial products, will form the subjects for inquiry. Many highly instructive discoveries have, as regards primitive times, recently been made in various parts of Western Europe. Thus, to mention only a few of the more important results obtained, there have been found in Switzerland, and recently also in other countries, vestiges of human habitations in the mud of lakes, containing relics of three different kinds of cereals, of domestic animals (cattle, swine, sheep, dogs), of many species of wild animals (game), also webs, and implements made of stone or bones. In Western Switzerland, there have been found in the lakes various bronze objects, which are not met with in the eastern cantons, and thus indicate a more recent state of civilisation. In Denmark are found large heaps of oyster and other shells, which lie scattered on the coast, and which for a long time were considered as having been thrown ashore by the sea. These heaps are found to contain stone implements, but none made of metal ; bones of wild animals artificially split open by the hand of man, but no bones of domestic animals excepting those of the dog. In short, there were found in these shell-mounds, some being of considerable dimensions, the refuse of meals ; hence they were called kitchen-refuse. We here perceive the traces of an early uncivilised condition of man, in which he knew not the use of metals,

\* "Proposal for the Equipment of Anthropological Expeditions into the Interior of the Russian Empire", by K. E. von Baer. Translated from the *Bulletin de l'Académie Impériale des Sciences de St. Pétersbourg*, tom. vii, 1865.

possessed no domestic animals, excepting perhaps the dog, and supported himself by the chase or by fishing. Neither textures nor the remains of habitations belonging to this primitive period have as yet been found. In some districts of France, and lately also in England, there have been found, in beds not belonging to recent formations—namely, in the diluvium of geologists—quartz and flint implements, apparently rudely shaped by the hand of man. No remains of human bones were found, nor any finished art objects.\* The assumption is, that these flints have been worked by the hand of man, as such forms are not produced by nature, but that the period of their fabrication is so remote, that even the hardest parts of the human body have been utterly destroyed by time. There were further found in several regions, in caves subsequently closed by geological processes, so that they were inaccessible to atmospheric air, human bones associated with those of antediluvian animals, such as the mammoth and similar gigantic animals, previously thought to have been extinct before the appearance of man.

Thus, in short, the history of the human species has been extended. It is now acknowledged that, even in such parts of Europe now considered the most civilised, man was for a long period in as low a state of culture as were the inhabitants of Australia, New Guinea, the interior of North and South America, when first discovered by Europeans. Nevertheless, such sparse discoveries, separated in time and space, are as yet insufficient to form a basis for a general history of European humanity before the introduction of the art of writing. It is above all things desirable to ascertain what contributions to the history of prehistoric times Russia may afford. The celebrated antiquary Worsaae, who has taken so large a share in the researches concerning the prehistoric times of Denmark, had already some years ago determined to visit Russia for this express purpose, but was prevented by accepting an honourable appointment in his own country.

In order better to indicate what may be expected from the Russian empire, we must be permitted to extract a few passages from the advertisement of the Academy, prefatory to the Russian translation of Worsaae's work on northern antiquities.

“Accidental discoveries have only yielded individual, not connected indications. A more connected insight into the primitive condition of the European peoples, was only obtained when many finds from prehistoric times, in different places, were compared, and when not merely the objects were preserved, but all conditions under which they were found were closely examined and described. By doing so,

\* (Note in original.) This applies only to 1862; for in 1863 were found in these beds some teeth, and the half of a human lower jaw.

we were enabled to distinguish the different kinds of sepulchres, and to recognise that they must have belonged to different peoples, who have succeeded each other; for the form of the crania varies much. Then only could the following questions be raised: By what means have the inhabitants of Europe, and especially of the north, supported themselves? At what periods have they lived solely on the products of nature, and when did they carry on agriculture and cattle-breeding? Which peoples introduced the art of fusing metals, and who brought with them the art of working iron? It is easily conceivable, that replies to these questions can only be gradually forthcoming, as we can only question dumb witnesses, and that these can only give fragmentary answers, inasmuch as every thing not of the most solid material has been destroyed by time.

"In Denmark and Sweden, and also in Mecklenburg, such researches have zealously been carried on. In Copenhagen a large museum of northern antiquities has been formed, under the able direction of Thomsen. In traversing the numerous apartments, where everything is preserved relating to the earliest culture, down to the art-products of the middle ages, we see, as it were, passing before us the history of these parts. Both in Denmark and in Sweden, the conviction has gained ground that the prehistoric time of these countries must be divided into three chief periods—the stone-, the bronze-, and the iron-age. In the first period were employed only implements of stone and bones, or wood fastened with bast or leather thongs. In the second period appear the more easily workable metals, specially gold, which was, however, always rare and costly, and copper alloyed with other metals—with tin in Denmark, and in other parts with zinc; this alloy is called bronze. In the third period appears iron, converted, on account of its hardness, into weapons, knives, axes, and other objects, and which supplanted bronze. These periods, though assumed more than twenty-five years ago, are still recognised, notwithstanding that it is now shewn that these ages are not so sharply demarcated as was formerly believed; inasmuch as stone weapons were not immediately abandoned, on account of the rarity and costliness of iron implements. On the other hand, it has also been shewn that these three chief periods admit of subdivisions. Thus polished stone implements come much later in use than such as are rudely hewn, and made in the earliest period of flint."

"Whence the arts to work the various metals immigrated, and whence came the various cereals and domestic animals, is as yet undecided. The cautious Danes and Swedes are not inclined to ascribe this progress to the primitive inhabitants of their country, but to later immigrations. That this later civilisation proceeded from Asia, is rendered probable by linguistic researches, and is confirmed by the finds in sepulchres. But whence came the immigrations, can only be determined after the relics of the past have in other countries been as carefully examined as in the Scandinavian North. They have, however, now commenced to pursue such researches, especially in Great Britain, Switzerland, France, Italy, and Germany. Russia, where since Karamsin's time the historical records of our country have been



studied with so much zeal, has as yet taken little interest in the earliest period, which cannot be reached by written documents. Although many *kurgans* (graves) have been opened in the Russian empire, and many reports published on them, they have not been viewed from a common stand-point; nor do we possess a general collection of the discovered prehistoric objects. Such articles, moreover, unless they consist of precious metals, are frequently not considered worthy of being preserved, nor placed in a public collection, nor designated by names. And yet foreigners, who earnestly endeavour to throw some light on the earliest history of the human species, are most anxious to obtain information from Russia, because there must be found many roads by which the earliest civilisation had been introduced. It is clear that all immigrations from Asia to Europe, which did not proceed by way of the Grecian Archipelago or the Hellespont and the Dardanelles, which could only have been effected by boats, must have passed through most of the countries now forming the Russian empire. Thus, to mention only one instance, attention has long since been drawn to the circumstance that in the old so-called Tschudes-shafts and Tschudes-graves, metal objects belonging to an early period have been found. The connection of these facts with the introduction of metals into Western Europe, as well as the period to which the Tschudi tombs belong, can only be determined by comparing a series of discoveries of this kind. The following instance will show how instructive must be, for Western Europe, observations gathered in the extensive area of the Russian empire. In Celtic graves, there are frequently found bronze implements having the form of a little spade, about the use of which conflicting opinions were given. These questionable implements, called 'celts', occur also in the Tschudes-graves; but there they are not of cast bronze, but of copper. We now learn, from our zealous traveller Mr. Radde, that in the far west of Siberia an exactly similar implement is at present in use to dig up lily-bulbs."

"It is, therefore, a debt of honour which Russia, now belonging to the states where science is cultivated, is bound to pay, by a profound study of its antiquities. The interest in the past of Russia, though no longer merely national, but embracing humanity at large, will become more general when the results of the enterprises of other peoples in the same field will be better known, by which the classification and denomination of the objects found in our country will be facilitated."

Three years will probably suffice to enable ramified expeditions to collect valuable materials for forming an opinion on the early immigrations of peoples, and their degree of culture.

The members of such expeditions should be perfectly acquainted with the results obtained by the researches of Western Europe in relation to the prehistoric records of humanity. They should also carefully study all the reports relating to the opening of *kurgans* in Russia, and thus obtain hints for further researches; they should personally examine these *kurgans*, of which it is only known that they

are very ancient, and belong to different periods. They should also open such graves as greatly differ from each other. During the first journey, which we shall look upon as merely one of preliminary inspection, inquiries should be instituted as regards recent excavations, and existing collections which should be examined. At the same time, it should be inquired into whether on the shores of the lakes traces are found of human habitations, or other relics of human industry. Such explorations must be pushed to the extreme boundary of the so-called Tschudes-graves.

When this preliminary exploration shall have furnished us with some indications as to the proper directions and other points, then only will it be advisable to sketch out special plans for sending expeditions; one, for instance, to the flat country south of the Ural; a second to the depressions between these mountains near Jekatherinburg; and perhaps a third across the Crimea to Taman and the Ponto-Caspian steppes; for these three roads will probably prove to have been the three chief gates of immigration. In all directions must kurgans be opened, as well as flat graves, which are known to the people. The finds should be well preserved, and the condition of the graves should be minutely described and properly delineated. The subsequent comparison of these finds cannot fail to lead to certain results.

It is essentially requisite that such researches should be made soon, and according to a preconcerted plan; for in various parts of the country there are constantly kurgans and other graves opened, but without the requisite circumspection, and the publication of details, which are absolutely necessary for arriving at any satisfactory result.

These expeditions will also have opportunities for ethnographical observations relating to the present period, and may thus either rectify or furnish supplements to the recent works of Pauly.

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## EXPLORATIONS IN SOUTH WEST AFRICA.\*

THE author, Mr. Baines, travelled from Walvisch Bay, on the west coast of Africa, to the Victoria falls of the Zambesi River, in company with Mr. James Chapman, a former friend, who had spent many years in travelling, and was well acquainted with the country, and the language of the natives. Mr. Baines had also travelled for many years in Africa and North Australia, and in 1858 was appointed artist to Dr. Livingstone's expedition to the Zambesi, and the Portuguese territories on the east coast. Leaving this in 1859, he returned to Cape Town, and on recovering from a severe illness, sailed for Walvisch Bay, which he reached on the 29th of March, 1861, and proceeded up the country to join his fellow traveller, (who had started some months previously) in an attempt to cross the continent from west to east; their intention being to travel to the Zambesi to some point below the Victoria Falls, with the land equipage belonging to Mr. Chapman, and then to descend the river in boats constructed of copper by Mr. Baines, capable of being used either singly, or when the breadth of the stream admitted, side by side, with a roomy deck between them, like the South Sea double canoes.

Fever and famine, and the death of many of the native attendants, compelled them to abandon the latter portion of their intended journey, and to return at a time when they had hoped their difficulties were almost overcome, and that in a few weeks they could have commenced their voyage down the Zambesi.

The journal, written under all the disadvantages incidental to such an expedition, where the travellers had to work at every laborious occupation that came to hand, passed through the press, while the author was still absent in Africa; and it is chiefly from the preface written by his aged and widowed mother, on whom devolved nearly all the labour of the revision, that we gather the foregoing details.

The dreary beach at Walvisch Bay overflowed at spring tides, so that no house can be erected save on an embankment previously raised, surrounded by shifting sand hills, and, excepting the scanty supply afforded by the Sand Fountain, four miles distant, utterly destitute of fresh water; is frequented only by a few Namaqua Hot-tentots, who, on the arrival of a vessel, come down to earn a little tobacco or other articles, by carrying up the cargo to the store house,

\* *Explorations in South-West Africa.* Longman and Co., 1866. *The Victoria Falls of the Zambesi.* Day and Son, 1866.

or to assist the fishermen in cleaning and preserving the produce of their labour, or, perhaps, to lay in a store of provisions for themselves; the richer mounted on their oxen—by hunting buffaloes in the reeds of the Swakop river, fifteen miles to the northward; and the poorer by spearing with a sharpened stick or gemsboks horn, the sting rays and sand sharks in the shallow waters of the lagoon.

The native costume of these people is as picturesque as it is scanty, but the garments of softened leather, and ornaments of brightly coloured beads, harmonise with their yellowish brown skins, and it seems a question whether their appearances much improve by the adoption of civilised clothing, particularly when, as is often the case, the latter is merely some cast off rag, pertinaciously worn till its condition is perfectly indescribable.

As the Narip Desert is passed, and the village of Otjimbengue reached, we come more frequently in contact with the Damaras, or more properly, Herero, a pastoral race, who, driven from their home in the interior, (perhaps on the Zambesi below the falls) by some of the continual tribal wars, emigrated boldly, defending their cattle as they passed to the west coast, in latitude between 15° and 20°; then turning south, occupied the country down to the Swakop river, driving out the Topnaars or aboriginal Namaquas, and the Haukoin, a black race with language much resembling the Hottentot, and now commonly, though improperly called Berg Damaras. Farther and farther still they were spreading southward till the Topnaar Namaquas in despair entreated the assistance of Jonker Africaner and his tribe, who with their horses and fire-arms, not only checked the torrent of invasion, but subsequently plundered many villages of the Damaras, under circumstances of the most revolting barbarity.

The men of the Damara tribe are tall and well formed, though perhaps not equal to the Kaffirs; their native dress is picturesque, the chief peculiarity being a waist belt, consisting of a coil of many fathoms of small leathern cord, in which are stuck the keeries or knobbed clubs, or other weapons; their woolly hair matted into threads with grease and red clay, is parted in the centre, and hangs profusely on either side, almost imparting a feminine appearance to the otherwise manly features; a cockle shell is worn upon the forehead; the weapons are broad thin bladed assegais, the club previously mentioned, and occasionally the bow and arrow, the former of which is converted into a musical instrument by taking the string between their teeth, and tinkling it with a small twig or straw.

The three eared bonnet worn by the women, and their belt or bodice laboriously formed of small disks of ostrich egg shells strung like buttons upon leather thongs, are also most interesting, as well as

the peculiar sandal, the sole of which, instead of being cut as in other tribes to the shape of the foot, projects in points two inches or more beyond the toe and heel.

Their huts are of the rudest description, and little or no care is taken to render them water-proof, the inhabitants preferring rather to risk the drenching of the short rainy season, than to take this apparently superfluous trouble.

Their food is generally the roots gathered from the veldt, or the sweet gum of the mimosa, with the milk of their cattle, and rarely the flesh of such as may be slaughtered on great occasions; but those who were employed by the mining company were allowed five pounds of meat daily, and others living near the mission stations have begun to cultivate a little corn in the broad sandy bed of the Swakop river.

The Africaner and other Namaqua tribes living near have for the most part adopted the clothing and weapons of civilised life and not only coarse cotton shirts, duffel or moleskin jackets and trousers, wide-awake hats and common muskets are sought for, but traders are asked for superior clothing, and rifles of the best possible description.

The chief wealth of these people being also in their cattle, the danger of infection from lung sickness was a serious consideration, and they allowed no suspected oxen whatever to approach the drinking places, and even insisted on all the gear belonging to the wagons being well washed, tarred, and rolled upon the sand to free it from taint. With these necessary regulations of course the travellers cheerfully complied, great as was the inconvenience entailed by them—though not without an occasional murmur, at the semi-civilised legislators who hesitate not to break the laws when convenient to themselves, and cast the blame of their own indiscretions upon their visitors.

The bushmen of the desert seem to have been rather superior to the specimens of the same race found on the borders of the Cape Colony, they were frequently from five to five and a half feet in height, and in exceptional cases even taller; the skin was of a rich light brown, the limbs well formed, and but for the enormous adipose development behind, and the corresponding protuberance in front, their figure was generally good. Their clothing consisted only of a three-cornered piece of skin, two angles of which were tucked in front into the belt or small thong, tied round the loins, while the third hitched up behind and frequently left to retain its place by muscular action alone, occupied so exactly the position of a tail, that it may perhaps have suggested the stories we have heard of men with such appendages in Central Africa.

Of the condition of these people after a feast on the carcase of a

rhinoceros or elephant, shot by Mr. Chapman, some idea may be formed from the statement that the sentry they placed over their dried meat was unable to bend his body in sitting down, while the dogs themselves could not turn a corner, and the Damara servants were unable to do anything till they had slept off the effects of their last meal, and rose only to attack a fresh one.

It is pleasing to find that these children of the wilderness, living as they do in a scantily watered country where neither Hottentot nor Bechuana dare permanently settle, maintain an independent and manly bearing that contrasted favourably with the importunate effrontery of the Hottentots and the apathetic indolence of the Damaras, and it is not less gratifying to infer from the ready confidence with which, on all occasions, they came forward to meet the expedition, that the majority of English travellers in South Africa are not the heartless oppressors of the innocent native, that it is too much the fashion to represent them. A frank, honest, and kindly manner is essential in dealing with them; but kindness, unless backed up by sufficient firmness and determination, would soon be taken by the shrewd savage as a proof of weakness, and, instead of winning his esteem, would only be regarded with contempt.

Among the Bataoana, (or little lions, a sub-tribe of the Bechuana) at the lake Ngami, the qualifications of the explorers were severely tested by the cunning and hard bargaining of the peddling chief Leshulátébě, who seemed determined not only to become the possessor by gift or purchase at the lowest possible rate of everything the wagons contained, but, beside this, not to allow the travellers to pass so long as they retained an article he coveted. The record of Mr. Chapman's dealings with him may be recommended to the perusal of those who think our countrymen cheat the natives of the ivory in return for the merest trifles, when the fact is, that to the native, ivory has *no value whatever*, until he finds that it can be sold to a white man. The first trader of course buys it cheaply; as, for his enterprise, he deserves to do. But it soon rises to its market value, and if a musket worth ten shillings in Birmingham, be given for a tusk worth fifteen pounds in England, it must be remembered that freight, customs duty, the equipment of an expedition to the interior of Africa have to be paid, the risk of loss in cattle or otherwise to be incurred, a year, or perhaps two or three, to be spent in travelling, and expensive presents to be made to the chiefs and principal men, while the quantity of goods that can be carried in each wagon is so limited, that under the most favourable circumstances, the profit made by the trader cannot be considered an extravagant reward for his hazardous and toilsome journey.

There is little fear of such people as those of Leshūlātēbē being imposed on by inferior guns ; they know well enough the requisites of a good musket, and the chief, although preferring for his "boys" the stout and serviceable military brown bess, when purchasing for his own use, asks shrewdly, where are the guns *you shoot with* ? The horses too, are also subjects for negociation ; a "salted animal", i.e. one that has recovered from the "sickness," and is supposed not to be again liable, is worth a price almost exorbitant compared with that of one unacclimatised ; and here the cunning chief had almost over reached himself, for when Mr. Chapman honestly informed him he could not warrant the horse, the impression on his mind was, that the horse was really "salted," but that the owner, not wishing to part with it, was depreciating his own property.

His mode of administering justice was characteristic. A poor Makoba or boatman (of the original river tribes, subjected by the Bataoana) was severely flogged for stealing an adze, while other articles which the travellers supposed to have been taken by persons of more importance were never heard of.

The description of the war council is interesting. About three hundred warriors, many with their naked bodies grotesquely painted, squatted closely down, the front rank holding their shields before them, while those in the centre raised them as sun shades above their heads ; the chief, dressed in European costume, but retaining his native ornaments, sat in an iron chair recently purchased, and his uncle, Mākaloquē, a man more highly respected than he, stood near him. As each warrior finished his address, he rushed forward in a mimic sortie, and those who wished to applaud followed him, brandishing their spears, battle axes, or muskets, as if in contest with an enemy ; while the women, kneeling or sitting round, clapped their hands, and sang monotonous ditties in their praise.

Along the Bo-tlēt-le river were scattered outposts and corn-fields and cattle stations of the Bataoana, and villages of the Makoba, or original canoe man of the river, now subjugated by them ; these last from the exertion consequent in paddling have more fully developed chests and shoulders, and the contrast between the slender figure of a young court favourite and his attendant Makoba was very striking ; one chief especially, named Makata, seems to have been a most indefatigable and successful hunter ; pit falls were dug in every possible game path, and the harpoons and lines for killing the hippopotamus were kept in constant readiness.

The desert tract between this river and the Zambesi was also well peopled by bushmen, some of whom were blacker and of greater stature than the generality, and when the travellers reaching the

northern limit of the plateau, descended to the valley of the Zambesi, they came among the scattered and dispersed remnants of various tribes of the Makálaka, who lived in constant fear of the predatory hordes of Mōšēlekātsē on the south east ; as well as of the Makalolo to the north and west.

Just previous to the arrival of the travellers, a party of Matabili had dispersed a tribe, killing the chief and destroying their crops, the survivors seeking refuge in "clumpjies," twenty men, and four or five women in one place, and forty men and half a dozen women elsewhere, but with no children, all the younger people having been carried into captivity.

To the credit of the chief Sechēli it is recorded that the travellers here fell in with the wagon of an ambassador, sent by him to demand from Sekelētū, restitution of the property plundered from the unfortunate mission party, of whom so many died in his country, certainly from harsh treatment and neglect, if not, as from native testimony there is too much reason to believe, from actual poison.

Of the Makalolo themselves we hear but little, as the travellers came in contact only with one of their outposts at the ferry above the falls, where the petty jealousy of Mōshotlāni, the head man, was again contrasted with the liberality of a native "gentleman" in the vicinity ; a present was sent by Mr. Chapman to Sekelētū, with a request to be allowed to hire ten men to assist in navigating down to the coast, the boat the travellers wished to construct below the falls, but we do not learn what answer was returned.

Some weeks were spent in surveying the magnificent Victoria Falls, Mr. Chapman photographing, and Mr. Baines sketching, at every possible opportunity, and both the travellers taking for geographical purposes, whatever observations were practicable. Of these falls we shall speak more in detail when we notice the work recently published by Messrs. Day, from the paintings of Mr. Baines, and shall conclude by observing that when they returned to their wagons, which the prevalence of the Tsetsē, or deadly cattle fly, prevented their bringing near the river, Mr. Baines started with a troop of Makalakas and Damaras, carrying tools and materials, in search of a place to rebuild the deficient portions of the boat and settling on an eminence which he named Logier hill, after an esteemed friend in Cape Town, was joined by Mr. Chapman, and made a trip to ascertain the navigability of the river below. Of their efforts to complete the boat and provide for the safe return of the wagons, dashed almost in the very moment of success by a sudden and deadly attack of fever, obliging them for the sake of the people to retreat to the high lands of the desert, he speaks but briefly. In fact we believe that the



rough diary was only partially in England when it attracted the attention of the publishers, and neither prepared nor intended for anything beyond the extraction of such geographical information as it might contain, when it was casually seen by Mr. Longman, who undertook the publication, while the task of revising and correcting for the press fell almost entirely on the mother of the artist, to whose unwearied devotion to the work, with the kind assistance of Captain C. George in reference to the observations for geographical positions, whatever credit it may be deemed worthy of is mainly due. The maps carefully drawn by Mr. Baines, from the joint observations of Mr. Chapman and himself, have been faithfully engraved by Mr. E. Weller, and considerably enhance the value of the record.

The author, while he has no sympathy with that class of philanthropists who injure the cause they strive to serve by representing the native as living in a state of primæval innocence till he learns wickedness by contact with the white man, is equally removed from those who, on the other hand, would degrade the Negro to the level of the gorilla—his object has been fairly to record the impression produced on his own mind by events of which he became cognisant, neither shutting his eyes to the degrading vices of the savage, nor seeking to deny him such virtues as are occasionally displayed even by the most barbarous.

Mr. Baines writes in a quiet, unassuming style; and his observations we believe to be thoroughly trustworthy. We especially commend the perusal of this work to the students of the descriptive anthropology of South-western Africa.

Mr. Baines has also just published a series of faithful reproductions, lithographed by Messrs. Day and Son in fac simile of the original of eleven of the oil paintings executed from sketches taken during a residence of above three weeks in the immediate vicinity of the Falls, which will convey to the English public some idea of the wealth of waters in tropical South Africa to the northward of the Kalighari desert.

These magnificent cataracts were first seen by Dr. Livingstone in 1855; but two years previously, Mr. James Chapman, a long known and highly esteemed friend of the artist, had visited the Zambesi, and had actually engaged a canoe to take him to the Falls, when the crew were recalled by Sekelētu, and he was obliged to forego the honour of being their discoverer.

Mr. Baines leaving the Zambesi Expedition commanded by Dr. Livingstone in 1859, found refuge in Cape Town with his steadfast friend Logier, by whose kindness he was mainly enabled to equip himself for another journey, and meeting again with Mr. Chapman, who

was preparing for an expedition to the interior, they agreed to attempt the passage across the continent from Walvisch Bay on the west coast, to the Delta of the Zambesi on the east. Mr. Baines constructed for the navigation of the lower river, a pair of copper boats in sections, of which, unfortunately, they were only able to convey a part to the place where they might favourably have been put together.

Various branches of the Zambesi appear to rise not far from the west coast, flowing through a level country nearly to the centre of the continent, where the Falls are formed by a deep narrow chasm cleft across the broad bed of the river, which, plunging four hundred feet into the abyss, escapes by another cleft joining the first at nearly three-fourths from its western end, and prolonged in abrupt zigzags and redoublings for many miles, engulfing the narrow lower river far below the level of the surrounding country, occasionally opening and again contracting, and traces of it appearing nearly to the Indian Ocean, more than eight hundred miles away.

Above the Falls, where the river is nearly on a level with the surrounding country, palms and tropical vegetation abound, and long reaches are descended on rafts or navigated in canoes, almost the only difficulty being occasioned by the thick growth of reeds in the shallower portions. Below them no continuous navigation is possible for eighty or a hundred miles; but beyond this long open reaches alternate, with rapids and narrow gorges, the most dangerous being those of Chicōva and Kēbrābāsa.

Leaving the wagons at a distance for fear of the deadly cattle fly, the travellers proceeded on foot over the long red sand hills, and bivouacking on the northern slope, heard during the stillness of the night the deep monotonous roaring of the Falls, not less than sixteen miles away, and on the morning of the 23rd of July, 1862, saw, for the first time, the clouds of spray and vapour rising 1200 feet from the abyss, with the broad upper river glancing like silver in the sunlight beyond, and nearer to them caught an occasional glimpse of the dark green water of the lower stream, winding in abrupt redoublings between the cliffs of its deep and narrow chasm.

Passing through the forest, rich in every tropical form of vegetation, they at length reached the vicinity of the Falls, every footstep of elephant, hippopotamus or buffalo being filled with fine clear water raining down to leeward in an incessant shower from the overhanging spray, and putting aside the branches that obstructed their view they stood upon the very edge of the chasm and looked down upon the Falls.

At the western angle, or immediately opposite, a body of water fifty or sixty yards wide came down like a boiling rapid over the broken

rocks—the steepness of the incline forming a channel for the reception of a greater body of water, and causing it to rush forward with accelerated violence, so as to break up the whole into a snow-white fleecy irregularly seething torrent, with its lighter particles glittering like myriads of diamonds in the sunlight, before it leaped sheer out from the edge of the precipice into the abyss below ; then interposed dark masses of cliff, and again long vistas of waterfall, partly hidden by the misty spray-cloud reflecting in the rays of the tropic sun a double rainbow of wondrous beauty. And as the friends passed on through the dank wet forest, on the southern edge of the chasm, they encountered a herd of buffaloes, and a battle ensued, which forms the most animated picture of the series.

The cataracts east of Garden Island, seen through the dark portals of the outlet, afford material for a striking picture, and the view from the edge of the cliff overhanging the mighty cataract of the leaping water at the west end of the chasm, contrasts with the shallower rills and spray-falls at the eastern end. The series is also varied by a picture of Zanjueelah, the skilful and daring boatman of the rapids, taking the artist and his friend in the little skiff to Garden Island, and is completed by a sketch of the dark green torrent of the lower river doubling round the profile cliff, the reddish yellow sides of which glow with increased warmth of colour in the light of the setting sun.

The frontispiece is an attempt to represent the general character of the Falls, and especially the contrast between the breadth of the upper river and the narrowness of the gorge below it, as it would be seen could the observer be raised perhaps a mile in the air above the western angle, when, if the position of the sun was favourable, the rainbow would be seen spread horizontally upon the spray beneath. Of course no one has, or perhaps ever will obtain, such a view ; but this having been compiled by the artist from his various sketches, and from three weeks' observation by himself and Mr. Chapman, may be regarded as giving the most accurate idea that can be conveyed by anything except the model constructed by him, which may now be seen in the rooms of the Royal Geographical Society.

The work was undertaken under the special patronage of some members of the Geographical Society, and other scientific men. Dr. Kirk, who visited the Falls with Dr. Livingstone, has testified to the artistic merit and truthfulness of the paintings ; and when they were first exhibited in Cape Town, Mr. E. Layard, the talented naturalist and Curator of the Cape Museum, and others who had seen the Niagara Falls, declared unhesitatingly that those of the Zambesi must be by far the grander of the two.

We have only to regret that, after successfully combating so many

difficulties, the travellers were obliged to abandon their design of descending the river, when they had so fair a prospect of having a boat ready to descend it, with the coming flood. We join in their hope that they may before long be again in a condition to attempt it ; and we look forward with much pleasure to Mr. Chapman's forthcoming work, the result of many years travel in South Africa, which we feel sure must contain much valuable information respecting the various native tribes.

We understand that Mr. Baines has placed in the hands of Messrs. Day and Son a series of oil paintings representing the various natives of Kaffraria—South-Eastern and South-Western Africa—the majority of these are faithful portraits, actually finished while the natives sat, more or less willingly, to the artist as he worked under the shadow of the wagon awning, or perchance a rude grass-covered hut, far in the interior of the country. They have all at various times been exhibited before the Anthropological or Royal Society.

### THE SECT OF MAHÁRÁJAS.\*

THE Jesuit priests who followed in the train of Spanish conquest in America delighted in drawing parallels between the Old World and the New, demonstrating to their own complete satisfaction,—and using arguments of fire and faggot to those individuals who ventured to differ, however respectfully, from them,—that his Satanic Majesty had caricatured the institutions of the Judaic dispensation in the Occidental Continent. The historical researches of modern times have nullified the pet theories of the gentlemen who saw the devil in everything, and, as our real knowledge widens, we find instances *galore* in the Old World quite upholding its preeminence for wickedness and absurdity under the cloak of religious belief.

Mormonism, with its peculiar institutions, is a new and flourishing system, but Joseph Smith is not original in his ideas. India has maintained its character as an initiatory people, and a species of Mormonism has flourished in the Hither Peninsula for some centuries, as will be seen by the following statements, drawn from an elaborate and carefully-written volume now before us.

The existence of numerous sects among the Hindus is a well-known fact. Founded primitively upon the Vedas the Hindu worship con-

\* *History of the Sect of Mahárájas, or Vallabhacháryas, in Western India.* Trübner and Co.

sists in the adoration of Brahma, Vishnu and Siva, but owing to the strife which the religious opinions of the various schools of philosophy occasioned, a spirit of dissent arose, and India became the arena of fierce controversy at a very early period.

Thus, on the one hand, the worshippers of the Deity preferred to adore some special form under which he originally appears in the Vedas; and on the other hand, the philosophers gradually receded from each other, and formed several Darsánas or schools. In process of time the worship of Brahma has disappeared, as indeed that of the whole pantheon, except Vishnu, Siva, and Sakti, or modifications of these forms. The representatives of the two former have, in fact, superseded their prototypes, and Krishna, Ráma, or the Linga, are now almost the only forms under which Vishnu and Siva are adored.

In the Darsánas there gradually arose heresy, and though it is difficult to distinguish these schools, the principal systems seem to be the Saugata, or Bauddha; Arhata, or Jaina; and Várhaspatya, or atheistic school.

Attempts made at various periods to reintroduce the sole worship of Brahmá, Para Brahmá, the supreme and only ruler of the universe, were generally unsuccessful, and hence at the present day the worshippers of this faith consist of the Vaishnavas, Saivas, and Sáktas, or the adorers of Vishnu, Siva, and Sakti. Into the peculiarities of these sects it is unnecessary for us to enter on the present occasion, as we wish only to give here a brief account of the sect of Mahárajás.

The Vaishnavas, or worshippers of Vishnu, are divided into a multiplicity of sects; some of these enjoin asceticism, but the general classes of the rich, the luxurious and the indolent, and especially females, attach themselves to the worship of Krishna and his mistress Rádhá, either jointly or singly, under the names of Vishnu and Lakshmi. But there is yet another form of the worship of this popular divinity, that is, the worship of the Bála Gopála or Bála Krishna, the infant Krishna, a worship widely spread throughout all ranks of Hindu society, and first promulgated by the founder of the sect, under the name of Rudra Samprádáya. The name of the institutor of this sect was Vallabháchárya, and this heresy is also known as the religion of the Gokulastha Gosáins, from the title of its teachers.

The first teacher of the philosophical tenets on which the present doctrines of the sect are founded, was Vishnu Svámi, who was a commentator on the Vedaic texts. He was followed in his teaching by Dnama Deva, Kesávachárya, Herálál, Sridhar, and Bilava Mangala. Bilava Mangala was succeeded, but how soon it is not known, by Vallabháchárya, the second son of Lakshman Bhatt, a Tailinga Brahman.

This Lakshman Bhatt was descended from a Brahman named Náráyan Bhatt, inhabiting the village of Kánkrava, and was the fourth indirect descent from him. He promulgated the idea, now so implicitly believed in by this numerous sect, that he had been promised by Krishna that he should have three sons, and that his second son should succeed him as the incarnation of himself, the god. His wife's name was Elmágár, and their first son was Ráma Krishna.

Lakshman Bhatt with his wife and infant son went on a pilgrimage from Alláhábád to Benares, but a conflict arising between the Mussulmans and the Sannyásis, he fled with the family, and arrived in a desolate place named Champáranya, where Elmágár, seized with premature labour pains, gave birth to her second son, on Sunday, the 11th day of Vaisákh Vadya Samvat, 1535 (A.D. 1497).

This child was Vallabha. Legends say that when he was born a golden palace sprung up on the spot, the gods showered down flowers, the houries danced around, and the gandharvas (heavenly songsters) sang. The mother relying upon the protection of Krishna, exposed the infant under a tree, and fled. When the troublous times were past, the parents returned, and found the child playing in the midst of a sacrificial flame. He was then taken with them to Benares, and received the name of Vadtrabha, afterwards changed to Vallabha. His followers erected a temple on the spot where he was born. His younger brother was Kesáva.

When older he was placed under the tuition of Náráyan Bhatt, and it is asserted in his biography, that the rapidity of his apprehension was miraculous, and in four months he learnt the whole of the four Vedas, the six Shastras (schools of philosophy), and the eighteen Puránas—an accomplishment which a mature scholar cannot hope to acquire during his whole life. When eleven years of age, Vallabha lost his father, and in the following year he took leave of his mother, and bidding farewell to Gokul, the village of his residence, near Mathurá, he started on a pilgrimage through India.

At a certain town in the south of India, he became acquainted with Dámordardáas, a rich and important person who became his first disciple. The pair proceeded to the city of Vijayanagar, where the maternal parents of Vallabha resided. Krishna Deva was king of this place, and before him, Vallabha disputed with the Saivists, or devotees of Siva, to the great satisfaction of the monarch, who liberally rewarded him.

On account of this disputation with the Smártá Brahmans, the Vaishnavas elected him their chief, with the title of Achárya, and from that time his influence was established. He subsequently visited many towns and returned to Benares, and afterwards at Brendávan

was honoured by a visit from the god Krishna in person, who then enjoined him to introduce the worship of Bāla Gopāla or Bāla Krishna. This is the sect of Rudra Sampradāya, and the subject of the present inquiry.

Vallabhāchārya finally settled at Benares, and there composed a series of treatises, in which his doctrines were proclaimed, chiefly in one entitled the *Bhāgavata Tikā Subodhini*. Vallabha married a Brahman girl named Māh Lakshmi, and shortly after this he erected at Vraja an image of Sri Nāthji in Samvat 1576 (A.D. 1520) on a sacred hill called Govardham Parvata. At Benares he held disputations with the followers of Sankarāchārya the great Hindu philosopher, and the books of the Mahārājas record that he defeated all competitors.

In Samvat 1567 (A.D. 1511) Vallabha's first son Gopinātha was born, and in Samvat 1572 (A.D. 1516) his second son Vethalnāthji was born; to the second son the incarnation of Krishna was presumed to descend. After educating these children he withdrew to Benares, where he became an ascetic, but finally he descended into the Ganges at Hanumān Ghāta, and thence ascended to heaven in the presence of a host of spectators, and was lost in the firmament. At the period of his departure Vallabhāchārya was fifty-two years and thirty-seven days old. His seat was first adjudged by the king of Delhi to the eldest son, but as he soon died, Vithalnathji became the sole representative of Vallabha.

Vallabha up to the time of his death had made eighty-four proselytes to the creed of Pushti-Mārga, or the eat-and-drink doctrine, to which we shall presently refer. His son made two hundred and fifty-two disciples, and took long journeys for the purpose of preaching the faith of Bāla Krishna. He made proselytes among the banīās or bankers; the bhāttias, the kaubis or farmers; the sūtāras or carpenters; and the lowars or blacksmiths: some Brāhmans, and also some Mussalmāns also became converts. All these various castes ate and drank at the same table, in total violation of the caste system, but since that time the caste system has been restored.

Vithalnāthji, also known by the name of Gusāinji, went in Samvat 1621 (A.D. 1565) to Gokul, the birth-place of Krishna, where he proposed to end his days, but he afterwards went to Mathurā. In Samvat 1629 (A.D. 1573) we find him again at Gokul, and his permanent residence in the sacred city acquired for him the title of Gokul Gusāingi, perpetuated in all his male descendants. When seventy years and twenty-nine days old in Samvat 1649 (A.D. 1583) Vithalnāthji quitted the earth, leaving seven sons behind him, who all assumed the incarnationship, each having his own *gadi* or seat, and making converts throughout India.

The fourth son, Gokulnathji, became the most famous of the leaders of the sect ; his followers keep themselves apart from all the rest of the sects. About this time they first acquired the name of Mahá-rájahs, which indicates their peculiar supremacy. There are many designations for them, such as Maháráj Gusáinji, Vallabha Kula-Agni Kula, Guru, and others ; but the name for which they have the greatest reverence is that of Gausvámi, i. e., Lord of Cows, applicable also to Krishna.

The worshippers of this sect are widely diffused throughout Bombay, Cutch, Kattywár, and Central India, especially in the province of Málcoá. They are wealthy merchants and bankers, and at Mathurá and Brindávan they have establishments. There are two temples of great wealth at Benares, and the city of Jegannath in the east, and the city of Divarka in the peninsula of Guzerat are both esteemed as very sacred. There are at present about sixty or seventy Mahárájas dispersed throughout India, but with the exception of one or two they are grossly ignorant, and steeped in the lowest sensuality. To use the words of the author of this *History of the Mahárájas*\*—

“They, however, fear no desertion, owing to the infatuation of their followers, and never take the trouble to preach, but give as an equivalent, public exhibitions in their temples to divert attention. Vallabháchárya taught that privation formed no part of sanctity, and that it was the duty of their teacher and his disciples to worship their deity, not in nudity and hunger, but in costly apparel and choice food ; not in solitude and mortification, but in the pleasures of society and the enjoyment of the world. In accordance with these precepts, the gosáins, or teachers, are always clothed in the best raiment, and fed with the daintiest viands by their followers, over whom they have unlimited influence. These gosáins are often largely engaged in maintaining connection amongst commercial establishments in remote parts of the country ; they are constantly travelling over India under the pretence of pilgrimage to the sacred shrines of the sect, and on these occasions they notoriously reconcile the profits of trade with the benefits of devotion. As religious travellers, however, this union of objects renders them more respectable than the vagrants of any other sect. Priestly craft is ever alert to obtain by fair means or foul the wealth needful to the sustentation of its power and self-indulgence. This is a vice not limited in its operations to India, or to the chiefs of the sects of the Hindu religion ; it pervades all human society with greater or less energy. This scheme is supported by very plausible and just reasoning, for it is but right that those whose function is exercised for the behoof of society at large, and who are procluded from obtaining the means of livelihood from those sources common to the majority, should be supported by that majority for whom their labours are performed ; and it is only when

\* *History*, pp. 45, sq.



urged to excess, for culpable purposes, that this become reprehensible. The Mahārājas, consequently, as teachers of a doctrine and priests of a religion, when duly restricting themselves within their province, are thoroughly entitled to the means of living at the hands of those whom they teach. It is merely perversion and excess that can be complained of. The source of the permanent revenue of these priests is a fixed *lágá* (or tax) upon every article of consumption which is sold. This tax, although but trifling in each individual case, amounts to a considerable sum upon the innumerable commercial transactions that take place, and is always multiplied in each case where articles pass from hand to hand for a consideration. There seems to exist an unlimited power on the part of several Mahārājas to impose this tax, and to add *lágá* upon *lágá*. When, therefore, we consider the swarming population, the great consumption, and, consequently, the thriving business which is carried on, and the fact that the fixed revenue is often greatly augmented by the presents and votive offerings which are made by their followers, from affection or fear, the wealth, indolence, and luxury of the Mahārājas follow as a matter of course, and the corruption of society ensues as the result of their dissolute and effeminate teaching.

"It is not necessary that we should further particularise the branches of the genealogical tree springing from the root of Vallabhāchārya: it suffices that, like the deadly upas, they overshadow society with their malignant influences—in Western India especially; and it is with a view to counteract this blighting tendency that the present work has been undertaken, in the hope that the exposure of their acts and doctrines may eventually bring their converts to reflect upon the depravity of their practices, and the utter incompatibility of such vicious doings with a pure faith. The original teachers may have been well-disposed men, but their descendants have widely diverged from their courses. The infatuation of the Vaishnavas is so great, that all the descendants of the Mahārājas are held from infancy in extreme veneration, and are nurtured in ignorance, indolence, and self-indulgence. They are empowered by their votaries to gratify through life every vicious propensity; and when, exhausted by vice, they pass away in premature old age, they are held by their votaries to be translated to the regions of perfect and ecstatic bliss. Although totally destitute of every pretension to even personal respectability, they nevertheless enjoy the unlimited homage of their followers."

Having now learnt the pedigree of Vallabhāchārya, it is time that we turn to the practical doctrines he inculcated, and perceive the shocking effects upon Indian society produced by them.

The cardinal idea of the doctrine of Vallabhāchārya is the incarnation in his person and in that of his descendants of Krishna, and the enjoyment for that reason, of the right to confer upon the faithful the privilege upon this earth of a personal union with the deity of their worship. Theoretically speaking, were this personal union to

be regarded spiritually and held to elevate the mind to an intimate union with the highest moral principle; were it to hold forth by meditation and isolation some incentive to a consideration of self-annihilation and self-denial, this doctrine might have claims upon our attention as doing some, however limited, a good. But preached to a people who, from climatic influences and early conditions of puberty are peculiarly lascivious and prurient, the evil grows more and more enormous with the progress of the sect. That any system of religious worship, if sincerely conducted, need not necessarily entail an abandonment of the legitimate pleasures of life, stands to reason. Gloomy faiths, bound to asceticism, have no real hold upon the moral conduct of the professors of them, but a religion which rushes into an opposite extreme, and stimulates an evil too great already for the patience of mankind and civilisation, deserves to be trodden out.

Anthropologically speaking, no greater evil can exist than the system of promiscuous intercourse between the depraved Maháráj and his blinded victim. The descendants of Vallabha, these wretched men, who from youth give themselves up to such practices, grow prematurely old, and set examples to the members of the sect, ultimating in decrepitude and death. It seems an amazing thing to consider that such a miserable and absurd superstition should, in an intellectually gifted country such as India, endure for any time. The very foundation of the doctrine is so opposed to common sense that it is matter for wonder that there is not a common outcry on the part of rulers and ruled.

At the beginning of this article we spoke of the Mormons, and alluded to the spiritual wife doctrine and the polygamic practices prevailing in Utah, but they are really respectable when placed in juxtaposition with the worship of Krishna by the sect of Vallabháchárya. The student of the science of man will find much material for reflection in this *History of the Mahárájahs*. It is not our intention here to enter upon any analysis of the Maharaj libel case; that an effectual blow was aimed at the system by enforcing the attendance of Jadunáthji Brizratanji Maháráj in the High Court of Bombay is a matter for congratulation. Imagine a superstition so gross and impudent as to lead a large class of persons to support the Maháráj in question in resisting a citation to the Government Court on the plea of the holy character of the individual summoned! To these men the members of the sect dedicate everything, by *tan*, *man*, and *dhan*; "the dedication thereof," says a witness,\* "includes wives, daughters, sons, property, body, soul, etc." Adultery in this sect is considered a virtue, and the Maháráj confers an honour in receiving the visits of the women of his sect. Everything in this ridiculous religion is of a

\* Trials, p. 53.

piece. The Máharaj becomes the proprietor of the sectary, and is adored as God himself; and, merely adding that even the water falling from his *dhotar* or loin-cloth is drunk with religious awe, we leave those who desire to learn more to refer to this important and fearless exposure of the doctrine of Vallabhacharya, hoping that the author may see the system entirely done away with, and the interested and depraved priesthood properly punished.

## SPANISH ANTHROPOLOGICAL SOCIETY.

### TRANSLATION OF THE SECRETARY'S ADDRESS.

GENTLEMEN.—I must occupy your attention for some moments, if only on the strength of traditional custom, which requires on such an important occasion of scientific rejoicing and prosperity, that the Secretary of the Society celebrating its inauguration should give some account of the condition and administration of the Society he represents.

I do not ask for your indulgence; aware of your well-known liberal opinions, I am sure I already have it; but, knowing my own incompetence, I come as a humble pilgrim, to beg that you will receive with kindly welcome, one who, with good motives and heartfelt enthusiastic faith, tries to fulfil a duty which, though imperious and tyrannical, is still a fundamental rule. Believing in my good intentions, may you forget my want of power, thus adding another proof to your generosity.

The young Spanish Anthropological Society adorns itself to-day for the first time with the embellishments of luxury and magnificence, thus giving a tangible proof of its installation and firm footing. Having had no past existence, it has as yet produced nothing which should distinguish a society aspiring to the acquirement of rank and consideration; neither can it avail itself of that shield which adorns those who are accustomed to those proud contests of knowledge in which science reaps such a harvest of pure and perfumed laurels.

The Spanish Anthropological Society appeared on the horizon at the instance of two humble professors of medicine, who communicated their ideas to some others of their companions who received it with enthusiasm, formed themselves together, and arrayed themselves in the number of those who now address you. The idea was in the minds of all—all felt the want of one free and entire centre, in which the natural history of man, and all branches of human knowledge

relating thereto should be studied and discussed. This explains the surprising growth of this Society, which still scarcely counts its existence by days.

The unexpected foundation of the Spanish Anthropological Society is due to the zealous and indefatigable Doctor Don Pedro Gonzalez Velasco and to him who has now the honour of addressing you. In the first meeting, celebrated the 6th of November, 1864, in my house, by our invitation, a Committee was appointed, consisting of the following gentlemen :—Don Matias Nieto y Serrano, Don Manuel Maria José de Galdo, Don Ramon Torres Muñoz de Luna, Don Sandalio de Pereda, Don Juan Vilanova, and the two originators of the idea, to construct a scheme of laws and regulations. This Committee soon fulfilled its trust, and in a second and much more numerous meeting, which was held the 27th of November, 1864, in the saloon of the under-graduates in the central University, the scheme was approved of with some slight variations. It was agreed that the same Committee should undertake to obtain the approbation of Her Majesty's Government, and also the preparatory labours indispensable to the realisation of the idea.

On the 14th of May, 1865, the organising Committee of the Spanish Anthropological Society invited the original founders and others who had joined them to a meeting, in order that they might render an account of the fulfilment of the duty with which they had been honoured. At this meeting the Officers and Council were elected, and the Society was declared legally established, by virtue of a royal order, issued the 16th of March, 1865, to the following effect :—

“Ministry of the Interior, Department of Public Instruction.

“Madrid, 16th March, 1865.

“YOUR EXCELLENCY, — In consideration of the application made to this department by various professors of medicine, soliciting authorisation for the formation of a society for the purpose of studying the natural history of man, and those sciences connected therewith, and in conformity with the advice of the Royal Council of Public Instruction, the Queen, whom may God preserve, has authorised the formation of the aforesaid Society, to be called ‘The Spanish Anthropological Society,’ in conformity with the ordinance of this date. And, considering the laudable objects of this Society, acknowledged as one of the most useful and interesting sciences, Her Majesty commands me to convey to your Excellency, which I now do, in compliance with the Royal Order, an assurance of the pleasure with which she has received the idea of the originators, whose object is to procure the advancement of one branch of science, and of inviting other professors to try and advance other studies which are less cultivated in our country. May God preserve you many years.

“GALIANO, Director-General of Public Instruction.”

Such, gentlemen, is a brief summary of the history of the Spanish Anthropological Society, which is solemnly inaugurated to-day. You see to what its real object is limited. The administration should be conducted at its smallest possible expenses, in proportion to the sums which have been received as entrance fees and monthly subscriptions in advance up to the end of the present year in conformity with the regulations. It now only remains for me to inform you that our Society is at present in correspondence with the Anthropological Societies of Paris and London, and with various Societies of natural science in enlightened Germany—all these have given us a joyful welcome.

It is only strictly just, though with grateful satisfaction to myself, to inform you of an act which speaks most highly in favour of my very distinguished friend Doctor Don Pedro Gonzalez Velasco. This indefatigable student, not content with having originated the idea of the Spanish Anthropological Society, has offered a spacious and elegant apartment in his own house (Calle de Atocha, 90) where the Society may hold its meetings. He has also placed at its disposal all objects contained in his well-known Museum that can in any way contribute to the study and advancement of anthropological science. Such generous disinterestedness needs no comment; it speaks for itself more eloquently than words could do, a sufficient refutation to those gratuitous and unjustifiable aspersions which inveigh and have always inveighed against a man whose life has known no other motto than that of incessant labour. Inspired by the noble idea of adding to the glory of his country, Dr. Velasco looks on this Society as the cherished offspring of his intellect. It required a great thought to cicatrise, like a healing balsam, the deep wounds which Fate has harshly destined him to suffer.

Amongst the Members of the Spanish Anthropological Society we find individuals devoted to the study and culture of all branches of learning; some of these are men of already reputed eminence, distinguished in that aristocratic and enviable hierarchy in which true merit alone finds a place, which is acquired only by vigils of labour, marked by the impulse which truth gives to that vigorous perseverance, and thus occupy the highest seats among those who rule the destinies of our country, but with unaffected modesty they join in our studies, feeling the necessity of a truce, if but for a short time, to that rude struggle of politics, in which the roar of excited passions is never hushed, and a breathing space and tranquil rest in the pure air of science.

The Spanish Anthropological Society arose, gentlemen, as you have seen, under the most favourable auspices; its foundation, legalised by a royal edict, which is an exception in the history of the past, but a

smiling hope for the future. Let us do honour to this sanction of Her Majesty's Government, to the aurora borealis of a new era, for free science, free association for work and study. The Queen's Government recognises the object of our Society as laudable, and as one of the most useful and interesting sciences, receiving with pleasure an idea, the object of whose originators is to advance one branch of human knowledge, and to incite others to prosecute with more vigour those studies least cultivated in our country.

Such a royal edict, gentlemen, is the highest legal sanction we could desire, not only for our undertaking in itself, but also for the objects which it embraces, and for the means which it will use to perfect itself, namely, free association and free discussion. Her Majesty's Government feels the imperative necessity for science to open the barriers to the understanding; in this struggle it binds on the cuirass itself to cover the breasts of the strong champions of ideas, who are urged on by fervent aspirations for incessant intellectual progress. A touching tribute which reason and justice pay to the grandeur of an idea and the spirit of the age.

Spain! noble and scientific Spain! is fortunate in seeing the ardent enthusiasm of her sons, springing up afresh; those lovers of study, who zealously and eagerly answer to that peaceful call, which announces for them a place of union, with the magical word of combat. Noble awakening! it is not that of the lion who has haughtily slept and awakes to find himself fettered, but it is that of the eagle, who, after having rested for a brief space, wings his flight with increased vigour to still higher spheres.

The Spanish Anthropological Society inaugurates a fraternal association, at whose banquets all sciences have a welcome and a share, all are included in the object of its institution, all may contribute some mite from their riches to the grand and complicated study of man's natural history. This is the idea of all the members now composing it, and also that which is approved of by jurisprudence. Jurisprudence, gentlemen, which, powerfully interested in the fate of man, has been studied in all ages, followed by all nations, conquering the barbarism of our early times. Jurisprudence, which displayed itself majestically and luxuriantly in the palmy days of Rome, slept in the dark shadows of the middle ages, and woke at length with the revival of letters, to shine for ever on the horizon of nations. From thence she contemplates patient zoology, investigating and constructing an antediluvian world with the fragments of a bone; illustrious geology, demanding from earth's lowest depths the light of truth to penetrate into the composition of the terraqueous globe; watches anon impartial and conscientious history, which, gathering

future generations in one hand, shows them the grand deeds of the past, engraved in gold in the book of glory, demonstrating, at the same time, the true and terrible antithesis of those sad ages, which written in characters of shame and grief, serve to perpetuate, like an ignominious epitaph, the names of those who were the actors. Not far from her stands philology, who, serving for the grammar of language, descends, like Ariadne's thread, to the most remote periods, and lending a powerful support to ethnography. Let us look, too, amongst ourselves, to chemistry; that final and exact analysis of all things, organised or non-organised, surprising us by its agencies, which seem created in a world of mystery, applying the result of its wonderful investigations to the science of life, and holding out a benevolent hand to that which devotes itself to the preservation of health. She, who appears at her side, surrounded by mathematical instruments, which serve equally to study the heavens studded with stars, or the most delicate phase of matter, is natural philosophy, that learned branch of science which studies the existence of being, and which, conjointly with chemistry, wills that all things shall be intelligible, and so appeals to reason the graphic language of the senses. And farther off, can you not see the matron with the meditative and serene countenance? she is the synthesis of all science and all truth—Philosophy, she who penetrates to the depths of all human knowledge, who investigates, reflects, judges, and sums up, sometimes with purely speculative criticism, other times experimental, at others metaphysical; who, soaring into the most lofty regions of imagination, with better will than fortune, loses herself in the labyrinth of the most unfathomable abstractions. Let us finally look at medicine, studying human organisation even to the invisible cells and all the functions of the organs which constitute the physiological state; directing its attention to the couch of pain, and catechising nature, observing her manifestations, and learns by induction to attain to all that it is possible to reach in the varied and complicated book of human suffering; to walk with surer steps, and aided by therapeutics to procure a remedy. Noble and philanthropic priesthood!

Thus, gentlemen, briefly and slightly sketched are some of the sciences we represent, all of which contribute their share to the magnificent study of the noblest work of the all Omnipotent Man. Beautiful and philosophical employment! Around that being whom the God of heaven created in His own image, the students of every branch of science quickly gather, and with enthusiasm and good faith cordially welcome intelligent fellow-labourers, and fraternally invite them to explore with them the profound sea of anthropology. The proposition is grand and noble, and most worthy of respect and consideration if

only for the pure and noble intentions of those who tread in its paths. To wish to detain them on this road, or wilfully to misinterpret the object of their inquiry, would be not only a weak and powerless undertaking, but at the same time the most stupid error those could commit who, incited by false dogmatic zeal and with extreme impiety, hold those as irreligious, who, guided by the effulgent star of intellectual and scientific progress, hunger for truth and thirst for light to investigate great and transcendent problems, using the supreme and sovereign free-will of intellect and unrestrained criticism of science. To try and impose limits to thought is as vain and senseless a wish as to hope to set limits to the sea, or to lessen the ardent and life-giving heat of the noon-day sun.

According to the first article of its rules, the Spanish Anthropological Society will occupy itself only with the natural history of man and those sciences connected therewith. The sixteenth article of the same rules, says, "The Society will allow of no discussion foreign to the objects of the Institution." Let those who would be malicious interpreters of our intentions remember this, who forget, while they misinterpret them, that evangelical charity of which they boast so much.

No, a thousand times no, let us protest before the face of truth and by the most sacred privilege of justice against all intentional blame. We have associated ourselves, spurred on only by the strong incentive of labour, that brief and concise formula for all progress. Let us legally use the rights conceded to us, not limiting them in any way. Let us launch ourselves with prudence into those calm and learned discussions to which science leads, and which science, and science alone, can judge and decide. But let us not forget that all the great ideas, all the noble conceptions, which with such great strides have advanced the human intellect, have had their beginning in inquiry without fetters or restrictions. If the powerful and colossal brain of Newton had been limited and bound down, could he have been at the same time the immortal discoverer of the laws of light and gravitation? Imprison within narrow limits the glorious and virtuous Galileo, would it then have occurred to him to break through all the traditions of Aristotelian tradition, and to lay down laws which should be immutable throughout ages? On the contrary, it was necessary he should trample under foot the tyranny which could attempt to enslave the mind before he could pronounce those sublime words, "*E pur si muove*," the grandest poem which the inspiration of any mortal ever conceived. Grand, magnificent, divine idea, that conquered the conqueror, and conquered the more for being vanquished.

But though strong and vigorous from its commencement, the Society cannot boast of having accomplished all that is to be done ;



it has advanced much, and gained much, but it has still the most steep and rugged part of its path to climb ; it has still to conquer for itself a name and a place in the republic of letters and science—the only road to this eminence is by persevering labour and patient investigation of what it has to study. Let us undertake our task with ardour ; let us justify by our deeds the rights we have already acquired ; let us give an example to societies already organised, by our labours ; and then let us demand that they grant us, what we have known how to deserve, a place among those societies who do honour to the science they represent and the country which has fostered them.

Offspring of two humble medical professors, the Spanish Anthropological Society interests all classes, and appeals to them to sustain and nourish her with pure and wholesome food ; to inspire her with vivifying heat and light for guidance. May she be a seal of honour and glory to the science which gave her birth, and also a centre of refuge for every zealous and enthusiastic student to whom the doors of other societies are closed, from their narrowness of opinion. What more could we desire, than to be able one day to exclaim, “Free I was born, free I grew, and free I made myself respected.”

The medical profession in Spain has sufficient life and vigour in itself, without asking anything from Government ; when it does ask protection, when it solicits any especial professional regulation, or for protective laws, it in reality only shows the great consideration we might acquire in the society in which we live, and gives less an idea of our weakness than of our strength.

No, this is not the road we must take if we wish to attain a certain rank. If a solitary student by study and labour gains a well-merited fame, which is certain to place him before his brethren and the public, the step which would lead him to rank and fortune, is neither hereditary nor won by force. If you ask for assistance from a class composed of individuals of this social and scientific hierarchy,—of this enviable aristocracy whose heraldic shields they have engraved in quarterings of gold and topaz, they are ready to extend with generous hand all that may recruit the bodily but not the moral strength. This is little better than to beg for socialism, and so much the more odious as it is privileged.

Let the profession of medicine tread in a more honourable and fruitful field ; let it go forward in the van, improving the sanitary condition of those places uncared for by Government ; let them study sanitary reforms, basing them on statistical facts ; let them anticipate government, by showing them the way to perfect the hygiene in hospitals, camps, cities, and cemeteries ; let them establish a professorship, which should be gratuitous but as competent as the costly

official one, to instruct those who failed to pass our public examinations, rousing, at the same time, a noble emulation—the one, who is the guide of youth from love to his profession and the wish to advance science—and the one who teaches only from a sense of duty. When any class of society, let it be what it may, registers on its records such a standard of merit, it needs not to ask for protection. No, on the contrary, it may say to those who command, I will show you the way to better the welfare and life of those entrusted to you. Give place, then, to sovereign intellect !

I must conclude, gentlemen. I have already trespassed too much on your generous forbearance, which has been verified again to-day ; it has been my turn to be the favoured individual, and I am most grateful to you. I know I have passed beyond my limits in this slight sketch, but pardon me in consideration of my good intentions and the humility with which I ask for it. I felt that to you should be consecrated the modest flower which bloomed on the little cultivated field of my intelligence ; it does not boast of beauty, but in place of it has a perfume which ennobles it, that of my gratitude, that which is expressed in the sublime Latin sentence, “*Vitam impendere vero.*”

FRANCISCO DE ASIS DELGADO JUGO.

## PHILOSOPHICAL ANTHROPOLOGY.\*

“*Qui enim secundum carnem sunt, quæ carnis sunt sapiunt. Qui verò secundum spiritum sunt, quæ sunt spiritus sentiunt.*”—S. P. ad Rom., viii, 5.

THE above motto, which we find adorning the title-page, at once proclaims the object of the author, and the tendency of his treatise, which is pre-eminently orthodox. Not unlike the Giessen Professor mentioned by Vogt, our author looks at anthropology with a spiritual eye, and the result he arrives at may be easily guessed. Physiology, he complains in his preface, has ceased to be the science of the nature of man, but has become the science of organic functions. Its pretended vital or organic theories are those of an empty and revolting sensualism ; in short, it is repugnant. Physiology, therefore, should be cleared of the false theories issued from an empirical materialism, and should be confined to the study of the

\* *Physiologie Générale ; Traité d'Anthropologie Physiologique et Philosophique.* Par le Docteur F. Frédault. 8vo, pp. 854. Paris : 1863. General Physiology ; a Treatise on Physiological and Philosophical Anthropology.

functions of the parts, and so become the science of facts and observations. But then there must be raised by her side, as a sister, not as a rival, a synthetic science, which, by bringing the knowledge of metaphysics to bear upon the facts, collects in a skilfully co-ordinated *ensemble* all the general questions which are indispensable to an exact and complete knowledge of the nature of man. Such, our author tells us in his preface, are the ideas which induced him to undertake a re-installation of general physiology, or anthropology, by conjoining into a legitimate union the wisdom of the philosophical schools with modern science. Dr. Frédault professes to be an humble follower of his revered master, J. P. Tessier, whose constant efforts were directed towards the re-installation of a Christian spiritualism in medical science.

The work is divided into five books.

After an introduction on the history of general physiology, Dr. Frédault discusses, in the first book, the question concerning the unity of the human species. But before entering on it our author tells us frankly :

“ We, as well as the best informed and most serious *savants*, entertain not the slightest doubt about the existence of only one human species. It is an old truth, a dogma of humanity, which it appears to us impossible seriously to attack ; and all the objections to it seem to us miserable *jeux d'esprit*. But science, nevertheless, is not satisfied with the simple affirmation of a dogma. It requires demonstration, proofs, and these we are about to give in this first book.” (P. 17.)

Our author accordingly proceeds to treat of the doctrine of species in general, commencing, as in duty bound, with the definition given by Moses that God created all beings after their kinds, (*secundum species suas*), and finishing with Cardinal Wiseman. Then follow chapters on the essential characters of species and varieties, forms of language and religion, and after citing a host of authorities, sacred and profane, Dr. Frédault arrives at the conclusion, that the differences in height, colour, the formation of the limbs, and of the cranium and pelvis are no wise specific, but merely accessory characters ; that all races can interbreed and produce indefinitely fertile descendants, and consequently that mankind form but one genus, one species, one order, and indeed a separate kingdom, in as much as religion, language, morality, industry, and the pursuit of the fine arts, which are the essential characters of human nature, separate man entirely from the lower animals.

The second book, containing four chapters, treats : of the soul, or the formal cause ; of the body, or the material cause ; of efficient causes, and of final causes.

The formula of the nature of man which, according to our author, results from what is proved in the above four chapters, is the following:—

“Man is the natural compound of a reasonable soul substantially united to a body ; acting by efficient causes, and put into action by final causes.”

We have no space for extracts, and must confine ourselves to an enumeration of the rest of the books and their contents. The third book treats of acts, vegetative, animal, and intellectual. The fourth book is devoted to the laws of relation ; the fifth to modality ; the sixth and seventh to life and death, and the work concludes with a few observations on the soul in a separate state.

The author seems to us to have entirely failed in the object he aimed at, namely, in creating a synthetic science of man by engrafting metaphysics on physiology. Dr. Frédault, we know not on what principles, considers general physiology and anthropology to be convertible terms, for on the second title page we find, *Traité de Physiologie générale ou (or) Anthropologie*. We are not aware that in any language general physiology and anthropology, properly so called, are considered as synonymous terms. The results obtained appear to us meagre for so pretentious an inquiry. What must strike the reader is that in the chapter on species the names of some of the most eminent modern naturalists shine by their absence. Thus we find no mention of Darwin and many others, whilst the work is overloaded with citations from saints and fathers of the church, which might well have been omitted without much loss to the reader. We find, therefore, not much scrupulousness in weighing evidence. A good work dealing with a shallow and self-sufficient raw materialism will always be welcomed ; but the man who is to undertake it must himself stand midway between extreme opinions and neither be a fanatical materialist, nor dominated by an improperly so-called orthodoxy, which our author evidently is, and whom, therefore, we cannot accept as a guide in science. We readily give Dr. Frédault credit for great research, but his arguments are neither new, nor do they throw any additional light on the subjects treated of. Still, with all its defects, we recommend the work to the attention of our readers, feeling sure that their labours will not be altogether unrewarded, for they will find in it quotations from a number of meritorious authors long forgotten, and whom our author has the merit of having rescued from oblivion.

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## BAKER'S BASIN OF THE NILE.\*

MR. SAMUEL WHITE BAKER, having spent his life among wild beasts and savage men, and having earned some reputation as a sportsman in Ceylon, became ambitious of distinguishing himself in Africa, where several of his brother Indians had found glory, and some a grave. He desired to solve that geographical problem, which has excited by turns the efforts of the ancients, the modern Egyptians, and several European nations. A noble ground yet remains for explorers; and it is probable that more of these equatorial races are to be discovered, especially towards the western side, where all is blank. But the Nile question may now be considered as definitely settled. Bruce discovered the source of the Blue Nile, previously indicated by the Jesuit missionaries of the middle ages: to Speke and his companion, and to Baker, is due the honour of having placed upon our maps the correct position of the double basin, from which, in the days of Ptolemy, the White Nile was reputed to descend.

"The general principle," writes Mr. Baker, referring to this, "was correct, although the detail was wrong. There can be little doubt that trade had been carried on between the Arabs from the Red Sea and the coast opposite Zanzibar in ancient times, and that the people engaged in such enterprise had penetrated so far into the interior as to have obtained a knowledge of the existence of the two reservoirs: thus may the geographical information originally have been brought into Egypt."

The comparative importance of the two lakes will be best understood from Mr. Baker's own account, which is exceedingly concise and clear:—

"The Nile, cleared of its mystery, resolves itself into comparative simplicity. The actual basin of the Nile is included between about the 22° and 39° east longitude, and from 3° south to 18° north latitude. The drainage of that vast area is monopolised by the Egyptian river. The Victoria and Albert lakes, the two great equatorial reservoirs, are the recipients of all affluents south of the equator; the Albert lake being the reservoir in which are concentrated the entire waters from the south, in addition to tributaries from the Blue Mountains, from the north of the equator. The Albert N'yanza is the great basin of the Nile: the distinction between that and the Victoria N'yanza is, that the Victoria is a reservoir receiving the eastern affluents, and it becomes a starting-point on the most elevated *source*, at the point where the river issues from it at the Ripon Falls; the

\* *The Albert N'yanza, Great Basin of the Nile, and Exploration of the Nile Sources.* By Samuel White Baker, M.A. 2 vols. Macmillan and Co. 1866.

Albert is a reservoir not only receiving the western and southern affluents direct from the Blue Mountains, but it also receives the supply from the Victoria, and from the entire equatorial Nile basin. The Nile, as it issues from the Albert N'yanza, is the *entire* Nile ; prior to its birth from the Albert lake, it is *not* the entire Nile."

He also observes that Speke, "not having visited the lake heard of as the Luta N'zigé, could not possibly have been aware of the vast importance of that great reservoir in the Nile system." It is clear, therefore, that Capt. Speke went a little too far when he asserted that he had *settled* the Nile, though of all the discoverers he is perhaps deserving of the highest place. We shall now briefly follow Mr. Baker through the most charming narrative, and through one of the most splendid journeys ever made by an African explorer.

In April 1861, he sailed up the Nile from Cairo, accompanied by his wife. By the time that he had arrived at Berbèr, a considerable town in lat. 17° 58', he found that he was completely at the mercy of his dragoman, and was convinced that he could not hope for success unless he made himself independent of interpreters. He therefore determined to spend a year in learning Arabic, and also in exploring the affluents to the Nile from the Abyssinian mountains. The narrative of these travels, which will include many sporting adventures, he reserves for future publication. On June 11th, 1862, he arrived at Khartoum, the capital of the Soudan provinces. He describes this town as the seat of a military government of a very irregular kind. A talent for plundering appears to pervade all the military classes, from the private soldier to the Governor-General himself. Owing to this, and to the taxes which are ingeniously laid upon industry, and private enterprise of every kind, the country is not in a flourishing condition ; the trade is poor ; the expenses of freight, owing to the land-journeys which the cataracts cause, are very heavy, and the Soudan, in short, does not pay its expences. But it supplies slaves, and it is for this reason Mr. Baker supposes that it is maintained. However this may be, it is very certain that the Egyptian officials, like the Portuguese in Angola and the Mozambique, secretly favour the transmission of slaves, and throw obstacles in the way of English travellers whose accounts are likely to excite intervention, and the consequent suppression of an unlawful but lucrative branch of commerce. We are not disposed to join in the wild outcry against the European slave trade (now to be numbered among the institutions of the past) which has done so much for the civilisation of the New World, and which has raised the negro to a position of some political importance in the United States. But we cannot see how the Egyptian slave trade is likely to benefit humanity, and it is we think

scarcely worth while that a lawless banditti should be flung into Central Africa to burn villages, murder men, steal cattle, throw difficulties and dangers in the way of our explorers in order that boys, eunuchs, and black girls should be contributed to the harems of the East. Mr. Baker has not exaggerated when he attributes to the slave trade almost all those obstacles which, had he been an ordinary man, would have ruined his expedition. The natives of the country through which he had to pass, had been exasperated by continual razzias, and were opposed to all strangers; it was, therefore, a march through an enemy's country that he had before him, and for this he required an escort of armed men. Undesirous of employing as his body-guard the professional cut-throats of Khartoum, he applied to the Pasha of Egypt, through the British consul at Alexandria, for soldiers and boats. His request was refused. He then hired three vessels or diahbiah, and two large noggurs or sailing-barges to convey him to Gondokoro, the navigable limit of the Nile. He engaged forty-five armed men as escort, and forty sailors. He dressed his men in uniform, gave them double-barrelled guns, explained to them the objects of his expedition, informed them that no plunder would be permitted, and insisted upon their names being registered in the Divan. He set sail, and after many accidents arrived at Gondokoro on the second of February, 1863, after a voyage of about six weeks. Here he found himself in a perfect nest of slavers, the chief of whom his New England readers will be pleased to learn was the son of the American consul at Khartoum, in whose honour possibly it was that the slave-hunters, who arrived at that town, hoisted the American flag at their mast-heads.

In a very short time his forty thieves began to show that they were infected by the atmosphere of the place. They were very angry because he would not let them go cattle-stealing, which it seems is the correct thing to do at Gondokoro. There was a mutiny, and although peace was soon restored the ice had been broken, the white man had been braved, and Baker foresaw that his worst enemies would be the men whom he had taken as his guards. At this juncture Speke and Grant arrived from the interior, and for a moment Baker feared that the Nile sources had been "settled." But when he said to Speke, "Does not one leaf of the laurel remain for me?" he was informed that half of the garland might be won. Accordingly, he started for the interior, but soon his troubles began. Mohammed, an Arab, who had accompanied Speke and Grant, plotted against him. His men began to show signs of discontent; the camels and donkeys were allowed to stray, and the baggage was abandoned to the inroads of white ants. At last the flame burst forth, and Saat, a native boy

who remained faithful to him during the whole journey, informed him of a conspiracy, which had for its objects his murder, and the abandonment of his wife. By a splendid *coup de main* he disarmed fifteen of these wretches, the rest went off slaving, which had probably been their intention from the first. He tried to get others, but without success; he was looked upon as a spy. Just then a party of slave hunters started for the interior; they went off firing guns, and daring him to follow them. He did follow them, accompanied only by his wife, by Saat and Richarn (another native upon whom he could depend), and by his native porters. He soon sighted the watch-fires of the traders' party, and was challenged by the sentries, who threatened to fire on him if he remained near them. This sort of thing went on for some days. Before them lay Ellyria, which was guarded by a narrow mountain pass. He had reason to fear that the slavers would excite the natives against him, and that in the pass his party would be killed. He tried to reach it first, but was outmarched. The two parties came in contact with each other, and the slavers passed him with stern and sulky faces, not making their salaam. Mrs. Baker begged him to speak to Ibrahim, the leader of the expedition; his pride rebelled; and she herself spoke to him in Arabic as he passed by. He stopped, negotiations were commenced, presents were made to him, an alliance was formed. This was the turning-point of his enterprise—thanks to the tact and promptitude of his wife, the opportunity was seized, and the expedition saved. The difficulties with which he had to contend were yet immense; a deadly climate, treacherous companions, and the caprices of a barbarous king. But he was now fairly on his way. From Ellyria they passed to Latooka; on the 23rd of June they left it for the Obbo country, where they were kept prisoners by the rainy season for a long time. They now suffered from repeated attacks of fever; their quinine was exhausted; their horses and donkeys died. He bought and trained three oxen to take their place, and having at length left Obbo, they arrived, after a tedious journey through high grass, swollen streams and dense swamps, at the Somerset River or Victoria White Nile, on the 22nd January, 1864. He was now in Unyoro, and after many delays he was taken to Mrooli, the capital, and admitted into the presence of a brother of Kamrasi, the king, who personated that monarch with such success, that Mr. Baker did not discover the imposture till after his return from the lake, when Kamrasi summoned up courage to receive him.

The lake was reputed to be a long way off, and his porters hearing this ran away. Thus he was left entirely at the mercy of Kamrasi, who, in the person of his younger brother, visited him every day, and



asked for presents. Having got a great deal out of him, and having asked him for everything he had, including his pocket compass, his watch, his pet rifle, and his wife, this potentate at length gave him guides. On their way to the lake Mrs. Baker had a sun-stroke, and was insensible or light-headed during several days. At length, on the 14th of March, they arrived at the summit of a lofty hill, and saw beneath them the great lake glittering in the noon-day sun. To the south, an horizon like that of the sea; to the west, at the distance of fifty or sixty miles, blue mountains rising to the height of 7000 feet. They went down the steep narrow zigzag path which led to the lake. Mrs. Baker tottered from weakness as she walked, and supported herself upon his shoulder. At every twenty paces they stopped to rest. In two hours they reached the level plain at the foot of the cliff. They walked for a mile through some turf meadows, interspersed with trees till they came to the water's edge. There were waves rolling upon a white pebbly beach; they sat down and drank from the sources of the Nile.

We shall not relate the toils and the dangers through which they were forced to pass on their way back, but we must not omit to mention, that weak and weary as they were, they did not turn their steps homewards till they had explored the river which joins the two lakes. This exploit, which could not add to their fame, but which adds so much to the scientific value of their expedition, required perhaps more courage than the discovery of the lake itself.

In this journey, which occupied more than two years (his explorations altogether lasted over four), Mr. Baker had to contend with difficulties of an exceptional kind. Usually the explorer is able to make a fair start, to travel some distance before he is checked by the nostalgia of his men, or by the avarice of some native chieftain. But, as we have seen, his life at the very outset was continually in danger from the men whom he had armed, and it was only by remarkable perseverance that he escaped a failure like that of the unfortunate Miani, who was compelled to return after cutting his name on a tree in the middle of a swamp, and of whom few of our readers will have heard, although he explored to a greater distance than any one who had gone before him. In comparing Mr. Baker's journey with that of others, it must always be remembered that repeated failures had induced the Geographical Society to send their explorers from the eastern side of the coast, a plan first suggested, we believe, by Dr. Beke, and which reaped partial success in the expedition of Burton and Speke; complete success in that of Speke and Grant. In reaching equatorial Africa by the natural or southward route, Mr. Baker

has done that which most travellers and geographers believed to be impossible.

It would be painting the lily to praise Mrs. Baker's gallant conduct. Those only who have travelled in Africa, who have known what it is to sleep in a pestilent atmosphere, and to wake with a hard day's work before one, not strong and refreshed, but with a heavy head and aching bones ; to keep a constant guard over the muscles of the face, and to appear always cheerful however sad one's heart may be ; to resist the continual temptation of returning home ; to lie in the midst of danger in the deep darkness of the night, not daring to sleep, and listening for sounds which one dreads to hear ; or, worst of all, to find oneself at the mercy of a barbarian whom one cannot but despise, and yet who has it in his power to gratify the wish, to crown the labours of a life ; who can bestow immortal fame by granting one permission to visit a certain spot in his dominions, and then to be put off from day to day ; to know " what hell it is in suing long to hide ; " to be balanced every morning between hope and despair, and to be torn by the struggles between prudence and rage. Those only (and they are few) who have gone through all these trials of body and mind, will understand what a young and delicate woman has been able to achieve, and to doubt whether, in past or present time, one of her sex has displayed such a genius for endurance, or such unsubdued energy to the very last, as this heroine of the Nile.

Mr. Baker's book does not contain the immense stores of information which are to be found in Burton's *Lake Regions*, or in Livingstone's massive work—we mean, of course, his first. Fortune has favoured Mr. Baker with a succession of rapid incidents, from his first "situation" at Gondokoro, when he meets Speke and Grant, to the scene of poetical retribution at Khartoum, where, on his return, he discovers the chief of his mutineers, and has him well flogged, to the intense delight of all his readers. Thus his narrative, while bearing the undeniable stamp of truth, is equal in point of construction to a well-contrived work of art. Finding, therefore, these splendid materials beneath his hands, the author has wisely enough avoided long digressions, which, though interesting to the readers of the *Anthropological Review*, who we presume are searchers after solid facts, would have robbed the narrative of half its charms, by checking the action of the story. We do not doubt that Mr. Baker has made many observations upon the natives of Central Africa, which he may perhaps be induced to contribute to the public in another form. At the same time, we must not allow it to be supposed that these volumes are deficient of all information. We shall show that he has not only described with a vivid pen the manners and appearance of native tribes,

but also has made some remarks upon the character and capabilities of the Negro, which deserve the attention of every anthropologist.

The lowest form of the African he encountered appears to have been the Rytch, a tribe on the banks of the White Nile. He says:—

“The people of this tribe are mere apes, trusting entirely to the productions of nature for their subsistence; they will spend hours in digging out field-mice from their burrows, as we should for rabbits. They are the most pitiable set of savages that can be imagined; so emaciated that they have no visible posteriors; they look as though they had been planed off, and their long thin legs and arms give them a peculiar gnat-like appearance.”

The Latooka people he considers to be a branch of the great Galla tribe; they have woolly hair, but have no other Negro features. The same remark applies to the Obbo people; who, however, possess a different type of countenance, and whose language is distinct from that of Latooka. The people of Unyoro, who live under a despotic government, are decidedly superior to either of the above tribes. They wear a kind of bark-cloth, like many of the tribes of Western Africa. “The women were neatly dressed in short petticoats with a double skirt” (this is a refinement of apparel which we have not met with before); “many exposed the bosom, while others wore a piece of bark-cloth arranged as a plaid across the chest and shoulders. This cloth is the produce of a species of fig-tree, the bark of which is stripped off in large pieces, and then soaked in water and beaten with a mallet: in appearance it much resembles corduroy, and is the colour of tanned leather; the finer qualities are peculiarly soft to the touch, as though of woven cotton. Every garden is full of this species of tree, as their cultivation is necessary for the supply of clothing. When a man takes a wife, he plants a certain number of trees, that are to be the tailors of the expected family.”

They also are clever potters and blacksmiths, using the two-handled goat-skin bellows with the up and down movement, which is a contrivance peculiar, we believe, to Africa, but which certainly prevails all over that continent, from the Gaboon to Caffreland, and from the Senegal to the Nile. The natives of this part of Africa do not appear to be distinguished from those of the rest of the continent by any special traits. The custom of fattening young women for marriage, which was described by Speke, is also practised in Northern Guinea, and even in Tripoli, where it is carried to such an extent that girls of a bilious constitution are said to have died under the spoon. In Western Equatorial Africa nothing of the kind is done; but this is on account of the scarcity of food. We never saw but one fat person in Equatorial Africa; and he (a heavy dropsical-looking creature) was shewn to

us as a magnificent production of nature—as the model of what manly beauty ought to be. The taste for corpulence, therefore, may be considered universal throughout Africa.

We have been acquainted with palm-oil traders, and other gentlemen of humble condition and little refined taste, who having lived in Africa all their lives, have ended by admiring the beauty of the black girl, and have declared to us that they could detect no beauty in thin lips, in an attenuated nose, and in long lanky hair; and that an alabaster skin suggested to them no other idea than that of excessive sickness or disease. In the same manner, there is a distinguished explorer, who has so long held communion with the African mind, that whatever judgment he may happen to possess has been completely turned upside down. In Dr. Livingstone's last work, that great traveller may be inspected standing on his head, declaring that black is white; that the Negro has a religion; and that, what is more, his religion is superior to Mohammedanism; that he goes into a corner to pray; that he only sacrifices plants; with various other remarks, which defy criticism by their complete alienation from the truth. Mr. Baker, having spent only four years in Africa, is content to look upon the Negro with a European eye, and does not appear to have any veneration for his character. Among most of the tribes in Western Africa is to be found a belief in a Good and Evil Principle, and some vague ideas of a future life. But, in describing the people of Unyoro, Mr. Baker says:—

“These people, although far superior to the tribes on the north of the Nile in general intelligence, had no idea of a Supreme Being, nor any object of worship; their faith resting upon a simple belief in magic, like that of the natives of Madi and Obbo.”

After this, it will be needless to bestow more time upon the native creed. Upon the character of these people, we will quote an extract from Mr. Baker's diary, which is the more valuable, as it describes what he *felt* at the time:—

“1863, 10th April, Latooka. I wish the black sympathisers in England could see Africa's inmost heart, as I do; much of their sympathy would subside. Human nature, viewed in its crude state, as pictured amongst African savages, is quite on a level with that of the brute, and not to be compared with the noble character of the dog. There is neither gratitude, pity, love, nor self-denial; no idea of duty; no religion; but covetousness, ingratitude, selfishness, and cruelty. All are thieves, idle, envious, and ready to plunder and enslave their weaker neighbours.”

Again he writes:—

“Savages can be ruled by two powers—‘force’ and ‘humbug’; accordingly these are the instruments made use of by those in autho-

rity ; where the 'force' is wanting, 'humbug' is the weapon as a *pis aller*."

Under these circumstances, it is perhaps to the credit of the European missionaries that they have not succeeded better. We are not surprised to find that Mr. Baker expresses the same opinion on this subject that has been expressed by the chief travellers of the Anthropological Society. In describing Richarn, one of his native attendants, he writes :—

"He was brought up from boyhood at the Austrian mission, and he is a genuine specimen of the average results. He told me a few days ago that 'he is no longer a Christian.'"

Again :—

"The (Austrian) mission, having given up the White Nile as a total failure, Herr Morlang sold the whole village and mission station to Koorshid Aga this morning for 3000 piastres, £30!"

And again :—

"It is a pitiable sight to witness the self-sacrifice that many noble men have made in these frightful countries, without any good results. Near to the grave of Baron Harnier, are those of several members of the mission, who have left their bones in this horrid land ; while not one convert has been made from the mission of St. Croix."

These observations are the more trustworthy, since Mr. Baker appears to be as earnest a detester of slavery, and a lover of Christianity, as Dr. Livingstone himself. But so deeply has Mr. Baker been impressed, by personal and painful experience, with the degradation of the Negro, that he seems almost inclined to believe that they are pre-Adamites, and properly belong to a period when the earth produced monsters. We will not criticise this theory, but applaud the modesty with which he says that the ethnology of Central Africa is "completely beyond my depth." It is only those who are smatterers upon the subject, who would venture to say otherwise. The fact is, that we know nothing of Africa. To understand a people, one must first understand their language, and one must live among them for some time, and one must also possess some talent for reading human nature. We need scarcely say that the comparative anthropology of Africa can only be studied, with some hope of obtaining positive results, when all the different tribes have been described by persons who are qualified for the task as stated above. As it is, immense nations have never seen the face of a white man ; others have been just passed through, and viewed merely on the surface. The day has not yet arrived for theory ; the anthropologist must content himself with collecting facts.

PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL  
SOCIETY.\*

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WE have thus a relatively civilised people fighting with savages armed with stone weapons. More powerful than the autochthons, the Gaëls caused them to disappear, just as the Anglo-Saxons did with the red-skins of America and the blacks of Australia. In the British Islands they evidently massacred the autochthons, or allowed them to become extinct without intermixing with them, for in the Gaëlic idioms there is no trace of a single word which is not of Aryan origin; and there has never yet been a people found fused into another without leaving some traces, either in the traditions or the language. It must also be noticed that, in order that such a phenomenon should occur, it is necessary that the people absorbed should be less numerous, less civilised, or less condensed than the absorbing race. There are no examples in history of a numerous race accepting the language of a race inferior in number. No trace of an unknown idiom is to be found amongst the Gaëls and the Kimri, nor among the Slavonians, the Germans, and the Pelasgi. The Aryans have in Europe everywhere driven away or destroyed the autochthons; everywhere have the Aryans predominated without intermixture.

We thus see that the tendency of the Gaëls was to drive the primitive inhabitants to the south; for at a later period the Gaëlic tribes descended to the shores of the Mediterranean, and a Celtic expedition conquered Spain, then Iberia. The direction of the migration of the Gaëls is indicated by the route taken within historical times by the Kimris from the Black Sea to Gaul and England. We cannot but unite the Cimмери of the Latin, the *Κιμυροι* of the Greeks, inhabitants of the Crimea with the Kimris of Gaul. The Welsh triads say clearly that Hu-the-mighty came to England (Prydain) with his Kimris, who were natives of Deffroban, the land of summer, the east. A scholiast has even interpolated in the text: from the region of Constantinople. The Welsh traditions cannot be suspected, for even at this day the Welsh call themselves *Cymry*, and speak a Kimric idiom. The Kimris penetrated like a wedge through the Gaels by crossing the Rhine. On the continent, they drove the latter to the south of the Seine, and in England, on the contrary, they drove them north into Scotland. In fact, the Belgian confederation of Cæsar and the Armoricans seem Kimris, from the study of the proper names which have been pre-

\* Continued from No. xiii, p. 207.

served, and I have already stated that the ancient Britons—the present Welsh—are Kimris.

Ammianus Marcellinus relates a Gaulish legend which corroborates the Welsh triad in respect of the Oriental origin of the Kimris. "The Druids," he writes, "relate that a portion of the peoples (of Gaul) were indigenous, but that another portion arrived from distant islands, countries beyond the Rhine, driven away by frequent wars and the overflow of the sea" (lib. xv). The route of the Kimris is further indicated by the names of the tribes who settled on the road. I have already spoken of the connection of the words Cimmeri and Kimris. Justin, speaking of Mithridates, says that this prince (who inhabited Asia and possessed the Crimea) sent ambassadors to the Cimbri, the Sarmatians and the Bastarnæ, to ask their help (lib. xxviii). There can be no question here of the Cimbri of Jutland; and when we recollect that the Latins had the custom to intercalate an euphonic B between M or R, we have reason to think that there existed a powerful Kimric tribe in Eastern Europe, adjoining the Sarmatians, who are considered Slavonians. Finally, the Bastarnæ settled on the banks of the lower Danube, passed in antiquity as Cimmerians or Kimris; thus the route of the Kimris towards the west is indicated with sufficient precision.

With regard to the parentage of the Kimris and the Gaëls, it is rendered evident by the study of the languages still spoken by the peoples of these two groups. Authorities are not wanting in favour of this theory. Niebuhr, in his *Kleine Schriften*, unites the Cimmerians, the Cimbri of Jutland, vanquished by Marius, the Belgians, and the Kimris of Great and Little Britain; whilst the ancients themselves, Posidonius, Diodorus, Strabo, unite with this group the Gaëls (*Γαλαται*) of the Alps and of Ireland. Strabo was well acquainted with the differences and resemblances of the Belgians of Cæsar (Kimris), and with the Celts of Cæsar (Gaëls). He says, "Their external aspect is that of the Gauls, and though they do not speak the same language, their idioms differ but little, and so do their laws and customs" (lib. iv).

We cannot, therefore, separate these two families and make two races of two peoples whom the facts and tradition show to have issued from the same stock. But, as in speaking of the whole races, we cannot use the words Gaël or Kimri, they have been denominated Celts. Let us, then, keep to the word Celt, always specifying what we mean by it, until a more appropriate term is found.

M. Perier congratulated M. Broca on having taken the initiative as regards the Celtic question. As he had for a long time been occupied with this question, he would naturally take part in the discussion.

For the present he would only say that he knew only of one sort of Celts, namely, the Celts of Cæsar; these were for him the only and true Celts. He would also just observe, that he did not by any means concur in the general opinion as to the Asiatic origin of Celts in the usual sense.

M. Broca said that the sole object he had in view in proposing the question regarding the Celt, was to induce the members when speaking of Celts clearly to state the signification they attach to that name, and at the same time to state the motives that induced them to adopt it. M. Girard de Rialle has responded to that appeal. He calls Celts all the Indo-Europeans of the first invasion who preceded the Pelasgic and Germanic peoples. He has shown that these Indo-Europeans, though unacquainted with iron, knew at least four metals when first they set foot in Europe. He adds that all the peoples he calls Celts spoke nearly allied languages, some of which are perpetuated in the dialects of Brittany, Ireland, Wales, and Scotland. . . . M. Girard de Rialle further says, that a collective name was required for all the peoples of Europe who possessed an Indo-European language and civilisation before the arrival of the Pelasgi and the Germans, and this led to the denomination Celts. He does not pretend that they already were so named at their arrival in Europe, but he does not tell us where they were first so named; nor does he think that all the peoples, nor most of them to whom he applies the name of Celts, had borne that name. It is not easily seen how M. de Rialle can avoid confusion when he wishes to distinguish the true Celts from other Indo-European peoples who were their contemporaries. . . . . M. Girard de Rialle, it is true, says that all he calls Celts were of the same race. This may apply to language, which yet remains to be proved, but certainly not to blood and type, and that for two reasons: first, the remains in their graves belong at least to two different types as regards the crania; and secondly, their actual descendants present as great a diversity, since, in addition to the osteological character of the remains found in the graves, we find in the living representatives striking differences in colour and physiognomy. M. de Rialle does not ignore these divergent types, but he attributes them to ulterior intermixture; but as they already existed at the so-called Celtic epoch, it is clear that they must be due to intermixture before the historical period, which was indeed inevitable, seeing that Europe was already peopled before the arrival of Asiatics. M. Girard de Rialle admits the existence of autochthones of Europe. In order therefore to maintain the unity of the race he calls Celtic, he is obliged to assume that the Celts annihilated the primitive populations of Europe whenever they came in contact with them, a proposition



which he (M. Broca) had refuted on a previous occasion. "It is certain," says M. de Rialle, "that the autochthons have been destroyed by the Celts to the last man, since their languages have disappeared to the last word, and have been supplanted by the Indo-European languages."

To the last word ! This seems rather a hazardous expression ; for there are some geographical names and other words in the so-called Celtic languages which cannot be traced to the Indo-European languages. But what after all proves this fact ? simply that a people may change its language, and that after successive changes the traces of the primitive language are ultimately lost. But philology is not the only source of information ; archæology, craniology, and ethnology must also be consulted ; and what do they prove ?—that the bronze age was inaugurated in Denmark and Scandinavia by a dolichocephalic people, and in England by a brachycephalic people. The first fact has been demonstrated by Retzius and his successors, and the second by the researches made in Great Britain as contained in the memoir of Dr. John Thurnam. In France the question is unsettled ; as unfortunately archæologists have for a long time neglected the preservation of crania from Celtic sepulchres. Still the museum, though poor in this respect, already contains sufficient proofs that, during the whole Celtic period, the population of France was composed of brachycephalic and dolichocephalic peoples. Thus, concluded M. Broca, vanishes the race unity of those who have inaugurated the bronze period, and whom M. de Rialle confounds under the name of Celts. And the study of the monuments of the stone period proves in addition that these two types existed already before the Celts ; that in certain parts of Gaul they were already confounded in the same degree as later at the Celtic epoch ; and that, finally, the arrival of the Indo-Europeans did not essentially modify the cephalic types. This is a decisive proof that the autochthons have not been annihilated, and that the foreigners have been fused with them in too small a number to produce a new type. If one of these races were to disappear in their intermixture it could not have been the autochthonic race, but the conquering race, which M. de Rialle calls Celts, who probably then were not yet Celts, for until better informed the name of Celts was first created on the soil of Gaul.

M. Lagneau observed, that in order to arrive at a proper definition of the denomination Celts, we should not only consult the ancient writers who confounded into one the various peoples of Gaul, but such as pointed out the differences subsisting between the Gaëls and the Celts. After citing various ancient authors who had done so, M. Lagneau continued, that from these historical documents it seems to

result that the Gaëls were related to the Cimbri and Kimmerians of the shores of the Pontus Euxinus. But the question remains, whether this parentage implicates the ethnical identity, or rather the ante-historical intermixture of two peoples of different races, who successively arrived into Northern Germany. . . . M. Girard de Rialle thinks that the pre-Celtic population had been entirely destroyed, as no traces of their language are found. This opinion is not shared by M. Pictet, who has, in the old Irish, detected the intermixture of foreign elements. In his *mémoire De l'Affinité des Langues Celtiques avec le Sanscrit*, Paris, 1837, this linguist says,—“I am far from pretending that everything in the Celtic idioms is of Indo-European origin. All these languages, and especially the Irish, present traces of intermixture with elements foreign to that family.” As regards history, apart from the passage in Festus Avienus, relative to the expulsion of the Ligures by the Celts in the vicinity of the Oestrymnides (Sorlingues) islands, we find that Dionysius Periegetes speaks of children of the Iberians, *παῖδες Ἰβήρων*, inhabiting the islands whence tin (*κασσιτέρος*) came (v. 561-564). Finally, according to Tacitus, the Silurians who formerly occupied Glamorgan, Monmouth, Brecknock, Hereford and Radnor, were, from their tawny complexion and crisp hair, looked upon as the descendants of the Iberians. (*Agricolæ Vita*, cap. xi, t. v, p. 338, du texte et trad. de Dureau de la Malle). It thus results from these historical documents, that the Ligures, generally allied to the Iberians, inhabited the north of Western Europe before the arrival of the Celts, and that other Iberian populations maintained themselves in the British islands down to the time of Tacitus, and probably a long time after. As to the influence of the Romans on the population of Gaul, whilst it has been considerable as regards political, social, and linguistic relations, it must have been but trifling from an ethnogenic standpoint; for, excepting in some localities, especially of Provence, the number of Romans in Gaul was very inconsiderable in proportion to the population.

M. Bertrand considered the extension given to the Celtic populations by M. de Rialle as greatly exaggerated. In consulting history we find that most ancient authors gave the name of Celts only to the Gauls, and though some, such as Appian, Pausanias, Dion Cassius extend the denomination Celts to the Germans, their works contain so many errors that they can scarcely be trusted in this respect. M. Bertrand is therefore of opinion that the Gauls are the only Celts, and he equally protests against the idea of the disappearance and destruction of the Gauls by the Romans.

M. Girard de Rialle in reply said, that whilst admitting the existence of an autochthonic race of the stone period, he still maintained

that they disappeared before the Aryans from the disappearance of their language, as no people can intermix with another without leaving some traces in the dialects of the absorbing people. What made him, moreover, incline to the hypothesis of the extermination of the people of the stone period by the Aryans, is the tendency of the latter to destroy or to expel all the races inferior to them. Now it is evident that the Gaelo-Kimric Aryans (not to use the word *Celt*, now being questioned) were in possession of a comparatively advanced civilisation at their arrival in Europe. The Aryans, moreover, must have been more numerous than the autochthons, otherwise the latter would have influenced the invaders, of which influence no trace can be found. Finally, the hypothesis that the autochthons received their civilisation and language from the Aryans is equally inadmissible. He therefore maintained his opinion that the Gaelo-Kimris, at a later period called Gauls, Scotch, British, Irish, are all pure Aryans.

M. Broca asked permission to recur to the question of change of language and the inferences drawn from it by M. de Rialle, to whom the disappearance of a language appeared an act of pure violence, implicating the extermination of the people that spoke it. Such a conclusion might be acceptable if the new language suddenly displaced the old tongue; such sudden revolutions never occurred. The languages of conquered peoples became extinct but very gradually. Every new generation experiences a diminution in the number of such as remain faithful to the old language, until after centuries it becomes extinct. M. de Rialle seems to think that immediately after the conquest of Gaul by Cæsar the Celtic language was displaced by the Latin. This is an error; the Latin became the official language, whilst the people continued to speak Gaulic (*Celticè*) for several centuries. At the time of St. Jerome (fifth century) the Treviri of Northern Gaul continued to speak a language resembling that of the Galatæ settled in Asia Minor since 278 before our era, and other documents render it almost certain that the language of the ancient Celts maintained itself as a kind of *patois* in a portion of Gaul down to the seventh century. In such a gradual manner has the *langue d'oc* become a patois dialect; it daily loses ground, and in four generations, perhaps, it may altogether disappear, leaving some literary relics which will be known to the scholar, but forgotten by the descendants of those who speak it at present. . . . The peasant of Alsace gradually abandons his German *patois*; the peasant of Cornwall no longer understands Cornish, which was spoken in that part down to the eighteenth century. The opinion expressed by M. de Rialle concerning the extermination of the autochthons is contrary to all archæological, palæontological, and historical facts; reposing, as it does exclusively,

in the disappearance of a language. Observation, on the contrary, shows that languages become very gradually extinct, and that most peoples of Western Europe have several times changed their language whilst conserving their types. M. Broca concluded by saying, that M. de Rialle had not answered the question proposed in regard to the spot in Europe where the people called Celts first appeared. As for himself, he agreed with M. Bertrand and M. Perier, that the same Celts belonged to one of the peoples of Gaul; that all known Celts came from Gaul; that many Gaulish peoples did not bear the name of Celts; and that, in all probability, the name did not exist at the time the Indo-European conquerors arrived in Gaul. He had also asked whether there existed any proofs of peoples called Celts having occupied or invaded Denmark, Scandinavia, and the British islands. M. de Rialle has not answered this question. M. Perier remarked that Prichard alone maintained that there were no longer any Gauls in Gaul, an opinion which found no supporters.

The meeting then adjourned.

July 21, 1864.—*The true (genuine) Celts are the true (genuine) Gauls.* By M. PERIER.

M. Perier commenced by expressing his conviction that if there be any name of a people which has been singularly abused by modern and contemporary authors, it is surely the name of Celts. And when we consider to what obscurities and errors the different acceptations of this term have given rise in history and ethnography, it certainly is requisite further to sift this question . . . . He might as well state at the outset that he knew only of two kinds of Celts, *the true Celts* and *the false Celts*, the primitive Celts and the new Celts, the natives and the foreigners. The first are those of history proper, the second those of many historians and modern authors who have greatly complicated the Celtic question, as he would show. He would then treat of *type*, and conclude with some observations on the *origin* of the Celts.

1. *True Celts.* Whence comes the term Celts? What we know best is this; that according to Cæsar this name is derived from the language spoken in the country of the Celts, and that they called themselves by that name (Kelt, Guelt, Galth) before they were called *Galli* by the Romans (*Bell. Gallic.*, lib. i, cap. 1). The last name differs but little from the former, except in pronunciation.

Strabo says that the ancients called Celts the inhabitants of the province Narbonne. "They were formerly called Celts (Κελτας)". He adds,—“And I presume that the Greeks were only induced to give to all the Gauls (Γαλάτας) the name Celts (Κελτοὺς) from the celebrity of the latter people; the vicinity of the Marseillaise may also have contributed to it (*Ed. Fr.* lib. iv, I ii. p. 37).” According

to Appian Italy extends from the Ionian Sea to the Celts (Κελτῶν), whom the Romans call Γαλάτας. "Elsewhere," he says, "that the Celts (Κελτοὶ) are at present called (by the Greeks) Γαλάται, and (by the Romans) Γάλλοι" (Præf. § iii; *De Reb. Hesp.*, § 1). Pausanias also says, "that the Gauls or Galates (Γαλάται, come from the borders of Eridan) gave themselves the name Celts (Κελτοὶ), a name given to them also by other peoples" (lib. i, cap. 3).

Without entering into the etymology of the word Celt, it is seen that it was the original name of the ancient inhabitants of Gaul (*gallia*), then called *Galltacht*, country of the Galls. "Even at this day," says Freret, the Irish call France *Galta*, and the French *Galltha*." The Highlands of Scotland are also called *Gaidhealtacht*, *Gaeltacht*, according to M. Thierry.

But who were the Celtic people, and what were their limits? Here opinions begin to diverge. Some authors yet comprise under this name, either the people called Germans and those called Gauls, or the Kymris and the Galls, or Gauls properly so called.

It is not surprising that ancient authors had committed mistakes as regards the Celts, and the limits of their empire. From the insufficiency of geographical information, it could scarcely have been otherwise. It must, however, be noticed that, with the exception of a small number of Greek authors, the denomination Celts was only applied to the ancient inhabitants of Gaul . . . . He would not follow the authors who had given an exaggerated extension to the regions inhabited by the Celts, but would simply oppose to them the excellent dissertation of Schoepflin, which contains almost all that can be said on the Celts . . . . He would now return, in chronological order, to the principal authors who mention the Celts, and who generally give that name to the true Gauls, and the name *Celtica* to the territory of the Celts. After quoting various passages from a number of classical authors, and especially from Cæsar, whose language is a model of precision, and whose testimony is beyond suspicion, M. Perier thought that he had sufficiently established that most of the ancient authors exclusively understood by Celts, first the transalpine Gauls, and at a later period their brethren of cisalpine Gaul. Hence we may conclude that the true Celts were the ancient people in possession of Gaul, reduced by successive invasions, to occupy, at the time of the Romans, only a third of the country; that is to say, the territory comprised between the Garonne, the Marne, and the Seine, districts which their least mixed descendants occupy to this day. Having thus greatly narrowed the question by his definition of true Celts, he called *false Celts* all the peoples called Celts excepting the true Gauls. M. Perier then entered into a long disquisition to show how it came to pass that

this Celtic question, which is so clear when viewed from his standpoint, became enveloped in so much obscurity. . . . .

II. *Type of the Celts.* Before the recent progress of anthropology the search for the type of the Celts must have been attended with great difficulty. At present we know that this type exists, that despite the lapse of time and revolutions, it is, like all types, transmitted from generation to generation without any notable change. Now in France and in Belgium, countries formerly inhabited by the Celts and the Belgæ, we see the brown or the fair type peculiar to each of these peoples more or less predominate. The particular characters distinguishing the Celtic and Kymric types have for a long time been misunderstood. Now they are better known . . . . . The fair complexioned peoples, whether called *Celtæ*, *Galli*, *Κελτοί*, or *Γαλάται*, were in reality Kimris (or Cimbri), Belgæ, or Teutons. Adventurous and warlike, these peoples, though associated with the Galls, had, chiefly by themselves, devastated distant countries; they burned Rome, ravaged Macedonia, despoiled the temple at Delphi, besieged Sparta, reigned in Galatia; they were constantly called Gauls, as coming from Gaul; hence the true Gauls were, like them, considered as fair complexioned. The error in names gave rise to error in ideas, which are still indulged in by modern writers. Direct observation has, however, shown that whilst the Kymris are people of high stature and fair complexioned, the Galls are, on the contrary, of medium stature, and more or less brown complexioned. In M. Perier's opinion, the remnants of the brown population in Wales, and in Brittany, are generally of Gallic origin, more or less modified by climate, customs, and language; they are Kymris only in name, just as the pretended fair Celts of Ireland and Scotland are said to be of Teutonic or Kymric origin. He believed, therefore, that all the Celtic or Gallic peoples were dark complexioned, and that the Kymric population is characterised by a fair complexion. Thus, the brown type of the ancient Gauls still exists in the countries formerly and at present inhabited by the Celts and their descendants. And what is singular, it is generally found, in contact with its ancient ally, a more or less light type. This is especially seen in some parts of Ireland and Scotland, in Wales and in Armorica. Every where the dark type seems to have been anterior to the fair type, which may have dispossessed the brown race, without changing its fundamental characters. . . . .

III. *Origin of the Celts.* Whosoever speaks of origin speaks of an impenetrable problem, which cannot be attacked without temerity. The way of conjecture alone remains open to us; but conjectures are not facts; there lies an abyss between them. As regards the origin of the Celtic people, what say the books? Everywhere we read that the

Celts are an Asiatic people, who, when they settled in Gaul, came from the East.

Centuries before modern authors traced the origin of the Gauls to the son of Japhet, Josephus the historian (*Antiq. Jud.*, lib. i, c. 6), said, "The peoples now called Galatæ, and formerly Gomarians, had Gomar as their ancestor." Thus, by the variation of *g* into *k*, the linguists found in the word Gomar the elements of *Κιμμέριοι* and Kymris. . . . At present, chiefly on linguistic grounds, the Celts (our true Celts) are included among the Indo-European nations; they are said to be Aryans who had at an unknown period separated from their primitive stock, and had, after numerous stoppages in the course of centuries, finally arrived at their destination in the West. All this is readily admitted, generally uncontested, and scarcely doubted. But science cannot live by simple affirmations and hypotheses, science requires proofs; and is it not permitted to us to ask where they are to be found? Is there any absolute proof existing that the Celtic is derived from the Aryan? Are the linguists all agreed on this point? Some assure us that the differences between the Semitic family of languages and the Indo-European absolutely prove different origins; whilst others assert that the points of contact between them are sufficiently numerous, that they might have issued from the same ethnic tree. Are they better agreed as regards the Celtic idioms, of which there exist but the *débris* in the north of Ireland and of Scotland, under the name of the *Erse* language; or as regards the Welsh and the Armoric, which are dialects of the Kymric branch? This latter branch is distinct from the former "by profound differences," says Alfred Maury, "which already existed at an ancient period." This is the opinion of most authors. M. Roget de Belloquet, on the contrary, maintains that the ancient language of the Gauls or Celts, in the sense he takes them, "is not divided into two idioms, the one corresponding with the Kymric and the other to the modern Gaelic, but that despite its local variations it is *one* idiom common to the Gauls of Belgium and Italy, as well as to the peoples of Britain and Gaul proper."

Again, whilst many linguists agree that the language of the Kymris and of the true Gauls came from the East, others of no mean authority think that the grammatical forms of the Celtic idioms have so much altered that it is difficult to attach them directly to the Indo-European languages" (Maury, 503). . . . It must then be admitted that linguists are far from agreed as regards the Celtic languages. Philology is no doubt an indispensable auxiliary in the study of anthropology, like its sister, history, from which it cannot be separated. Physiology rectifies the errors of both. Languages may change and pass away, but the anatomical and physiological characters, apart from modifications which can be appreciated, are fixed and remain.

It being thus evident, concluded M. Perier, that the Asiatic origin of the language of the Celts is not incontestibly proved, we are not bound to consider our Celts or Galls to have come from the East ; and such, indeed, is also the opinion of several authors who are otherwise opposed to our views. According to their views, these ancient peoples came from the South. M. Roget thinks they are of African origin . . . . . Since, then, it has not been demonstrated that the *true Celts* were of Asiatic origin, it is, until we are better informed, quite permissible to consider them as an autochthonic people of Western Europe.

[To be continued.]

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### Miscellanea Anthropologica.

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COMPARATIVE ANTHROPOLOGY OF SCOTLAND.—The names by which the old British nations were known to the Romans strongly support the hypothesis that the ancient Eastern Britons were Gael rather than Cymry. The various forms of the root Feinn are found in many of the most important of them : *e. g.*, Trinobantes, *Treun Fhiannta*, brave Feinn ; Simeni, *Sith Fhianna*, arrow Feinn ; Icenii, *Fioch Fhianna*, fierce Feinn ; Coritani, *Curaidhe Fhianna*, champions of the Feinn ; Dobuni, *Dubh Fhianna*, black Feinn, on the borders of the dark Silures ; Brigantes, *Brigh Fhiannta*, valiant or dominant Feinn ; Ottadini, *Utadh Fhianna*, pushing or fighting Feinn ; Gadeni, *Gath Fhianna*, dart Feinn ; Novantæ, *Na Fianntai*, the Feinn. These nations extended from the mouth of the Thames to the mouth of the Clyde ; and in the names of places from the mouth of the Thames to the mouth of the Clyde also the same root may be traced : *e. g.*, Vinodcladia, Clausentium, Venta Belgarum, Venta Icenorum, Bannaventum, Venonium, Derventio, Vinovium, Vindomora, Brennenium, Valentia, Vanduaria. These are accompanied all along by *dun* and *mag*, names found wherever the Gael have settled. The Romans seems to have designated other nations by the native names for warriors or rulers ; Britanni and Britones, *Brigh daoine*, signify valiant or dominant men ; Vecturiones, *Feachd Fhionnaich*, the men of the arms, as distinguished from the women in their train.—HECTOR MAC LEAN.

THE President of the Anthropological Society, Dr. James Hunt, and Mr. A. Higgins, Hon. Foreign Secretary, left London on the 21st ultimo, to proceed on a scientific tour in Norway, Sweden, Denmark, and Finland, with a view especially to the examination of the remains illustrative of anthropology and the allied sciences. Mr. Higgins will, we understand, stop some time in Stockholm to revise the proofs of the forthcoming edition of the works of Retzius.



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RACE IN RELIGION.\*

THE PLACE OF POSITIVISM.

ANTHROPOLOGY is gradually widening its base and enlarging its arena. Its practice is approaching more nearly to its theory. As the science of man, nothing human is really foreign to it. Above all, no religion or philosophy can be regarded as altogether alien to its inquiries. Whether as effects or causes, the beliefs and opinions of mankind are worthy of all attention by the anthropological student. Here we may behold the accumulated results of the past, and, in a measure, the plastic forces of the present. Religions and philosophies are not accidents, but the normal product, the necessary consequence, of antecedent conditions. They were not made by art, but have grown in obedience to law. They come and they depart at their appointed season. They have their cycle of growth, splendour, and decay, like those great political empires, which constitute the more prominent features of history. In truth, they are empires of the mind, built up by the labours and sacrifices of many successive generations, and beneath whose shadow, in the day of their power, the mightiest are fain to seek refuge. And we live in an age, it may be remarked, peculiarly

\* *A General View of Positivism*. Translated from the French of Auguste Comte, by J. H. Bridges. London: Trübner and Co.

*The Catechism of Positive Religion*. Translated from the French of Auguste Comte, by Richard Congreve. London: John Chapman.

*The New Religion in its Attitude towards the Old; The Propagation of the Religion of Humanity*. By Richard Congreve. London: John Chapman.

*Auguste Comte and Positivism*. By John Stuart Mill. London: Trübner and Co.

*The Unity of Comte's Life and Doctrine*. By J. H. Bridges. London: Trübner and Co.

favourable to an investigation of the laws which regulate their production and dissolution—an age of analysis and disintegration, when authority is dethroned and power is held in abeyance, and when, consequently, there is not only liberty to think, but also license to speak. In the middle ages, it would not have been possible to thoroughly criticise either the Catholic Church or the Aristotelian philosophy. But it is otherwise now, when the old Phœnix is in the fire, and the world re-echoes with her harmonious death-song; and we are at liberty to question everything, faith and philosophy not excepted.

There can be no doubt that forms of thought and modes of feeling are largely racial; that is, they originate in the specialities of mental constitution attaching to the different divisions of mankind. And an important part of our duty as anthropologists, is to study these specialities and trace their effects, as manifested in the creeds, codes, philosophy, literature, and art of various nations and successive ages. Their creed is the grandest outcome of a people. In it their deepest convictions and highest aspirations were once embodied. And if they be so no longer, if there be a school of thought outside of the church, higher and purer, larger and nobler in its teachings than anything within it, then is such a church infallibly doomed, however long its sentence may be delayed. Olympus was condemned in the very words with which Socrates taught his disciples; while Jupiter stood as a criminal at the bar over which Plato presided as a judge.

The interaction between faith and philosophy is much greater than is usually supposed. The *à priori* schoolmen flourished in conjunction with the Catholic church. Protestantism and the reign of induction came in together; the former being an appeal from authority to reason, in matters theological; and the latter being a similar appeal to facts, in the domain of science. In both departments there was the same descent from unity to multiplicity, from one church to many sects, and from a few principles to an indefinite number of "instances". In the largest view of the subject, it may perhaps be said that philosophy is the sphere of growth, religion of conservation; the intuitions of genius being ultimately sanctified as articles of faith.

To fully understand our present position, in reference either to faith or philosophy, it must be remembered that we live, not at the beginning or even in the middle, but obviously towards the end of a disintegrative era. What the ages of faith laboriously built up, the ages of doubt have assiduously pulled down. But the one process is as essentially temporary as the other. True analysis is ever but a preparation for synthesis; destruction is only transformation, the gate of death being simply a portal to the temple of life. Of neces-

sity, then, an age of re-edification awaits us; and that, too, in all probability, at an era not immeasurably remote. Already, indeed, the signs of its approaching advent are distinctly visible. The age of revolution and anarchy is drawing to a close. Men are becoming weary of commotion, and ask everywhere for a strong government, adequate to the suppression of aimless insurrection. While even the churches, forgetting their old *odium theologicum*, seem desirous to coalesce, as if conscious that it is becoming necessary to close up their disordered ranks, and present a united front to the common enemy.

Of this movement towards re-edification, Positivism, whether as a religion or a philosophy, was both a sign and a product. We may define it as a rather premature, though really grand and gigantic, attempt at the synthesis of universal knowledge; while Auguste Comte was a still more premature, and so utterly unsuccessful attempt at the performance of "the coming man". Both portents, however, of no mean significance; shadows whose substances are doubtless somewhere behind. Of Positivism in its relation to science, we do not here intend to speak at any length. Whatever may be thought of its "systematisation", we suppose all competent judges are of opinion that the sooner the positive mode of explaining phenomena supersedes the theological and metaphysical, the better. Here, then, Comte did real and appreciable work. But unfortunately, like many other great men, he lived rather too long. He outgrew his true vocation, and set himself up, not only as the hierophant, but also as the prophet and law-giver of a universal faith. This is a rather melancholy subject; but it concerns us, as anthropologists, more nearly than any other portion of his life and labours. It, moreover, involves ideas that are not peculiar to M. Comte, which he inherited from antecedent or adopted from coexistent systems, and which, therefore, have an interest for us quite independently of their relationship to Positivism.

The Positive religion commences with a dreadful solecism—it has no God! a circumference without a centre. What a beautiful illustration of race. Here is a French master mind turned prophet, and cannot find a God to worship; and so sets up select humanity, the *Grand Être*, in his place! Nor is this all; for in his ritual he ordains that prayers shall be said, not to humanity as the male, or as the male and female in combination, but specially to woman, as the mother, wife, and daughter, the incarnate past, present, and future of the race! Now, supposing that in place of an Indo-European Gaul, with his strong Pantheistic proclivities,—for the Positive religion is simply a phase of Pantheism,—a faith had been founded in our day, by a seer of purely Semitic type and descent, does any an-

thropologist doubt that a God would have been at the centre of it? And does anyone suppose that, in such a case, women or a woman would have been made an object of worship in it? And this godless, feminine faith, was expected by its polite expounder to prevail, not only over Aryanised Europe—moderately well prepared for it, we must admit, by the worship of the Virgin and the invocation of Saints—but it was also expected to satisfy the godward aspirations and sublime yearnings of the monotheistic Semites of Western Asia!

No doubt a new faith is coming, and that, too, over an unequalled geographical area. The vast amount of thought and knowledge, the accumulated product of modern civilisation, lying on the outside of our existing creed, indicates a growing necessity for the expansion of religious belief. We want a faith that will harmonise with the literature and science of modern times. We want a religion abreast with the age, and looking prophetically forward to the future, rather than retrospectively back into the past. We require a belief in harmony with our intellectual development, the product not simply of defunct wisdom, but also of living conviction. And this faith, once originated and established among the leading nations of the world, must have a geographical range previously unexampled. The railway and the steamboat utterly forbid the perpetuation of existing territorial limitations in language and creed. The interaction of nations and races increased every day, and must ultimately sweep down many of the barriers that formerly kept even allied peoples in a state of isolation from each other. But then, one of the conditions on which this faith can be accepted over the ever expanding area of modern civilisation, and so effect the gradual, if not rapid, displacement of existing creeds is, that it shall in no department fall short of the highest tidemark of any of its predecessors. It must have no Polytheism, or Tritheism, or Pantheism, or Atheism to disgust its Semitic votaries; while it must be expansive, receptive, æsthetic, and philosophic enough to satisfy the most intellectual requirements of its Indo-European converts. And it must be all this to prove even a Caucasian faith, to enlist the sympathies of humanity, from the Ganges to the Thames. But even granting it were all this, does any anthropologist suppose it could prevail over so large an area and among so many different types, without extensive local adaptations and modifications, more especially in its ritual, to accommodate it to the wants and habitudes, the taste and feelings, of its racially varied converts? And what shall we say, in such a consideration, to the Mongolic nations of Eastern Asia, the great upholders of existing Buddhism, or the African Negroes with their grovelling Fetish worship; or, we may add, the outstanding savages of any continent?

But, quite independently of racial considerations, the religious system of Auguste Comte clearly demonstrates that, whatever else he may have studied, he most assuredly had not mastered the laws which regulate the generation and succession of creeds. He did not build on the old foundations. A fatal error. Why, there is no example on record of a faith emerging into great and enduring power, except as the lineal successor of some predecessor. Judaism built on the patriarchal theology, and Christianity rests on Judaic foundations, while the faith of Islam accepts and professes to supplement all three. Jupiter was not supposed to deny the divinity of Saturn; he only superseded him. This subject of *growth* in the progress of society is, it would seem, but very imperfectly understood; and hence the many absurd and abortive attempts at reconstruction, whether in the religious, political, or social sphere, of which these latter generations have been the witness. And yet the experience of all time demonstrates that religion and politics cannot be fundamentally and yet suddenly remodelled. Society, whether as a whole or in any of its more important departments, is much too complex, and depends on too many varied forces for its movement, to permit of its being taken to pieces and put together again, at the pleasure of any merely human designer. It is, in truth, a vast moral organism, at a certain stage of development; and can no more be made or remade than a tree or an animal. It grows as we have said, and it may be added, after the true organic fashion, by a constant assimilation of appropriate elements from without; and consequently all that any individual can hope to accomplish, is but to contribute his quota of thought or effort to the sum total of results. But few ardent reformers are prepared to submit to this. They have not, it is to be feared, sufficient faith in the laws of nature, for this wise yet lowly dependance upon their efficient operation. They cannot quietly let things take their course. They are too impatient to wait for results; they want to force them. They place too much confidence in art—their own art—wherewith they foolishly hope to supersede the grander processes, and forestall the slower results of nature.

These remarks do not apply especially to Auguste Comte. They are yet more applicable to St. Simon, Fourier, Owen, and the leaders of socialism and communism generally. Neither did Comte fall into the most grievous of all errors, which is the endeavour to refound society without religion. He clearly saw that a creed and a ritual are necessities; and he simply failed in providing such as would satisfy the higher requirements of humanity. The real interest of Positivism, however, to an anthropologist, is not its relation to Auguste Comte as an individual, but to the age in which he lived, and of

whose tendencies he regarded himself as a befitting exponent. To fully understand the place of Positivism, to know its vocation in the world, nay to clearly perceive that it had a recognisable place and vocation at all, we must comprehend the real character and grander inspiration of the age in which it appeared, and this implies a historical survey of considerable extent.

Nothing is more clear than the continuity of the current of civilisation; it has had its ebbs and its flows, its high tide and its low tide, but it has remained throughout an unbroken stream. At this hour, not only the mechanical arts, but the literature, philosophy and religion of the most advanced nations, are indebted to elements, inherited from Etruscan, Egyptian, Assyrian and Hindoo systems of culture that meet us at the dawn of authentic history. The rise and fall of empires, the growth and decay of faiths, are not to be viewed in the light of exceptional catastrophes. There is nothing abnormal in such events; they are, on the contrary, the normal phenomena necessarily attendant on the process of progression.

History has obviously lost some of its earlier chapters. Not to mention the Etruscan and Cyclopean civilisation of Europe, it is obvious that a mighty drama was transacted in the East, of which we have but very imperfect records. The great Aryan emigration, that carried a European race to the Ganges, or bore an Asian race to the Thames, as we may be pleased to interpret the yet doubtful oracles of philology and tradition, what do we really know of it, except the fact of its occurrence, demonstrated by the lingual and racial effects which it has left for our investigation? And that great and almost prehistoric cycle of Semitic civilisation, whereof Egyptian, Phœnician, Assyrian, Babylonian and Jewish culture were the several parts, how little do we know of its origin and splendour! Nay, how imperfect is our acquaintance even with its decline! What was its mundane function? What mission did it discharge to humanity as a whole? What was its transmitted effect upon classic civilisation? and how, through Judaism more especially, has it directly influenced the belief, and through it the philosophy, the literature and the entire moral and intellectual life of modern Europe? It is by such questions that we discover, if not the extent of our ignorance, at least the very narrow limitations of our knowledge.

Perhaps it may suffice us for the present to observe, that a grand process of edification went on, in that remote age and in that far eastern land, of which Judaism may be regarded as the great theological result, the highest form in which its theosophy finally crystallised into enduring shape, for transmission to posterity. And while religion was being thus duly cultured by the Semites, philosophy was

proportionately developed by the Aryans, who, as Persians, ultimately emerged into political supremacy on the ruins of Semitic power. Altogether, as we have observed, there was obviously a grand process of spiritual as well as political edification transacted in that remote age, of which we have inherited the results, though we are but imperfectly acquainted with the processes by which they were produced. To recur to our former figure, it was a great flood tide, that has left us, among other things, the Pyramids and the ruins of Thebes, the hieroglyphics and the cuneiform inscriptions, the Veda, the Avesta, and the Pentateuch.

But these great periods of edification are always followed by others of almost proportionate dilapidation, synthesis being supplemented by analysis, as life is followed by death, and day by night in the cyclical revolutions of nature. A time came when Asiatic thought-forms were to be subjected to the rather destructive process of European criticism. The earlier Ionian philosophy and the Pythagorean system of Magna Græcia show us the advancing waves of the great eastern inundation, as it impinged upon the classic races of the west. Under the reign of the Sophists antiquity was treated with some respect, but the Socratic method was fatal to a blind reverence, especially among a people so naturally analytical as the Greeks. Platonism was oriental theosophy robed in the intellectual vestments of philosophy. It was eastern faith, after its first Hellenian baptism. Under the Stagyrite, the European mind, as contradistinguished from the Asiatic, emerged into the full force of its strongly marked individuality, and that age of criticism was formally inaugurated which, commencing with Socrates, ended in the downfall of Olympus, and we may say the subversion of classic civilisation. Ere Alaric could enter Rome, it was necessary, not only that Cæsar should be conquered, but that Jove should be dethroned. We quite misunderstand matters when we think that everything was due to "the northern barbarians." The collapse of classic civilisation was entire, and implied the subsidence not merely of political power but also of traditional faith.

It is doubtful if we yet fully understand what "the decline and fall of the Roman empire" really meant. It was more than the fall of merely classic civilisation. It was the collapse of the ancient imperial system altogether, so that the world has never since seen its repetition, and never will again see it in its integrity, as a manifestation of purely physical force. The next great empire must be moral, for empire, as we hope hereafter to show, is inevitably coming, the empire of the west, the preparation for which is the existing diffusion of Semitic faith, over the entire area of Greek and Roman civilisation, under the rival yet allied standards of the cross and the crescent.

Thus, then, we are landed at the dawn of another period of spiritual synthesis, eventuating in the double pontificate of the Christian popes and Mohammedan caliphs.

To fully understand the rise of this duplex spiritual power upon the ruins of the political edifice which had preceded it, we should remember that Rome was the summation of the ancient imperial system, and the grandest instance of political synthesis upon record. In her the merely military phase of empire culminated, and in doing so became partially moral, as we see by her code, that enduring evidence of her wisdom and experience in legislation. The truly moral or rather spiritual phase of the Roman empire was however manifested in the papacy and the caliphate, and in the former more purely than the latter.

"The ages of faith" were a period of edification, during which the Catholic church sedulously endeavoured to build up the waste places of the earth. Sustained by a sublime inspiration, she laboured to reduce chaotic multiplicity and confusion to the order and beauty of a unitary creation. She sought to make one creed—her own ; one language—the Latin ; and one philosophy—the Aristotelian ; or rather that of the schools, which somewhat inappropriately bore this name,—suffice for all the higher requirements of humanity. We should not blame her for this. It was a necessity of the age. It was simply the flood tide, that has left us the splendour of our cathedrals and the ruins of our abbeys, as its memorial wavemark on the sands of time. And it is a somewhat noteworthy coincidence that, as architecture and statuary attained most nearly to perfection during the declining ages of classic heathenism as a faith, when the elements of thought, that in their union with Judaism afterwards crystallised into Christianity, were in the process of elaboration, so again architecture and painting attained to their culmination in the Catholic church just previous to the Reformation, while the principles that afterwards eventuated in Protestantism were in a state of preparatory fermentation. These things are not accidents. They are obviously the product of a law, whose operation we should investigate, in the hope of attaining to an intelligible solution of its phenomena.

Is not this efflorescence of the fine arts towards the termination of a faith a phenomenon akin to the corresponding development of literature and philosophy ? The Greek intellect not only produced Phidias and Praxiteles, but also Æschylus and Plato, as rays of that sunset splendour wherewith the Olympian faith bid the world its grand adieu. So also the Catholic church not only gave us Raphael and Michael Angelo and Leonardo da Vinci, but also Dante and Tasso and Ariosto, to say nothing of Cervantes and other transalpine stars of



that galaxy, that made "the revival of learning," using that phrase in its widest chronological import, so deservedly illustrious. These things are a part of that general development and culmination of intellect, which is not only an accompanying circumstance, but also a producing cause of the supercession of the old and outworn by the new and regenerated faith.

As the ebb infallibly follows the flood tide, so does an age of analysis succeed one of synthesis. Mediæval orthodoxy was followed by modern Protestantism, with its adjuncts and accompaniments, the inductive philosophy and vernacular literature. The one church was split up into many sects, the one language reappeared in many dialects. It was the decline, and will lead eventually to the fall of the spiritual Roman empire. It is a most mistaken idea that this process of analysis is confined to religion. It extends to politics, philosophy, letters and life. The schoolmaster feels it at his desk. The father finds it in the family. It is *authority*, in the abstract, that is dethroned, and the pope and the king experience it in common with all other central powers. It promises to be the most stupendous ebb on record. As material Rome was the greatest political edifice ever reared, and its fall the greatest political subsidence of which history is cognisant, so spiritual Rome was the grandest ecclesiastical structure that the human mind ever devised, and its subsidence must be proportionate to its splendour. As in material Rome, the old empire of force culminated; as it was the grand summation of ancient civilisation, so in spiritual Rome, the old empire of superstition attained to its maximum of power and influence, and in it the hierarchical organisation of the ancient priesthoods arrived at culmination.

These are facts which concern us as anthropologists. The empires and the hierarchies which preceded Rome were oriental in character. They wanted that sustained force and commanding intellectual power which can only be obtained from the ethnic basis of a European population. Babylon never attained to the far-seeing policy or the legislative wisdom of political Rome, nor were her magi or even those of Egypt comparable either for polemical astuteness or for forecasting and absolutely mundane ambition, to the surpliced priests and tonsured monks, that obey the tiara'd pontiff on the Tiber. We have seen what the Classic race could do for political and spiritual empire. The world has yet to see what their successors still farther west will accomplish, with yet greater means and fully equal capacity.

We have said that the present age of analysis promises to be the most thorough and searching upon record. Never before was the critical examination of faith and tradition so daring and exhaustive. Never before was scholarly scepticism so well equipped with the means

for doing successful battle with popular belief. Never before did science occupy such lofty vantage-ground as compared with revelation. And never before were the "masses" so open to the direct action of all these disintegrative influences. The old theology is obviously doomed. It simply waits for the execution of its sentence. Nor is the political horizon less marked by the portents of instability. Here, too, as in theology, the movement dates far beyond the existing generation. The English wars of the Commonwealth indicate the extension of excitement from the theological to the political sphere, this transference commencing perhaps with the thirty years' war in Germany, and culminating in the French Revolution. But the movement is obviously not going to stop at the political, for it is now penetrating the social sphere, and making claims to which science cannot but demur. Democracy has long demanded political equality for all the citizens of one homogeneous community, but we now also hear of the political and social equality of diverse races, based on the assertion, or rather the gratuitous assumption of organic and intellectual equality among all the strikingly characterised varieties of mankind. Of these stupendous claims, the late civil war in America was a result. Having arrived at Negro suffrage and miscegenation, we must assuredly be at "the beginning of the end"—at least in *theory*. Fortunately for the world there is moral as well as physical friction, and abstract ideas are always brought up a long way short of their hypothetical range. Resistance ultimately becomes equal to impulse, and the impetuous strangers having expended their force, sink into respectable quiescence, like their neighbours and predecessors.

To thoroughly understand a man, we must know something of the age in which he lived. It is more than the framework to the picture. In a certain sense, it is the mould to the metal. Do as he may he cannot wholly escape its influences. The Roman authors of the imperial age differ not merely in style but in tone from those formed under the republic; and among ourselves, the men of the seventeenth, eighteenth, and nineteenth centuries are easily distinguishable. They were obviously reared in different schools, and in this connection it is therefore perhaps of some importance to observe that Auguste Comte was born in 1798, amidst the seething cauldron of the French revolution. Civil commotion and foreign war, constituted the pabulum of his childhood; from his royalist parents he must have learned their conservative version of the reign of terror. While the immediate thunderpeals of Marengo and Wagram, Jena and Austerlitz reverberated through the dawning consciousness of his early childhood, the retreat from Russia, the retirement to Elba, and the final defeat at

Waterloo, constituted the experiences of his youth. Such were his first impressions of public life, of the outer world of politics. He was reared in imperial France, amidst the smoke of battle-fields, and saw, while yet a boy, the fall of empire and the restoration of monarchy ; nor were his surroundings as a student in anywise more congenial. He beheld an established religion in which the great majority disbelieved, enforcing a code of morals that few practised, and, as a necessary accompaniment of this, he found a government that was unstable, and a social fabric that was rotten. He was trained in a philosophy devoid of depth, and in a science whose facts were outgrowing its principles ; and, lastly, he became familiar with a literature that was purposeless and a drama that was vicious. Poor M. Comte, with his earnest and systematic, and perhaps we may add, fundamentally devotional mind, it is no wonder that he felt ill at ease in such an atmosphere. To his pure soul Paris must have seemed a Circean sty, reeking with filth and abomination, beneath the thin disguise of a vicious, because effete civilisation. To such a thinker, so circumstanced, the conclusion was inevitable, that the world wanted regeneration and reorganisation. He saw, with the penetrating and intuitive glance of genius, that in all the higher departments of thought and action, the work of destruction had been effectually accomplished ; that we were drawing towards the end of an era, the close of a dispensation, and that the only true duty remaining to be accomplished was that of a master builder, and so, with a confidence no less rare than admirable, he offered himself as the befitting restorer, the competent architect of a ruined but recoverable world.

Ere we can duly estimate either the success or the failure of M. Comte in this stupendous undertaking, we must understand what it is which the world really wants. It has been already shown that we are nearly at the termination of an age of analysis, and that consequently a period of synthesis must be closely awaiting us. Hence, then, we may clearly perceive, that M. Comte was not an accident, but on the contrary a normal, and in a sense, necessary product of the age. He and his system were wanted—they, or something better. What, then, is it which is wanted ? What are the present legitimate demands of civilisation in reference, primarily, to religion—for it is principally under this aspect that we propose to consider the subject of Positivism on the present occasion ; the aspect, we may observe, under which it was regarded as of most importance, both by its founder and by some of his most distinguished disciples.

The distinctive feature of the religious world from Britain to Japan is present effeteness, combined with the strong expectancy of almost

immediate regeneration. Everywhere the signs of utter exhaustion are apparent; more especially is this the case throughout the East. Brahmanism and Buddhism are gone, and the faith of Islam is going; and the hopelessness of these Oriental creeds arises from the fact that they are socially and intellectually, as well as religiously effete. But it is otherwise with Christendom. Here we are at the very focus of mundane activity and human progression. The Christian peoples are the hope of the world, and somewhere within their area, therefore, must we expect the process of mundane regeneration to commence. What then is our condition, and what are our wants as a result of it? The ethnic speciality of the faith of Christendom consists in the fact that it is largely imported, that it is not, except by extensive modification, a normal product of the Aryan, or, shall we say, Indo-European branch of the Caucasian stock. It is Semitic in its roots. It is a part of that invasion, by which the Classic and Celtic races were overwhelmed in the hour of their effeteness. Despite its many modifications it is still largely alien to the racial thought forms of European peoples. It is so from the preponderance of its Semitic over its Aryan elements. Let us explain our meaning more definitely.

The Semitic races are predominantly moral in their mental constitution, while the Indo-Europeans are as predominantly intellectual. Now, it is because existent Christianity does not make adequate provision for this latter attribute; that it is failing in the present age of racial reemergence. It has also another source of weakness, more especially in relation to Europe; it is too Oriental in its estimate of women. Under the Mosaic system woman found no recognised place in the temple; and Christianity is still so far Judaic in its essential character, that she cannot serve at the altar. We hear many polite euphuisms about what Christianity has done for women, but the historic fact remains, that under Classic, Celtic and Teutonic heathenism, she was a priestess and a physician, she is now a tract-distributor and a nurse. There is not, we believe, a church in Christendom, that permits her to distribute the sacred elements. Even the most daring sectaries shrink from so dire a profanation of things holy. This cannot continue. It is contrary to the genius of the European, and more especially of the Celtic and Teutonic mind, and must give place eventually to a nobler estimate of the place and prerogatives of womanhood in the spiritual scheme of things. The deficiency of Christianity, then, as a world religion,—if such a thing, except in a very modified sense, be virtually possible,—arises from its want of due adaptation to the higher intellectual proclivities of the European mind. It wants farther modification and expansion. It is

in the process of undergoing this. It became æsthetic under the church of Rome; it is becoming, or rather preparing to become, literary and scientific, under the church of the future.

Religion is immortal: its manifestations may be Protean, but its essence is indestructible. It is the grandest product of the human mind, and the mightiest power that society has ever developed. Notwithstanding the vast changes to which it has been subjected, both in doctrine and ritual, its existence has been continuous, and its growth probably uninterrupted. The great theological revolutions which loom out upon us through tradition, and which at a later period constitute some of the most important subject matter of history, were not casual incidents, but orderly phenomena, necessarily developed in a certain sequence, by the interaction of races and the general progress of humanity. And we are now, from both causes, approaching another period of crisis. The European peoples, or nationalities, as they are sometimes termed, are, anthropologically speaking, emerging from the ruder effects of their ethnic baptism, at the period of the Gothic conquest. The alien elements then introduced, having produced their due result of invigoration, are scaling off, and Greek and Italian, Celt and Iberian, are reappearing in their olden features, with simply the normal growth of an ethnic era super-added. But is there to be no other scaling off? Are not the alien ideas, like the alien races then introduced, a foreign product, to be absorbed and assimilated, or if not susceptible of this process, to be expelled? Does not an entire reemergence of the European peoples imply this? Is it within the limits of ethnic possibility, that a peculiarly vigorous type, both mentally and physically, like the European in all its varieties, should submit to an indefinite prolongation of moral domination on the part of another, if not inferior type, like that of the Semites? And yet this is exactly what would be implied by the permanence of our existing forms of thought in matters of faith and religious conviction.

Such a supposition as that alluded to at the close of the foregoing paragraph, however probable it may seem to the theologian, is, it need scarcely be said, utterly untenable on anthropological grounds. In truth, the doctrinal modification which Christianity has already undergone, and by which it is distinguished from both Judaism and the faith of Islam, demonstrates that a purely Semitic faith could not prevail over an Aryan area, even in its hour of ethnic collapse. Neither, on the other hand, will the laws of progression allow us to suppose that Europe, having once received and assimilated so much of the higher elements of Semitism as are involved in Christianity, will again finally surrender them for an inferior creed. She may,

and no doubt will, superadd her own intellectual elements to them, but will never again yield up those grander veracities, which by prolonged adoption have become, in a sense, her own.

What, then, is the essential character of that faith, to which, from a variety of causes, racial, political, theological and philosophical, Europe is steadily and irresistibly tending?—And we reply, a religion as grandly monotheistic as that of the noblest of the Semites, as purely moral and as sweetly beneficent as the finest phase of even theoretic Christianity, together with an intellectual element superadded of which both are more or less devoid. This is simply saying in effect, that from the biparentage of ancient faith and modern civilisation, we shall obtain an offspring superior to either; it is the world-old process that was effected in the conjunction of patriarchal faith with Egyptian wisdom, and in the subsequent union of Judaic theology with Hellenic philosophy; it does not imply the destruction of Christianity, but its renovation—not its death, but its resurrection. It is the foremost shoot of the mystic Ygdrasil, and although of necessity the last year's shoot, and now perchance of somewhat sapless and wintery aspect, must nevertheless prove the more immediate parent of the present year's growth. To suppose that it can be put aside and ignored as of no account, is simply absurd. To use another simile, it is "the old foundation," compared with which every other is of sand, nor will any true master builder reject or despise it, in his attempted edification of the future.

Granting, then, the truth of our conclusion, that Europe must ultimately produce a faith more suited to her spiritual necessities than existent Christianity, the question remains, on which of her races will this great mission finally devolve? and we reply, not on the Classic. Their force has been already expended in the modification of Christianity, whose doctrine and ritual, in so far as they depart from their Judaic originals, are, the former Greek and the latter Roman, or if the term be preferred, Italic. Not the Teutonic. They are not sufficiently constructive. They are doing their appointed work in the critical analysis of the existing faith. It is their business to remove the rubbish of error, not to lay the foundations of truth or rear the superstructure of beauty. It is almost needless to mention the Slavons; they have never created anything, being simply receptive of the thought forms of higher types. There remain, then, only the Teutonised Celts of the West, now apparently in the process of emergence into mundane supremacy; and to fully understand their position in relation either to the religion or the empire of the future, we must take another short historical survey.

In accordance with those comparatively recent annals which con-

stitute written history, we have been accustomed to regard Asia as not only the cradle of mankind, but also as the aboriginal seat of civilisation. Nor is this matter for astonishment. During the last four or five thousand years empire has been marching north-westwards. It came out of the east, and in its train has followed that religion, which now prevails over the whole western world. Hence all our more immediate experiences point to an oriental origin of things. But anthropology, archæology, and philology, as they carry us down to profounder depths, do not altogether confirm this conclusion. In the first place, we have ample present evidence that Europe is the highest Ethnic area in the world. Its racial types are the most vigorous both in body and mind, and indeed it is not too much to say that the West, and not the East, of the old world, seems to be the especial seat of, at least, the Aryan division of the Caucasian race; while recent philological and archæological investigations seem to indicate that an Allophylian, or Semimongolian, type, with an agglutinated language, preceded the Semites, even on the banks of the Euphrates and the Tigris. Thus, then, it would appear that the Turanian, and not the Caucasian, is the especially Asian type of humanity; or, at farthest, that the latter is confined to the western and Mediterranean border of the continent. Should this be confirmed, the claims of Asia as the aboriginal fountain of any higher religion or philosophy must be regarded as more than questionable.

True archæology, as contradistinguished from dilettante antiquarianism, is yet too much in its infancy for confidently basing our conclusions as to the condition of prehistoric man on its revelations. But it is an important fact in connection with these speculations, that on the primitive Celtic area of the north-west we find the dawn of architecture in the monoliths, cromlechs, and so-called druidical remains of Britain and France; while in the Cyclopean ruins of Italy and Greece we seem to trace the successive stages of progress in art, from the unhewn block, innocent of tool, up to the still vast but perfect parallelogram, affording ample evidence not merely of the mechanical, but also the masonic, skill of the mighty builders who prevailed to place these gigantic masses in position. It would, perhaps, be rather premature to assert positively that the pyramids of Egypt are recent as compared with the walls of Tiryas and Mycenæ; but it is not too much to say that the general current of archæological evidence is flowing in that direction.

Again, true philology, as contradistinguished from mere verbal pedantry, is too recent and imperfect to prove more than merely suggestive in inquiries like the present. But the great inflectional languages of the early Aryans are clearly indicative of a prehistoric

antiquity of yet unknown duration, when these mighty forms of ancient speech were being slowly built up into the grandeur and compression which we find in the Sanscrit and its allied tongues. We know how long it has taken to thoroughly break down these glorious modes of utterance into the baby-talk of India and modern Europe, and is it to be supposed that it took a shorter time to build them up? And as to the primitive area of these Aryan peoples, the true Ethnic seat of the race, by what satisfactory evidence have we transferred this from thoroughly Aryanised Europe into the heart of Turanian and Semitic Asia? Is not this simply a worthless corollary from the foregone conclusion of an Asian origin for all things, itself the baseless tradition of the Semitic tribes of Palestine?

It is not, then, too much to assert that the tendency of modern inquiry is to indicate the probability of a great prehistoric cycle of civilisation and progress, which, commencing in the north-west, moved south-east till it reached the Ganges. The movement which constitutes history proper, being the exact reverse of this, that is, the return wave from the south-east to the north-west; now it is very obvious, concentrating with especial force upon Britain, the geographical terminus, where it must culminate, preparatory to the resumption of its south-eastern march, during the ages of a yet unrevealed, though we have reason to believe stupendous future of classic and oriental restoration. These we grant are rather wild speculations, as whatever takes in so large a sweep of time and space must necessarily be, in the present imperfect state of our information. But we have thrown out these hints to indicate the possible dignity of the Celtic area from a historical standpoint, as being, in a sense, the source and terminus of these great oscillations that carry empire and civilisation in their train.

As an additional indication of the Ethnic grade of the Celtic area, more especially in relation to religion, let us compare the geographical divisions of Asia with those of Europe. That there is a certain racial and moral relationship between the two continents, in virtue of which the areas of the one correspond, in a measure, to those of the other, however inexplicable the fact may be in the present imperfect state of our information, will scarcely admit of a doubt. Thus, Mongolia corresponds to Slavonia, Tartary to Germany, India to Italy, Arabia to Spain, and Persia to France. But if so, then where is the correlated European area of Syria, and perhaps Asia Minor? and we answer unhesitatingly, the British Isles. Judging, then, by the indications afforded through this line of representative affinities, M. Comte might have been the Zoroaster, but scarcely the Mohammed or the Jesus of the world's theological future. It would



not, however, be wise to lay too much stress on conclusions derived from data as yet so imperfectly understood, and we will, therefore, conclude this portion of the subject by simply remarking that there is an obvious Ethnic relationship between the Semites of western Asia and the Celts of western Europe, and that if the latter continent is ever destined to complete the historic epicycle of the former, by the development of a mundane religion, M. Comte seems to have come of the race of the prophets!

But prophets hitherto have always been of a rather peculiar type of character. All history testifies to the fact, that successful architects in the spiritual sphere ever laid claim to preternatural power and supernatural illumination. They taught not through reason, but with authority, and fortified the demand of unquestioning obedience to their dictates by speaking as the delegates of Deity. They were healers and wonderworkers, and utterers of dark and vaticinatory sayings. Perhaps M. Comte and his disciples may say that the age for such things is past, to which we reply, then so also is the age for the founding of a religion, as that term has been heretofore understood and exemplified. The truth seems to be that this worthy man confounded the philosopher and the prophet, and because he had some rightful claims to the former character, thought he might therefore successfully enact the part of the latter. Poor fellow; a prophet without a God, without spiritual insight, devoid of miraculous power, and without the gift of prediction, and having himself no faith in immortality—verily it is doubtful if this nineteenth century has presented a spectacle so truly pitiable.

But Auguste Comte, there is reason to believe, not only misconceived the attributes proper to a prophet, and so grievously misapprehended his own vocation in the world, but that he also equally misapprehended the attributes in humanity to which religious tuition should be primarily addressed. He appealed to the intellectual faculties, and thought that his religion would be received, because it was rational. But religions have always been accepted, because they were thought to be divine. Auguste Comte was not only a philosopher, but his system was a philosophy of life—simply that, and nothing more. It was thoroughly human, both in its origin and its aims; but all successful and permanent religions have claimed to be superhuman. They have always announced their grander truths as direct revelations from the supersensuous sphere, and these truths were promulgated as having an important and practical bearing, not only on time, but also on eternity. It is, of course, unavoidable, that in systems so characterised, the founder should teach with authority, and not as a philosopher, and if M. Comte and his friends were un-

prepared for this, they had better not have given us a "religion," but something with a title far less pretentious.

But it is time that we should examine Positivism in some of its details, as a system professing to be the future religion of humanity. And here let us do justice to the grandeur and truthfulness of M. Comte's fundamental idea, that what the world now really wants is reconstruction. We are approaching the termination of a critical and disintegrative era, so truly mundane in its area, that every religion in the world is effete. It need scarcely be said, that, as an accompaniment of this, every system of philosophy is unsettled, and the entire constitution of society, in all its aspects, is unsafe. The old beliefs have vanished, the ancient loyalties have departed, throughout not only western Europe, but the greater part of Asia. The dilapidation is universal, and the only certitudes left us are those of science, with whose reorganisation, therefore, M. Comte was wise in beginning. He was also quite right in regarding Europe, where there is still intellectual life beneath the ribs of a moral death, as the area of re-emergence. But was he equally right in regarding the Protestant countries as largely excluded from this area? Is it not precisely at the point of greatest disintegration, that we should expect reconstruction to commence. Catholicism is too well organised to permit of reorganisation. It is in Protestant countries that religious disintegration has been carried farthest; and it is there, consequently, that we should expect the commencement of organisation. To be definite, we regard Britain and not France as the point of crystallisation.

Let us enter somewhat more minutely into this matter. France is yet politically and religiously at the purely negative stage; she has destroyed monarchy to leave anarchy—restrained by the sword of a military despotism; so in religion, where she is not papal, she is sceptical. Ethnically, this is due to the fact that she presents a Celtic area, very inadequately baptised by Teutonic blood, so that a very large moiety of her population are physically effete rather than regenerated Gauls. Geographically, it is due to the fact that she is not the true terminus of the great north-western march of empire and civilisation. But it is otherwise with Britain. Here the reorganising tendency is clearly manifest. The English have long practically understood that "to destroy you must replace." As they limited the monarchical, they developed the representative element in government; and, as they destroyed the papal, they developed a Protestant hierarchy; and the Ethnic source of this ability to evolve and work appropriate institutions is, that they are Celts, thoroughly baptised by Teutonic blood, and so fitted without further aid for

another cycle of progress and power ; while the geographical cause is, that they are at the terminus of the north-western march of empire, and so at its inevitable point of culmination, where reorganisation commences.

We have already said that M. Comte committed a fatal error in promulgating a religion without a God. Such a solecism involved two grave mistakes. It was in the first place, a retrogression in thought. Monotheism is the grandest religious idea to which the human mind has yet attained. It is the bourne to which humanity has tended through countless ages, and having once attained, the laws of progress assure us that it will never surrender it for an inferior conception. You may displace one God by another. Jehovah may succeed Moloch. And the angry and jealous Deity of the Pentateuch may be superseded by the loving and longsuffering Father of the Gospels. But a revealed Deism will never finally succumb to a philosophic Pantheism. If you would destroy the God of your superstitious countrymen, replace him by a better ; he will never yield to a mere negation. In the next place, M. Comte, by this procedure, severed himself from the past. Positivism is not a living growth out of Christianity, but a madeup system of philosophy standing in direct antagonism to it. It is not a branch of the mystic Ygdrasil, with the lifesap of the ages circulating through it, but a pretty little hothouse plant, from the great Paris conservatory of thought, that would perish in a day if exposed unprotected to the rude blasts of a northern winter.

Another grave mistake of M. Comte, only secondary to his fatal omission of Deity, was his practical denial of immortality. Now as monotheism is the grandest idea yet attained in relation to God, so his afterexistence is the noblest conception yet developed in reference to man, and although schemes of philosophy may be propounded without it, no system of religion can venture to ignore it. You may displace an inferior by a superior conception of immortality, but with the idea itself you can never dispense. The source of M. Comte's error in these omissions was his confounding religion with philosophy. He did not seem to know that God and immortality are intuitions of the spirit not conclusions of the intellect, that they are sublime veracities, primarily revealed by seers, not simple truths, carefully elaborated by metaphysicians. Perhaps this matter requires a little farther illustration.

In any enumeration of the world's masterspirits, it is impossible to omit the prophet. How in any true history of humanity can you ignore such beings as Moses, Christ, or Mohammed ? Why as actual forces, all the philosophers that ever lived weigh but as a feather in the balance against them. Now after allowing for all the exaggera-

tions of tradition, it is very obvious that these mighty seers, these great architects of faith, constitute a special order of intelligences, having certain generic features in common, and in virtue of which they differ, not only from the mass, but also from other men of genius. And primarily in the order of their distinctive attributes, we may enumerate their constitutional susceptibility to supersensuous illumination, or as the mesmerists would say, to spontaneous clairvoyance, implying, it need scarcely be said, much else. But of all this M. Comte knew nothing, and so was enabled to confidently propound himself as a world's prophet, on the stock-in-trade of a Parisian savant.

But omitting this consideration, as being perhaps rather too esoteric for uninitiated readers, let us contemplate this Godless faith of the scientific Frenchman, from the ethnic standpoint. Upon any enlarged and really philosophic view of the great religions of the world, their adaptation to racial specialities becomes at once manifest. Judaism and the faith of Islam are obviously Semitic creeds. They are unitary and masculine, and reveal God, not as the indwelling force of nature, but as her creator, as a selfsubsistent spiritual entity, dwelling above and beyond her. In reality, as the infinite and eternal contradistinguished from the finite and temporal. This is revealed Deism. Now Brahminism and Buddhism are as obviously Aryan creeds, that is, they are essentially pantheistic, and see God, not *above*, but *in* nature. Hence their cardinal doctrine of incarnation, the divine human being the highest possible form of the spiritual and eternal manifesting itself in the material and temporal. Now in Christianity we have a combination of the two, that is, we have a Semitic God as creator and an Aryan incarnation as intercessor, the tendency being, in accordance with our racial proclivities, to prefer the latter to the former. Indeed the thorough Aryan will assert stoutly, that it is quite impossible to approach God except through Christ, although if he would only look abroad he might see Jew and Moslem doing the thing every day. Under Catholicism, the adoration of the Virgin and the invocation of Saints, show us the lingering Semitism of Christianity, largely overlaid by the pantheistic proclivities of the classic race. Now the system of M. Comte is in reality this adoration of the Virgin—that is of the woman, and this invocation of Saints—that is of select humanity, with every trace of intruding Semitism thoroughly eliminated. It is the pure pantheism of the Latin nations, at its germinal stage, before a formal and avowed polytheism has had adequate time for development.

Now it must not be supposed that the foregoing amounts to a sentence of entire condemnation. Pantheism has its legitimate domain

in the religious sphere. The fact that it is the religion of the Aryan or intellectual division of the Caucasian race, as contradistinguished from Monotheism, the creed of the Semites or moral division, may suffice to show that it is not without its rightful claims on our attention. In truth, what humanity now needs, as we have already hinted, is not the entire supercession of one of these creeds by the other, but their union in a prolific marriage for the production of a third, combining the good qualities of both, and thus superior to either. In a sense Christianity was the beginning of this process, and what the world is about to see, is its continuation. Judaism and Hellenism were the representative types respectively of Semitic and Aryan thought, and as they coalesced under the political supremacy of Alexander and his successors, and interfused amidst the cosmopolitanism of all-absorbing Rome, Christianity was the result. Such elements of progress as the world then afforded were thus absorbed and assimilated, and what we now want is a similar absorption and assimilation of its present elements. These are still the loftiest and purest Monotheism of the morally developed Semites, and the philosophy, literature, science and art, not omitting even the direct religious Pantheism of the intellectually expanded Aryans. We now then begin to understand something of M. Comte's real mission and of that inspiration of the age which urged him to its fulfilment. He was not the world's "coming man". He had neither the moral elevation or the true intellectual expansiveness requisite for this, to say nothing of the more than heroic energy and poetic inspiration that go to make up our conception of the world's future prophet. He could not take in both sides of the problem. He was too thoroughly a Pantheistic Aryan to properly appreciate the grandeur and importance of the Semitic elements, in promoting the religious development of humanity. But from this very speciality in his mental constitution, he was, perhaps, all the more qualified for assisting in the arrangement and classification of the sciences, and in otherwise organising the Aryan elements of progress prior to their assimilation as integral parts of the religion of the future.

Let us enter somewhat more minutely into this subject. Monotheism is the sublimest conception which has yet been formed by the mind of man. It is, indeed, so grand and so lofty, so positive and so masculine, that under its best form, as among the Jews, it is utterly destructive of art, and cannot rear even its own temple. While under its ruder and severer aspect, as proclaimed by the desertborn son of the Koreish, it ends, as we see in all Mohammedan countries, in political decay and physical desolation. Nor is this matter for astonishment, for it is only a half truth. It asserts the divinity of God, while

by implication it denies the divinity of nature, and therefore of man, the child of nature. Hence the necessity for the Aryan element of Pantheism, which so loudly proclaims this divinity, and even asserts its distinct incarnational manifestation. For a full religious development, there must not only be a worship of God, but also in a sense, a worship of nature, and at least a glorification of humanity. Now it is this glorification, this veritable apotheosis of humanity which constitutes the fundamental truth of Christianity, and gives it its acknowledged power over the Aryans of the West. Just as the same doctrine, gives the great incarnational faiths of the East their hold upon the Aryans of Asia, and through them, upon their ruder neighbours, and in a sense congeners, the Turanian populations of the farther Orient. For a full proclamation of the divinity of nature, albeit it is the major and inclusive premiss, and in due logical sequence should have preceded a recognition of the divinity of man, we have yet to wait. But for this the labours of modern science are, as our religious friends might say, a providential preparation.

We have been severe on M. Comte, or rather on his doctrines. But this was unavoidable. His mistakes were so grave and his pretensions so preposterous, that to expose them was to condemn him. Let there be no misapprehension in this matter, however. For Auguste Comte, as a private individual, we entertain the most profound respect. As the organiser of science the world will ever be his debtor. But as the would-be founder of religion, we regard him with a pity bordering on contempt. It must not be supposed, however, that he proclaimed nothing but errors, or that his labours were altogether useless, or as some would assert, decidedly mischievous. He appeared as the herald of reorganisation in an age of chaos. Although not the true Demiurgus, he was doubtless his precursor, and as a sign the importance of his advent cannot well be overestimated. He came too at the right time and of the right people for the work which he had to perform, the classification of the sciences preparatory to their recognition and absorption as a part of the impending religion to humanity. With this, some may, perhaps, think that he should have been content. But it should be remembered that France has a social as well as an intellectual mission, and perhaps her inspired son spoke under compulsion in the one case as well as the other. Of M. Comte as a religious founder we have already expressed our opinion. Let us now look at him as a social reformer; and here we must again refer to his religious system, but this time, not as an embodiment of doctrine, but as a scheme of ecclesiastical polity.

Religion implies a priesthood. If you permit the former, you cannot refuse the latter, for it is but the visible organ through which the

invisible life discharges its functions. It is but the material vesture in which the immaterial spirit has prevailed to clothe itself. A hierarchy is the ecclesiastical necessity of a spiritual age, and so we may say, in other language, the inevitability of a reconstructive era. Such an assertion is of course very unpalatable to destructives, but it is none the less a veracity, resting on the ever accumulating experience of the ages. So far from humanity outgrowing this, it is on the contrary growing into it. A true hierarchy is utterly unknown to the Negro, and but imperfectly so to the Turanian, for the Buddhism of the latter, whether in doctrine, organisation, or ritual, is an importation from Aryan India. Nigritia has its Obiman and Mongolia its Shaman, till assisted from without.

This very fact, that a hierarchy is the special product of Caucasian culture, must ever give this complex form of ecclesiastical organisation an interest of no common order to the true anthropologist. In it must be reflected some of the noblest instincts, shall we say, some of the grandest inspirations of the highest type of humanity. In its perfect form, a hierarchy is the organ of a theocracy. It was this once; it will be this again when the epicycle has fully revolved. To this the Papacy was an approximation. It was this in theory, but not in fact; it was a promise of which we yet await the fulfilment. Now a theocracy almost implies not merely a divine founder, but also under some form a continuity of the divine presence. The Grand Lama is presumably a reincarnation, and even the Pope professes to be Christ's vicar; and in his official capacity as head of the Church is supposed to possess so much of living inspiration as to justify his claim to doctrinal infallibility. It need scarcely be said that Protestants do not understand this, but if wise they would know that every simulacrum implies somewhere or somewhen a real presence. Perhaps they will recollect, as they are familiar with Biblical instances, that under the Semitic theocracy of the Israelites, among whom, from racial proclivities already specified, an avowed incarnation would have been distasteful, there was the (to Moses) visible descent on Sinai, and (to the high priest) the permanently visible shekinah between the cherubim. After such considerations as the foregoing, poor M. Comte's miserable savants, with the influence of women but without the power of men, are so irresistibly suggestive of the ridiculous, that perhaps, in mercy to his memory and to the feelings of his living disciples, the less we say about them the better! Suffice it that hierarchies in their splendour have always used princes as their puppets, and should they be destined to another culmination, will doubtless do so once again, the solemn remonstrances of revolutionists and the stringent regulations of M. Comte to the contrary notwithstanding!

And here let us pause for a moment to contemplate the childish confidence and well-meaning self-sufficiency of this great and good but sadly mistaken man. A Celtic-Gaul, without the shadow of a suspicion that his Aryan specialities as a Pantheist, utterly disqualified him as a doctrinal teacher, for leadership among the Monotheistic Semites, he nevertheless proceeds to promulgate a world religion in which there is no God ! Practically ignorant also of the great law of progress, that mankind never give up any one form of truth to which they have attained, till it has been superseded by another and a higher, he thought the Christians of Europe would surrender their belief in immortality for a participation in the cheerless celebrity of his *grand être*. Then, proceeding to found a hierarchy of intellect, he thinks to limit their power through all ages by a few arbitrary rules laid down in his study at Paris. What a stupendous ignorance is revealed in these few but cardinal errors. Ignorance of race, ignorance of history, ignorance of the fundamental laws of human progress. It is very obvious that M. Comte really knew nothing of racial speciality in reference either to religion or government. And it is equally obvious that he was oblivious of the great truth, that empires and hierarchies have their own laws of growth and decay, and are in each, not only independent of arbitrary rules, but also to a considerable extent even of disturbing forces.

Returning, however, from this almost personal digression, let us, ere concluding this portion of the subject, make a few more remarks on priesthood and its functions. A hierarchy is, strictly speaking, an organisation of the cultured intellect of any given time and area. It is a most mistaken idea that it numbers only the celebrant clergy. It did more than this, even in the rudest ages. It embraces also the lawyers, whose judges answer to the bishops, the physicians and men of science, the artists and men of letters, whose poets are an order of subprophets. In other words a hierarchy is tantamount not merely to the clergy, but also to the clerisy of the land, and this too in a state of efficient organisation. Now the speciality of these latter ages, using that term in a rather wide sense, is the disorganisation of this body, accompanied, of course, by a great diminution of its recognised dignity and formal power. And perhaps it is in perfect keeping with this, that the most spiritual of all its orders, the men of letters, in truth as we have said, its very prophets should be the most thoroughly disorganised, veritable Ishmaelites of the desert of civilisation, unvestured, untitled, and, it need scarcely be said, *unendowed* ! The truth, however, is that the universities, with their gownsmen and professors, represent this branch of the great hierarchy of intelligence—albeit, perhaps, the traditional rather than the vital phase of the matter.



Now we can readily understand that this condition of things is quite satisfactory to John Stuart Mill and those who think with him. It is revolution realised. Hence his opposition to that portion of M. Comte's scheme which implies the reorganisation of the spiritual power. But in this, as in many other things, the founder of Positivism, however shortsighted in some respects, at least saw farther than the revolutionists, that is, he looked beyond them, over this age of chaos, into one of reconstruction, which, quite independently of any immediately presentable signs of its approaching advent, is obviously impending, if only from the law of action and reaction. But when it comes, and the ripples of the returning flood are distinctly visible, we may be sure that it will be with all the resistless force of a mundane tide, in regard to which human regulations and artificial obstacles are simply contemptible.

But if hierarchies, whether in their origin, growth, splendour, or decay, are subject to the operation of regular laws, so also are rubrics. The ceremonial of a religion is no more an accident than its doctrine. As the last is an inevitable development, from previously existing elements of thought, so the first is an unavoidable necessity, a practical result of previous example. The Church of Rome did not originate her vesture or her ordinances, nor, we may add, even the manner of their celebration. They are largely an inheritance, which, however, she has very wisely not allowed to lie barren. And however plain-sailing, simple-minded Protestants may object to it, there is no doubt they will prove very largely the germ, or shall we say foundation, of the rich and imposing ceremonial of the future. But Auguste Comte quite mistook his vocation in attempting to legislate on such matters, which, as we have said, are things not of arbitrary appointment but of irresistible growth, and that growth we may add in strict accordance with racial proclivities.

It is the same with architecture. Rome could no more help building her Gothic cathedrals, than she could avoid the celebration of mass. The Olympian faith is reflected in the Parthenon; while that of mediæval Christendom may be read in York Minster. The race and the faith determine the temple. Given a new faith, and you obtain its inevitable sequence, the requisite inspiration for a new style. It is the essentially transitional character of Protestantism, which renders its architecture so poor and imitative. It is not, strictly speaking, a faith, but simply the protest against an old and the preparation for a new one. Let no prophet, therefore, trouble himself about his temple, well knowing that all spirits become fittingly vested in due time. Alas! from how much needless trouble might would-be reformers often save themselves, by a little more reliance

on the divine yet simple law of GROWTH. These good people do not seem to understand that, if you would have an oak, you must plant an acorn—and wait the result. They, on the contrary, want to *make* their oak, and of course suffer ignominious defeat, at the hands of insulted and indignant nature, for their pains.

Now, we can easily understand that the disciples of M. Comte, while readily admitting the truth of these remarks in relation to such men as St. Simon and Robert Owen, will nevertheless vehemently deny their applicability to the founder of Positivism. And we grant that plenty of passages may be selected from his writings, most favourable to the slower processes of growth and development, and directly condemnatory of needless and useless interference. This, indeed, was his theory; which, however, his practice very commonly contradicted. Indeed, it would almost seem that he thought no one had a right to interfere with the historical continuity of human progress—except Auguste Comte! We quite grant that he was true to his theory in the systematisation of the sciences, which was a movement, as Father Newman would say, in the right line of development. But his Positive religion is a more decided breach of theological continuity, than anything of which history affords the practical example. In truth, one important element of its impracticability, is the fact that it does not grow out of, or directly rest upon, any antecedent system. This, however, is by no means the only instance in which M. Comte's theory and practice contradict each other. Thus, he is frequently speaking of *unity*, and yet his scheme for the temporal government of the world consists in the institution of an indefinite number of small republics, ruled by their principal capitalists. He apparently not seeing, that the only real *unity* possible, is under a theocratic autocracy, whereto his model republics are the opposite pole of multiplicity; poor, weak, *experimental* humanity, having generally had to content itself with something less extreme than either!

M. Comte's ignorance of race was fatal to his pretensions whether as a religious founder or as a social reformer, with a mundane mission. His area, not only of experience but also of outlook, was essentially European, where it was not still narrower, as being especially French. His geographical, and with this, his ethnic range, was far too contracted for a true humanitarian chieftain. And he laboured under a corresponding defect in reference to time. He was too much the child of the revolution. He mistook many of its essentially transitional and merely provisional arrangements, for the normal manifestation of governmental principles. His division of what may be called secular society, simply into capitalists and workmen, is an instance in point. France having destroyed her here-

ditary nobility, he thought such an institution unnecessary. It is obvious that he did not understand, and therefore did not believe in caste ; or, speaking anthropologically, of race within race. It was an idea, on which the revolution necessarily made war, and he accepted its levelling conclusions without investigation. The oracular voice of history was dumb to him on this subject—or perhaps he was deafened by the sound of the tumbrils, that conveyed the effete remains of Frankish chivalry to the guillotine. Here, again, his ignorance of race was made manifest. As the highest types have the greatest hierarchies, so have they, in their normal condition, the grandest nobilities. Feudalism is an impossibility in Nigritia. Let us clearly understand this matter. The hereditary transmission of type and quality of mind is a fact in Nature, and as speciality of endowment and individuality of character become more marked as you ascend in the scale of being, there is of course more diversity of type and quality in the higher races than the lower ; in other words, there is more material out of which to evolve the institution of caste, an inevitability of the future, as sure as it was an actuality of the past. Here, too, as in many other phases of reconstruction, it is very obvious that the movement has already commenced, and society is even now dividing into *horizontal* layers ; in truth, settling into parallel strata—as some people find to their unspeakable mortification. Now to this we already hear the revolutionists uniting in one consentient chorus of denial—which, however, does not alter the fact in nature. Even into this matter M. Comte saw further than they do, and clearly perceived that there must be an owning and a producing class ; but then, as he constituted his hierarchy out of savants, so he made his nobility out of capitalists, and as we have already remarked, the less said about either the better.

But there is another phase of this matter, for which also M. Comte's system makes no adequate provision—we allude to the conquest, and in a sense, colonisation, of the inferior by the superior races. Now, ethnically speaking, this is obviously to be the great feature of our more immediately impending future. Perhaps this needs some explanation. The racial event of the last two thousand years was the subsidence of the nervous and the military predominance of the muscular races. We see this from India to Britain ; the Tartar conquering Asia, and the Teuton subduing Europe. It was this movement which brought out not only Alaric and Attila, but also Toghrul Beg and Alp Arslan, Genghis Khan and Tamerlane. The only great exception to it was in the rise of the Saracenic power of the Caliphs, ultimately overwhelmed in the resistless flood of Turcoman invasion. But this movement has now ceased. The

needful baptism of bone and muscle has been effected, and once more the nervous and intellectual races are assuming their rightful predominance. And it is observable that coincident with this, we see the seat of political supremacy transferred to the Celtic area of Gaul and Britain, in all probability the primæval site of Caucasian culture, and now about to enter upon the epicycle of its former greatness. As an additional evidence of the almost mundane extent of these racial tides, it is also noticeable, that while the Osmanlies were subduing the Greek, the Mantchou tribes were conquering their more civilised congeners, the Chinese. And now, when the Classic races of the south-west of Europe are recovering their former independence, the Celestials are preparing to throw off the yoke of the northern nomads. Action and reaction are, and probably have been from time immemorial, propagated from Britain to Japan, right across the major axis of the Old Continent, and as we now see, even into the New, the colonisation of America being simply a prolongation of that western movement of civilisation which constitutes the cardinal fact of history.

To pass however from these, perhaps, rather vague generalisations, into more practical details; it is very obvious that Caucasian Christendom is now virtually the imperial centre of the world, and nothing but the petty jealousies of its rival nations, prevents their carrying this out into universal political supremacy, by means of military conquest, as the English have done in India and the Russians in Siberia. Asia must be, for a season, the appanage of Europe. Once more the Aryans will sweep out of their north-western home upon south-eastern conquests, but this time they will not be arrested by the Ganges but the Pacific Ocean. And is it conceivable that this should take place without the reappearance of caste? not at first, perhaps, as a formal institution, but ultimately as an inevitable growth. We may be quite sure that the Caucasian and Turanian will never settle down together on equal terms, when the former is the master. Let us remember that *written* history can be no guide in this matter. It narrates little more than the gradual subjection of the superior by the inferior types. In a racial sense it is simply the chronicle of disintegration and revolution. To understand and truly forecast the era on which we are about to enter, we must go back to tradition and archæology, to the period when India and Egypt were laying the foundation of their complex institutions. Short of this, historical instances will simply land us in error.

This matter goes down to greater depths than is usually supposed. As we have already shown in some former papers, the entire north-western march of civilisation was accompanied by a process of analysis and disintegration in language, institutions, and of course in ideas.

Now the opposite, or south-eastern march, will, we have every reason to believe, prove the very reverse of this ; that is, it will be a movement of edification, religious, political, social, and intellectual, being in all this but the epicycle of that prior movement whereof mythology, philology, and archæology are now our sole records. Granting this, it must be at once obvious that any system of religion or philosophy which does not take such an impending movement of humanity into account, must fall short of modern pretensions, and will fail in that grand era which awaits us in the future. Shall we be thought severe if we pronounce the Positive religion thus inadequate. Alas ! how much else in which mankind now place undoubting faith will also prove equally inadequate in that great day of account, so that Auguste Comte and his Parisian creed will not stand alone in the list of the rejected.

We have not yet exhausted the errors of M. Comte ; nor is there any reason why we should attempt the accomplishment of so great a feat. Our purpose was simply to contemplate Positivism as a religion from the racial standpoint. We think that, thus tested, it has proved insufficient. Our judges in this matter are not the general public and men of letters, nor even the smaller, and apparently yet more competent tribunal of men of science, but anthropologists alone, for they only are competent to decide such a question, and to them we commit its further consideration. But to thus conclude our review of the labours of so great a mastermind with merely a verdict of condemnation would, we feel, be not only ungrateful, but positively unjust. As we have said, M. Comte had many deficiencies utterly fatal to his astounding pretensions as "the coming man." He had neither the depth, or the grasp of thought, nor the more than poetic sublimity of conception, to qualify him for so stupendous an undertaking as the founding of a world's faith. He had not even the requisite attainments, for a knowledge of race is among the necessary qualifications of him who would legislate for any other people than his own. But with all these wants he was, in many points, beyond his age, and uttered truths for which the future will acknowledge itself his debtor. He saw beyond the revolution, and, as a consequence, proclaimed the necessity for reconstruction. To a certain extent he even effected this in his own, that is, the scientific sphere. And, indeed, it may be said, that wherever he was really guided by the true spirit of re-edification he was right, while wherever he was the child of the revolution he was wrong. He did a noble work in the systematisation of the sciences ; and even granting that the attempt was premature, it was still the life-labour of a giant, in his task as a pioneer. He was correct, too, in his assertion that we want a reconstitution of

the spiritual power. But he was as decidedly in error when he would have erected this stately edifice on the sandy foundations of a Godless creed, that dared not proclaim the immortality of man. In this he was simply the child of the revolution—the mathematician turned prophet! It is the same with his temporal power: society does want reconstruction, but not on the simply republican basis of capital and labour, even though the former should, as a rule, become an hereditary possession for the public good.

The truth is, M. Comte was an Aryan—simply that, and nothing more. Hence his religion is a philosophy, not a faith; and so will remain a beautiful dream, incapable of realisation. He saw and bravely proclaimed the superiority of man's moral over his intellectual nature, but he did not know how to enthrone it, in its rightful supremacy. In short, wherever the Semitic elements of universal progress come into play, he utterly failed either to appreciate or apply them. But he was often great as an Aryan. His eloquent advocacy of the claims of women is an instance in point. A pure Semitism, as in the case of Judaism and the faith of Islam, has always proved deficient in this province. It is the Aryan element in Christianity that has permitted of the worship of the Virgin, although it has not yet been able to restore her sisters to the service of the altar.

In some features of his system M. Comte's racial specialities become even yet narrower, and he ceases to be simply the representative intellectual Aryan proper, having sunk into the Celtic Gaul of monarcho-imperial sympathies, and, of course, with ultra revolutionary antipathies. He has not the faintest conception of true individuality—in others. To him there is but one individual in existence—and that is Auguste Comte, with, of course, his angelic counterpart, the divine Clotilde! He is to be the model man, and she the model woman, to the end of time. Poor fellow, with all his towering ambition, he was only a Frenchman, one of those thirty millions of human machines whom a Bourbon or a Buonaparte, when of competent force, can lead whithersoever he will—the clan blindly following their chief to glory or the grave. Of course, as a logical sequence to this radical defect in his mental constitution, he had no true idea of liberty—not even that of the intellect. He had no faith in the spontaneity of human endeavour. He did not understand it. He wanted everything to be subordinated to system—his system. It is doubtful if he even remotely comprehended genius, or its functions. He at all events made no provision for the free exercise of its powers. It would have proved a terribly disturbing element in his model world of artificial French propriety. There is no necessity for dwelling on his limited positivist library. Such follies refute themselves. No truly

wise man has any fear but that, in the matter of literature, the ages will winnow the chaff from the wheat. So with his limitations and directions as to philosophic speculation or scientific research, his attempted interference was simply the official impertinence of an old French prefect, grown grey in the work of needless superintendence. But we have done. For M. Comte, as an individual, we entertain the greatest respect. Of his system of religion, we will only say that it was the dream of a closet philosopher, who had but a limited personal experience, even of his own people, and no profound or extensive knowledge of the capacities and requirements of alien and diversely constituted races. His systematisation of the sciences will doubtless ever remain as an enduring monument of intellectual power; but the sooner his foolish creed is forgotten the better, not only for his own reputation, but we may add, that of his disciples.

Let not the general tenor of these remarks be misunderstood. There is no doubt that the Semites are pre-eminently the moral division of the Caucasian race, while conversely, the Aryans are the intellectual. But it does not at all follow on this account that the latter are never to take a leading part in the religious development of mankind. This altogether depends upon the work to be done. The Semites, as Jews and Moslemin, have for the time accomplished their portion of the common labour in the propagation and maintenance of monotheism. And what the world now wants is the union with this of the intellectual culture of the Aryans. Existent Christianity is a result of the beginning of the process. In its doctrine, we see the influence of Greek neo-Platonic philosophy; in its ritual, the impress of Roman ceremonial art. But the process of interfusion is by no means complete. Literature and science are still unrepresented in our theology. The religious life of humanity is obviously on the verge of another great period of growth. And the true impulse to this can only come from nations still vital, that is, from the people of Western Europe, the true representatives of Aryan intellect in its more modern phase of development. Asia and its people are dead—awaiting their resurrection, of which, however, Europe must sound the trump. Thus, then, we are not opposed to M. Comte's claims, simply because he was an Aryan, and nothing else, but because, with an unwisdom which was astounding in such a thinker, he wished to ignore our religious progress in the past, and to build the temple of the future, without acknowledging our indebtedness to Semitic tuition during the existing Christian era. We are opposed to him because he wished to substitute a philosophy for a religion, and thus, instead of marching onwards into coming time with ever-accumulating wealth, he would have dropped some of our choicest jewels on the road. But we need have

no fear. What he attempted another will accomplish. Where he failed a greater will triumph. And perhaps in that far future, when the records of these transactions are scanned with the impartial eye of a distant posterity, it will be seen that the life-labour of this earnest and devoted, though mistaken Frenchman, was not altogether in vain, even as a preparation for that other and greater who is to follow in his path, and to succeed where he failed, and to triumph where he was defeated.

At some other time we purpose following out these inquiries on "Race in Religion" by a paper on the existent faiths of the world, and their relationship to the races that hold them. We shall then endeavour to show that Brahmanism and Buddhism are purely Aryan creeds; Judaism and Islamism, Semitic creeds; while Christianity is a result of the fusion of Semitic and Aryan elements in an early, not certainly the final stage of their combination. By an experience thus obtained from the study of history, and the observation of existing facts, we may perhaps be enabled to throw some little light on the probabilities of the future, not however, we trust, in the spirit of dogmatism, but of pure speculation, desirous only of the truth.

## ON THE APPLICATION OF THE PRINCIPLE OF NATURAL SELECTION TO ANTHROPOLOGY,

IN REPLY TO VIEWS ADVOCATED BY SOME OF MR. DARWIN'S DISCIPLES.\*

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THE object of the present communication will be to show that the recent application of Mr. Darwin's hypothesis of "Natural Selection" to anthropology by some of Mr. Darwin's disciples, is wholly unwarranted either by logic or by facts.

I have before called the attention† of anthropologists to the remarkable fact that some Darwinites are Monogenists, and, what is still more remarkable, that some Darwinites in this country are even now teaching as a scientific induction, that there is, at the

\* This communication was read before the Anthropological Department of the British Association for the Advancement of Science at Nottingham, on August 24th, 1866.

† Carl Vogt's *Lectures on Man*, 1864.



present day, but one species of man inhabiting the globe. We are told that Mr. Darwin's theory has had the delightful effect of "reconciling and combining all that is good in the Monogenistic and Polygenistic schools."\* This is the estimate of Mr. Darwin's hypothesis put forward by Professor Huxley. So, too, Mr. Wallace observes: "It is my wish to show how the two opposing views can be combined so as to eliminate the error, and retain the truth in each, and it is by means of Mr. Darwin's celebrated theory of 'Natural Selection' that I hope to do this, and thus to harmonise the conflicting theories of modern anthropologists."†

Mr. Wallace has, however, not drawn attention to the fact that diversity of existing species of man does not necessarily involve diversity of origin, for he asks the double question: "Are the various forms under which man now exists primitive, or derived from pre-existing forms? or, in other words, is man of one or many species?"

Professor Huxley, however, is fully alive to this fact, and I shall therefore take his views, and see how far his reasoning is sound.

In the first place, does Mr. Darwin's hypothesis warrant the assumption of the unity of origin of man claimed for it by the two of his disciples from whose writings I have quoted?

Professor Huxley says that Polygenists have failed to show a specific difference between any two species of man, and that the test of hybridity has failed. These are, however, mere matters of opinion on which we need not dwell. It may be that Professor Huxley is not satisfied with the sort of evidence which the advocates for the diversity of species of man have adduced; but perhaps he may long exclaim, as Rudolphi did more than half a century ago: "I have for years taught the natural history of man, and taught it according to the prevalent opinion of the unity of the human species, as Blumenbach has apparently established it with so much learning; yet, just because I taught it, there arose doubts in my mind which so much increased that I finished by teaching the opposite opinion." I hope, too, that Professor Huxley may be able to say with this author: "There is no point of knowledge so dear to me which I am not willing to abandon as soon as I am convinced of its falsity." I feel sure, however, that he will agree with this celebrated author in the sentiments he has expressed, that "if there be a duty of a teacher, it is to tell his views openly."‡

But to go on from Professor Huxley's opinions to his statements

\* "Methods and Results of Ethnology", by Professor Huxley, *Fortnightly Review*, No. 3.

† *Journal of the Anthropological Society*, vol. ii, p. clix.

‡ *Über die Verbreitung*, etc., 1812.

and his facts. Amongst the former, I find this assertion: "Surely no one can now be found to assert that any two stocks of mankind differ as much as a chimpanzee and orang do." Now, if Professor Huxley simply means in physical structure, this statement may have some truth in it; but if it is to be put forward as a general statement that in the totality of anthropological characters there is not so great a difference between any two species of man as between these two species of apes, I think that question may be one which is fairly open to debate. I have, however, some three years ago, made what I then believed, and still believe to be, a fair deduction on this subject in these words: "That there is as good reason for classifying the Negro as a distinct species from the European, as there is for making the ass a distinct species from the zebra; and if, in classification, we take intelligence into consideration, there is a far greater difference between the Negro and the European, than between the gorilla and chimpanzee."

Professor Huxley speaks of the "overwhelming evidence in favour of the unity of the origin of mankind afforded by anatomical considerations." In the first place, I contend, on the authority of very many anthropologists, that the evidence is not of the nature described; secondly, that many of our best anthropologists consider these grounds alone to point to an entirely different conclusion; and, thirdly, I believe that such characters only, however uniform, cannot of themselves afford "overwhelming evidence in favour of unity of the origin of mankind."

With regard to this last point, I am quite prepared to admit that man should be studied like any other object in nature. I do not claim for him any faculties which cannot be as clearly demonstrated as his physical characters; and, on the other hand, I contend that men of science have no right to base the classification of mankind either on anatomy or any other single point of observation. I say more. Anthropologists are bound to take the totality of the characteristics of the different types of man into consideration. Man is chiefly distinguished from the apes by his mental characters, and it is to these that we must look for assistance in our systems of classification.

Professor Huxley objects to the terms "varieties," "races" and "species," "because each of these terms implies, on the part of its employer, a preconceived opinion touching one of these problems, the solution of which is the ultimate object of science." So far very good; but Professor Huxley is not content with such negative advice, but goes on to recommend the use of the words "persistent modification" in the place of "race" or "species." But does not the term "per-

sistent modification" equally involve a theory on the part of those who use it? As Hollard long ago well remarked, "To say that mankind has become modified is to say that the varieties of the human species are derived from the same type and originated in the same cradle." Let Professor Huxley demonstrate, if he can, that the difference between the chimpanzee and the gorilla, "admitted to be distinct species by all zoologists," is a whit greater than the distinction between the Englishman and the Congo Negro, the Hottentot or the Australian.

I am also curious to learn what induced Professor Huxley to make the statement that "no one can now be found to assert that any two stocks of mankind differ as much as the chimpanzee and orang do," when one of the most eminent living naturalists—Louis Agassiz—has long held, and says he is prepared to verify, the very opinions which we are now told "no one will assert." Agassiz's words are,—  
 "I am prepared to show that the differences existing between the races of men are of the same kind as the differences observed between the various families, genera, and species of monkeys or other animals; and that these different species of animals differ in the same degree one from another as the races of men—nay, the differences between distinct races are often greater than those distinguishing species of animals one from another." He then expressly asserts,—  
 "The chimpanzee and gorilla do not differ more from one another than the Mandingo and the Guinea Negro; they together do not differ more from the orang than the Malay or white man differs from the Negro." He concludes most emphatically,—  
 "I maintain distinctly that the differences observed among the races of men are of the same kind and even greater than those upon which the anthropoid monkeys are considered as distinct species."

Professor Huxley writes as though all men of science agreed with him respecting the unity of mankind. I contend, however, that the highest authorities on this subject are of an entirely different opinion. To give some evidence that such is the case, I will quote a few of the opinions of those who have devoted most attention to this subject, and are worthy to be regarded with respect by all.

G. Forster, writing in 1786, says,—  
 "The supposition that there were several original species presents at all events no more difficulties than the assumption of a single pair. If the Negro originated in Africa, the whites in the Caucasus, and the Scythians or Hindoos elsewhere, centuries may have elapsed before they came in contact. In looking upon the Negro as a distinct species, . . . . . There is a certain old book which gives no description of the Negro, and the great man, its reputed author, has perhaps not seen a genuine Negro. Yet any one who utters the probability of a plurality of species makes

an attack upon this old book, and is deemed an heretic. These heretics are wicked people, and led by ignorance. But I trust a philosophical jury will find me not guilty."

Voltaire said,—“the first white man who saw a Negro must have been vastly astonished, but the reasoners who would persuade me that the Negro is descended from the white man would astonish me still more.”

Rudolphi (1810) says,—“the possibility of 5,000,000 of men descending from a single couple cannot be denied, but only by a chain of miracles could it be realised. Accidents of all kinds could as much have occurred to the first pair, and the propagation of the race would then have been abandoned by accident. Nature does not proceed thus.”

Steffens writing in 1822, says,—“it is evident that empirical natural science is forced to assume a fundamental difference of the human species. Races are unchangeable; that, which by external influences, such as climate, mode of life, etc., undergoes a change of form, is a variety, not a race. Races may alter, but only by interbreeding. . . . As naturalists we repudiate the notion of endeavouring to reconcile our notion with religious tradition. We keep simply to the facts.”

Dr. Morton of America wrote thus more than fifteen years ago, —“After twenty years of observation and reflection, during which period I have always approached this subject with diffidence and caution; after investigating for myself the remarkable diversities of opinion to which it has given rise, and after weighing the difficulties that beset it on every side, I can find no satisfactory explanation of the diverse phenomena that characterise physical man, excepting in the doctrine of an original plurality of races.”

Professor Bérard in 1848 thus expresses himself,—“I cannot conceive how a mind free from prejudice and unembarrassed by certain extra scientific considerations impeding liberty of thought, can entertain any doubt on the primitive plurality of human types.”

Rémusat, writing in 1854, says, “if there did not exist a certain instinctive repugnance to the belief in an original and permanent inequality between human beings, and if our mind had not the tendency to simplify everything, the examples furnished by animals, and the difficulty of rationally and scientifically accounting for the varieties of the human species, the doctrines of unity would have been long abandoned. The knowledge of the general law of nature opposes this doctrine.”

Rémusat also asks, “can we form an idea of an earth adorned by a single plant of each species? Where did the animals find food upon an earth so naked? How could the first couple of fish have lived in a desert ocean? What we have said of animals and plants may be applied to mankind. Reason certainly sees no objection that the conservative profusion should also have presided at the formation of mankind, which may have appeared at once or successively in different

parts of the globe. This hypothesis, of which we do not undervalue the difficulties, better explains the difference of race. At any rate we cannot but hesitate to suppose that Providence would expose a single couple, and with it the whole future race, to be destroyed by some accident. Such is not the order of nature as science teaches us. If, then, our theory be rejected, we must suppose that in primitive times there reigned an order different from that furnished by actual data."

Burmeister, writing in 1856, says,—“After what has been stated we are justified in contesting the possibility of the descent of mankind from a single pair; we feel, on the contrary, compelled to assert the descent from many protoplasts. This may even be proved by the colour in different races. If all races descended from a single pair, all the shades must be derived from a fundamental colour, which in my opinion is impossible. If the black of the Negroes were really a burned white, and if the yellow of the Mongols were intermediate, the copper-red of the Americans would not suit this scale. It might be asked why have the Australians and Papuans become black, whilst the inhabitants of the Society and Friendly Islands living nearer the line remained yellow brown, etc. The whole theory (of the unity of species) appears to the unprejudiced inquirer in so unfavourable a light that no one would have entertained the idea of descent from a single pair, had it not been taught by the Mosaic history of the creation. In order to sustain the authority of the Scriptures, a number of authors not sufficiently acquainted with the results of modern researches have been induced to defend the myths of the Old Testament. The number of these defenders seem to increase in proportion as science rejects this dogma.”

Giebel (1859) asks,—“do all men, zoologically considered, belong to one species? This question is frequently answered from a zoological standpoint in the affirmative. The more carefully the comparison (between the races) is made, the more striking are the differences. They affect the whole skeleton, the vertebræ, column, shoulder, pelvis, and limbs, and upon these again depends the form of the soft organs, so that the race differences, both external and internal, are so deeply marked, that the zoologist sees no more races, but so-called typical species. Mere zoology can come to no other result than to assume specific differences among mankind.”

Dr. Robert Knox in 1862 thus expressed himself after studying the subject for forty years:—

“Men are of different races palpably distinct. These races are entitled to the name of species. These species, though distinct in themselves, form groups so as to constitute one or more natural families. As in animals so in man, who also is one. The affiliated races, although strongly resembling each other, yet differ remarkably, as well physically as morally, in a way wholly inexplicable, but on the principle that essentially they are not of distinct species or races, however originating. This difference in moral and physical qualities so remarkably distinguishing even the European races (mostly formed into

nations) is best seen by referring to their various forms of civilisation, to their religious follies or belief, their antagonism to each other, and generally to the view they each take of the external world,\* which constitutes or gives a tone, as we say, to the character of their civilisation. . . . Distinct epochs or acts of creation imply a miracle; and miracles are impossible. The philosophy of Goethe, adopted by Geoffroy St. Hilaire, Oken, and some popular writers, is most probably the correct one; but the really scientific men do not as yet look on the theory as established on a strictly scientific basis. . . ."

It has long been the fashion for men of science not specially acquainted with the science of man to declare that the great and learned Prichard's conclusions on this subject ought to have considerable weight on the question of the diversity of races. There are many indications in Dr. Prichard's writings that even he was becoming alive to the difficulty of his own theory, for in one place he remarks :†—

"If it should be found that within the period of time to which historical testimony extends the distinguishing characters of human races have been constant and undeviating, it would become a matter of great difficulty to reconcile the conclusion (*i.e.* the unity of all mankind) with the inference already obtained from other considerations."

Now ever since the time this was written, some twenty years ago, all researches have tended to show that from the very earliest dawn of history races have existed as they are now. I believe that there is not a single authenticated example of such not being the case. Indeed, the tendency of modern research is to show that the differences in mankind were formerly at least as great physically as they are now. As Dr. Nott has well remarked :—

"History, traditions, monuments, osteological remains, every literary record and scientific induction, all show that races have occupied substantially the same zones or provinces from time immemorial."‡

Or as Mr. Luke Burke some eighteen years ago§ remarked :—

"Let there be pointed out any one nation or race of men which has changed its physical peculiarities, or any portion of them, without mixing its blood, and we give up our theory. Or let there be pointed out any one nation or race which once existed in a barbarous state, and subsequently raised itself to civilisation without mixing its blood or receiving instruction from foreigners, and we give up our theory. . . the lesson all history and all human experience have been teaching for ages; but carried away by a favourite dream, men have slighted or misunderstood this lesson. Where, we ask, are the historic evidences of universal human equality or unity? The farther we trace back the history of the past, the more broadly marked do we find all human diversities. . . . Such are the lessons taught by universal

\* *Races of Man*, 2nd ed., p. 591.

† *Physical History of Mankind*, preface, vol. iii.

‡ *Types of Mankind*, p. 77.

§ *Ethnological Journal*, 1848, p. 30-33.

history ; lessons which speak not of human equality and unity, but of great and permanent diversities among mankind."

Carl Vogt,\* one of the last and most logical writers on anthropology, says on this subject :—

"However much we may indulge in theological speculations on the origin and differences of mankind, however weighty proofs may be adduced for the original unity of the human species, this much is certain, that no historical nor, as we have shown, geological data can establish this dream of unity. However far back our eye reaches, we find different species of man spread over different parts of the globe."

If such a question as the unity or plurality of origin, or unity or plurality of existing species, could be settled by the opinions of those who from their study and other opportunities are capable of understanding the giving an opinion on their subject, the decision would, I believe, be on the side of the polygenists.

Dr. Prichard gave a very good reason why we in England did not hear more of the diversity of race, when he says of such views,—“If these opinions are not every day expressed in this country, it is because the avowal of them is restrained by a degree of odium that would be excited by it.”† There is one conspicuous instance of scientific honesty and consistency to be found in England, of a man who for half a century has manfully endeavoured to combat popular prejudice. I allude to my esteemed friend, Mr. John Crawfurd. May he long be spared to battle against the new form of monogenism which is attempting to arise amongst us. May he live to see the time when men of science will no longer lend the sanction of their names to the doctrine of the intellectual and moral equality of the different species of man. But not to dwell further on opinions, let us examine the arguments and facts in favour of unity on the Darwinian hypothesis.

Professor Huxley apparently declines to admit mental phenomena as any part of his principles of anthropological classification, but is he, or anyone else, justified in doing so ?

Some time since Professor Huxley remarked,—“It is quite certain that the ape, which most nearly approaches man in the totality of its organisation, is either the chimpanzee or the gorilla ; and as it makes no practical difference, for the purpose of my present argument, which is selected for comparison,”‡ etc. This is an important admission, and in a measure justifies the rejection of the hypothesis of the unity of origin of mankind.

Not long since the late Professor Rudolph Wagner remarked,

\* *Lectures on Man*, p. 422.

† *Nat. Hist. of Man*, 1848, p. 6.

‡ *Man's Place in Nature*, p. 70.

"Just before Darwin's book appeared, the theory of the possibility or probability of the different races of mankind having descended from a single pair was considered as perfectly antiquated, and as having lagged behind all scientific progress; whilst now, to judge from the applause with which Darwin's theory is received, there is nothing more certain than the inference that both ape and man had, from their single progenitor, a form intermediate between ape and man." On this it has been well remarked by Carl Vogt, "Never was there a more incorrect inference"; and he adds, "No Darwinist—if we must call them so—has either raised that question or drawn the above inference, for the simple reason that it neither accords with the facts nor the consequences."\* And yet we find that Professor Huxley contends that the unity of origin of mankind is "overwhelming"; and Mr. Wallace says "Man may have been, indeed I believe must have been, once a homogeneous race." These are, indeed, startling assertions; and we ask supplicatingly when was this state? and why *must* mankind once have been of one race? First of all let us question Professor Huxley, and ask on what data or by what process of reasoning he arrives at the conclusion of a unity of the origin of mankind? We are asked to "extend, by long epochs, the most liberal estimate that has yet been made of the antiquity of man,"† as no form of the doctrine of progressive development could be correct. At that time, three years ago, only about nine millions of years had been claimed for man's antiquity. More recently, Professor Huxley has told us that since man has appeared,—

"The greater part of the British islands, of Central Europe, of Northern Asia, have been submerged beneath the sea and raised up again. So has the great desert of the Sahara, which occupies the major part of northern Africa. The Caspian and the Aral seas have been one, and their united waters have probably communicated with both the Arctic and Mediterranean oceans. The greater part of North America has been under water, and has emerged. It is highly probable that a large part of the Malayan Archipelago has sunk, and its primitive continuity with Asia has been destroyed. Over the great Polynesian area subsidence has taken place to the extent of many thousands of feet,—subsidence of so vast a character, in fact, that if a continent like Asia had once occupied the area of the Pacific, the peaks of its mountains would now show not more numerous than the islands of the Polynesian Archipelago."‡

After being called on to believe in "half-a-dozen Atlantises" we are told that "these rude and primitive families were thrust, in the course of a long series of generations, from land to land, impelled by encroach-

\* P. 464.

† *Man's Place in Nature*, p. 159.

‡ *Fortnightly Review*, p. 276.



ments of sea or of marsh, or by a severity of summer heat or winter cold, to change their positions," and concludes the eloquent advocate of a form of Darwinism exquisitely imaginative, "what opportunities must have been offered for the play of natural selection in preserving one family variety and destroying another." And all this must be done to reconcile the original unity of origin of mankind: but not, I contend, on Darwinian principles, which lead to an entirely different conclusion.

We search in vain for any single fact adduced by Professor Huxley to show that man was ever at all different from what he is at present. On the contrary, we find the most positive statements in his own words that "there is not a particle of proof that the cutaneous change thus effected can become hereditary any more than that the enlarged livers, which plague our countrymen in India, can be transmitted; while there is very strong evidence to the contrary." Mr. Wallace, however, tells us that to be a Darwinite on his principles it is necessary to grant us a first condition—"That peculiarities of every kind are more or less hereditary," a proposition which he says "cannot be denied."

But Professor Huxley goes on to make an important admission with regard to the difference in mankind in these words:—"And as for the more important modifications observed in the structure of the brain, and in the form of the skull, no one has ever pretended to show in what way they can be effected directly by climate." So we have *important* modifications in the brain and skull of mankind. It is of course necessary that they shall be "modifications" of some pre-existing type; but it is well to gain the admission that the skull and brain differ in mankind. Let there be added to these the psychological characters, and we may yet have permission and a justification from Professor Huxley to say that mankind is composed of several species. In return for this we may then be able to compliment Professor Huxley on being a logical disciple of his great master.

I agree with the author of the above remarks with regard to the unsatisfactory nature of the supposed process by which climate is said to modify both skull and brain. That "no one has ever attempted to show" how these can be effected by climate is, perhaps, hardly correct. Several such attempts have been made from Hippocrates downwards, but with most unsatisfactory results. Indeed popular writers on this subject appear to be following the reckless speculations of some of our teachers in science. Thus Dr. George Moore, in his work just published on that interesting creature "The first Man," says with charming simplicity and modesty, "How, then, is a Negro produced? we answer in a word, by climate." But, like many other speculators, he does not

venture on any evidence except to give the opinion of Mr. Winwood Reade on the supposed degeneration of the Negroes on the coast, and he very fairly adds to the above statement, "a little patience will be required in adducing the proof."

But let us endeavour to discover the facts on which Professor Huxley bases his hypothesis of unity of origin of mankind. We have quoted from his speculations, and we now turn to his facts. We must then attempt to reconcile these as well as we can.

First of all, what is the evidence for this extreme antiquity advocated for man? I do not intend to enter into the value of the statements I have before quoted with regard to submergence and elevation of these islands and other parts of Europe. I am content to accept the conclusions of the geologist on this point, be they what they may. Granted, then, man existed millions of years ago, how does that assist the hypothesis of unity of origin of man? It is quite true that fossil apes have been already found from India to England, but the remains of man have not yet been found which differ perceptibly from the existing inhabitants of each continent. Professor Huxley admits that both "history and archæology are absolutely silent," and adds, "For half the rest, they might as well be silent for anything that is to be made of their testimony. And, finally, when the question arises as to what was the condition of mankind more than a paltry two or three thousand years ago, history and archæology are for the most part mere dumb dogs." He not only admits that the races of man now existing are "substantially what they are now," but remarks, "it is wonderful how little change has been effected by these mutual invasions and intermixtures," and says, "So far as history teaches us, the populations of Europe, Asia, and Africa were twenty centuries ago just what they are now in their broad features and general distribution. The evidence yielded by archæology is not very definite yet, but so far as it goes it is much to the same effect. . . . Beyond the limits of a fraction of Europe palæontology tells us nothing of man or his works." To sum up our knowledge of the past of man, says the same writer, "So far as the light is bright, it shows him substantially as he is now; and when it grows dim, it permits us to see no sign that he was other than he is now."

I have quoted somewhat at length from this author because it is as well we should see the list of facts on the strength of which mankind are called on to believe in their unity of origin. Not a fact in history or archæology can be brought forward to its support by its most accomplished advocate. We are asked indeed as men of science to have faith, because on some curious process of reasoning it must have been as they teach. We entirely fail to see a particle of foundation either in reason or

analogy for the unity hypothesis on Darwinian principles. We are called on to believe with those disciples in the unity of origin of mankind simply as an article of faith. There is no more foundation for a dogma promulgated on such evidence than for that taught by the majority of theologians in the present day. All we know is, that all science teaches man to be now much as he was when we first catch a glimpse of him at the dawn of history ; and palæontology teaches us that there were fossil apes. Between these two facts all is darkness.

Professor Huxley asks,—“In still older strata do the fossilised bones of an ape more anthropoid, or a man more pithecoïd, than any yet known await the researches of some unknown palæontologist?” “Time will show,” he answers ; but, without waiting to see what time will show, we are called on to believe that man’s place in nature is discovered, and that all the diversities in mankind are “persistent modifications” of some pre-existing homogeneous race.

Some of the processes of reasoning adopted by Professor Huxley are eminently curious and suggestive. Thus in the following sentence which indicates some trepidation as to the soundness of his own views, we read,—“It may be safely affirmed that even if the differences between men are specific, they are so small, that the assumption of more than one primitive stock for all is altogether superfluous.” Now it might be thought that if Professor Huxley had been a loyal disciple of Darwin he would not have been so very particular in exacting such rigid specific characters for all his species. Besides, if differences amongst men are “specific,” it is in vain to plead “they are so small.” As Vogt has well observed,—“the notion of species neither is nor can be fixed,” and that “practically every author conceives it differently.” What are species in London become varieties in Paris. But a still more remarkable mode of reasoning is brought forward on behalf of Darwinism. The science of anthropology is yet destined to demonstrate the truth to Darwinism ! Professor Huxley thinks that the question of the phenomena of human hybridity rests on a very “unsafe foundation,” and that it failed notably in the case of the Pitcairn Islanders ; but “it would not be at all astonishing if, in some of these separated stocks, the process of differentiation should have gone so far as to give rise to the phenomena of hybridity.” First of all we must get this mythical unity of races, then separate them ; if there be any sign of hybridity—that proves the truth of Darwinism ! Hybridity in mankind is thus to be used to establish the truth of Darwinian principles ! The simple facts are not to be taken as they are, but we must accept a unity as an article of faith, and then believe in the truth of “natural selection” on the strength of their gratuitous assumption. Professor Huxley has absolutely put such conclusions

forward. His words are, "satisfactory proof of the existence of any degree of sterility in the unions of members of two of the 'persistent modifications' of mankind, might well be appealed to by Mr. Darwin as crucial evidence of the truth of his views regarding the origin of species in general."

That a man so eminently logical as Mr. Darwin has shown himself in many cases to be, would ever attempt such a thing as calling in the evidence afforded by the phenomenon of human hybridity to support his views on the origin of species in general, is a proposition I cannot at all agree to. But I wish to put it to other disciples of that great naturalist, if they consider that the phenomenon of hybridity in the different races or species of man proves the truth of "natural selection"? Personally I consider with Messrs. Broca, Vogt, Pouchet, and many others, that the existence of "some degree of sterility in the unions" of mankind is proved; but will any one support Professor Huxley in his assertion that Mr. Darwin is justified in assuming that human hybridity is "crucial evidence of the truth of his views regarding the origin of species in general"?

I shall be very sorry for Mr. Darwin's theory if that is the sort of "crucial evidence" it requires for its establishment. Supposing, however, we grant for the sake of argument, that the different species of man produce perfectly fertile hybrids which are indefinitely prolific, this does not prove the unity of man's origin. All naturalists know well enough that different species produce sometimes fertile offspring, while the offspring of universally acknowledged varieties are frequently infertile. What we may believe on such a subject is, that on crossing any two species of man, the same law follows as between any other species of animal. They are very properly called half-breeds, and always partake of the characters of both parents, and never resemble one only.

I have already alluded to Mr. Wallace's opinion that mankind must at one time have been of one homogeneous race, but in justice to that gentleman I must admit that he has very fairly acknowledged that we can only even conceive this by what he calls a "powerful effort of the imagination." His words are,\*—"By a powerful effort of the imagination, it is just possible to perceive him at that early epoch existing as a single homogeneous race without the faculty of speech, and probably inhabiting some tropical region." I ought also to state that Mr. Wallace's views were advanced before those of Prof. Huxley. Mr. Wallace claims an equal antiquity for man with his colleague, and remarks,—“These considerations, it will be seen, enable us to place the origin of man at a much more remote geological

\* *Journal of Anthropological Society of London*, vol. ii, p. clxv.

epoch than has yet been thought possible." So this author is not satisfied with nine millions of years, or even the large extension of that time demanded on this slight antiquity by Professor Huxley. It was in these remote ages that Mr. Wallace considers man to have been of one race; *before*, to quote the author's own words :—

"He had not yet acquired that wonderfully developed brain, the organ of the mind, which now, even in his lowest examples, raises him far above the highest brutes, at a period when he had the form but hardly the nature of man, when he neither possessed human speech, nor those sympathetic and moral feelings which, in a greater or less degree everywhere now distinguish the race. Just in proportion as these truly human faculties became developed in him, would his physical features become fixed and permanent, because the latter would be of less importance to his well being; he would be kept in harmony with the slowly changing universe around him by an advance in mind rather than by a change in body. If, therefore, we are of opinion that he was not really man till these higher faculties were developed, we may fairly assert that there were many originally distinct races of man; while, if we think that a being like us in form and structure, but with mental faculties scarcely raised above the brute, must still be considered to have been human, we are fully entitled to maintain the common origin of all mankind."

Now by a "powerful effort of the imagination" can we conceive the possibility of there ever existing a "being like us in form and structure, and yet with mental faculties scarcely raised above the brute?" Mr. Wallace takes back the unity hypothesis much further than Professor Huxley, for he contends that we must go back for this to a period when the animal we now call man had not speech, moral feelings, or even the nature of man. If we like to consider such a creature MAN, as Mr. Wallace is inclined to do, then he says we may be "fairly entitled to maintain the common origin of all mankind." If, however, this creature without the "nature of man" was a brute, Mr. Wallace allows, "we may fairly assert that there were many originally distinct races of men."

I maintain that the mythical creature described by Mr. Wallace has no right to be called man—not possessing his chief distinguishing characteristics, and if this be acknowledged, then Mr. Wallace is an advocate for "many originally distinct races of man." But Mr. Wallace, after asserting that mankind must at one time have been of a homogeneous race, and then going on to show that it was long before he had the "nature of man," follows up his reasoning by contending that the influence of the mind has stopped the process going on before the advent of intelligence, and that this one homogeneous race is now again reverting to its original state. The human family have been as it were out on an excursion. Speaking of the diverse

species of men as man, he says, "his mental constitution may continue to advance and improve till the world is again inhabited by a single homogeneous race, no individual of which will be inferior to the noblest specimens of existing humanity."

Such are the views of two of Mr. Darwin's most eminent disciples. Are these conclusions warranted by Mr. Darwin's hypothesis? Taking Mr. Wallace's view of the case, does the logical application of the theory of "natural selection" lead to the conclusion that existing mankind is gradually becoming of one race? I do not ask if this is a fact; that is not the point in question. But does the application of Darwinian principles lead to this conclusion?

Professor Huxley, we have seen, proposed to establish the truth of Darwinism by finding sufficient difference in the races of man to exhibit the phenomenon of hybridity; but his colleague will disappoint him if he does not soon do this, for we are again reverting to one homogeneous race. I wish now emphatically to ask which, if either, of the views of Mr. Darwin's disciples is in accordance with his own theory? For my own part I must confess that I think neither the views of Professor Huxley nor of Mr. Wallace are logical results of the working out of the principles of natural selection as propounded by Mr. Darwin.

Another curious application of a portion of the theory of natural selection is that propounded in a work by Mr. Andrew Murray.\* Mr. Murray's speculations are more extraordinary than those of the more thorough followers of Mr. Darwin. He supplies anthropologists with some wonderful information in these words:—

"We have seen a race of man formed under our own eyes, the Anglo-, or rather the Europeo-American nation, as distinct and well-marked a race as any other; and yet the change has been effected over the whole region in which it occurs at the same time. The race has apparently not been produced by an American being born from an Englishman, and then by his propagating young Americans, but hundreds of thousands have had the same impress affixed upon them over the length and breadth of the land at the same time."

After telling us that he has recently become nearly a convert to Darwinism, he goes on to say:—

"Now, according to the reasoning in which I trusted there should have been no Anglo-American nation, the type should have been frittered away in a thousand different directions, a congeries of all kinds of different degrees of change should have been jumbled up together, leaving no distinguishable characteristic by which to know the American from any other nation. And yet, there he is, a nation, *per se*; known to *Punch*, known to passport officers, known to ourselves, easily identified, easily figured, and easily caricatured."

\* *The Geographical Distribution of Mammals*, 1866.

Now it is perhaps useless to attempt to argue seriously with an author who uses the words "race," "nation," and "type" as convertible terms. Nor need I dwell on the opinions of a writer who seems to have taken his knowledge of anthropological types from *Punch*.

This author, however, tells us seriously that the Europeo-American people are "as well marked a race as any other." Such statements coming forth under the garb of science are really melancholy. Nor are the author's views any improvement on those propounded by other of Mr. Darwin's disciples. We can as easily believe in the change being effected by a miracle, as agree with the author that the change in the Americans was "affixed upon them over the length and breadth of the land at the same time."

But what makes this matter somewhat serious, is the fact that the author's change of opinion with regard to Darwinism is based on the change observed in the American people. He absolutely goes so far as to say of the passage I have quoted, "Such an *argumentum ad hominem* is hard to get over."

The author having informed us of the fortunate circumstance in the present state of science, that he is "not greatly concerned to explain the exact mode of operation of the laws evolving new species," goes on to say: "I have come to the conclusion to accept the fact that nature can produce a new type without our being able to see the marks of transition, and that she can alter a whole race simultaneously without its passing through the phase of development from an individual in whom the entire change was first perfected."\* Such is the author's creed, and he no doubt believes in it if, like myself, he does not understand how such a thing is possible.

To Mr. Murray, however, belongs the honour of being the first man of science who has come forward and declared that there is a fact in historical anthropology which lends any countenance to the truth of the theory of development by "Natural Selection."

The change observed in Europeans who have settled in America is both a delicate and difficult subject. I do not attempt to deny the change in many cases; but my researches and observations lead me to believe that the change is not of that uniform character which the author asserts. On this point, however, I speak with some diffidence, as I have not been in America. I have, however, failed entirely to see the uniform change described by Mr. Murray in those Americans who have come under my own observation. On the contrary, I am of opinion that the types at present existing in America are as diverse as those now existing in those portions of Europe from which they originally departed.

I have never yet seen any reason to change my views, which I imbibed from the late Dr. Knox, and which are accepted by many other modern anthropologists, that the change observed in the children of those Europeans who have settled for some generations in America is to be explained by the hypothesis of degeneration or deterioration. The real significance of the change we often observe is a very fair question to discuss; but to assume we have as yet a new type, or even a new race, "as well marked as any other," is utterly unworthy of serious consideration.

Mr. Murray is not content to offer to the world his own speculations, but undertakes to pronounce the views held by Dr. Knox to be "the dream or fancy of a clever but eccentric man."\* Such a remark requires no comment from me. This author also tells us that Dr. Knox was "not, perhaps, too scrupulous as to the authenticity of his facts;" but I search in vain through the writings of that author to find such reckless statements as those advanced on behalf of Darwinism by Mr. Andrew Murray.

I see from some recent publications that such speculations as those to which I have called attention are just now finding favour with a few more or less scientific men on the other side of the Atlantic.

Thus, Mr. Hudson Tuttle, who is not unknown as an author, has just written a work entitled, "*On the Origin and Antiquity of Physical Man scientifically considered.*"† The addition of the last two words are certainly much to be commended to other writers on the origin of man. In addition to the above, we have also the following important statement of what the work contains in these words: "Proving man to have been contemporary with the mastodon, detailing the history of his development from the domain of a brute, and dispersion by great waves of emigration from Central Asia." In the following sentence we find the result of Mr. Wallace's teaching: "Applying the principles which govern the production of species of animals to savage man, to whom the name *brute*, or *man are alike applicable*, we shall endeavour to show how from this savage sprang the various races into which mankind are divided." The second conclusion of his work‡ must be eminently satisfactory to all Darwinians, *if true*: "There is more difference between the lowest man and highest Simiæ than between the highest and lowest Simiæ, or between the lowest and highest man. There is a perfect gradation in bony structure and in brain." The third conclusion is equally startling: "History unites mankind at a common source; locates their origin where the highest members of the animal kingdom are found." The fourth is still more remarkable: "The 'struggle for existence' indicates the

\* P. 9.

† Boston, 1866.

‡ P. 257.



process by which the progress observed might have been evolved." We find, too, in this work it is stated by this last attempt to apply Darwinism to account for the origin of man, that "the inductions of science beautifully harmonise with the sacred traditions of mankind." I have no wish, however, to make either Professor Huxley or Mr. Wallace responsible for all this nonsense. I merely quote it as a caution to men of science against promulgating speculations respecting the origin of mankind before they have the slightest data on which to found them.

In France, happily, such speculations are estimated at their true value. The anthropologists of that country know too well the business and the methods of science to be found wasting their time in promulgating dreams respecting man's origin. They are content, with the majority of anthropologists in this country, to wait in patience for the discovery of the "some unborn palæontologist" spoken of by Professor Huxley.

In Germany, too, I am glad to see that a protest is being raised against the premature speculations of some of Mr. Darwin's disciples. In the new German periodical for anthropology just started, Professor Ecker in his introduction has alluded to that subject in these terms.\* Speaking of the theories of man's origin, he says :

"This problem will have to be solved partly by the anatomist and partly by the psychologist. On the one hand, there will be requisite the most careful comparative anatomy of the body, especially the minute structure of the brain ; and, on the other hand, the analysis of psychical functions. However much may have been done in this direction, much more remains to be done before we can indulge in any hopes to solve these final questions in relation to the genetic connection between man and the anthropoid animals, which have by the followers of Darwin been proposed too early. Whether palæontology and the theory of development will throw some light into this obscurity remains yet to be seen. But surely it is not the task of a serious science prematurely to discuss questions to answer which we lack materials."

It is to be regretted, however, that there are many writers in Germany who have recently written as though the question of man's place in nature were settled. The language employed by these writers does not differ greatly from what we have sometimes heard used against those who differ from them in this country. An illustration of this will be found in a work recently published by Dr. Reich. It will be seen from this, that we must not dare to classify man in a new order or kingdom, but must accept the classification of Linnæus as developed by Professor Huxley, or we shall be called some very

\* *Archiv für Anthropologie*, Nos. 1 and 2, 1866.

hard names. Dr. Reich says : " What man is, and what position he occupies in nature, are questions that have at all times engaged the attention of anthropologists ; theologians, philosophers, and jurists have also discussed it with but little profit to the science."

" Numerous ancient and modern authors have written long treatises concerning the pretended elevation of man above other animals, by drawing parallels between them, showing how far removed man was even from the ape. The talked-of specific difference between man and brute ascribed to the former an immortal soul, to the latter a mortal soul, and denied to animals all mental qualifications. They even went so far as to assign to man a separate kingdom by the side of the animal, vegetable, and mineral kingdoms.

" But comparative anatomy and physiology, chemistry and natural philosophy, have established what has been surmised by great minds, and disposed of the dreams of false apostles of science, and put an end to the miserable inferences of such incompetent observers."

After quoting from the author of *Man's Place in Nature*, Dr. Reich goes on :

" Thus far Huxley. His words sufficiently indicate the position man occupies in the animal world. He shows that man stands not above the animals, but is himself an animal, and differs from his cousins, the apes of the old world, less than these differ from the other apes. This is a cold shower-bath for human pride ! \* \* \*

" Comparative anatomy, the guiding star in the knowledge of organised beings, has shown with mathematical certainty, that there is no member of the animal kingdom which is separated by a gulf from what is next to it ; everywhere there is an uninterrupted transition. Nature takes no leaps ; this is the great truth we ought always to bear in mind. Allied to comparative anatomy, physiology, by throwing light on the functions of the organs and the development of the individual, furnishes the key to the explanation of phenomena which, when not comprehended, engender in the ignorant, thoughts of mysterious forces, and other ideas of a heated imagination."

Happily, such teaching as this does not at present exert any great influence in this country. I must leave it for the audience to decide which are the false apostles and suffer from the effects of a " heated imagination ;" those who assert that anatomy has shown with mathematical certainty that there is no gulf separating the different members of the animal kingdom ; that nature takes no leaps ; and that we know all the forces at work in nature : or those who, like myself, do not see sufficient evidence to establish either of these positions. With regard, however, to the charge that we must believe in mysterious forces if we do not accept the theory of natural selection, I must enter my protest against such reasoning.

Is the theory of " natural selection," as propounded by Mr. Darwin, sufficient to explain the origin of either races or species of man ? I am

fully aware that much of the dissatisfaction which exists amongst English anthropologists with regard to Mr. Darwin's theory is greatly to be accounted for by what I contend to be the illogical manner in which that naturalist's disciples have attempted to work out that theory when applied to the origin of man as to comparative anthropology. Many of the present objections to Mr. Darwin's theory will be removed when it is worked out in the manner I have hinted.

At present, however, we are quite unable to show the causes which produce the formation of the different races of which the different species of man is composed. I cannot think that any advance can be made in the application of the Darwinian principles to anthropology until we can free the subject from the unity hypothesis which has been identified with it, especially by the influence of Professor Huxley. Professor Carl Vogt is doing all he can to show the fallacy of the unity hypothesis on the continent; and, as a logical Darwinite, well points out that the human type is not approached by any one ape in all points. He says,—“This much is certain, that each of these anthropoid apes has its peculiar characters by which it approaches man . . . . . If, in the different regions of the globe, anthropoid apes may issue from different stocks, we cannot see why these different stocks should be denied further development into the human type, and that only one stock should possess this privilege. The further we go back in history the greater is the contrast between individual types, the more opposed are the characters.” This author thinks there is a tendency to unity; but he gives an adequate agent for such a supposed change in the fusion of the different species, viz. intermixture. I am quite willing to grant that the cause is adequate; but, as I interpret Darwinism, I consider that although some races may become diminished, there are at the same time others in course of formation. Do we not even now see in different classes of men a tendency to perpetuate their own characteristics? In fact, a coming unity rests on about the same evidence as a past unity.

Andreas Wagner not long since made some very sensible remarks on the absurdities which many distinguished naturalists have uttered, from Oken downwards, when they venture to demonstrate the genesis of man. He well remarks,—“It is therefore better to admit the insufficiency of our capacity, than to make ourselves ridiculous by forming hypotheses on processes which are hidden from us.”

Dr. George Moore has recently well observed,—“Man as he is has not yet been accounted for by philosophers.” He, however, goes on to say,—“If they do not possess power of mind equal to the explanation of a fact so common among natural phenomena as the present existence of themselves, the first step towards a correct anthropology

has not been taken." Now the question of the origin of man is not the *first*, but the *last* problem of anthropological science. He says that before we go further we ought, "from a knowledge of their own qualities as human beings, to say why they were made, who made them, and what is likely to become of them." In fact, that we ought to learn to read before we learn the alphabet. Nothing can be more deleterious to the cause of truth and science than that such views should go forth to the world unchallenged by men of science.

But while differing on some points from Professor Huxley, I feel bound to add that I for one do not join in the outcry which has been raised in some quarters against the manner in which he has studied and described man. On the contrary, I admire the honesty and moral courage he has displayed. I have only to complain of what I conceive to be his incorrect reasoning and his occasional dogmatic assertions.

No one can have read with greater feelings of indignation than myself, a charge which Dr. Moore has made more than once in his recent work *The First Man, and his Place in Creation*, that Professor Huxley "had undertaken his researches and assumed his character of seer and prophet on the ground of prejudice against Christianity." Such a charge is altogether too contemptible for Professor Huxley to notice; and I feel sure that every scientific man will agree with me in protesting against such a base insinuation. To impute motives for scientific opinions is not only unscientific, but most ungenerous.

It may not unnaturally be asked by those who hear my opinions on this subject, why I have undertaken to contest so strongly the views put forward by some of Mr. Darwin's disciples, when I accept the great principle of natural development to explain man's origin. The question of man's origin only presents itself to me in the two-fold aspect of plurality of origins in the way I have hinted, or of unity of origin in the manner advocated by Professor Huxley and Mr. Wallace.

If those eminent disciples of Mr. Darwin can demonstrate to me by fair argument that their views are most in accordance with reason and science, I shall at once relinquish my own.

In conclusion, I beg to express a wish that, in consideration of the conflicting views held on this subject, Mr. Darwin himself may be induced to come forward, and tell us if the application of his theory leads to unity of origin as contended for by Professor Huxley; and if, also, taking Mr. Wallace's views fully into consideration, and applying his own theory to Mr. Wallace's premisses, it then lends any support to the theory of a coming unity.

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## THE EARLY RACES OF SCOTLAND AND THEIR MONUMENTS.\*

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No country has a richer literature on historical anthropology than Scotland. Gordon and Chalmers have given valuable records of its antiquities ; and the old statistical account of Scotland has preserved the remembrance of old customs and legends, as well of early monuments. More recently the action of the Society of Antiquaries of Scotland, led by such men as Simpson, Stuart, and Robertson, has introduced a more critical method of examination ; and not a little has been revealed by excavations into remains, which for ages had been buried up. Dr. Daniel Wilson's able and elaborate *Prehistoric Annals*, though somewhat fanciful in his speculations and rhetorical in his style, has invested Scottish antiquities with a popular interest, for he has skilfully combined a number of scattered facts, and extracted from them some knowledge of the by-past ages. Lieut.-Col. Forbes Leslie's work on the *Early Races of Scotland*, which has recently appeared, is another important contribution to Scottish anthropology.

The title of the work is rather a misnomer ; for there is little in it regarding distinctions of race. Indeed, the leading questions on the subject seem to be purposely excluded. Naturally, as anthropologists, we turned to hear the views of an accomplished and learned writer on the two pre-Celtic races, said by Dr. Wilson to have inhabited Scotland ; but we are only told, "whether the Celtic superseded in Britain an earlier race, or were themselves the dimly-shadowed-forth earliest of prehistoric occupants of the soil or the forests, cannot yet be determined." No information do we gain respecting the crania found in Scottish tombs, nor indeed does Col. Leslie indicate the physical characters of the race whose history he examines. We obtain no help from him to decide between Lubbock and Wright as to the age of the leaf-shaped bronze swords ; nor does he give any judgment whether Scotland had its ages of stone and bronze and iron. Perhaps, however, our author might consider that he had so much to say on other aspects of anthropology, that he might pass by questions not yet ripe enough for determination. Notwithstanding, there is much in his work to illustrate the historical division of anthropology, for he enters fully into the written records of the early inhabitants of Scotland, and carefully gathers up the scattered

\* *The Early Races of Scotland and their Monuments.* By Lieut.-Col. Forbes Leslie. Edinburgh: Edmonston and Douglas. 1866.

notices of its mythology, superstitions, traditions, symbols, and inscriptions, which indeed are as important to the historical anthropologist as are fossilised bones to the geologist, for they enable us to read the psychical characters of early races.

Col. Leslie tells us, that his great object in examining the memorials of the races occupying Caledonia from the earliest ages to the end of the sixth century, was to discover the design of the Caledonian sculptures; and the first sentence of his work indicates the predominant idea by which he has been guided. In the fourth century, *B.C.*, Hecateus mentions an island over against Gaul, as big as Sicily, under the arctic pole, inhabited by Hyperboreans, with a rich and fruitful soil and temperate climate, the inhabitants of which worship, above other gods, Apollo, who had there a stately grove and renowned temple of a round form, beautified with many rich gifts; the inhabitants had a language of their own, and had been visited by Greeks who had made divers gifts inscribed with Greek character. Our author thinks this island was Britain, the temple Avebury, the people Celts, the priests Druids, the god Belénus; and that at this period Britain and Gaul had a common language and religion; and, in accordance with this view, early monuments and inscriptions, old superstitions and usages, are traced to the Celtic race.

In his account of the Races of Caledonia, Col. Leslie considers the mass of the early population to have been Celtic; and, guided by Dr. Latham, he formally propounds his views in eleven propositions. At the beginning of the historic era he finds Gaels in northern Britain, in Ireland, and in the Western Isles; these were the first immigrants from the continent of Europe; and had originally come from the east, through Syria, Egypt, along the north-east coast of Africa, and to Spain and Gaul, where they split into two branches, one of which ended in Britain. Another immigration, the Britons, followed from the same source, taking a more direct course through Scythia, Scandinavia, and across the German Ocean to Britain; and, pressing on the earlier immigrants, drove them northward and into Ireland. Stone monuments in the Dekkan in India, in Persia, Syria, Italy, Spain, and Armorica, similar to those found in the British Islands, are adduced as confirmatory of these general views. The Gaels, however, appear at a subsequent period split up into several distinct tribes; there were Albannaich, or the Caledonians, or Picts in Scotland, and identical with these, the Cruithne in Ireland; there were the Scots chiefly occupying Ireland, and, in smaller numbers, a portion of the south-west of Scotland; and besides these, there were the Attacots, of whom little is known, but who are spoken of by St. Jerome as cannibals, and by Ammianus Marcellus as warlike.

The historical notices of the Picts are very scanty ; and their sudden and strange disappearance from the page of history has puzzled Scottish and Irish historians, and given rise to bitter controversy. Were they Gaels or Scots? Were they annihilated or absorbed, or were they merely an existing tribe under a changed name? They are first referred to the third century, and Eumenius the orator, in 309 A.D., speaks of "*Caledonii et alii Picti*," leading us to infer that the Caledonians were a tribe of the Picts. Beda, writing in 730 A.D., states that there were five languages in Britain: the British, Pictish, Scottish, English, and Latin; and as there is no mention of Caledonian or Gael, and, as in another part of his history we learn that the Picts came from the north, it may be conclusively inferred that the Gaels, Albannaich, or Caledonians, were indicated by the name Pict, until that name became superseded or replaced by Gael. Scots had existed from an early period (from at least 360 A.D.) in the south-west part of Caledonia; but in the beginning of the sixth century, receiving an important accession from Ireland—important, not for numbers, for the whole band consisted of only one hundred and fifty, but, from the rank and ability of the leaders—they founded about Argyleshire a kingdom dependant at first on the Dul-raid Scots of Ireland; but which, increasing in power, became independent, and its sovereign in the ninth century achieved the conquest of the Pictish kingdom, and gave their own name—that of Scotland—to the whole of North Britain. Notwithstanding this change of dynasty, the language continued to be Gaelic.

"It does not seem," says our author, "now to be maintained that what is sometimes called the Scottish Conquest was otherwise than the royal race of the Picts being supplanted, possibly after they and their adherents had been defeated by their relations and rivals of the Scottish royal race in the ninth century. Neither can it be successfully urged that it was after this event, in A.D. 843, when the Scots of the Irish branch obtained the kingly power in the south and east of Caledonia, that the mountains, rivers, and remarkable places of these fertile parts of the country first received their Gaelic names, and that the inhabitants of these districts then and at once adopted the Gaelic language."

Col. Leslie assigns reasons for believing that the Phœnicians were, to a limited extent, an element in the early population of Britain, and that in a more considerable degree they influenced the manners and customs of its Celtic inhabitants. What the Druids were to a former generation of antiquaries, the Phœnicians are now to modern speculators; residuary phenomena—things which cannot be accounted for—are referred to Punic influence or colonisation. Col. Leslie is, however, more moderate in his views, which are chiefly based on a

supposed similarity of the worship of the Phœnicians and of the ancient Britons. Sun or Baal worship were, he thinks, common to both; yet, admitting this to be the case, which, indeed, is doubtful, the inference by no means follows; for almost all nations who have advanced beyond pure Fetichism, have more or less revered and feared planetary influences. Professor Nilsson, in a recent Memoir on Stonehenge, has carried this notion to an extravagant length; according to him, Stonehenge was the renowned or remarkable temple dedicated to Apollo; and such monuments in Britain were Phœnician, and connected with the rites of Baal, like their congeners at Tyre, and in the Valley of Bethel. Doubtless the Phœnicians, from a very early period, traded with the Britons for tin, and gave in exchange their own manufactures and the productions of other countries, including probably the crude bronze, out of which the Britons made their leaf-shaped swords and other weapons and instruments, and the glass beads and armlets found in dwellings of the so-called bronze age. But beyond commercial interchange, there appears no further connection or influence; no evidence of colonising; no Phœnician inscription has been found in Britain, nor any trace of the Punic language in British nomenclature. Professor Nilsson refers to the inscription on the Newton stone in Aberdeenshire as Phœnician; but for this there is not evidence. Col. Leslie is more cautious, and passes no judgment on this inscription, which has been a sad puzzle to scholars, and has given rise to such a diversity of explanation as to present the appearance of a burlesque on archaic philology. Dr. Mill says the inscription is Phœnician, to Eshmun, the god of health. Dr. Davis also regards it as Phœnician, but to Atalthan, son of Puzach. Another authority makes it Celtic, indicating a boundary stone. Mr. Thomas Wright tells, in the most confident manner, it is Latin, to Constantinus. Mr. Brown says the characters are Egypto-Arabian, giving a list of names; and Dr. Moore writes a long and learned dissertation to show that the characters are Arian and the language Hebrew, and that the inscription is to Attie, who is with the dead. Nothing of value can be extracted from such contradictory expositions.

The speculative theories of Dr. Wilson and Professor Nilsson, and some others, have tended to dethrone the Druids and reduce the Celts to insignificance. The relics which were formerly attributed to the people inhabiting Britain, when Cæsar invaded it, are transferred to mythical races who lived long before in the dark ages of the past. These notions are based on craniological evidence only; but however much we value careful determinations of cranial race characters, we concur in the opinion of Dr. Thurnam, "that unless archæological



evidence could be added to that of cranial developments, the question of age must be left very much in the dark." There is a strong presumption from authentic history, that the antiquities associated in Britain with the Brachycephalic men were the Celts of the pre-Roman period. We certainly find them at the dawn of history to be numerous and warlike, and so far advanced in art, as to have iron weapons and war chariots; and in civilisation, as to have established governments—a system of polity, and learned men to administer law and conduct religious ceremonies. Could such a people, who had doubtless existed in Britain for many centuries, pass away without leaving many and marked traces behind them? Col. Leslie brings us back to history, and in his chapter on religion gives a fair statement of what it tells us of the Druids and Druidical worship. He endeavours with much acuteness and learning to trace to Druidism many superstitious usages, which existed a few generations ago, or which still continue to exist in Scotland; and though some of these may with more probability be referred to other sources, yet his dissertations contain much that is curious and instructive. Witchcraft descended, he supposes, from Druidical superstitions and practices. That the life of one man could be redeemed by the life of another was a belief among the Gauls; and a similar belief existed in Scotland in the sixteenth century, and influenced the ceremonies of witchcraft; Marianne M'Ingaruch, a notorious witch, in 1588, pronounced that to save the life of Baron Fowles his next younger brother should be sacrificed.

Col. Leslie thinks that there is clear evidence of the prevalence of solar and planetary worship from Dondera-head in Ceylon to the Himalaya mountains, and from the borders of China to the extremities of Western Europe and its islands. The Parsees in British India still worship light, symbolised in the sun and fire. The religion of Gautama Buddha, which more than twenty centuries ago was established in Ceylon, has not eradicated the *Bali*, planetary worship, which co-existed with the *Naga* or snake worship, and with a belief in the genii of fountains and streams, trees and forests, rocks and mountains, and in malignant demons producing various forms of pestilence. The heathen inhabitants of Britain, according to our author, worshipped an equally numerous and nearly identical accumulation of objects. *Bel*, in Cingalese, signifying power; and *Baal*, *Bel*, Belus in Assyria, Palestine and Phœnicia, implying dominion and equivalent to Supreme God, are used as expressive of solar and planetary worship. As evidence connecting Britain with Baal worship, Col. Leslie adduces the names of the two earliest British kings known to history, Cassibelan and Cunobeline, both of whom by Nennius are simply called

*Belinus*. Doubtless superstitious usages originating in sun worship lingered long in Britain. From the Penitential of Theodore, Archbishop of Canterbury, we learn, that in the seventh century women passed their children through the fire and exposed them on the housetops to restore or insure their health ; and by the laws of Cnut the worship of the sun was forbidden.

“In Scotland there was a practice described by an eye-witness, that after a child was baptised, and on the return of the party from church, the infant was swayed three times gently over a flame ; or, according to another authority, the child was handed three times across the fire. In Perthshire, in cases of private baptism, there was a custom of passing the child three times round the crook which was suspended over the centre of the fire.”

Such practices closely resemble the usages of the Jews and Canaanites in passing children through the fire to Baal or Moloch, to whom, indeed, they were sometimes sacrificed as burnt-offerings. The most distinctive relics of sun worship are, however, seen in Beltane, the fire of Bel or Baal, which was kindled in Scotland, it is supposed in honour of this God, on Midsummer eve, afterwards called the vigil of St. John, on All-Hallowe'en (31st of October) ; and on Yeule, which is now Christmas. These fires were kindled on hills and conspicuous places in level districts, not only in Scotland, but also in Ireland and Cornwall. In the north of England *bonfires* were lighted by corporate authority in the market places of borough towns on St. John's vigil ; and we have seen records of yearly payments of such fires down to the beginning of the eighteenth century. At Callander, in Perthshire, the celebration of the Hallowe'en mysteries is remarkable ; and suggests what may have been one object of “the separate” monoliths forming a circular fane. The Bel fires were lighted on the rising grounds and villages, and the ashes left from the burning were collected in the form of a circle, near the circumference of which a stone was placed for every person of the several families interested in the bonfire ; and if any stone was moved out of its place before morning, the person, whom it represented, was devoted to *Fey*, and it is supposed would die within twelve months from that day.

Notwithstanding the number of interesting illustrations Col. Leslie has gathered of the remains of sun worship in Scotland, it is far from being proved that they have been derived from the Druids. Indeed, historical evidence indicates that sun worship, if it existed at all amongst them, held a very subordinate place in their mythology, and that the remains of sun worship in Britain are of Teutonic origin. Cæsar tells us that the chief god whom the Britons worshipped was Mercury, the inventor of the arts ; Apollo came after him, and he was not recognised as connected with the sun or any planet, but as the

curer of disease. More important still, in reference to this question, is the account Cæsar gives of the gods of the Germans—a race who in after times modified and to a large extent formed the religious ceremonies and superstitions of Britain. Of them, we are told, that they had no Druids, and that they reckoned among their gods those only who could be seen, such as the sun, the moon, and fire.

Besides, however, planetary worship, Col. Leslie finds traces in Scotland of the worship of spirits, atmospherical and terrestrial, arising from the fear or reverence of portentous phenomena, and resembling the adoration given to such objects by the ancient Hindus of the Vedas, and the earliest inhabitants of Tyre and Sidon; but he might have added, that such reverence and fear are common to almost all nations in their early stages of civilisation. The Spirit of Ethereal Fire, a female deity, named *Cailleach Veal*, has a conspicuous place among the legends of the western Highlands; her residence was on the highest mountains, and a great stone—*Cailleach Veal*, the mountain of thunder—preserves her name. *Water-Kelpies* were “angry spirits of the waters,” and when heard in the storm, wildly neighing or hoarsely bellowing, they presaged misfortunes; or emerging from the sea or lake in the form of a horse they tempted the unwary to mount on their back, that they might dash with the rider into the depths of the flood. The *Spirit of the Earth* had set aside for him minute portions of untilled land, once numerous in Scotland, called “the gudeman’s croft”. Sir James Y. Simpson, Bart., stated, in 1861, that, not many years ago, a relative of his, on taking possession of a farm he had bought, cut off a small triangular corner from a field, within a stone wall, as the “goodman’s croft”, an offering to the Spirit of Evil, in order that he might abstain from ever blighting or damaging the rest of the farm. Col. Leslie remarks—

“The Celts judging from a few recorded facts and the remains of many superstitions, had an infinity of local and inferior genii. Of these, some were supposed to be benevolent, but the majority were considered mischievous. The number of elves or imps, in Gaelic, is of itself a proof of a Celtic belief in a crowded pantheon. Not only mountains and hills, rivers and fountains, had their peculiar deities, but even at the present day, many a green mound in the vales, or bright sequestered spot in the mountains, is shunned by sturdy peasants who would not fear the hostility of any mortal. The prefect of a Gaulish cohort, who erected an altar on the limits of Caledonia, has summed up, in small compass, the whole invisible world of the country. His altar is dedicated ‘To the Field Deities of Britain.’”

Pagan ceremonies, connected with the fountains and wells, have been more prevalent and continued longer than any other. Gildas refers to the worship of rivers and fountains in Britain; and both

civil and ecclesiastical laws were directed against it in Gaul and Britain. Col. Leslie finds such ceremonies particularly cherished in all these places, where a Celtic population had the most enduring and predominating influence, and he would, indeed, connect them with Sun worship. On Beltane day, sacred fountains were approached *deasil*, or sunwise, and in the same direction would a procession go three times round it ; offerings were then made to the Spirit of the Fountain by hanging rags of clothing on trees and bushes, or by casting a metallic body into the fountain. We have ourselves seen the bottom of a sacred well, at the base of a hill in the north of England, crowded with crooked pins ; and at the present day, every maiden or young man, passing that well, drops into it a crooked pin and inwardly breathes a wish, in the full belief that, before a year has run its course, the wish will be realised. Some few generations ago there was a gay procession to this well on May morning, when the ceremony was more formally and publicly performed.

Colonel Leslie takes a wide survey of ancient stone monuments, describing not only those in Scotland, but others in England, Ireland, Armorica, Palestine, and India. He adopts the French nomenclature, which is more definite than our own, and calls the monolithic stone circles *cromlechs*, and he applies the term *dolmen*, a table stone, to those singular structures which in England are called cromlechs, and by some Druid's altars. Besides these there are, *menhirs*, long stones ; *pulvens*, monoliths of less size ; barrows, cistvaens, and *galgals* or cairns. There is still much division of opinion as to the age, the builders, and uses of these stone monuments. Of great antiquity they doubtless are ; and no one is inclined to refer them to a period much later than the Roman invasion, but some would carry their age back far beyond the time when Phœnicians were supposed to trade with Britain, and influence the manners and religion of the people, even to that mythical period when a low type of man, ignorant of metals, inhabited the island. Sufficient evidence there is to prove that they were pre-Roman. Stonehenge, probably one of the most recent of the circular fanes in Britain had been constructed during what is called the bronze age ; for out of one hundred and fifty-two interments which have been examined around Stonehenge, thirty-nine of them contained bronze objects ; and in a hundred and twenty-nine cases the body had been burnt. It would seem too, that the builders were brachycephalic, the round-skulled men, who, according to Dr. Thurnam, were buried under round barrows, and who, so far as we at present know, were the race occupying the central, and certainly the northern parts of England when Cæsar invaded it. Of the purpose of such monolithic structures there is less certainty. Colonel Leslie

finds them in India, Persia, Palestine, and Africa, as well as in Europe; those in the Dekkan are remarkable, where they are dedicated to the god Vetal or Betal. One has a circular space, twenty-seven feet in diameter, enclosed by twenty-three stones, three of which are three feet high, and the others smaller. Each of these stones is marked near the top with a large spot of red paint, typical, it is believed, of sacrifice. While Colonel Leslie considers the stone circles in Britain to have been temples used by the Druids for religious worship, he also regards them as places for judicial and inaugural purposes. So late, indeed, as May 2, 1329, there is a record of a court held "apud stantes lapides de Raine." But though it may be admitted that the larger stone circles were used for these objects, many of the smaller ones were places of sepulture. Our author might have derived important information from recent researches by excavations. Several were excavated in the island of Arran, and others near Shap in Westmoreland, and found to be sepulchral. A different result was obtained from the excavation of an oval stone circle, three hundred and forty feet in diameter, at *Three Stone Burn* on the flanks of the Cheviots in Northumberland; there were no interments nor any indications of a sepulchre, but charred wood was found on the surface in several places, and a fragment of a flint knife with two cutting edges. Colonel Leslie gives a full account of the most important circular fanes; and he adduces one striking argument in favour of the eastern origin of such temples. He says:—

"The areas of temples, open, and only designated by masses of rock, with their long avenues of unhewn columns of stone, are well fitted for religious ceremonies and processions, and for judicial and civil purposes, in a warm climate, and under the blue sky of tropical countries. The reverse is the case as regards the cloudy atmosphere and uncertain weather so prevalent on the promontories of Armorica and in the British Islands, and is a very strong argument for considering that the pagan fanes of these countries were modelled from Asiatic originals. Nations, whether tempted or impelled onwards, or migrating in obedience to some law of our nature which has led to the diffusion of mankind, would doubtless preserve the form of their ancient places of worship and assembly, and circular temples defined by small pyramidal shaped stones, such as may often be seen extemporised in the Dekkan of India, could always have been prepared when the migrating horde halted on a journey or rested for a season."

Our author's theories regarding *Dolmens* are, perhaps, the most unsatisfactory in the whole work, for too little use has been made of the facts elicited by explorations. He considers them as altars for sacrifices; but the weight of evidence tends to prove that their primary use was that of sepulture. However we may differ from the author

on this and several other expositions which he gives, we respect the learning, the candour, and clearness of description, which give value to his account of menhirs, dolmens, earth-fast stones, perforated and rocking stones, cairns, barrows, and Caledonian strongholds.

The great object sought by Col. Leslie, in his various elaborate investigations, is to elucidate the meaning of the Caledonian hieroglyphics or sculptured stones. There are three kinds of sculptured stones in Scotland, each of a different age. There are the Northumbrian symbols of which we recently gave an account in our review of Mr. George Tate's memoir on them. Though spread more or less over the whole island from the Orkneys to Devonshire, and into Wales and Ireland, their centre, as it were, is in Northumberland, where they occur in the greatest number and variety of form ; in Scotland they are chiefly in Argyshire, where the Dalraid Scots had a kingdom. As Mr. Tate remarks, "their wide distribution over the British Islands evidences that at the period when they were made the whole of Britain was peopled by tribes of one race, who were imbued with the same superstitions, and expressed them by the same symbols." These are most probably the oldest sculptures in Britain, and as yet the typical forms have not been found in other countries. They are associated in Northumberland with a brachycephalic race, and with relics of the so-called bronze age. The second class of sculptures, which are incised on unhewn monoliths, are more limited in their distribution, being confined not merely to Scotland, but almost entirely to its North Eastern part, where the Pictish kingdom flourished before it was overthrown by the Scots. There are five principal forms :—

1. Two circles or groups of concentric circles connected by curved lines, and crossed by a Z figure, with sceptre-like ends.
2. A crescent crossed by a V figure with similar sceptre-like ends.
3. A serpent crossed with the Z figure.
4. An upright rectangular figure crossed by the Z sceptres.
5. A mythical animal, generally supposed to represent an elephant, and considered by Colonel Leslie, but on very insufficient grounds, to be the *Asiatic* elephant.

Other figures less peculiar occur on such stones, as the horse, bull, boar, bird, fish, mirror, comb, and a horse-shoe arch. The third class of sculptures belong to the Christian era, for among them is the cross ; the Christian symbol ; and besides being in relief, they exhibit the beautiful style of ornamentation, which prevailed after the introduction of Christianity into Britain down to the eleventh or twelfth century. Other objects are introduced indicating foreign influence, such as the centaur, the hippocampus, the camel, the monkey, and various monsters ; but these later sculptures are of value in determining, within a limit, the age of what we may call the Pictish symbols, for these symbols occur on the

artistic stones with the cross, proving that they had been in use during the period immediately preceding the introduction of Christianity into the North of Scotland. Older they are than that period, but how much it is impossible to say ; they are, in many cases, contiguous to circles of unhewn stones, and to ancient hill-forts ; and what is more important still, as determinative of their antiquity, one of these sculptures, that of the symbolical elephant, was found on a stone forming part of a sepulchral cist, which contained a rude urn and a bronze dagger.

"In regard to the people," says Colonel Leslie, "who introduced or executed these hieroglyphic sculptures, two theories present themselves—viz., either that they were introduced by a later body of Celtic immigrants than those who probably reared and certainly occupied the unhewn monolithic fanes, or that they were introduced through the influence and example of foreign traders and settlers. The two theories may be conjoined, and we may imagine that some of the figures were brought by the early Celtic immigrants, and that they afterwards adopted others through external, possibly Phœnician influence. Some of these emblems indisputably, and all of them probably, are of Oriental derivation . . . . . The Celts are the race, the Picts the people to whom must be attributed the execution and erection of the sculptured stones of Scotland."

In accordance with these views, our author regards these sculptures as religious emblems, and he seeks from eastern sources a key to their meaning.

Professor Westwood was led to think, from the Z symbol resembling a figure on gnostic gems and coins bearing cabalistic inscriptions, that the Scottish sculptures may have been intended to refer to the perpetual conflict between the cross, and false doctrines and worldly pursuits. Dr. George Moore, who has recently attempted an explanation of them, says "they had a distinct relation to the Buddhistic religion ;" the V and Z symbols, together with discs, he discovers on several Buddhistic coins of north-western India, on which are legends in Aryan and Sanskrit characters ; the *discus*, according to Buddhism, signified infinite space, time or eternity ; when concentric, the circles symbolised systems of worlds or successive and connected periods of long duration ; the crescent symbol signified the dome of heaven, and may have had a relation to lunar worship ; "the signs at the terminations of the Z symbol are," he says, "doubtless significant of the power of Buddha in relation to punishment" ; in reference to the symbolical serpent, he remarks, "the wand of power, which signifies also the sun's path in the heavens, would, when intertwined with the serpent, express the everlasting dominion of Buddha, attained as a man in the conquest of all evil." Colonel Leslie's expositions are of a similar

spéculative character ; he imagines the double disk and sceptre, in some way, emblematic of the sun, and connected with solar worship ; the crescent and sceptre, an emblem connected with the worship of the moon ; the serpent and sceptre, an astronomical as well as a religious emblem, connecting planetary worship and healing powers, for the serpent, according to eastern mythology, represents both a malignant and beneficent influence from its fabled subtlety and wisdom ; the upright figure crossed by the Z he calls a fire altar, and links it with the Beltane fires ; and the elephant-like figure has reference to astral and atmospheric worship.

Colonel Leslie illustrates his views with much ingenious learning and curious information ; but he, as well as other speculators, have completely failed to show any identity between the Pictish symbols and figures found in other parts of the world. They as yet stand alone. Circles, crescents, curves, and angles are abundantly used for decoration or emblems ; but they are such forms as would be readily adopted by any nation ; and in their application to decoration or worship they might originate in a thousand independent sources. The figures on gnostic gems, on Bactrian coins, and on Phœnician sculptures have not the peculiarity which distinguishes the Pictish symbols, and which consists in the *combination* of V and Z figures with the disks, sceptres, and serpents ; and this peculiarity was not likely to originate in many independent sources. These symbols therefore must, until other evidence is produced, be regarded as originating with the Picts themselves, and not derived from some foreign influence ; and as expressing, most probably, religious sentiments and superstitions peculiar to the Pictish people.

Notwithstanding, however, the fanciful character of not a few of Colonel Leslie's speculations, we cordially recommend his elaborate work to the careful study of anthropologists. Few books contain more varied and important information : it is a mine of learning for the subjects on which he treats ; and some sixty beautiful plates give rich illustrations of all kinds of stone monuments and of ancient symbolical sculptures.

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## OUR GERMAN CONTEMPORARY.\*

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AFTER some little delay the two first parts of our new German contemporary have made their appearance. The first and second parts of the *Archiv für Anthropologie* have appeared together. We feel sure that this periodical will mark an epoch in the study of anthropology on the continent. This periodical will not have to struggle for its birth, but comes before the world with a sufficient guarantee that it will become a necessity to all real students of anthropological science. This will be sufficiently evident when we mention the fact that it is edited by Carl Ernst von Baer, St. Petersburg; E. Desor, Neuchâtel; A. Ecker, Freiburg; W. His, Basel; L. Lindenschmitt, Mainz; G. Lucae, Frankfort-on-the-Maine; M. L. Rüttimeyer, Basel; H. Schaafhausen, Bonn; C. Vogt, Geneva, and H. Welcker, Halle.

We should much like to see the whole of this important periodical translated and published in this country; but as we fear that this is not likely soon to take place, we shall feel it our duty to keep our readers informed of the chief contents of an admirable contemporary. On this occasion we must content ourselves with giving a translation of the introductory article, which is written by one of the acting editors, Professor Ecker.

“Despite that the country and the times we live in are abundantly blessed with scientific publications, we nevertheless unhesitatingly venture to send another periodical of this kind into the world.

“Although anthropology—in the sense we conceive it—is yet in its infancy, it has very recently and within a comparatively short period, both by the zealous investigations of men of science, and the interest excited among the educated classes, acquired such an extension, importance and position, as not merely entitle but force anthropology to step forth as an independent discipline, to define her boundaries, to be represented in literature, and not as hitherto humbly to claim shelter from other disciplines. In undertaking to satisfy these urgent demands by the foundation of this periodical, it may not be out of place to state what branches of science will be represented in its pages.

“The nature of man as the object of anthropology is, in the words of V. Baer, ‘the culminating, or the starting point, according to the interpretation we give of various sciences, of zoology, comparative anatomy, universal history, philology, social science, and jurisprudence; it comprises psychology, as a whole, since we only know so much of the souls of animals and their thoughts as we by anthromorphism

\* *Archiv für Anthropologie*. Edited by A. Ecker and L. Lindenschmitt. Braunschweig: 1866.

attribute to them; nay, philosophy as a whole, is merely the expression of the various modes by which man has endeavoured to comprehend the world.'

"But in a restricted sense there are two sharply demarcated departments into which the immense empire of the science of man may be divided. In the first, we consider man in social life, or humanity as a whole, and the effects resulting from this social condition. This constitutes the department of history, especially of the history of civilisation. In the second, man is considered as an individual, as the representative of the zoological genus 'man'. This is the natural history or zoology of man—anthropology in the present sense. But inasmuch as the zoology of animals comprises not merely the knowledge of external formation and internal structure, but also the theory of life, physical as well as mental, so the natural history of man comprises anatomy and physiology as well as psychology.

"It has—to give a short summary of its tasks—first to consider the variations within the human species, the various races and stocks of mankind, according to the external so-called zoological and anatomical characters, a branch of the science which may with V. Baer be appropriately termed *comparative anthropology*. It is clear that the whole anatomy of man, just as it is taught as a basis for medicine, must be subservient to the anthropologist; but hitherto it was only comparative craniology which yielded some notable results, to which may be added the theory of the proportions of the skeleton. The comparative anthropology of the brain, and of the soft parts generally, is yet in its infancy; and unfortunately the populations which might furnish in this respect the most important materials, namely, the lower races, disappear rapidly. But since the brain and the cranium which receives its shape from it, exhibit, according to many observations, the most striking differences in the various races, and are also most characteristic as compared with those of animals, comparative craniology justly constitutes one of the most important branches of comparative anthropology, quite apart from the circumstance that skulls afford frequently the chief evidence of extinct races and peoples.

"But comparative anthropology will not rest satisfied with the simple consideration of physical variations; it will also have to compare the functional capacity, the whole physical life. It will then have to ascend to the comparison of mental endowment, the intelligence of the respective races; and will have to investigate how far the structure of the brain harmonises with it, and this leads necessarily to the comparison of languages, manners, industry, and religion.

"This applies especially to comparative philology, which in recent times has acquired great importance, although we look upon it as an error that its results have, as regards certainty, been placed above the anatomical results. Surely the diversity in language, by the mediation of which notions are formed, and by which man becomes a man, rests as much upon congenital differences in the purely intellectual sphere (consequently also in the cerebral formation), as upon the special conformation of the articulating organs, and hence comparative philology partly rests upon an anatomical basis.

"Even then comparative anthropology cannot remain stationary; it will have to discuss the following questions: How did the variations in the human species arise? Are they the effects of various external influence, especially of the climate, or are they original? And in order to answer these questions, the influence of the media, of intermixture, etc., the causes of the disappearance of some races, their power of resistance, diseases, etc., will have to be investigated. These questions, as well as some others presently to be mentioned, are comprised in what at present in France is called *general anthropology*.

"On casting a rapid glance at the above outlines of the province of comparative anthropology, it cannot be denied that it pretty nearly covers the same ground as 'ethnography' or 'ethnology'; but were we obliged to give an opinion on the unrefreshing contest which lately took place between the ethnological and anthropological societies of London, we certainly should hold that 'ethnography' is a part of 'anthropology', but not the latter a part of the former; and that considering the uncertain and oscillating signification of 'ethnology', it were best to substitute for it 'comparative anthropology'.

"There is a second main problem of anthropology, namely, the investigation of the differences subsisting between man and the animals standing next to him, the so-called anthropoids; or 'man's place in nature,' as the question has lately been formulated. This problem will have to be solved partly by the anatomist, and partly by the psychologist. On the one hand, there will be requisite the most careful comparative anatomy of the body, especially the minute structure of the brain, and, on the other hand, the analysis of psychological functions. However much may have been done in this direction, much more remains to be done before we can indulge in any hopes to solve these final questions in relation to the genetic connection between man and the anthropoid animals, which have by the followers of Darwin been proposed too early. Whether palæontology and the theory of development will throw some light into this obscurity remains yet to be seen. But surely it is not the task of a serious science prematurely to discuss questions to answer which we lack materials, for we gain according to a well known just maxim, 'by no means the truth, in deciding doubts at the improper time.'

"But natural history is not merely the description of nature; it is as its name implies, history; it embraces not merely the developed but development. Just as the natural history of animals, zoology describes not merely the living but extinct animals and considers their appearance and disappearance on the globe, so the zoology of man is at the same time palæontology (palæanthropology) having for its aim the investigation of man's first appearance upon the earth. It thus on the one hand becomes intimately connected with geology, which is an indispensable auxiliary science, and on the other hand with archæology and history. Here the geologist and the palæontologist and the archæologist meet, the latter descends into the most ancient graves of our ancestors, whilst the former explores such formations which contain the first traces of man by the side of the relics of extinct animals.

The *history* of man runs with its terminal points into the *natural history* of man, into palæanthropology. The problem common to both is to construct from the most ancient remains of man, his chase and domestic animals, and the fragments of his primitive industry, his prehistoric or primæval history. But also into the province of written history must anthropology extend its researches; for if for instance it be our wish to investigate the genetic connection of the present inhabitants of Europe with its primitive population it is only possible, by advancing from the examination of the skeleton, and especially of the skull of the former as found in the graves of all centuries, until we arrive at the relics of the latter. All this portion of the field of inquiry has since R. Wagner been denominated *historical anthropology*. It is this branch which forms a connecting link between the two grand disciplines into which the science of man is divided,—*history* and *natural history*.

“Hitherto the various labours in the above-mentioned fields of inquiry have been carried on independently of each other. Thus archaeologists looked upon skulls as worthless, and much that is valuable has consequently been lost for science. The altered spirit of the times has led to great improvement in this respect. The individual departments of science are no longer so exclusive, they begin to throw their lights upon other apparently foreign fields, and become allies in the solution of certain questions. . . . This principle of association has already produced its fruit upon the soil of science. Questions arose for the solution of which the co-operation of other discipline was requisite. Thus as regards the varieties of the human species it became necessary apart from physical qualities to study also the resemblance or diversity of language and an unexpected relation was thus established between the naturalist and the philologist. The thirst for knowledge imbued with a spirit of free inquiry gradually established links of connection between apparently broadly demarcated sciences, and thus became enlarged that field of knowledge, which we now denominate the natural and primæval history of man, or expressed in one word *anthropology*.

“In all countries where science progresses the necessity of association was felt, and effect given to it according to the political and national peculiarities of the respective states. In the great metropolis of the centralisation state, where by far the greatest number of the scientific men of the country are crowded together within a comparatively small space, this state of development manifests itself first. A number of scholars formed an association—the *Société d'Anthropologie*, which consisted of the representatives of the above-mentioned branches of science constituting anthropology, for the purpose of discussing questions which could not satisfactorily be answered by the discipline. In this society, and the periodicals issued by it, the various labours found a common centre, and in their pages will be found what has been effected in France in the field of anthropology. Soon after a similar society was formed in London, and very recently, we understand, also in Madrid. To create such a central union in Germany in a similar form, our political condition, apart from other reasons, will not admit of. Such an association, which we have no

doubt will be formed, can only appear in the shape of a migratory association, as a section of the association of naturalists. But such a society has not the power to perform what an independent society can effect, and hence another point of union must be established. It is unquestionable that the individual disciplines which, by their union, constitute anthropology, can no longer claim admittance as guests in the exclusively medical, anatomical, archæological, and scientific journals, in which they are scarcely tolerated, or find too little shelter to live and to thrive. On the other hand, we cannot expect from the public, who daily take a greater interest in anthropology, that they should read the various publications in which the facts of anthropology lie scattered. It has, therefore, long been a great desideratum to establish a central organ for anthropology. At the meeting of anthropologists in 1861 at Goettingen, the plan to found such an organ was discussed, but no effect given to it on account of various obstacles until the necessity for it became too urgent to delay it any longer. The above-mentioned editors met at Frankfurt on the 7th of June, 1865,\* for the purpose of establishing these Archives, which have for their object to become a central organ for anthropological efforts in Germany and allied countries. The Archives will contain, besides original treatises, reports of the more important papers of foreign societies, translations, and, as far as possible, a complete literary register. Since these Archives have partly for their object to supply the want of a society, minor communications from correspondents will readily find insertion, in order to establish a means of intercommunication between the fellow-labourers in our science. With respect to certain questions, such as methods of measurement and modes of investigation, it is highly desirable to interchange ideas and to come to an understanding. The Archives, finally, although a periodical for professional anthropologists, anatomists, zoologists, archæologists, and philosophers, is at the same time intended for the educated public. On the other hand, it will contain the most important labours in the whole field of anthropology, and its progress, whilst, on the other hand, it will spread the results of these labours in wider circles. But whilst the Archives are intended to fulfil this task, they will enter into no rivalry with the numerous popular publications which make everything pleasant for the public, without providing it, at the same time, with the means of judging. V. Baer says very justly in his excellent autobiography, 'Science, it is said, must be rendered popular. Very well. I have always inclined to this opinion; but now, as the work is proceeding, and the fruits of the discoveries are ground down in innumerable mills, these appear to me to resemble bone-mills in which the relics of living organisms are transformed into a shapeless powder in order to manure the field and procure nourishment for the people. The object is certainly a good one, nevertheless it cannot be denied that

\* Excepting V. Baer and Rüttimeyer. The former on account of indisposition; but both approved of our undertaking, and have promised to us their support and co-operation.

in this process some untrue, consequently, unwholesome, matter is mixed with the powder, which is no longer recognisable since all the evidence of its origin is lost.' This is the object of the Archives ; may they succeed in fulfilling it."

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### WILSON'S PRE-HISTORIC MAN.\*

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THE first edition of this work was published in 1863 ; and acting on the rule which a known and certain zoological law has laid down—that a great longevity is oftentimes granted to animals of a slow circulation—the year 1866 witnesses a fresh edition.

Let us examine how far the second differs from the first. The author acknowledges that in his first edition "Some errors beyond the reach of errata also resulted from the want of proof sheets. But of these it is only necessary to notice here the woodcut, fig. 58, p. 446, which was introduced with the title of one now correctly given on p. 449, as an example of the normal Peruvian dolichocephalic skull." Charles II is said to have said to a lady of the court whose dress was somewhat dilapidated, "that a rent is better than a darn ; a rent is the accident of a minute, but a darn is premeditated and deliberate poverty." Dr. Wilson's darned craniology is certainly worse than his former slips. The reviewer of his work in these pages (vol. i, p. 139) pointed out that he gave a figure which he considered to be that of a well proportioned symmetrical skull, unaltered by any artificial appliances. This skull was undoubtedly artificially distorted ; as any one but Dr. Wilson might see. He not only repeats the blunder in the present edition ; but actually makes it worse, by altering the title of a Peruvian dolichocephalic skull, supposed by him to be naturally dolichocephalic, to that of a "depressed skull." If he had stopped here, we might have considered it a harmless error, in which the feeble mind of the writer was seen struggling vaguely to extricate himself from the blunder which he had committed, without precisely knowing where the blunder was. A critic might at least have given him credit for good intentions. Yet he has actually introduced a new artificially compressed skull (his woodcut 59 on p. 449) which he calls a "Peruvian dolichocephalic skull." This skull is just as much artificially compressed as the other one ; and in spite of the enormous parade of facts

\* *Prehistoric Man; Researches into the Origin of Civilisation in the Old and the New World.* By Daniel Wilson, LL.D. Second Edition.

which Mr. Wilson adduces, the homely comparison is applicable to him that he has gone "out of the frying-pan into the fire."

The scope of the work professes to deal with "pre-historic man", yet the majority of instances are invariably taken from America. If there were really evidences of man in the American geological period; if the Natchez man and the New Orleans man had been actually pre-historic individuals; if the proofs on which Lund surmised that early man in Brazil inhabited the bone caves of that country with the extinct animals, were before us; we might then with some show of plausibility demand for pre-historic man in America an amount of attention equal to that which is bestowed on our ancient human remains in the Old World. But we have really no positive evidence before us of fossil man in the New World. And when we travel towards the present era, less and less grounds are afforded to us whereon to assert even the antiquity of American "pre-historic" civilisation. Mexico, Peru, and the buried cities of Central America, have, it is true, afforded us evidence of a high civilisation prior to the advent of the Spanish conquerors. But the proof of the time during which this civilisation prevailed is always lacking. The generations of kings, on whom so many imaginary genealogies have been founded, are as untrustworthy evidence of historical fact as the genealogies of the Welsh or the Siamese. We fear that at present the question of pre-historic man in America must rest in abeyance until some one gifted with the critical historical faculty—some future Niebuhr—arises; and then it is possible that science may be evolved out of the chaos which now exists. If the physical evidence of the descent of the present American aborigines from a stock distinct from those of the Old World is investigated, the following is the first broad result. A Peruvian skull resembles a Mexican skull; a Mexican skull resembles a Californian skull; a Californian resembles a British Columbian; many British Columbians resemble Esquimaux (of the west coast); and from the Esquimaux of Behring's Straits to the Tschuktschi and Koriaks, the transition is easy. We are then plunged into the so-called "Mongolian" races, at the extreme north-eastern corner of Asia. Although the above *sortes* is roughly sketched, we may challenge the most detailed reference to craniometry before it can be disproved. The philological evidence is, however, of course apart; this in the hands of Dr. Wilson, is as nothing. We have to congratulate him on being the author of a large work which has run through two editions, and succeeded in teaching nothing of importance with regard to its subject. As the work stands before us, it comprises more than 600 pages, which might with great advantage to the author's reputation, and his readers' patience, have been compressed into 100. We can

but quote the last sentence. After doing nothing of real work himself to solve the difficulty of pre-historic man, the "*Deus ex machina*" is as usual invoked to pick him out of the mud; and he concludes: "I venture to hope that the process of investigation and reasoning here pursued may unravel some perplexities, and show such an approximation to a beginning in relation to man's intellectual progress, as to confirm the anticipation that ampler knowledge will bring with it fresh evidence of harmony between the disclosures of science and the dictates of revelation."

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### THE KHONDS OF ORISSA.\*

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MAJOR MACPHERSON'S life, written by his brother, Mr. William Macpherson, is a record of the highest interest as including the private life of a man of great ability and force of character, the history of his important political work in India, and the account of his well-directed efforts to raise in the scale of civilisation the hill tribes of Orissa. For the objects of this Journal, however, Major Macpherson's descriptions of the bodily make, mental character, history, life, and habits of these Orissa Khonds are the main subjects of interest, and we shall confine ourselves to describing the leading details of his anthropological dissertations, which rank among the fullest and most remarkable contributions ever made to the history of savage life.

The Khonds, who were among the primitive races of Orissa, were driven by the Hindus to the forest and the hill, and now inhabit the hilly country and table lands of the Ghauts, the Khond district comprising about five hundred square miles. The extreme unhealthiness of their malarious climate, the poisonous effect of which extends even to unseasoned Hindus, and is simply deadly to Europeans, except for a few weeks in the year, has had the effect of keeping the Khond civilisation, though within a short journey of the Hindu civilisation of the plains, in an isolated state; and it has thus, to a very remarkable degree, retained those original characteristics which, under circumstances more favourable to intercourse and admixture with surrounding races would no doubt have disappeared.

"The Khonds are fitted by physical constitution to undergo the severest exertions and to endure every form of privation. Their

\* *Memorials of Service in India.* From the Correspondence of the late Major Samuel Charters Macpherson, C.B. Edited by his brother, William Macpherson. London: John Murray. 1865.



height is of about the average standard of Hindus of the Peninsula. Their forms are characterised by strength and symmetry. The muscles of the limbs and body are clean and boldly developed. The skin is clear and glossy, its colour ranging from a light bamboo to a deep copper shade. The heel is in a line with the back of the leg, the foot is somewhat larger than that of the Hindu, and the instep not highly arched, although the Khond, nevertheless, has extraordinary speed of foot. The forehead is full and expanded. The cheek bones are high and rather prominent; the nose is seldom, though occasionally, arched, and is generally broad at the point; the lips are full, but not thick; the mouth is rather large. The whole physiognomy is generally indicative of intelligence and determination, blended with good humour."

The Khond villages are beautifully situated, and often consist of one slightly curved street with a gate at either end. The pursuit of agriculture is held in great honour, and practised with a degree of skill and energy perhaps nowhere surpassed in India; and the mountain Khonds are extremely rich in bullocks, buffaloes, goats, swine, and poultry. The other necessary arts of life are performed for them by pariah or Hindu families settled among them, who may be divided according to their trades into the panwa, or weaver (who also provides the human victims); the lohara, or ironsmith; the komaroo, or potter; the gouro, or herdsman; and the soondi, or distiller. These they treat with kindness, but consider as an inferior race. Hospitality is regarded as one of the chief virtues, and fugitives are received and protected—with the exception of the muriah, or victim, who must be given up. If a man can make his way into the house of his enemy, even if his life has been forfeited, he cannot be touched.

Marriage can take place only between members of different tribes, and a state of war or peace makes little difference. After a fight, the women of each tribe visit each other, and condole on the loss of their relatives. The custom among the Khonds is for boys of ten or twelve to marry girls of fifteen or sixteen. The use of money being almost unknown, the father of the bridegroom pays to the father of the bride twenty or thirty lives, a life being either a buffalo, pig, goat, sack of grain, or set of brass pots, as may have been agreed upon beforehand, and then the marriage is at once solemnised. The father and friends of the boy carry rice and liquor in procession to the house of the bride, the priest makes a libation to the gods, the parents of the parties join hands, and then all partake of the prepared cheer. Afterwards an entertainment takes place either at the bride's home or some convenient place near the house of the bridegroom, with feasting, dance, and song. When the night is far spent, the uncles of the bride and bridegroom raise them on their shoulders, and, join-

ing in the dance, the burdens are suddenly exchanged, and the uncle of the youth disappears with the bride. Then the company divides into two parties, the friends of the bride endeavouring to arrest the others, to cover her flight, and all—men, women, and children—join in the mock fight. The priest attends the newly-married couple home, rehearsing a charm whenever they cross a brook. If the husband is a boy, they live together in his father's house, the wife aiding his mother in her domestic labours till he is old enough to have a house of his own. When a child is born, they determine the best name for it by the priest dropping grains of rice into a cup of water, naming with each grain a deceased ancestor. From the movements of the grain and observations on the child, he determines which of his ancestors have reappeared in him, and names him accordingly.

On the death of the patriarch of a district, gongs and drums are beaten, the body is placed on a funeral pile which is set on fire, while the family and people of the hamlet perform a dance round a high flag-staff set up close by, and surrounded with the personal effects, clothes, arms, drinking vessels, etc., of the deceased chief. The dance is continued at intervals until the tenth day, the property is distributed among the different abbuyas or chief people in the tribes, and an assembly is held to acknowledge the heir of the late patriarch.

The religious system of the Khonds is described at great length, as it was with practices arising out of it, that Major Macpherson was chiefly concerned—the putting down of human sacrifice, and of female infanticide. They believe in one Supreme Being, Boora Pennu, or the God of light, the source of good, creator of the universe, of the inferior gods, and of man. Boora Pennu in the beginning created for himself a consort, Tari Pennu, or the earth goddess, who, jealous of the creation of man, rebelled against him, and became the source of evil. Up to this point the Khonds hold the same general belief, but from it they divide into two sects: that of Boora, believing that he was triumphant in the contest; that of Tari, holding that she remained unconquered, and still maintains the struggle. The sect of Tari-Pennu are those who offer human sacrifices; the sect of Boora-Pennu practise female infanticide. The Khonds believe that men are endowed with four souls: first, one that may return to Boora after death; second, one that belongs to some tribe, and is reborn in it; third, one that endures the suffering for the punishment of sin, performs transmigrations, and sometimes temporarily leaves the body, leaving it weakened, languid, and sleepy—this is the soul which, if a man becomes a tiger, animates the

bestial form; the fourth soul dies on the dissolution of the body. Among the inferior gods is Dinga Pennu, the judge of the dead. He resides in a great rock, or mountain, called the Leaping Rock, perfectly smooth and exceedingly slippery, with a bleak unfathomable river flowing round it. To it the souls of men speed straight after death, and have to make desperate leaps to secure a footing on its surface; failing to do this, they break limbs or knock out eyes, and these deformities are generally communicated to the next bodies they animate. Meantime Dinga sits upon the rock, casting up each man's account of good or evil, and awarding their sentences.

The worshippers of Boora-Pennu, while holding in abhorrence the practice of human sacrifice, carry that of female infanticide so far that in a village of a hundred houses there is often no female child to be seen. This practice seems partly attributable to the difficulties that arise from the custom of marriage only taking place between different tribes. The influence and privileges of women are very great among the Khonds, and many difficulties and quarrels are caused by the marriage arrangements; and by the death of the female infants, say the Khonds, "the lives of men without number are saved, and we live in comparative peace." They believe that they have the sanction of the gods for their practice, killing female infants, Boora having repented of the creation of the first feminine being, and given them permission to bring up only as many females as they should find consistent with the good of society. They hold, also, that the more female souls they remove from the earth, the more chance there is of getting new male souls in their place.

In the worship paid to Tari-Pennu, the earth goddess, the chief rite is human sacrifice. Such sacrifices are celebrated publicly at fixed periods, and are so timed that each head of a family can have a share of flesh for his fields about the time when his chief crop is laid down. Besides these regular festivals, they offer extra sacrifices on special occasions, if the crops should threaten to fail, or many deaths occur from disease or tigers, etc. In case of family misfortunes a private sacrifice is made. The victims, or meriahs, who are almost always procured from other tribes, may be of any race or age, and of either sex, but they are only acceptable to Tari if they have been purchased by the Khonds, or are born victims, that is, are the children of victim fathers, or have been devoted to the gods by their parents. They are generally supplied to the Khonds by the races of Panwas and Gahingas, who either purchase or kidnap them in the low lands, and bring them blindfolded to the village, where they are lodged in the house of the mullicko, or chief. The meriah, or victim, is regarded through life as a consecrated being, and if a child is often

permitted to attain to years of maturity, has a wife given to him, and brings up a family of victim children, who, though liable to be sacrificed at any time, sometimes escape their fate. The victims are treated with great affection and deference, and are considered as superior beings, whose privilege it is to give up their lives for the good of mankind, and who will be beatified immediately after death.

"The celebration of the sacrifice is held as a public festival, which lasts about three days, and is attended by a large concourse of people. After many preliminary observances, prayers to Tari, processions, music, dancing, and feasting, the victim, who is bound to a post in the sacred meriah grove, is on the third morning refreshed with a little milk and palm sago, and released from his bonds, though closely watched, and generally stupified with opium. A series of invocations, legends, and dialogues are then gone through, the parts of the victim, the chief, and the priest being sustained in a semi-dramatic way by the best actors to be found. After an invocation to Tari-Pennu, and an account of the institution of human sacrifice, the priest thus continues: 'We obeyed the goddess, and assembled the people. Then the victim child wept, and reviled, and uttered curses. All the people rejoiced except those with whom the child had dwelt, and the janni (priest). They were overwhelmed with grief.' . . . The earth-goddess came again and said, 'Away with this grief. Your answer is this: when the victim shall weep, say to him, Blame not us, blame your parents who sold you. What fault is ours? The earth-goddess demands a sacrifice. It is necessary to the world. The tiger begins to rage, the snake to poison, fevers and every pain afflict the people—shall you alone be exempt from evil? When you shall have given repose to the world, you will become a god by the will of the gods.' Then the victim answers: 'Have you no enemies, no vile and useless child, no debtor to another tribe who compels you for his debts to sell your lands: no coward, who in time of battle skulks with another tribe? Have you none of these to seek out and sacrifice?' The Janni replies: 'We have acted upon quite different views. We did not kidnap you on the road, nor while gathering sticks in the jungle, nor when at play. The souls of those whom you would have us sacrifice can never become gods. They are only fit to perish by epilepsy, falling in the fire, or by ulcers, or other dread diseases. Such sacrifices would be of no avail. To obtain you we cleared the hill and the jungle, fearless of the tiger and the snake. We stinted ourselves to fill your parents, and gave them our brass vessels; and they gave you to us as freely as one gives light from a fire! Blame them! Blame them!'

"Then the Victim protests: 'And did I share the price which my parents received? Did I agree to the sale? . . . You, O my father, and you,—and you,—and you,—O my fathers! do not destroy me!'

"The mullicko, or chief of the village where the victim was kept, now says: 'This usage is delivered down to us from the first people of the first time. They practised it. The people of the middle time omitted it. The earth became soft. An order re-established the rite.

O child! we must destroy you. Forgive us. You will become a god!

"The Victim: 'Of this your intention I know nothing; I thought I was to pass my life with you. I assisted to build houses, and to clear fields for my children. See! there are the palm-trees I planted, there is the nohwa-tree I planted—there is the public building on which I laboured—its palings still white in your sight. . . . Let the whole burden of my soul's grief, as I remember the past, lie upon you.'

"The Chief: 'You are about to become a god. We shall profit by your fate. We cannot argue with you. . . . Do you not recollect the day on which we cut your hair, devoting you to sacrifice? and do you not recollect that when many were sick, and the janni brought the divining sickle, he declared, "The earth demands a victim"?'"

"The Victim: 'It is true I did observe something of this; but your aged mothers, your wives, and your beautiful children, my brothers and sisters, assured me that you were humane, and would never kill one so useful and beautiful as I.' . . .

"The Chief: 'Your parents, forgetting your beauty, forgetting the pleasure of cherishing you, turned their hearts to my cattle, and my brass vessels, and gave you away. Upbraid *them*! Heap imprecations upon them. We will curse them with you, imprecating upon them—that all their children may be similarly sacrificed—that they may lose, within the year, the price for which they sold you—that they may have a miserable and forlorn old age, lingering childless and unfed—that when they die in their empty house, there may be no one to inform the village for ten days, so that, when they are carried out to be burned, all shall hold their nostrils—that their own souls may afterwards animate victims given to hard-hearted men, who will not even answer their death-plaints consolingly. Curse them thus, and we will curse them with you.' . . .

"The Victim: 'My curse be upon the man who, while he did not share in my price, is first at my death. Let the world be ever upon one side while he is on the other. . . . I call upon all—upon those who bought me, on those whose food I have eaten, on those who are strangers here, on all who will now share my flesh—let all curse the Janni to the gods!' . . .

"The Janni: 'Dying creature, do you contend with me? I shall not allow you a place among the gods.'

"The Victim: 'In dying, I shall become a god; then will you know whom you serve. Now do your will on me.'

"The victim is then sacrificed, and his flesh stripped off and divided into portions for the different villages, which are carried home wrapped in the leaves of the googlut-tree. Arrived at the village, the portion is divided in two, and one half buried in the ground; the rest is divided between the heads of houses, each of whom takes his morsel and buries it in his fields, placing it in the earth behind his back without looking."

Such is the outline of the rite of human sacrifice among the Khonds,

By steady perseverance in his purpose, Major Macpherson was at length able to put a stop to both human sacrifice and female infanticide; though the difficulties of the attempt were much increased by the want of proper support from the Indian government. Whether they are still discontinued, or whether after his departure the Khonds went back to their old habits, we are unable to say. For fuller accounts of this remarkable race, we must refer to the book itself. This slight sketch will at least serve to show the immense value of the contribution which Macpherson made to the History of Man by the investigations which he carried on with such perseverance and energy, and for which he had to pay so dearly in bodily suffering and in official ill-treatment.

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### ROMAN INTERCOURSE WITH IRELAND.

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IN the May number of this *Review*, we published a short article on Roman Intercourse with Ireland, in allusion to a paper read by Mr. Thomas Wright before the British Association at Birmingham in 1865. Mr. Wright has since honoured our short remarks by a special paper, which he read before the Ethnological Society. It, therefore, now becomes our duty to offer a few observations in reply to this communication.

The historical instances of the Roman arms penetrating without conquering a country, are so very few and far between, that we have erred in considering Mr. Wright meant that the Romans had subjugated Ireland, and established themselves in that country. This, it now appears from his late paper, was very far from his thoughts. Though he still holds that it "can hardly be doubted that the Romans did invade, and, in their view of the case, subdue Ireland." Now, in our opinion, the Romans used to take a very practical view of such cases. We would be very sorry to descend to any mere word-quibbling on this important historical question, nor can we suppose that the Romans made much distinction between the words subdue and subjugate. Though Livy tells us that the words *Væ victis* were first used by Brennus, the Gaul, when he threatened extermination to the Roman people, the latter very soon acquired them, and used them whenever they wished to express the particular relations existing between a conquering and a subdued people, "in their view of the case."

To acquire accurate ideas of ancient knowledge, we must in all cases throw aside our own altogether, and we must try to think as

they thought, with the little knowledge they possessed ; we must drop a veil over our eyes, and endeavour to look upon matters exactly as they saw them with their own lights. Strabo was the most distinguished geographer of antiquity ; he was just dead when Juvenal wrote, and there can be little doubt that his geography had been consulted by the poet. But, as has been well observed by Casaubon, Strabo's geography of Great Britain and Ireland is inaccurate, inconsistent, and self-contradictory. Among other errors, he actually states that Ireland is situated due north of Britain. Tacitus, however, lived in Juvenal's time, and it is from his writings that the satirist has obtained the principal part of the geographical knowledge of our country which he displays. We are again forced to re-quote his often quoted words.

“ Arma quidem ultra

Littora Juvernæ promovimus, et modo captas  
Orcadas, ac minima contentos nocte Britannos.”

From the above, we clearly see that the Romans had carried their arms over or beyond the shores of Ireland, not into the interior of Ireland, for then one shore would have sufficed, and we would have had the singular *littus* ; but Juvenal, to render his meaning plainer to us, has actually used the plural *littora*. And, as Tacitus informs us that the Roman fleet had sailed round the north of Scotland, captured the Orkneys, and seen Thule, we think Juvenal was quite correct in saying that they had carried their arms beyond Ireland. But observe, however, though he applies the word *captas* to *Orcadas*, he very properly abstains from applying such an expression to Ireland. Indeed, we consider and quote the words of Juvenal as a distinct proof that the Romans neither subdued nor subjugated, whatever the difference may be between the meaning of the two words, any part of Ireland.

Let us, however, take the exact words of Tacitus ; he says :—

“ Hanc oram novissimi maris tunc primum Romana classis circumvecta, insulam esse Britanniam affirmavit, ac simul incognitas ad id tempus insulas, quas Orcadas vocant, invenit domuitque. Dispecta est et Thule quadamtenus nix et hyems appetebat.”

Now we shall not enter into the ancient dispute as to where Thule really was. The ancient poets had heard of it, and made their own use of the place to adorn their verses, and unwittingly to puzzle modern commentators. Pliny's description of Thule, curiously enough, tallies with both Tacitus and Juvenal. Pliny says, the most remote of all the islands is Thule, which is six days sail from the north of Britain, in which there is no night at the summer solstice, while the sun is passing through the sign of Cancer. Here we have the *minima contentos nocte Britannos*, or at least the allusion upon which Juvenal wrote

the phrase. Tacitus says that Thule laid concealed in the gloom of winter and the depth of eternal snows; while Pliny says, it is but one day's sail from the Frozen Ocean. Those descriptions point most unmistakably to Iceland; and when the Roman fleet was in sight of that island, they had certainly carried their arms far beyond the shores of Ireland.

As regards the argument about Roman roads, we do not think it worthy of the slightest notice. The roads led to Legontium, from whence the Romans took shipping for Man or Anglesea, in both of which places they had mines. No doubt there was an important station at Holyhead; from the summit of the mountain the watchers could see an immense distance, northward, southward, and westward. From thence might the Irish pirates first be descried, making either for the Dee or the Severn; and by a telegraphic arrangement of beacons, or otherwise, notices of danger might be at once conveyed to Deva or Sabrinam.

There is no comparison whatever between Cæsar's short stay in England, and a Roman settlement in Ireland, lasting "during the whole period of the Roman power in Britain." The two cases are utterly dissimilar. But there is still a place on the Thames, named Cowey Stakes, and there are nothing but a few Roman coins found in Ireland. That Julius Cæsar twice invaded Britain is a well known historical fact. Stakes, to aid or impede his crossing over the river Thames, do not enter into the category of forts, roads, or earthworks, but still they mark the presence of Cæsar and his legions. We have read newspaper accounts of some of the stakes having existed as late as the last century; and we have a tobacco-stopper said to have been made out of a piece of one of them. We may be excused for reminding Mr. Wright that they were seen and described by the Venerable Bede in the following words.

"Quarum vestigia sudium ibidem usque hodie visuntur, et videtur inspectantibus quod singulæ earum admodum humani femoris grossæ et circumfusæ plumbo immobiliter hæreant in profundum fluminis infixæ."

So we find it written by Bede, in the first book of his *Ecclenastical History*. The story is merely traditional; still, however, existing among the boatmen on the banks of the river, still talked of even in the very public-houses about Laleham and Chertsey; the spot is still named Cowey Stakes, nevertheless the tradition has the very respectable authority of Bede, who died in the eighth century, not so very long after Cæsar had crossed the river.

The Roman medicine stamp was found in the county of Tipperary. The wandering vendor of medicines might have stamped his collyrium



as he made it in the wilds of Ireland. And he cannot be accused of bad judgment when he carried medicines to cure hurts of the eyes to the county of Tipperary.

With respect to the Roman coins found in Ireland, we are indeed greatly surprised to find an eminent archæologist like Mr. Wright speaking of an urn containing 1,937 coins, together with 341 ounces of silver, composed of a large number of weighty ingots and ornamental pieces, supposed to have been used on armour for horses, and several battle axes marked with Roman characters. A more detailed and accurate account of this discovery is given in the *Ulster Journal of Archaeology*, the true number of the coins being 1506. We really wish Mr. Wright had read this more detailed and accurate account, though we thank him for introducing us to an exceedingly interesting and valuable work. The account appears to have been written by the Rev. John Scot Porter, an eminent antiquary in the north of Ireland, and the coins have been described by Mr. Carruthers, an equally eminent numismatist. Of course there was no urn; the "discovery" was found below the surface, in the centre of an open field, and from the closeness in which the coins and silver were packed together, it was probable that they had been placed in a bag or box, which in the course of time had completely disappeared. There was nothing that the most inexperienced eye could possibly imagine to "have been used on armour for horses," or for battle axes. There were no other metal but silver amongst the "find." The coins were all small, scarcely any being so large as a modern sixpence; they were not in a perfect state of preservation, being nearly all clipped, defaced, and otherwise injured. Mr. Wright tells us accurately, that they were all of the lower empire, the list beginning with Constantius II, and ending with Constantine III; and yet Mr. Wright attempts to bolster up his erroneous reading of a short passage in Juvenal, by coins that had not been struck till long after the Roman poet had departed for the gloomy regions of Hades. Here is what Mr. J. S. Porter says of this "find;"—

"There was not a coin, or article of gold or bronze, nor a specimen of jewellery in the whole collection. This fact may assist in determining the purpose for which the whole had been gathered together. It was not a merchant's money-box, nor the hoard of a miser, nor the booty of a robber, nor the spoils of a warrior, nor the treasury of a monastery; in any of those cases the hoard would, almost beyond a doubt, have contained some gold or brass, or both, and, beyond a doubt, some article of plate in a perfect state; whereas it does not contain (with the exception of a portion of the coins) one unutilated piece of wrought silver; all are bent, broken, and for every useful purpose destroyed; and nine-tenths of the whole consist of lumps, or

rude castings, which, at the time they were made, could have had no value at all, except the intrinsic worth of the metal. The only use to which such a heap could be applied would be as *old silver*, intended to supply material to a silversmith for the exercise of his art. I have little doubt that the hoard had been originally collected for this use; how or why it came to be buried in the earth it is impossible now to say with certainty. It may have been deposited there by its owner for safety in troublesome times, or it may have been stolen from him and buried by the robber for the purpose of concealment. But however it came there, its contents prove to my mind convincingly that *the art of manufacturing silver was practised, and perhaps extensively practised, in Ireland, at the time of its inhumation.*"

With respect to a Roman interment, with a Roman coin, having been found in the townland of Loughy, near Donaghadee, county of Down, we shall just quote a passage from the *Ulster Journal of Archaeology*, written by Mr. William Pinkerton, and published in vol. v, p. 36:

"That many of the Romano-British visited Ireland is more than simply probable; that some remained and died in this island is equally so; but the few scattered Romans who may have died in Ireland were strangers in a strange land, and we cannot expect to find in this country (Ireland) the distinctive Roman sepulchre, authenticated by the many well-known proofs afforded by the manufactures and peculiar burial customs of that people. This brings me back to my starting-point, the communication of Mr. Carruthers, and I regret to say, with all due deference to that gentleman, that, though I agree with him to a certain extent, I cannot go all the way with him. I can see no improbability whatever in the assumption that a Roman 'had been voyaging past the County Down, and had died either unexpectedly on board or in a fit of illness, after having been removed on shore.' But the very act of bringing the body on shore, either alive or dead, under the above conditions, would imply that the deceased was a person of rank or distinction; and it is well known that in such cases it was the Roman custom to burn the body on the nearest convenient spot, and to carry away the ashes to be interred with the usual ceremonies and accompaniments elsewhere in Italy, Gaul, or Britain, near the remains of the deceased's kindred. Besides, there was nothing distinctively Roman in the remains found near Donaghadee—nothing but what has been found in Celtic as well as Saxon sepulchres. In short, though a Roman might have been buried at the place, and in the manner alleged, there is no evidence whatever to support such an assumption—one, in my opinion, too lightly hazarded."

Mr. Wright also alludes to Roman coins having been found in a Roman cemetery near Bray, in the county of Wicklow. Though we have resided at Bray, we are totally ignorant of the circumstance, and a reference to the *Proceedings of the Royal Irish Academy*, vol. iii,

p. 186, as quoted by Mr. Wright, does not, in the slightest degree, inform us on the subject.

Mr. Wright, in the conclusion of his paper, draws from those few coins the following startling inference. He says that "the coins themselves show that this settlement of the Romans in the north-east of Ireland, of whatever character it may have been, lasted during the whole period of the Roman power in Britain." The settlement is quite gratuitous, but we shall let the word pass; the remains, then, of the Romans in Ireland are but a few coins that may have been carried thither by any one, while one would imagine that the Romans in Britain amused themselves by scattering their coins broadcast over the land. It is not twenty years since we visited Gari-ononum in Suffolk, and we picked up a handful of coins when walking over the ground enclosed by the ancient walls, and the field at the time was full of persons gleaning wheat and gathering coins.

In conclusion, we may express our regret at being engaged in a discussion with Mr. Wright on Roman antiquities in these islands. He, of all men, who has been our mentor and our teacher upon archæological matters, who knows as much, and has probably done as much to elucidate and make popular our Roman antiquities as any man in England. It is a very great pity that he has not devoted his extraordinary talents to the new fields of scientific inquiry, before he so boldly stated his opinions on bronze and iron weapons. At Haalstatt in Austria, one thousand tombs of the ancient miners of salt, have lately been opened by M. Ramsaner, the director of the mines. They, unmistakeably, show a date previous to that of Philip II, King of Macedon, father of Alexander the Great. They may and do date from the tenth to the fourth century before the Christian era, a transitional period, when bronze tools and urns were slowly dying out before the use of iron. The arms of iron found at Hallstatt are actually copied from their predecessors in bronze, and there the short, sharp, two-edged, leaf-shaped sword first appears in an iron form. Bronze paalstabs faced with iron edges have been found, and, generally speaking, there are more iron than bronze celts in the collection rescued from their burial of centuries. Daily, hourly, we may say, discoveries of the greatest value are being made on the continent of Europe. Do what we may, we cannot close our eyes to the vast vistas of antiquity opening to us on almost every side. Let us follow the paths thus exposed to our view, with sure and steady steps; to us is left the honour of exploring them, and let us do our work well and worthy of the great cause in which we are engaged.

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PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL  
SOCIETY.\*

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M. BONTÉ after referring to what he had stated at a previous meeting, namely that he considered the Celts to have been a brown, and the Kimris a light coloured race, would confine himself for the present to replying to certain assertions made in the course of the debate. And first he considered the pretended brachycephaly of the so-called pre-Celtic race as unproved. He would admit they were a brown race, as everything indicates their having been of the Iberian stock, but nothing shews that they have been exclusively brachycephalic, there being no proof that the Iberians were exclusively brachycephalic. . . . Neither must we because Dr. Thurnam found in England brachycephalic crania in monuments of the bronze-age apply his discovery to Gaul. He had never put much faith in absolute propositions in systems in fact, hence he had already, before M. Broca communicated to the society the discovery of Dr. Thurnam, regarded the conclusions of M. Retzius and his disciples as very hypothetical. He would now come to another point. The partisans of the Aryanism of the modern French have attributed to the Aryan race a numerical preponderance over the pre-Celtic race. There is no record in history of a conquering race having exceeded in number the natives of any country. Even the army of Xerxes, the most formidable in number, exaggerated no doubt by ancient historians, was still inferior to the European, Asiatic and insular population of Greece. It was said at the last meeting that the Aryans had exterminated the indigenous race of Gaul. W. Edwards had already observed that such cases of extermination were unexampled, inasmuch as the conqueror generally prefers to make slaves of the vanquished. It had also been stated that the Roman influence in Gaul was insignificant, and that the army of occupation of the Romans consisted only of four legions, each of 6,000 men. But it has not been taken into consideration that this occupation continued during five centuries, so that the influence of but 24,000 must within such a space of time be enormous. But the great pivot of Aryanism is philology.

It is said, Celts, Germans, Slavonians, Greeks, Romans, Scandinavians, Dutch, Persians, Hindoos, etc., speak idioms derived from the Sanscrit, consequently they must be Arians. He was opposed to a system tending to constitute a proof of what the bones and the flesh of a people had been. The Aryanists when they perceived the break

\* Continued from No. xiv, p. 288.

down of their argument, turned round and endeavoured to prove *anatomically* the value of philology. In order to arrive at such a demonstration the philologists imagined that the Aryan race possessed three principal forms of crania, the dolichocephalic, the brachycephalic, and the orthocephalic. Dolichocephalic, the Celts, Scandinavians, Frisians, Dutch Slavonians; brachycephalic, the Southern Germans and Slavonians; orthocephalic, the Greeks, Persians, Romans. If linguists were for a moment to forget philology they would be much embarrassed to justify so arbitrary a division. The only plausible reason which they give us is this: that three principal forms are now observed among the people speaking languages derived from the Sanskrit, and thus they give to the Aryan cranium a more or less multiple form just as philology requires it. Everyone must see at once how vicious such a mode of reasoning is. In the first place three forms of crania in one race sufficiently prove a diversity in blood (the principle that the diversity of form proves diversity of race has been numbers of times laid down by M. Pruner-Bey himself). Thus we have the pure Mongol race of which the Kalmuck is the type, which presents but one form—the brachycephalic. There is no dolichocephalic Kalmuck.

The negro race also presents but one form—dolichocephaly. There is no brachycephalic negro. Each of these stocks when pure has its proper form, why should it not be so with the Aryan race? History replies, intermixture has done it. But we have not only to do with *three* forms, for each of these three forms may be again subdivided. Thus the Roman oval is not the Persian nor the Hindoo oval; the Greek form is neither the Celtic nor the Scandinavian form, the Slavonian and Germanic crania are now dolichocephalic and few brachycephalic, and so it is with French and other crania. The Aryan oval has thus nothing peculiar; and the Finnish, Basque, and Arab ovals are as much oval as the Roman oval, which is presented to us as one of the prototypes of the oval Aryan cranium.

We would now part with the craniological characters and pass to others. If an anthropologist were to present to us a Mulatto, the issue of a Negro and a white woman, as the type of the Negro, we should simply laugh at him. Well, the system of philologists leads to the same thing; for there is perhaps less difference between such a Mulatto and a Negro than between the races called Aryan. Commencing by the face, compare the Slavonian face with that of a Persian, Roman, or Greek, or that of the Hindoo with the Celtic face, or the Scandinavian with the Hindoo or Greek face. The constitutions equally differ; and as to the coloration there is nothing more unlike.

To cover this heterogeneity it is simply said that the Celts, Ger-

mans, Slavonians, Greeks, etc., *resemble more the Hindoos than the Negroes and the Mongols*. Nobody doubts this, but this proves nothing. The Arabs, the Finns, the Basques, etc., are in the same condition, why exclude them from the Aryan group? The answer to this is always the same: philology requires it. But whilst there are writers who make light of these objections there are others who consider them sufficiently important to endeavour to explain them. Thus, Clavel (*Des Races Humaines*, etc.) and Prichard, tell us that the Aryan branch which peopled Northern Europe came by the country north of the Caspian, where the Mongolian race was already established, with which they intermixed; hence brachycephaly among some Aryans. As regards the second branch which peopled Southern Europe, that passed by Asia Minor, the Hellespont, and the Bosphorus; and M. Clavel adds that meeting here with the Semitic race they intermixed; hence the dolichocephaly in the Aryan race. Thus even according to M. Clavel, who is an Aryanist, the famous race when it arrived in Europe was no longer pure Aryan. All this proves that the Aryan theory is not satisfactory even to those that profess it, and those only make light of the objections to it who have only studied one side of the question. Finally in England that country of positivism and of cool reflection, the theory of Aryanism is much shaken and scarcely exists in form of a system.

The meeting then adjourned.

August 4, 1864.—M. Quatrefages presented to the society a memoir by M. Boucher de Perthes, “sur les ossements humains trouvés en 1863 et 1864 à Moulin-Quignon dans un terrain non remanié.” Report on the Excavations of Chamant (stone period). The sepulture of Chamant (long-barrow stone period) has already been described (Bulletins 1, iv). The excavations interrupted during the winter have been resumed May 16 in the presence of Count de Lavaulx and many members of the society. The following objects were found in the last two chambers:—1. A magnificent flint hatchet, marvellously polished, the edge of which was still very keen. 2. Several bones of domestic ruminants. 3. A fragment of the jaw of a badger. 4. Fragments of rude pottery dried in the sun. 5. A large quantity of cinders and of wood charcoal. 6. Some carbonised bones of mammals. 7. Fragments of flint arrows and a large number of unworked flints, but which had evidently been deposited in the grave as none of them are found in the vicinity. 8. A large number of fragments of a greenish-grey stone, which when rubbed, and still more so when broken, exhales a strong odour of hydro-sulphuric acid. There exists no such stone in the vicinity. Some of the fragments are very small, others weigh above a kilogramme. No trace of metal was found. . . . The human

bones are very numerous ; two crania only have preserved their shape though they are much decayed. One belonged to a child about seven years of age. The second skull of an adult male about thirty years of age had lost a portion of the face and one of the temporal bones ; the cranium is oval, the frontal region much developed, the occipital region is still more so. The mastoid apophyses are long and voluminous, the occipital protuberance but little projecting, the occipital foramen is large and oval. Antero-poster. diameter maxim., 190 ; transv. maxim.; 142 ; cephalic index, 74.73 ; vertical basilo-bregmatic diameter, 137, vertical index of the cranium, 72.22 ; frontal diameter minim., 90. This cranium is thus dolichocephalic. Among the other three crania already mentioned (Bullet i, v) No. 2 is still more dolichocephalic, the two others are mesaticephalic. On the whole, of the four crania of Chamant two are decidedly dolichocephalic and two mesaticephalic. The absence of brachycephalic crania in this grade of the stone period is noteworthy. The long bones are generally of small dimensions. Everything indicates that this people were of a stature shorter than ours. All the humeri have been collected to study the question of the olecranian hole. Of thirty-four humeral bones from the sepulchral cavern of Orrouy (bronze age) eight presented a natural perforation in the olecranian fossa. In order to properly appreciate this fact it must be remembered that in the Merovingian sepulture of Chelles there were in 1,000 tombs which had been opened only five perforated humeri found (four of these are now in the museum of the society).

It is natural to ask whether this anomaly so rare at present may not at a remote period have been prevalent among the autochthonic races ; but the facts do not yet authorise us to infer that there existed in this region a race characterised by a perforation of the olecranian fossa. In order to explain the frequent occurrence of this anomaly in the bones found at Orrouy, M. Broca thinks that it might have been the burial place of a family or of a small tribe in which by consanguine intermarriages this anomaly had become hereditary. Only one entire tibia has been found at Chamant, but tibial diaphyses were found in large numbers. M. Lagneau on this occasion made the interesting observation that the crest of the tibia was sharper than in those of modern skeletons, and that the diaphysis presents the form frequently seen in rachitic children. But the tibias of Chamant are not rachitic, and their conformation is not pathological. This observation has acquired some importance since the excavations made in the caverns and the osseous breccia of Gibraltar have furnished tibias similar to those found at Chamant, which results from an article by Mr. Busk in the *Reader*. The bones of Gibraltar seem to have been contemporary

with the rhinoceros, and are much older than those of Chamant, which date only from the *polished* stone period.

M. Broca read a paper *on the condition of the crania and skeletons in ancient graves*.—In crania taken from the earth and preserved for some centuries in ossuaries there is generally found a little dry mass of the volume of a walnut or an egg, sometimes hard and moveable, and frequently difficult to extract, which constitutes the desiccated and mummified brain. But when the cranium lies in the earth the cranium is filled up, which contributes not a little to its preservation. The excavations made in August and September 1863 in the Merovingian cemeteries of Cheller and Champlieu and those previously made by M. de Roucy in the Gallo-Roman cemetery of Mount Berny enabled M. Broca to study this question and to describe some curious phenomena.

At Mount Berny most of the bodies were deposited in graves and then covered with a sandy earth. These crania were found full of earth and a small quantity of fragments of stones which could easily be extracted. But at Cheller and Champlieu most of the bodies, according to the custom of the Merovingian period, had been deposited into stone troughs, some monoliths, some formed of two pieces, all covered with a large slab under a bed of vegetable earth, the thickness of which varied from fifty centimeters to one meter. The skeletons found in these graves were greatly altered and crumbled into pieces at the slightest contact. Their colour was yellowish red, they were extremely light, and their compact tissue decomposed into laminae and foliated. This alteration is apparently owing to an interstitial development of small crystals of acid phosphate of lime. It is exclusively observed in close graves in which the bones after the decomposition of the flesh come into contact with a confined air.

In the graves where there is a sufficiency of earth to cover the skeletons the bones are much better preserved. The crania which were filled with earth were generally best preserved. The substance which they contained was so compact that it took time and patience to extract it by the introduction of a pointed stick into the foramen occipitale.

In certain crania, fragments of stones were found so large that they could only with great difficulty be dislodged. All objects found in the graves were also found in the crania, such as nummulites, snail shells, human teeth, phalanges, and in one case in a perfect cranium a piece of parietal bone four centimeters long and three and half centimeters broad. What most had struck him was the size and the number of solid bodies found in the crania. Both the stones and the bones found in them are deposited in the museum in separate packets.



M. Pouchet said that he could confirm what M. Broca had stated as to the introduction of foreign objects. He found at Rouen in the diluvium amongst other bones the femur of a horse. On shaking it he heard a noise denoting the presence of a foreign body though no external aperture could be detected. He subsequently traced the noise as due to the presence of a small fluviatile shell, which evidently could only have entered by the nutritious canal of the bone as no other aperture could be seen.

*On the Frontal Region in Man and the Anthropomorphous Apes.* By M. GRATIOLET.—M. Gratiolet called the attention of the Society to a fact which in his opinion had not hitherto been properly estimated, namely to that part of the face called the forehead, which is usually limited below by the superciliary arches and above by the implantation of the hair. We ought not, however, to confound the frontal bone which is found in all vertebræ with the forehead, which imparts to the face its intellectual physiognomy, which should only apply to that part of the frontal bone which covers the anterior lobes of the brain. He insisted upon this distinction because it had not been taken into account in the attempted approximation of the anthropomorphous apes to man. On examining a human cranium it will be found that the superior orbital plate is entirely covered by the brain, and that the curve of the frontal bone is, so to speak, moulded by the projection of the anterior lobes of the brain, so that in man forehead and frontal bone are nearly synonymous. On examining, however, the crania of the chimpanzee and of the gorilla, it will be found that in the chimpanzee the brain covers only the posterior third of the orbits, and that the two anterior thirds are covered by the development of the frontal sinuses. This disposition obtains still more in the gorilla, and in some the orbits are beyond the plane of the cerebral mass, the volume of which is thus greatly reduced. This may be demonstrated by a simple experiment. On driving a metallic pin into a human cranium above the superciliary ridge it will enter the cranial cavity. In the chimpanzee it may do so by giving the pin an oblique direction, but in the gorilla, after traversing the frontal sinuses, the pin does not enter the cranial but the orbital cavity. We may thus say that the chimpanzee has a forehead, though much smaller than that of man, whilst the gorilla is entirely deprived of it, and is only a well characterised Cynocephalus. In the profile of the chimpanzee we perceive a certain curvature which tends to diminish prognathism, whilst in the gorilla the line of prognathism is regularly continued from the summit of the frontal bone to the free extremity of the teeth, being only interrupted by the excessive prominence of the superciliary arches. The cranium of the chimpanzee thus more resembles that of man than the cranium of the gorilla.

*On the Celtic Question.* By M. PRUNER-BEY.—A tribe of Germans gave, within historical times, its name to the French nation. A Scandinavian tribe gave its name to the Russians. These denominations given by foreigners, of which there exist many examples, are sufficient to show that political names are, so to speak, owing to mere chance. Placed between the above-mentioned empires, Germany has also undergone its vicissitudes of denominations. Its modern name in French is derived from the confederation of some tribes (*Allemanni*) comprising scarcely the fourth of the Germanic peoples, and who themselves had originally no comprehensive name. It was only in the ninth century that the name *diotisc* (*deutsch*) designated the German idiom. The ancient name of *Germani* is only found in literature. The name of *Germani* is scarcely of German origin; it signifies in the Celtic languages *neighbour*, and was at Cæsar's and Tacitus' time applied to some small tribes (*Tungri*, *Condrusi*, *Eburones*, *Pæmani*, *Segni*) settled on the Rhine. Even some veritable Celts went by the name *Germani* (*Oretani*). This name, which had thus at first but a partial signification, became among the Romans and Greeks a general term for Gauls. After giving some further examples of the origin of Ethnic names, M. Pruner-Bey said that as a base of discussion on the Celts, he accepted the following conclusions arrived at by M. Brandes.

1. Before the conquest of Gaul by Cæsar, the Gauls and the Germans were too little known to enable the writers of that remote period to distinguish these two nations.

2. The Ethnic trunk, which now we term Celts, is the most western among the Indo-Europeans, and occupied at Cæsar's time a great portion of Europe, namely the countries on the Danube and some parts of Central Germany, Upper Italy, some parts of the Iberian peninsula, Gaul, and the British islands.

3. The elder branch of the Celtic stock, which advanced first towards the west, is the Gadhélic branch, which already, at the time indicated had been drawn back by the Kymric branch.

4. Already at the beginning of our era the Gadhéles occupied only Ireland and Scotland north of the wall of Severus. It is nevertheless possible that in southern Gaul some remnants of the Gadhélic people had maintained themselves.

5. In Britain, south of the wall, dwelt the Kymris, immigrated from different regions of Gaul, and chiefly from Belgium.

6. The Celts settled in continental Europe were Kymris, excepting some Gadhélic remnants in southern Gaul.

7. The Gaulish Celts had in the south intermixed with the Iberians, and in the north with the Germans.

8. Some of the Belgian tribes must be considered as Celticised Germans.

9. Remnants of the ancient Gaulish language and of Neo-Celtic idioms are met with in the French language and in the *patois* of the south.

10. Although the Celtic Britons had partly immigrated from Brittany, their affinity with the ancient Gauls is very probable.

Having thus given a succinct account of the results arrived at by modern science as regards the Celts in general, he would first throw a glance on the most illustrious branch of the Celts—the Gauls. And, first, as regards their language and monuments, he would quote the words of Houzé (*Etude sur la Signification des Noms de Lieux en France*, 1864), “When you tell me that our language, as well as our soil, is almost entirely deprived of Celtic, pre-Roman, essentially Gaulish monuments, I stop you short at once by requesting your attention to another species of linguistic medals, which, though they have undergone greater modifications than the names of individuals, are still distinctly recognised by a patient and scrutinising eye, and these are topographical names.” And, in fact, the soil of France is covered with names which prove the presence of the Celts in masses, and the nature of their language.

M. Pruner-Bey then proceeded to compare the phonology, grammar, and vocabulary of the French with those of the Celtic language. As regards the vocabulary, he observed an erroneous idea had become current, namely, that but a small fraction of Celtic words could be traced as existing in French. M. Brandes has collected not less than four hundred French words which belonged to the Celtic idiom. Even this list seemed to him too restricted; for he felt sure that a considerable number of words not contained in the above list will be found to be of Celtic origin, though not yet acknowledged as such. . . . the French language, is compared with its neo-Latin sister languages, eminently Celtic and Gaulish. As regards Celtic archæology, he agreed with M. Bertrand that we must not look for the ancient Celts in the large dolmens. He believed, on the contrary, that where in our western countries we find cremation, urns containing ashes and bones more or less calcined, traces of agriculture and objects in bronze and copper, the presence of the Celt is more than probable; as the historical documents show that the Celt was in possession of these materials. . . . But, though everything indicates that in western Europe the Celts knew the use of metals, they did not at a remote time possess them all at once. Thus M. Wilde, speaking of Ireland, perhaps the most Celtic of all countries, says, that the transition from rude flint implements to metal objects must have been very gradual. That metal

was used by the king and the chiefs, and that stone weapons were in Ireland still in vogue in the ninth century by the side of iron weapons.

As regards Gaul, M. Martin represents the polished stone hatchet as characteristic of the Gauls. Archæology, proceeded M. Pruner-Bey, requires the assistance of anatomy in order to classify the human remains found in the graves with the objects which accompany them. The intermixture of the Celts with other peoples had already been recognised in antiquity. Thus there are cited Kelto-Iberians, Kelto-Ligures, Gallo-Greeks, Kelto-Scythians, to which he would add Kelto-Romans, Kelto-Germans, etc. This applied to the continent. As regards the islands, Tacitus, whilst recognising the resemblance of the Britons to the Gauls, and that of the Caledonians to the Germans, clearly separates the Silurians. We have no record as to Ireland, but from tradition we may infer the existence of at least two populations differing in colour apart from the swarms of immigrants mentioned in history and tradition. . . . Linguistically the Iberians are of right the oldest; for their language is not only a primitive language, but it also bears the stamp which characterises the hunting peoples of the new world. By an inconceivable inadvertence the Ligures and Iberians have been held of no account in a certain region of literature, and there were substituted for them the Gaëls, which have scarcely any historical existence on the Continent. The classification into Gaëls and Kymris has only a linguistic value. The Gaëlic, as a language, exists only in Scotland and Ireland. In this respect all the Celts of the Continent belong to the Kymric branch. A single branch among the Celts call themselves historically in their traditions *Kymro*; this is one of the tribes inhabiting Wales. There is no historical document which authorises us to divide the continental Celts into Gaëls and Kymris. Hence the confusion in the ethnogeny of France. He would, on the one hand, reinstate the Iberians and Ligures, and would, on the other hand, insist on the essentially Celtic and Aryan character of the great man of the French nation. The physical type of the ancient Celts (Gauls) can, as regards the ensemble of its character, scarcely give rise to any discussion, as the testimony of antiquity is unanimous in this respect. The form of their cranium presents almost the same type everywhere, as shown by the results obtained by anatomists who have paid special attention to craniology. . . .

Have the Celts inhabited the north, and especially Scandinavia? The historians, archæologists, and anthropologists of Scandinavia, excepting M. Worsaae, who substitutes for them the Goths, but gives no reasons, reply in the affirmative. The religious rites, as well as

the topographical names which they have left behind them, are, according to the Scandinavian authorities, Celtic. Moreover, the cranial type, and the height of the skeletons, seem to confirm it. There exist, moreover, two historical facts which deserve our attention. Tacitus places the Gotini in the north of Germany in proximity with the Guttones (Germans). He considers their idiom as being Celtic, and says that they worked iron mines. He also reports relative to the *Æstii* (Zeus places these among the Lithuanians), settled at his time on the shores of the Baltic: "*Æstiorum gentes . . . quibus ritus habitusque Suevorum, lingua Britannicæ propior. Insigne superstitionis formas aprorum gestant. Rarus ferri, frequens fustium usus. Frumenta ceterosque, fructus patientius quam pro solita Germanorum inertia laborant. Succinum glesum, vocant.*" Thus the language, the religious symbol of the boar, the club of a Gaulish Hercules, the term *glesum*, so deeply rooted in the Celtic languages, etc., all this is found in the same people. Can this be by mere chance?

M. Bonté, at a previous meeting, in order to combat the unity of the Aryan race, said: "The Negroes are dolichocephalic, the mongrels brachycephalic. Why should the Aryans present different forms of crania?" Now, what is applicable to one race is not necessarily applicable to all. Moreover, he contested the fact especially as regards the Mongols. Most of the Chinese and the Tunguses are dolichocephalic as well as the Vogules, who, according to De Baer, are eminently so. And the most homogeneous branch of the Aryan family, namely the Germans, also offer diversities in the cerebral cranium. From this fact we must infer that whatever may be the importance of this portion of the skeleton in other respects, it has only a secondary value when all the other characters agree, as is the case with the Celts, Germans, and Slavonians. M. Bonté said, that the latter resemble more the Mongols than the Scandinavians. Let him furnish us with the proofs. As regards the Basques, they are at present too much mixed; we must, on this question, before all, find the primitive Iberian type, which in respect to the cranium, is still under discussion.

With regard to the so-called historical data concerning the intermixture of the Aryans during their emigration from Asia to Europe, they are altogether apocryphal. Most anthropologists agree that there exist typical forms in all the branches of the Aryan stock, types which still persist despite that intermixture is in full activity. M. Pruner-Bey, after proceeding to discuss the question of the Aryans of India with regard to purity of blood and intermixture, as put by M. Bonté, continued: According to M. Bonté, different form of

cranium—different origin ; different colour of hair—different origin ; different stature—different origin, etc. Whither would such propositions lead if applied to ourselves. We do not resemble each other in the sense M. Bonté takes it. We consequently ought to be the representatives of a number of races, if not of species. In his essay on the *Unity of the Aryan Race*, he had insisted on the differences subsisting between the branches of the Aryan family. We must, however, take care not to exaggerate and compare only what is comparable. Thanks to M. Quatrefages, he had been enabled to compare a very ancient cranium of a Greek female with that of an ancient cranium of a Celtic female. After giving a detailed account of the structure of these two crania, illustrated by a table of comparative measurements, M. Pruner-Bey said in conclusion : Let those who would sift the question inspect my tables representing the measurements of individual crania, race by race, as deposited in the gallery, and tell me whether the individual differences in an established race do not present the same limits as those demonstrated in the female crania of two branches of the Aryan race. But when the Celtic woman is found so approximated to the Greek woman, the distance between the Hindoo and the Greek type is comparatively small. Finally, if the ladies of Cachemir are such as described by travellers, and if the Hindoo woman generally is such as depicted by a distinguished artist (M. Petrowich), it is impossible for me to detect an essential difference between her and a nut-brown woman of southern Italy, except that the latter has more *enbonpoint*. M. Pruner-Bey then exhibited a table of comparative measurements of the crania of two females, one of the ancient Celtic, and the second of the ancient Greek race.

M. Leguay presents to the Society several objects found in the excavations made for laying the foundations of the new barracks in the Cité of Paris. In describing the locality, M. Leguay observed: It is noteworthy that the soil of the island called la Cité is formed of alluvium protected by a solid portion upon which the church *Notre Dame* now stands. The soil of this spot presented in the thirteenth century sufficient resistance to build upon it this immense structure. It is now ascertained that this edifice was not, as so frequently asserted, built upon piles. The objects presented consisted of a hand millstone about twenty-three centimeters in diameter, and fifteen centimeters thick, a double antler of the common stag, sawed at its lower part, and probably destined to serve as a handle for some flint or metal instrument ; and a horn belonging, according to M. Lartet, to a young *Bos primigenius*, or *urus*, also sawed at its lower part.

M. Pouchet doubted whether the horn had been separated by a saw ; it would be interesting to examine by what process the section had been made.

M. Leguay then called attention to a discovery made by him at Varenne-Saint-Hilaire of a small monument of the stone period. He could not at present say whether this monument was erected as a memorial, or whether it contains the bones of an individual; he expected to be enabled to give a better description after further explorations.

M. Leguay then showed to the Society the plan he had sketched of this sepulchre, some worked flints of various shapes, a large quantity of unworked small stones found in the earth covering the grave, bones and teeth of ruminants not burned, burnt bones of animals not specified; all these bones were in a fragmentary condition; and, finally, a large quantity of fragments of pottery, broken off from vases belonging to the stone period.

The meeting then adjourned.

August 18th, 1864.—M. Pruner-Bey rectified some passages attributed to him. He is made to say that the antero-posterior diameter of the pelvis of the negro exceeds the transverse diameter; he never made such an assertion, and the passages quoted have no such signification. It has also been stated that the tickets on the casts of the Basque crania deposited by him in the gallery of the Museum had been written by himself, which is not the case as they were written by the employés of the Museum.

*Excavations at Chaffant (Vienne).*—M. Leguay presented to the Society nineteen flint knives found in the grottoes of Chaffant, collected by MM. Meillet and Brouillet. These objects presented, by their forms, two distinct types. According to his classification of the flints of the stone period, he placed the objects found in the grottoes of Chaffant in the first period of the second epoch, which is that preceding the epoch of polished stones. MM. Meillet and Brouillet have found in these grottoes worked bones, which they intend to describe in a separate work. M. Leguay gave some further particulars in the excavations in the Cité.

The Secretary-General placed upon the table some worked flints sent by M. Meillet, of Poitiers, found in the beds at Pressigny-le-Grand, which gave rise to a discussion. Some particulars about these beds will be found in a subsequent paper by M. Leguay.

A paper by Giustiniano Nicolucci on some Phœnician crania. (Inserted already in the *Anthropological Review*.)

Dr. Barnard Davis's paper on the Neanderthal skull was then read by M. Giraudeau, who had undertaken its translation.

M. Broca said: The Neanderthal cranium has given rise to various opposite interpretations; Dr. Barnard Davis has given a new one which deserves consideration. It is certain that the ossification of

some sutures supervening before the complete development of the head may induce considerable deformations. This fact has already been pointed out by Virchow, and is confirmed by several specimens in our Museum. In all these specimens I have remarked that the deformation had for its consequence the destruction of the symmetry of the cranium; it is, however, clear that if the synostosis manifests itself simultaneously and in the same degree in two symmetric sutures, the cranium, though deformed, may preserve its symmetry. The similitude of both halves of the Neanderthal cranium cannot, therefore, be invoked as a decisive objection to the interpretation of Dr. B. Davis; it only tends to diminish its probability. I do not intend here to discuss the Neanderthal question, which is still obscure, and upon which I have as yet formed no fixed opinion, but I take this opportunity to draw attention to a circumstance which, by my own negligence, may have misled Dr. Barnard Davis. I have sent him the casts of some of our crania, and specially that of No. 8 of the series of Orrouy (bronze age). This cranium, the form of which is so remarkable, presented in the place of one temporal squama an aperture of several centimetres which was filled up with pasteboard. The result was, that in the casts the squamous suture appears obliterated, and Dr. B. Davis, to whom I had not communicated this circumstance, naturally concluded that the suture in question had been the seat of a premature synostosis. He was thus led to suppose that the particular form of the cranium No. 8 of Orrouy might, like that of the two crania described by him, be attributed to synostosis. When I was informed by letter of this mistake of mine, I immediately wrote to that effect to our eminent colleague, who at once discarded the cranium. But as his opinion concerning this cranium had already been published in England, I felt bound here to state that the fault was mine. Moreover, the casts of this cranium being now deposited in the principal museums of Europe, it is as well to caution observers against being led into error by the circumstance I have mentioned.

*On the Crania of Orrouy.* By M. BROCA.—M. Broca having been led to speak of cranium No. 8 of Orrouy, I beg permission to offer some remarks on the truly bizarre conformation of this cranium. The three most striking characters are: the narrowness and small elevation of the forehead; the enormous development of the parieto-occipital region, and the singular flattening on both sides at the level of the parieto-mastoido-occipital suture. This flattening which, by abbreviation, I shall call super-mastoidian, is perfectly symmetric on both sides. I add a fourth character, namely the considerable capacity of this cranium, which measures 1699 cubic centimeters,



*i. e.*, 213 centimetre cubes beyond the mean capacity of modern crania of Paris.

A single glance at this cranium leads to the belief that it is deformed either by some mechanical action or by some pathological cause. The hypothesis of an artificial deformation can be scarcely entertained, for it would require the skill of modern surgical instrument makers to produce a mechanism capable of producing a compression from below upwards, and from the outside inwards at the level of the two sutures which are the seat of the flattening. It is impossible to admit that the ancient population of Orrouy had such means at their disposal, and I may add that among the numerous deformations described by our venerable colleague, M. Gosse, there is none resembling the conformation of the cranium of Orrouy.

The hypothesis of a pathological deformation not by hydrocephaly, of which there exists no trace but of cerebral hypertrophy, might find some support in the considerable development of the internal capacity of the cranium. But on examining the other crania of the series we are led to recognise that this super-mastoidian flattening is an hereditary character in the population of Orrouy. . . . It appears to me very probable that the super-mastoidian flattening is one of those variations which occur accidentally in an individual, and are then transmitted through a number of generations, as observed in polydactyly and other anomalies. Such family characters may, as is well known, survive intermixture, but eventually they disappear. I already had occasion to observe that the cavern of Orrouy seemed to have been the sepulchre of a small tribe, or perhaps of a single family. This is another circumstance supporting this opinion. In this sepulchre of Orrouy were found thirty-two humeral bones, of which eight, now in our museum, are pierced in the olecranian fossa. This anomaly, perhaps not so rare formerly as now in the European races, was very frequent in the population of Orrouy, owing to heredity, favoured probably by consanguinity. It is thus that Tiedemann explained that most of the inhabitants of a small German village presented the anomaly of a premature bifurcation of the humeral artery. I am thus led to believe that the unusual characters of the crania of Orrouy are individual variations propagated by transmission through several generations. This hypothesis seems to me the most probable as these characters are not met with in other localities.

M. Giraldés observed that M. Broca seems to think that strong pressure was required to deform the cranium; but that he recollected a case of a notable deformation being produced in the cranium of a child in consequence of the retraction of a cicatrice from a burn.

The form of the cranium No. 8 is moreover not so symmetrical as stated by M. Broca. We should be very cautious in appreciating deformations of unknown individuals. A partial hypertrophy of the brain cysts, consecutive to meningeal hemorrhages, hydatids, etc., may produce deformations tending to lead us into error.

M. Broca said that he agreed with M. Giraudeau that apparently slight causes, whose action is continuous, may in time produce considerable deformations; but in the particular case of the crania of Orrouy, the super-mastoidian flattening cannot be considered as pathological; first, because it exists symmetrically on both sides, and specially because it is found in a large portion of the crania of this series.

[*To be continued.*]

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#### ANTHROPOLOGY AT THE BRITISH ASSOCIATION.

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We understand that the President of the Anthropological Society of London has received a large number of congratulations from anthropologists, both in this country and especially from abroad, at the recent recognition of the science of anthropology by the British Association. We feel it our duty to join in their chorus of congratulation, more however from sympathy than from a belief that the present position of the science of man in the Association is satisfactorily or finally settled. The anthropologists have won a great and decided victory. Under such circumstances, it behoves them to be contented at least for a time. There is a very general feeling that things will soon right themselves. The first great step has now been gained, and we venture to assert without fear of contradiction that the real genuine scientific work done in the department of anthropology was not surpassed by any of the sections during the past meeting of the Association. This must be highly satisfactory both to anthropologists and to those of the authorities of the Association who were instrumental in bringing about the recognition of the science of man as a special branch of science.

The Nottingham meeting of the Association was on the whole a decided success. There was an earnestness about the whole proceedings which could not fail to do good to the cause of science. The admirable address of the President, Mr. W. R. Grove, was something which at once gave a tone to the meeting. It will long be remem-

bered as one of the addresses which really helped to advance the cause of science. We could wish that the authorities of the Association would bear this object more continually in mind. We fear that this is sometimes forgotten by them. It is not our duty or business, however, on this occasion to dwell on the general management of the Association. Our duty will be best discharged if we give a short account of what was done to advance anthropology by the Association.

We shall commence by giving a few extracts from Mr. Grove's address, and then give a summary of the work done in the Department of Anthropology. On future occasions, we may print some of these communications at length.

"But there is another difficulty in the way of tracing a given organism to its parent form, which, from our conventional mode of tracing genealogies, is never looked upon in its proper light.

"Where are we to look for the remote ancestor of a given form? Each of us, supposing none of our progenitors to have intermarried with relatives, would have had at or about the period of the Norman Conquest upwards of a hundred million direct ancestors of that generation, and if we add the intermediate ancestors, double that number. As each individual has a male and female parent, we have only to multiply by two for each thirty years, the average duration of a generation, and it will give the above result.

"Let anyone assume that one of his ancestors at the time of the Norman Conquest was a Moor, another a Celt, and a third a Laplander, and that these three were preserved while all the others were lost, he would never recognise either of them as his ancestor; he would only have the one-hundred millionth of the blood of each of them, and as far as they were concerned there would be no perceptible sign of identity of race.

"But the problem is more complex than that which I have stated; at the time of the Conquest there were hardly a hundred million people in Europe, it follows that a great number of the ancestors of the *propositus* must have intermarried with relations, and then the pedigree, going back to the time of the Conquest, instead of being represented by diverging lines, would form a network so tangled that no skill could unravel it; the law of probabilities would indicate that any two people in the same country, taken at hazard, would not have many generations to go back before they would find a common ancestor, who probably, could they have seen him or her in the life, had no traceable resemblance to either of them. Thus two animals of a very different form, and of what would be termed very different species, might have a common geological ancestor, and yet the skill of no comparative anatomist could trace the descent.

"From the long continued conventional habit of tracing pedigrees through the male ancestor, we forget in talking of progenitors that each individual has a mother as well as a father; and there is no reason to suppose that he has in him less of the blood of the one than of the other.

"The recent discoveries in palæontology show us that man existed on this planet at an epoch far anterior to that commonly assigned to him. The instruments connected with human remains, and indisputably the work of human hands, show that to these remote periods the term civilisation could hardly be applied—chipped flints of the rudest construction, probably, in the earlier cases, fabricated by holding an amorphous flint in the hand and chipping off portions of it by striking it against a larger stone or rock; then, as time suggested improvements, it would be more carefully shaped, and another stone used as a tool; then (at what interval we can hardly guess) it would be ground, then roughly polished, and so on,—subsequently bronze weapons, and, nearly the last before we come to historical periods, iron. Such an apparently simple invention as a wheel must, in all probability, have been far subsequent to the rude hunting-tools or weapons of war to which I have alluded.

"A little step-by-step reasoning will convince the unprejudiced that what we call civilisation must have been a gradual process; can it be supposed that the inhabitants of Central America or of Egypt suddenly and what is called instinctively built their cities, carved and ornamented their monuments? if not, if they must have learned to construct such erections, did it not take time to acquire such learning, to invent tools as occasion required, contrivances to raise weights, rules or laws by which men acted in concert to effect the design? Did not all this require time? and if, as the evidence of historical times shows, invention marches with a geometrical progression, how slow must have been the earlier steps! If even now habit, and prejudice resulting therefrom, vested interests, etc., retard for some time the general application of a new invention, what must have been the degree of retardation among the comparatively uneducated beings which then existed?

"The doctrine of continuity is not solely applicable to physical inquiries. The same modes of thought which lead us to see continuity in the field of the microscope as in the universe, in infinity downwards as in infinity upwards, will lead us to see it in the history of our own race; the revolutionary ideas of the so-called natural rights of man, and *à priori* reasoning from what are termed first principles, are far more unsound and give us far less ground for improvement of the race than the study of the gradual progressive changes arising from changed circumstances, changed wants, changed habits. Our language, our social institutions, our laws, the constitution of which we are proud, are the growth of time, the product of slow adaptations, resulting from continuous struggles. Happily in this country, though our philosophical writers do not always recognise it, practical experience has taught us to improve rather than to remodel; we follow the law of nature and avoid cataclysms.

"The superiority of man over other animals inhabiting this planet, of civilised over savage man, and of the more civilised over the less civilised, is proportioned to the extent which his thought can grasp of the past and of the future. His memory reaches further back, his capability of prediction reaches further forward in proportion as his

knowledge increases. He has not only personal memory which brings to his mind at will the events of his individual life,—he has history, the memory of the race; he has geology, the history of the planet; he has astronomy, the geology of other worlds. Whence does the conviction to which I have alluded, that each material form bears in itself the records of its past history, arise? Is it not from the belief in continuity? Does not the worn hollow on the rock record the action of the tide, its stratified layers the slow deposition by which it was formed, the organic remains imbedded in it the beings living at the times these layers were deposited, so that from a fragment of stone we can get the history of a period myriads of years ago? From a fragment of bronze we may get the history of our race at a period antecedent to tradition. As science advances, our power of reading this history improves and is extended. Saturn's ring may help us to a knowledge of how our solar system developed itself, for it as surely contains that history as the rock contains the record of its own formation.

"By this patient investigation how much have we already learned, which the most civilised of ancient human races ignored! While in ethics, in politics, in poetry, in sculpture, in painting, we have scarcely, if at all, advanced beyond the highest intellects of ancient Greece or Italy, how great are the steps we have made in physical science and its applications!

"But how much more may we not expect to know!"

In the department of Anthropology, Mr. A. R. Wallace, President, The PRESIDENT congratulated the audience on the inauguration of a department in which all students of man, by whatever name they might call themselves, could meet harmoniously to state their views and opinions, with the sole object of eliminating truth. Anthropology the President defined as the science which contemplates man under all his varied aspects—as an animal and as a moral and intellectual being, in his relations to lower organisms, to his fellow man, and to the universe. The anthropologist sought to collect together and systematise the facts and the laws which had been brought to light by all those branches of study which, directly or indirectly, had man for their object.

The comparative anatomist and the zoologist compare his structure with that of other animals, take note of their likenesses and differences, determine their degrees of affinity, and seek after the common plan of their organisation and the law of their development. The psychologist studies the mind of man, its mode of action and development, compares it with the instincts and the reasoning faculties of the lower animals, and ever aims at the solution of the greatest of problems—whence and what is mind.

The historian collects and arranges the facts of man's progress in recent times. The geographer determines the localities of the various races that now inhabit the earth, their manners, customs, and physical characteristics. The archæologist seeks, by studying the remains of man and his works, to supplement written history, and to carry back our knowledge of man's physical, mental, and moral con-

dition, into *pre-historic times*. The geologist extends this kind of knowledge to a still earlier epoch, by proving that man co-existed with numerous animals now extinct, and inhabited Europe at so remote a period that the very contour of its surface, the form of its hills and valleys, no less than its climate, vegetation and geology, were materially different from what they now are, or ever have been during the epoch of authentic history.

The philologist devotes himself to the study of human speech, and through it seeks to trace out the chief migrations of nations, and the common origin of many of the races of mankind. And lastly, the phrenologist and craniologist have created special sciences out of the study of the human brain and skull. Considering the brain as the organ of the mind, the phrenologist seeks to discover in what way they correspond to each other, and to connect mental peculiarities with the form and dimensions of the brain as indicated by the corresponding form of its bony covering. The craniologist confining his attention to the skull as an indication of race, endeavours to trace out the affinities of modern and ancient races of men, by the various forms and dimensions of their crania.

These various studies have hitherto been pursued separately. There has been great division of labour, but no combination of results.

Now it is our object as anthropologists to accept the well ascertained conclusions which have been arrived at by the students of all these various sciences, to search after every new fact which may throw additional light upon any of them, and, as far as we are able, to combine and generalise the whole of the information thus obtained.

We cannot therefore afford to neglect any facts relating to man, however trivial, unmeaning or distasteful, some of them may appear to us. Each custom, superstition or belief of savage or of civilised man, may guide us towards an explanation of their origin in common tendencies of the human mind. Each peculiarity of form, colour, or constitution, may give us a clue to the affinities of an obscure race. The anthropologist must ever bear in mind, that as the object of his study is *man*, nothing pertaining to or characteristic of man can be unworthy of his attention.

It will be only after we have brought together and arranged all the facts and principles which have been established by the various special studies to which I have alluded, that we shall be in a condition to determine the particular lines of investigation most needed to complete our knowledge of man; and may hope ultimately to arrive at some definite conclusions on the great problems which must interest us all—the questions of the origin, the nature, and the destiny of the human race.

I would beg to recollect also, that *here* we must treat all these problems as purely questions of science, to be decided solely by facts, and by legitimate deductions from facts. We can accept no conclusions as authoritative that have not been thus established. Our sole object is to find out for ourselves what is our true nature—to feel our way cautiously step by step into the dark and mysterious past of human history—to study man under every phase and aspect of his

present condition ; and from the knowledge thus gained to derive (as we cannot fail to do) some assistance in our attempts to govern and improve uncivilised tribes, some guidance in our own national and individual progress.

Dr. HUNT proposed a vote of thanks to the Chairman for his excellent address, remarking that the meeting would agree with him that it had only one fault—that of being too short.

Dr. FAIRBANK seconded the motion, which was carried amid applause.

Mr. C. CARTER BLAKE *On a Human Jaw from the Belgian Bone Caves*.—The jaw was discovered in the Trou de la Naulette, near Dinant, Belgium, by Dr. E. Dupont, acting under the orders of the Belgian government. It was found in undisturbed sandy clay (*lehm*) at a depth of  $3\frac{1}{2}$  metres (11 ft. 4 ins.), the clay alternating with stalagmite, and affording evidences of gradual deposition. The characters which it presented were very different to those exhibited by the jaws of the white races of the present day, and presented in many points an exaggeration of the characters of the lowest Australian jaws. In some respects it differed widely from the human jaws known to anatomists, and afforded great resemblance to the jaw of the young orang (*Simia morio*). Mr. Blake gave a careful comparison between this jaw and certain typical jaws selected from three thousand which he had examined, and summed up by expressing his belief that the jaw was of vast though unascertained antiquity, and that on the whole the jaw more closely resembled those of the Slavonic races than any other jaw, while in some points it presented an analogy to and exaggeration of the Australian.

The Rev. DUNBAR HEATH remarked on the uncertainty attending some of the discoveries of human remains, and on the greater apparent authenticity of the present “find.” He should like to know whether reindeer existed at that period, and why only one bone should be found so distinctly ape-like. Belgium was in the reindeer period inhabited by a Tartar race, but it seemed that at a vastly more remote period there were inhabitants of an ape-like character. He could only account for this on the theory of development.

Dr. B. DAVIS said, supposing it to be human, he was inclined to think that it can hardly be regarded as normal ; but, from the great thickness in the body of the jaw, a sort of shelf of bone inside, it is most likely pathological, *i. e.*, affected with osteosclerosis. He also confessed that he could not but admire the elaborate examination of the jaw given by Mr. Carter Blake.

After some remarks from Dr. HUNT, Mr. REDDIE, and Mr. J. GRATTAN,

The CHAIRMAN remarked that the bone was very interesting irrespective of its antiquity ; for, if a race having this peculiar formation were found to exist now, it would be just as much a link between man and the larger apes as if it existed many thousand years ago. The layers of stalagmite indicated great antiquity.

Mr. BLAKE, in reply to Dr. Davis, said he had never seen any pathological specimen showing the peculiarities of the jaw in question.

A similar jaw had been found at Arcis-sur-Aube in France. Some of the Slavonic races manifested an approach to this deviation from the general type.

Mr. W. J. BLACK *On Colonies in South Africa.*

Mr. WILKINSON *On the Races in Madagascar.*

The CHAIRMAN said it was a very remarkable thing that people with a Malayan element in the language should be found in the interior of Madagascar, the Malays being peculiarly a semi-marine people. It might be that a party landed on that island, and had to fight their way into the interior, becoming ultimately of sufficient strength to conquer the native inhabitants.

Mr. E. L. LAYARD said, that during a brief visit to Madagascar he saw no indications of Malayan origin.

Mr. CARTER BLAKE said, that the whole weight of the craniological evidence appeared to be directly against the hypothesis of the Malay descent of the inhabitants of Madagascar. The skulls of many Hovas were now in the Anthropological Gallery of the Paris Museum. These offered numerous and wide marks of distinction from the skulls of Malays. The limits of variation of Negro and Negroid types were not yet ascertained ; but the truest affinities of the Hovas appeared to him to be with the natives of Eastern Africa.

Dr. BARNARD DAVIS regretted that he had but one skull, and that an imperfect one ; still he considered the valuable evidence derived from the collection of Hovas skulls in Paris, given by Mr. Carter Blake, was conclusive as to their being of Negroid race. The assertion that the Hovas spoke a Malay tongue was not supported by the researches of Mr. Crawford, a high authority on these points, and who accounted in the most satisfactory manner for the few Malay words in the language—language itself being by no means a test of origin. All authentic figures of the people of Madagascar represent them with curly, crisp or woolly hair, never with *straight* hair like Malays, as had been asserted.

The CHAIRMAN thought the straight hair, complexion, and countenance of the Hovas were so distinct from the African type as to prove that they had Malayan blood. The proof was independent and corroborative of that afforded by their language.

Mr. JOHN GRATTAN *on a New Craniometer.*—The instrument is highly ingenious, though somewhat complicated, and possesses the merit of affording correct delineations of the skull as well as accurate measurement. It consists of two parts : first, a contrivance similar to that used for swinging the mariner's compass fastened vertically to a perpendicular brass rod fixed in a table of wood ; second, on a moveable base another brass rod furnished with two arms of the same length, one curved for passing over the surface of the cranium, the other furnished with a pencil and fastened by means of a lever so as to move in a circle round the fixed point of the cranium.

The cranium to be measured is fixed by the auditory foramen, and the naso-frontal suture is taken as the centre from which to measure. Outlines of the skull may be taken in any direction with great rapidity and accuracy, and by an ingenious contrivance these may be so fixed



together as to give a very fair idea of the general form. One great advantage of this invention is that a correct representation of a skull may be sent to any part, and its relative proportions and angles ascertained in accordance with any scale which may be adopted.

The CHAIRMAN : Everyone must have been struck with the difficulty of taking accurate measurements of the skull—a difficulty which has been rendered all the more apparent by the variety of methods which have been proposed for overcoming it. This form of a skull should always be separated from its absolute bulk. By this invention the angular measurements, form, and also dimensions are all given and can readily be reduced to either the English or foreign standard.]

Professor G. BUSK, F.R.S., stated that he was in the habit of using an instrument which he considered preferable to the one exhibited as being more simple and less expensive. It was constructed on the principle of a common shoemaker's gauge, consisting of a straight stem about twelve inches long, having an arm jointed to it at one end, which can be opened out to an exact right angle, and a second arm which can be slid up and down the stem also at a right angle. These arms should be six inches long. The stem and arms are graduated in inches and tenths on one side, and centimetres and millimetres on the other. The auditory foramen is taken as the fixed point and a needle in a piece of cork fixed in each. To take the distance in radial measurement, the stem is placed upon the point which the radial line is to be measured, and the arms are brought down on each side over the needle in the auditory foramen and the degree pointed at, which will be the same on both sides if the instrument is held properly, will be the radius sought. For comparison, Professor Busk takes as a vertical line one drawn from the external auditory meatus to the junction of the coronal and sagittal sutures. This as an invariable standard was first suggested by l'Abbé Frère. As a horizontal or base line he used one crossing the vertical at right angles at the centre of the auditory meatus, coincident in most cases with the floor of the nostrils. The object of a drawing is to represent things as they are seen. A sketch may be mathematically correct, and yet not convey so good an idea as a perspective view would. It is not, however, easy to give accurate measurements in such a figure, and so he was in the habit of giving five different figures of the same skull by means of the camera lucida. Professor Busk was of opinion that the craniometer exhibited was too complicated and expensive for ordinary purposes.

Mr. WESLEY, F.A.S.L., said that other instruments less complicated, such as those used by M. Broca and Professor Huxley answered very well. He agreed with Professor Busk that perspective view conveys the best idea of the general appearance of the skull, but was of opinion that the invention exhibited was very useful for correct measurement.

Mr. CARTER BLAKE was of opinion that all angular measurements Mr. Grattan made could be correctly made with Professor Busk's instrument, and protested against the wish to reduce delineations of the skull to mathematical instead of perspective drawings.

Sir J. LUBBOCK thought that persons clever with the pencil might

be able to make a correct representation of the skull without the aid of such a contrivance as the one exhibited, but was of opinion that to workers not so gifted it would prove exceedingly valuable.

Mr. J. GRATTAN, in reply to the various speakers, stated that his object was not so much the production of a striking picture as the attainment of exact measurements ; by which it is more easy to detect slight differences than by perspective drawings. In practice he found the *camera lucida* not to be depended upon, in fact the drawings obtained by it were of very little value.

The CHAIRMAN observed that the fact that others had endeavoured with more or less success to construct instruments for the same purposes, did not detract from the credit due to Mr. Grattan as the inventor of the one exhibited. He was of opinion that for rapidity and accuracy no instrument yet invented equalled that of Mr. Grattan's, and that the question of price ought not to be taken as an objection where accuracy was desired.

Mr. E. B. TYLOR on *Phenomena of the Higher Civilisation traceable to a rudimental origin among Savage Tribes*.—After remarking that it was important to us to study the habits of the lower races, he said the stories of uncivilised races about their gods and heroes, cosmogonies, transformations, and origins, show us the mythologic stage underlies the poetry and religion of the Greeks and other nations, from among whom the highest modern civilisation has grown. The New Zealand myths held that we have had two primæval ancestors, a father and a mother, Rangi and Papa, heaven and earth. The earth, out of which all things are produced is our mother ; the protecting and over-ruling heaven is our father. There he explained were the record of events. After a lengthy reference to the habits, literature, and especially to the fasting and worship of tribes. In conclusion he referred to primitive marriages as connected with the development of races from savage to civilised life, through the different stages of exogamy or the law of marriage out one's tribe. He believed one of the services of savage tribes was to enable civilised men to understand their position in the world.

Rev. DUNBAR I. HEATH was of opinion that the paper should have been styled "The Origin of Existing Errors in the Mythology of Savage Tribes." Mythology is a rude attempt to account for the phenomena of nature just as physiology is an attempt to explain the facts in natural history. The savage owing to the narrow limits of his observation takes erroneous views of natural phenomena as we now see was the case with ourselves when our knowledge was more imperfect. In the same manner that we used to speak of the "principle" of things, as of the wind, etc., etc. So the savage used the term "god."

Sir J. LUBBOCK also was of opinion that the evidence brought forward was, more correctly speaking, a relic of lower civilisations than a proof of the origin of those which now exist. Archaeologists are now of opinion that to arrive at a correct conception of antiquity, relics should be compared with objects used for similar purposes by existing savage tribes. In reference to the custom of destroying, as by fire, objects to be buried with the dead, which exists among

savage tribes, he pointed out what he believed to be misconceptions of motive.

I. When implements have been found burnt it has been supposed that it was intended as a protection against robbery. He believed that the real reason was that the savage had endeavoured in this manner to make them useful to the departed by killing them, so that the spirit of the one might go to the spirit of the other.

II. The curious custom of making things in resemblance of an enemy, observed in savage tribes, has led to the opinion that these implements might have been burnt with some idea of thereby injuring the departed. This he did not believe.

MR. GEORGE DAWSON was of opinion that a great amount of knowledge might be attained by the study of savage tribes. There was nothing of novelty in the paper, as the subject had been treated of by authors from Lord Bacon downwards; indeed, a valuable literature exists.

MR. REDDIE considered it doubtful whether savages understood the meaning of their customs and traditions. He believed they did not.

MR. CARTER BLAKE wished to know, taking all the races of men, where the author would draw the line of distinction between civilised and savage? And supposing the traditions of the Semitic nations resembled those of certain savage tribes, was the same law of evolution applicable to both?

MR. TYLOR, in reply, said: The question arises whether the title should contain a paper, or merely indicate the line of thought pursued? He was of the latter opinion. Perhaps a better title for the paper would have been: "Phenomena in the higher civilisations traceable in origin to the myths of the lower." He agreed with Sir J. Lubbock as to the motive savages had in burying implements with the dead. Though he believed that in most instances the object they had in burning them was to send their souls to the departed, and not to protect them from robbery, yet cases were on record in which there could be no doubt that this was likewise the intention. For instance, the Dyaks of Borneo did not originally destroy them, but when they found that the Malays rifled the graves, they then adopted the custom. He believed that whether destroyed or not, the object in placing them there was the same. In reference to the literature of the subject of the paper, he pointed out the difference between vague general remarks, and generalisations the result of careful study and research. It had been asked whether savages understood the meaning of their traditions? Some do—the New Zealanders, for instance, who believe that Rangî and Papa are the parents of everything, when asked who they each are, will point to heaven, and say, "That is Rangî," and to the earth, and say, "That is Papa."

DR. HUNT, "*On the Principle of Natural Selection applied to Anthropology, in reply to views propounded by some of Mr. Darwin's Disciples.*"—[See page 320 of the *Anthropological Review*.]

MR. REDDIE was of opinion that in the present state of our knowledge we had better take our stand as earnest and patient inquirers than as the supporters of theories. He thought that Psychology was

a better test of the difference between man and the apes than anatomy ; that in intellect there was a far greater difference between the lowest man and the highest ape than between the highest type of man and the lowest. He considered that we have a case of change in type taking place before our eyes in the case of the North American. Although sufficient time has not yet elapsed to produce a unity in type among modern Americans, a slight change is produced in the same direction in each of the many nationalities represented among the immigrants. The individuals to be acted upon vary so much in the first instance, that a long time must elapse before a complete unity of type is produced, but sufficient change is observed to show what may be expected. Not sufficient attention has been paid to the fact that the same change of type is observed in those who have gone to live in America as in those born there. It would be interesting to know whether light and dark races are equally affected in this change. We are apt to confine our attention to the consideration of peoples now extinct, to the neglect of people now living. America is worthy of more attention than has been given to it. In Africa there is a great difference between the tribes. Are they distinct peoples? He believed they are not. Messrs. Baker and Beke believe that the African races are getting lower and lower, and he was of the same opinion. In the Irish, also, degradation is observed. When types become fixed, a great length of time would be required to change them. At first the modification might be rapid, but would probably afterwards proceed very slowly. He was strongly of opinion that the theory of unity of origin is more logical than the opposite one of diversity.

Dr. GRIERSON referred to the Book of Genesis, but was informed by the Chairman that it was not considered an authority in matters of science. As instances of change in type he mentioned the various breeds of dogs and pigeons, and was of opinion that the existing differences between the various divisions of the human race were not so great as those which we know have taken place in dogs and pigeons.

Rev. DUNBAR I. HEATH could not believe without evidence that the Newfoundland dog, which was unknown till the discovery of that island, was sprung from the same stock as the greyhound, figures of which are found on many ancient monuments. It should be remembered that the author had not stated that the various existing races of man were sprung from any at present in existence.

Professor BUSK objected to the manner in which the subject had been brought before the meeting. It should stand on its own merits, and not on authority. The opinions quoted were of very different value, and yet they were mixed together as though they were of the same. The theory brought forward by Mr. Darwin and advocated by Mr. Huxley, appears the only one yet advanced that will satisfactorily account for existing differences.

Mr. CARTER BLAKE, when recently engaged on the continent in the examination of evidence of man's early existence, was sorry to find that English anthropologists were thought to have settled down con-

tented with the Darwinian hypothesis. The only evidence brought forward by the disciples of Mr. Darwin applicable to the genesis of man were the Neanderthal skull and the jaw from Moulin-Quignon. The Neander skull was proved to be a curious pathological specimen, and the Moulin-Quignon jaw could not be accepted as authentic. There is no evidence whatever that ancient peoples approached the characters of the ape more than those which now exist. The lowest races—as, for instance, the Australian—possess characters far more Simian than any ancient remains yet brought forward by the disciples of Mr. Darwin. The differences observed in the various races, if not *ab origine*, must result from some continuously active, operative law, but that is not necessarily the same as the theory of natural selection. He was not prepared to accept Mr. Darwin's hypothesis as a ruling guide.

Professor BUSK did not agree with Mr. Carter Blake in his opinion on the jaw from Moulin-Quignon.

Mr. D. W. NASH wished to ask two questions: first, is it necessary, in starting a discussion on the origin of man, to assume either unity or diversity? Second, if such is the case, which opinion was the most philosophical? As “unity of force” is becoming the generally received opinion, from being the more philosophical, so in anthropology the tendency of opinion will be towards unity of origin. The object of the paper was to inquire whether Mr. Darwin's hypothesis had been properly applied, and not to discuss the origin of man.

Mr. WALLACE said that the object of the paper was to consider the use which had been made of Mr. Darwin's theory by some of his followers, and not to discuss the question of monogeny or polygeny. Darwin's theory, as far as it goes, may be considered as nearly proved as any theory can be. He never drew any proof from man, but that is no reason why the theory should not be applied to the human race. The chief points in Mr. Darwin's theory are: first, that certain species, if allowed to grow without restriction, would each of them soon fill the earth; second, that a struggle for existence takes place, that the stronger individuals live, and the weaker die out. If the theory be true of plants and the lower animals, it must be true of man also. Professor Vogt, though a follower of Mr. Darwin, does not believe that it necessarily follows that man must have sprung from one and the same origin. According to this theory—in which he did not believe—the various races of man may have sprung from different animals. He (Mr. Wallace) was of opinion that similarity in the mental characters of the different races, was far greater than their dissimilarity; that language, which can be acquired by every race, is a proof of mental unity. It is a mistake to imagine that Mr. Darwin considers climate the cause of the changes which he points out. It is doubtful whether all dogs have sprung from the same stock, but with pigeons there is no doubt that they have. In them, alterations of the skull are produced perfectly independent of changes of climate. He was of opinion that it is quite logical to believe that races have diverged from a common stock, and that they are now gradually again approaching each other. Different races are found in different

climates, because others could not live there. The type of any particular race was the cause of the selection of the locality in which it is found, and was not caused by the conditions under which the people live. The statement that man is becoming more homogeneous is quite correct. The weakest always goes to the wall, and as the most powerful races increase they will drive the weaker off the face of the earth. Why else do the New Zealanders die?

Mr. REDDIE: This argument will not apply to the case of Europeans going to India and to Africa, though it may in the case of New Zealand and elsewhere.

Mr. WALLACE: Those races which are best adapted for residence in a country will drive out the natives if they are weaker and less able to resist.

Dr. HUNT, in reply, said that he should be sorry to think that the audience did not understand the object of his paper better than some of the speakers appeared to do. He simply spoke of the application which had been made of a certain theory, and did not enter into the question of monogeny or polygeny. He wished people to keep their minds open on the question of the unity or diversity of origin of man; he believed it had been discussed much before the proper time. He strongly objected to the notion that in the present state of knowledge Darwin's theory must be accepted. At present we know absolutely nothing, and are not in a position to offer an opinion as to its correctness or otherwise. We have nothing to do with the question, "which is the most philosophical assumption?" Why should we give preference to one ape rather than to another? The Chairman had expressed an opinion that, because some races are dying out, therefore there must be a coming unity. But if Mr. Darwin's theory were true, there would be a constant tendency to diversity, and fresh races would constantly spring up. Though the standard of the new races might be higher and the physical differences less marked, yet intellectually they would become wider apart. He wished particularly to impress on the meeting, that in the present state of our knowledge, we are not in a position to offer any opinion as to the origin of man or his position in nature.

Dr. JOHN BEDDOE, *On the Stature and Bulk of the Irish, and on the Degeneration of Race.*

Mr. C. C. BLAKE, *On Skulls from Round Barrows in Dorsetshire.*—Mr. C. C. Blake remarked that they were obtained by Dr. Hunt, the President of the Anthropological Society, from some barrows near Blandford. Dr. Thurnam, in a dissertation on the two principal forms of English and Gaulish skulls, gave a table containing the measurement of twenty-five skulls from the English round barrows. The longest of those exhibited a cephalic index of .74, and the shortest .87, the average being .81; and Dr. Thurnam therefore concluded that the typical character of the skulls found in round barrows was that which presented the brachycephalic type. When the skulls taken from the Blandford barrow were carefully measured, it appeared that the rate of breadth was much smaller than the average of those measured by Dr. Thurnam. Where Dr. Thurnam's lowest breadth was .74, the

lowest of the Blandford skulls was .66; and where his highest was .87, the highest of those from Blandford was .81, the average being in each case respectively .81 and .73. If the Blandford skulls (nine in number) were added to Dr. Thurnam's table of twenty-five, the average of the whole thirty-four would be found to be .77. The distinction between an average of .81 and .77 must strike all observers, and some might consider the deduction of four per cent. as invalidating many of the general conclusions arrived at by Dr. Thurnam. If Mr. Blake were inclined to base any conclusions on his measurements, he might reverse Dr. Thurnam's "sort of axiom", and say "long barrows, long skulls; round barrows, long skulls too, and sometimes longer". A description of the skull would follow at another time, and the conclusions he would draw at present were as follow:—1st. That the state of materials at disposal precluded any generalisation as to the prevalence of a brachycephalic type of the skull in the round barrows of the south of England. 2nd. That a much larger series of skulls from the round, as well as from the long barrows, must be measured before any conclusion could be arrived at as to the *cranial modulus*.

Dr. HUNT said there had been a large number of round barrows opened in Dorsetshire, and a good many urns had been found, but anthropology was in such a state that it had not been thought worth while to take care of the skulls. He met with a gentleman who was in possession of some skulls, and prevailed upon him to part with them for the Anthropological Society. The subject of the connection of the classes of people to whom they owed the round and long barrows found all over Europe had excited great interest. He thought the theory of Dr. Thurnam, that in round barrows there were round skulls, and long skulls in long barrows, was prematurely advanced. The opinion of Dr. Barnard Davis was that a long and a round-headed people inhabited this country at the same time.

Mr. SEBASTIAN EVANS observed that Dr. Thurnam's axiom was so convenient a formula that it would be a pity to give it up until it had been clearly demonstrated to be erroneous, and this he thought had not yet been done. With one of the skulls exhibited were found some iron and Roman implements, and several of the other skulls were so similar, that there could be no reasonable doubt about their belonging to individuals of the same race. In all probability, therefore, the skulls exhibited were of a comparatively later date, well within the limits of the iron age. The round barrows and short skulls described by Dr. Thurnam, and on which he founded his hypothesis, belonged, he (Mr. Evans) believed, entirely to an earlier period, the bronze age. It was, therefore, still possible that Dr. Thurnam's theory might be true to this extent: that the long barrows were raised by a long-headed race; the earlier round barrows by a short-headed race; and the later round barrows by a third intrusive long-headed race, who might not impossibly be hereafter identified as the Belgæ mentioned by Cæsar as inhabiting the southern parts of the island.

After some remarks from Mr. Wesley, Mr. Blake briefly replied.

Mr. A. ERNST, *On the Anthropology of Caracas*. It was here re-

marked that it was difficult to give information concerning the number of inhabitants belonging to the mixed races, as all were "Ciudadanos", and the law did not recognise a difference of race. A difference, however, existed in society, and it would perhaps never completely disappear. There were all shades of colour, from the deepest black to the almost perfect white, so that colour was not a good criterion. There was more security in the hair, the tint of the nails, and the colour of the male sexual organs. The son of a white father and a Negro mother was called "mulatto", while the son of a similar father and an Indian mother was termed "zambo". When a man of mixed blood married a woman darker than himself, and his children thereby became further removed from the white tint, it was said to be *un salto atras* (a leap backwards). The mixed races were virtually the ruling part of the population, and no doubt would be for a long time.

Dr. SHORTT, *On the Habits and Manners of the Marwar Tribes of India*. The dress and mode of piercing the ear-lobes among the women, and the ceremony of installing the present ranee in the zemindary, were particularly dwelt upon.

Dr. E. B. BOGG, *On the Manners and Customs of the Fishing Indians of Vancouver's Island, chiefly as typified by the Sougish Tribe*.—The writer observed that the Sougish tribe, at once the smallest and most degraded, dwelt in and around Victoria, the capital of the island. Amongst other things, the language of the people was adverted to, the doctor describing it as a collection of K's and Q's, gurgled in the throat in a manner that would lead uninitiated persons to suppose that the speaker was about to vomit. Yet to that strange language they could give so peculiar an utterance, as to be heard for several miles through the silent forests. Her Majesty's ship *Devastation* went to the west coast to seize some Indians who had murdered an agent, and it was subsequently ascertained that the exact hour of its departure from Victoria and its destination were known to all the west coast tribes within four hours of the weighing of the anchor. The intelligence must have been communicated through the forest, from one tribe to another, as the distance was much too great for any other mode to have been adopted.

Dr. HUNT approved of the manner in which the paper had been written; the writer appeared to have observed closely and written down carefully what he had seen. There were one or two points about it which seemed so extraordinary, however, that he had great difficulty in believing them: such as the statement that the medicine man, on initiation, ate a dog alive. He should have been happy to hear how this had been accomplished.

Mr. GROOM NAPIER called attention to the statement that the Indians are able to make themselves heard at a distance of seven miles; it is usually believed that the human voice is not audible at a greater distance than one mile.

Rev. W. T. MARSH alluded to the statement that the swathing of their limbs increased their liness, a result which could not have been expected. He should be glad to hear whether any gentleman



present could speak from his own observation, whether such a result was met with in other tribes.

Mr. TYLOR considered the paper a valuable communication, and the information which it contained of much importance. The statements which it contained coincide very much with what others have said, though in some points the writer may have been misinformed. The loose-headed spear spoken of is found also in other parts of the world: on the eastern coast of Africa, in the Eastern Archipelago, and on the coasts of the whole of North America. The flotation which in other instances is only the loose shaft of the spear, in the present case is much increased by the addition of a seal-skin blown out. The fish-hook mentioned was an extraordinary contrivance, quite new to the description of savage fish-hooks. The ceremony of scalping represented in play among these Indians, is common in reality on the opposite side of the Rocky Mountains. It is curious if it is a relic of what was formerly done in earnest. The writer mentions a game of odds and evens; it is curious to observe how common games of this sort are all over the world, in some tribes they reach a high degree of complexity. The statement that a dog was eaten alive is open to question; but there can be no doubt that when the medicine man reappears he makes a rush at the warrior nearest to him and endeavours to bite a piece out of his arm. With regard to the statement that the voice is heard at a distance of seven miles, it sounds at first as if there had been some misapprehension. The language is the most unlikely of all in the world to be heard at a great distance. Experience shows that, at a distance, the consonants of a word are lost before the vowels, and that ultimately only the vowels are heard. The language of these Indians is made up almost entirely of consonants.

Dr. HUNT referred to an instance mentioned by Captain Parry, where the human voice was heard at a distance of seven miles under the peculiar atmospheric conditions of the Arctic Circle, and thought that similar conditions may exist in the case mentioned by Dr. Bopp.

Mr. DAVID MORRIS thought that the human voice might, after practice, be made audible at a great distance, and mentioned as an instance of the effect of practice in overcoming obstacles in making the voice audible, that in cotton mills, where the machinery entirely drowns the voice of inexperienced persons, he was able to make himself heard, by modifying his voice, at a distance of many yards. He was acquainted with a gentleman who was ordinarily almost stone deaf, who, when travelling by railway through a tunnel, could hear the lowest whisper. He had no difficulty in believing the writer's statement.

Mr. TYLOR said that in India some of the Pariah tribes, through force of circumstances, have acquired the power of making themselves heard at great distances. He could quite credit the correctness of the statement made by the author.

Dr. GRIERSON gave an account *On Certain Celts from Dumfriesshire*. One class consisted of perforated stones found in the locality, and many are hung up in byres and stables as a charm against witchcraft.

Another class was composed of stones not to be found in the district, and in some instances he believed not in the British Isles. The character and workmanship of these were very superior to the former. He concluded, therefore, that the two classes belonged to different races and periods.

Dr. HUNT doubted whether the celts differed from those found throughout Scandinavia. Danish investigators fixed the limits of the stone age as at least 5,000 years ago.

Mr. BLAKE said there evidently existed in early times modes of diffusion of stone from one place to another, for in Belgium 30,000 flint flakes and nuclei were found at the Trou de Chaleux, which must have been brought thirty miles, and pieces of felspar which must have been carried 180 miles.

The CHAIRMAN (Mr. Wallace) thought it was not surprising to find stones not indigenous to the locality, for savage tribes at the present day thought nothing of travelling several hundred miles to procure articles which they wanted.

Prof. LEITNER contributed *Some Papers from Lahore*.

Dr. E. P. HOUGHTON *On the Dyaks of Borneo*.

Mr. WALLACE said that although there was nothing new in the paper, there were many points worthy of discussion. As the author had had such a good opportunity of observing the fluctuation in the population, it was a pity he had not made more use of it. His own observation led him to believe that it was nearly stationary. There is such an abundance of food that little exertion is required to obtain as much as is required for sustenance; the population being small and almost stationary, there is little or no pressure on the means of subsistence, and so the chief stimulus to exertion is wanting. He believed that the small number of children born is probably owing to the hard work which the women have to go through, as in other savage tribes. Should the men be induced to relieve the women of their toil, and thus render the women more able to bear children, the best results may be expected.

Dr. HUNT knew that the author was most willing to do everything he could in the cause of science, particularly of anthropology; and he was sure that the matter had only to be properly brought before him for his attention to be given to it. With regard to the smallness of the families, it was the same with all tribes low in the scale of civilisation. In Europe we have an instance in the case of the Lapps. The average increase of population among the Norwegians is wonderfully small. The author had said that the Dyaks have a very vague idea of a future life; it has often been stated that all nations, however low they may be, have an idea of that state, but this has been well shewn to be incorrect by the Rev. Mr. Farrar.

Dr. GRIERSON cautioned the audience not to follow the last speaker.

Sir J. LUBBOCK fully agreed with Dr. Hunt. Even missionaries, who might not be expected to say so, stated that they were acquainted with tribes having no idea of a future state. With regard to the social condition of the Dyaks, he thought that we are too apt to fall into the error of the Greeks and Romans in calling other races barba-

rians because they differed from us. The truth is they have been forced into a different stage of civilisation, and many of them, the South Sea Islanders for instance, have made the most of their opportunities.

Mr. TYLOR said the paper had led to the discussion of a very interesting question which might be divided into two parts: 1. The belief in a future state; 2. The belief in the existence of a Superior Being. The usual belief among savage tribes is, that when a man dies his soul goes to another place. This is shewn in the custom of burying things with the dead, that their souls may go to be with that of the departed. It has frequently been found that races who were supposed not to believe in a future state or the existence of a Superior Being were possessed of an abstruse mythology. He believed that the way to state the case properly is to say, "formerly it was believed that many races had no knowledge of a future state or the existence of a Superior Being, but that the number of such has been reduced."

Mr. CARTER BLAKE thought that in discussing the subject, it was advisable to have a clear idea of what was meant when the term "religion" was used.

Dr. R. S. CHARNOOK said that we need not go to the ends of the earth to find people who do not believe in a future state. He knew many in England, "savages," he supposed, who did not.

Mr. WALLACE. The question of population resolves itself into two parts: 1. What is the number of children born? 2. What is the number who grow up? He thought it important to make this distinction, as he believed the rate of mortality among children was very high. Over-work has probably a great deal to do with the small number of children born; it has been found that Malay women, who are better treated, have a larger number of children.

In discussing the question of religion, care should be taken against considering the belief of the whole tribe to be the same as that of a single individual member of it. His own opinion was that tribes do exist who have no idea of anything beyond the grave. Sir S. Baker related his conversation with a Latuka chief, who argued that when a man dies there is an end of him. He, Mr. Wallace, was of opinion that all races believe in the existence of unseen things.

Dr. PAUL BROCA *On the Anthropology of Lower Brittany*.—Contended that there were two races in France, one tall, the other short, the line of separation corresponding to that which in the time of Cæsar divided Celtic from Belgic Gaul. The inhabitants of the cantons of the latter were short in stature, and of a type corresponding to the Cornish.

Mr. SEBASTIAN EVANS agreed with M. Broca in believing that the sea air had nothing to do with modifying the physique of dwellers on the coast, but thought that hardly sufficient importance had been assigned to the influence of a military sea-faring life on the stature of a people. At all events, if it could not be conclusively proved that the two circumstances were related, it was remarkable that the Bas-Bretons were taller than their neighbours though closely allied in

kindred, and that the Bas-Bretons were descendants of the Veneti, who had lived by piracy and buccaneering for centuries before the time of Caesar. Going northward again the same phenomenon recurred. As soon as the traveller came to those parts of France to which the Norman invasion had penetrated, a distinct increase in stature was perceptible. The Normans when they marched under Rollo to occupy the fair fields of Neustria, were the biggest of limb and strongest of thew of any nation on the face of the earth. They were the lineal descendants of the Vikings—those terrible Scandinavian sea-rovers who more than any other race had made their home upon the ocean. On the deck of the Norse pirate-ship, the strong arm, the keen eye, the stout heart, were indispensable requisites of the sailor. All the puny, rickety, cowardly individuals got killed off, and they who survived to perpetuate the race were the strongest of muscle and longest of limb. This process had been going on for a thousand years before Rollo marched southward. Nor should it be forgotten that these old rovers visited every shore of the known world, and carried off from thence the fairest and tallest of the daughters of the land to be the mothers of their children. Sea air in itself might have no influence on race characteristics, but a thousand years of piratical national life, and a constant influx of fresh blood could not fail to affect materially the physique of a people.

Professor HUXLEY protested against this application of the principle of natural selection. He had lived long on board ship, and believed that to those who had to pass their lives in a low-roofed cabin it would be an advantage to be short rather than tall. Maritime people are not always tall, as, for instance, the Basque race in Europe and the Malays in Asia, the latter of whom average only 5 ft. 3 ins. in height.

Mr. EVANS explained that the Scandinavian sailors would hardly have been inconvenienced in the same way as Mr. Huxley, inasmuch as they had no cabins at all, and that the maritime nation referred to by the Professor were commercial rather than military, or if military fighting under different conditions to the Norsemen, which would account for the difference in the result.

Mr. MOGGIDGE instanced the Dutch as being anything but tall; they are in fact short, round, and dumpy.

Mr. FLOWER: Harold of Norway was unable to ride on any horse, his legs were so very long.

Mr. WALLACE did not see that the subject under discussion afforded any evidence in favour of the doctrine of natural selection.

Rev. F. W. FARRAR, in reference to the stature of the people of Brittany, drew attention to the statement that the flower of the French nation had been slain during the wars of Napoleon. He thought that perhaps the fact that boys of eighteen were then pressed into the army, and had to go through great privations, would in some measure at least account for the short stature of modern Frenchmen.

Professor HUXLEY on *Two Extreme Forms of Human Crania*.—The crania exhibited were:—1st. The skull of an adult Tartar, from the

museum of the Royal College of Surgeons of London, the most brachycephalic he had ever seen, the breadth in comparison with the length presenting the extraordinary proportions of 977 to 1,000. This skull was orthognathic. 2nd. An instance of extreme dolichocephaly which was said to have come from New Zealand, but of this he was doubtful, as in some particulars it possessed characters of the Australian type; but for the purpose of his communication it was of no moment where it came from. It presented the extraordinary proportions of 629 of breadth to 1,000 of length. Prognathism in this skull was very decided. The roof of the first was arched and dome-like, and the contour was almost semicircular, while that of the second was compressed at the sides similar to the roof of a house. Although the difference in general contour was in these skulls so great, the cranial axis of the one was the same length as that of the other, a fact which showed that length of the cranial axis has no absolute relation to the absolute length or breadth of the skull. The angle of the sphenoid bone has been said to give the character of the face—the more bent the sphenoid bone, that is to say, the smaller the sphenoid angle, the more perpendicular is the position of the teeth; the larger the sphenoid angle the greater the obliquity of the incisors by the enlargement of the facial bones. But in these two skulls Professor Huxley was of opinion that the sphenoid angle was the same, so that this point might be eliminated from the discussion as unimportant. But the moment the outline of the one was superposed upon the other it was apparent that although these important portions of the skull were the same in both, the parts adjoining were arranged so differently as to entirely alter the general outline. The plane of the occipital foramen was much more horizontal in the New Zealand (?) skull than in the Tartar. If the plane of the occipital foramen of the former were the same as that of the latter the degree of prognathism would be much greater, were the plane of the occipital foramen of the Tartar skull the same as that of the New Zealand (?) skull the orthognathism would be so great that the brow would overhang the face. These various points, the similarity of the sphenoid angle and the difference in the plane of the occipital foramen shew the importance of making a section through crania previous to expressing an opinion on them. The next point on which these skulls throw light was the effect which synostosis of the sutures was supposed to have in altering the form of the skull. Virchow pointed out that if the sutures become closed in early life the skull does not expand in the direction at right angles to the suture. If the sutures remain open while the brain is growing, synostosis at a later period is of no consequence as it does not alter the shape of the skull. Those who have worked at the subject finding a synostosis have argued back without thinking of this. The importance of attending to the time at which synostosis took place was exemplified in one of the skulls exhibited, that of the Tartar. Complete synostosis along the sagittal suture had taken place probably at an early period of life, as the others were all open, and yet the breadth in comparison to the length was in that skull unusually great. The brow was so full as to hide the jugal arches from a vertical view,

although the face bones were of full size. While in the other skull in which no synostosis had taken place the head was unusually long, the brow narrow, and the cheek-bones, though not large, were visible from above. The points to which he particularly wished to call attention were:—i. Early synostosis may occur without alteration in the shape of the cranium. ii. Extreme forms of the skull may be produced without synostosis. iii. A correct idea of the relative proportions of a skull cannot be obtained without first of all making a section through it.

Mr. WM. TURNER said that he had two skulls in his possession which would bear out the peculiarities of those exhibited. One of them, that of a Bohemian, was remarkably brachycephalic, though the sagittal suture was obliterated. This was all the more remarkable because it was the skull of a young person not more than twenty-one years old—an age when that suture is usually open. The other from Lincolnshire was remarkably elongated, with all the sutures open. This independent evidence confirmed the opinions put forth by Professor Huxley. The subject of synostosis and the effects resulting from it should be carefully reconsidered.

Mr. SEBASTIAN EVANS wished to know whether there were any marks of external artificial compression visible in either of the skulls exhibited.

Professor HUXLEY: No, none at all.

Mr. CARTER BLAKE said that it could not be denied that Professor Huxley had laid before them two skulls which offered peculiarities, so far as he knew himself, unexampled. The one—that which Professor Huxley had referred to as possessing an index of .62—he considered to belong to the same type of skulls as those which Dr. Barnard Davis had described for the Caroline Islands. It might certainly, on the other hand, be Australian, for the characters of the race skull of that continent were not well fixed. Certainly, it disagreed from the skulls of such typical “tectocephalic” skulls, as those figured by Ecker, and also with those of a more flattened type, which Professor Huxley had himself compared with river bed skulls. It accorded both in the character of extreme length and extreme narrowness with the skulls of the Caroline Islanders. As for the other skull, whose index was .97, Mr. Blake thought it not one of those cases which could be cited as an example of the fair normal skull, for there was a depression along the lambdoid suture which he thought was due to vertical *déprimé par derrière*; there was a distinct depression along the posterior part of the sagittal suture, which had a tendency to produce a *bilobation transverse*, similar in kind, though less in degree than that exhibited in the skulls from *Sacrificios*. Then there was also evidence of a constricting force having operated around the line of the coronal suture, which force had in part produced a tendency towards the *tête annulaire* of Foville. These abnormal causes had rendered equable expansion of the skull impossible, and the result was a tendency shown around the alispheroid sutures to enlarge in a transverse direction to the longitudinal axis of the skull. With regard to Virchow's law, Professor Huxley and Mr. Turner seemed to have two specimens which contradicted it, if applied exactly; yet hundreds

of specimens might be shown on the other side. He, however, admitted that the facts laid on the table by Professor Huxley were amongst the most interesting which had been discovered for many years.

Dr. BARNARD DAVIS said, in reference to Professor Huxley's opinion, that if synostosis of the parietals occasioned dolichocephalism in one case, it must necessarily do so in all cases, he could assure him that this was altogether a mistake; it was neither a universal, nor even the usual result. He had in his collection about thirty skulls in which the sagittal suture is ossified, and not so many as one-third of these have been elongated, or otherwise deformed. Indeed, the shortest skull in the entire collection, that of a Pokomame from Guatemala—shorter than even the Tartar exhibited—has an entire obliteration of the sagittal suture. This skull has been artificially compressed. Hence it is plain no such absolute law exists as that propounded, and other elements must enter into the condition where dolichocephalism is the result of synostosis.

Professor HUXLEY, in reply, said that he was glad to have elicited the fact that synostosis may occur early in life without producing alteration in the shape of the skull. He believed it was not possible to say at what period synostosis had taken place, when it was observed in the cranium of a full-grown person. It was, therefore, not possible to say whether peculiarities observed in a skull with any of the sutures ossified belonged to the skull itself, the synostosis being merely accidental, or whether they were the result of the closing of the sutures. Mr. Blake said that, in his opinion, the skull said to be that of a New Zealander came in reality from New Caledonia. This opened a question of much importance. He had observed that the Australian *facies* extended over a great part of Polynesia. He considered it impossible to distinguish between an Australian and a New Caledonian skull. Before sitting down, he wished to call particular attention to a new publication being brought out in Germany, entitled *Archives of Anthropology*.

On the proposition of Dr. Hunt, the thanks of the meeting were cordially voted to Professor Huxley, for his important communication.

Dr. JAMES HUNT communicated the result of observations made on cases of *modern Norwegians*. The cranial measurements of the majority of the cases indicated that the form of the skull in the Norwegians is much rounder than had hitherto been supposed. The average height of seventy-eight cases of males was 5 feet 8 inches. The hair in the majority of cases was light brown, and the eyes light blue. The author contended that there was no such thing as a Norse race, the races inhabiting that country differing quite as much, if not more, than any inhabiting this country. The author gave some details of his examination of Swedes and Lapps, and concluded by urging the desirability of not confusing the inhabitants of Norway and Sweden.

Mr. W. BOLLAERT *On Ancient Peruvian Hieroglyphics, including the recently discovered Figured Writing*.

Mr. WALLACE said, that throughout the Valley of the Amazon, wherever granite was found in such a position that it could be marked,

rude sketches of canoes, animals, implements and utensils were cut in it. It is remarkable that they should be cut in granite deep enough to be permanent. It would indeed be odd if all that trouble had been taken if they were not intended as a record.

J. PLANT, Esq., F.G.S., *On Evidences of Pre-historic Man, from Pooles Cavern.*

Dr. FAIRBANK said that the remains referred to in this paper resembled those found in other caverns in the same locality, and are supposed to belong to the late Roman and early Anglo-Saxon periods. A systematic exploration of this cavern will, he hoped, be one of the first undertakings of the recently founded Manchester Branch of the Anthropological Society of London; the result of which will be made known either through the Society's Transactions or at the next meeting of the Association.

Consul T. J. HUTCHINSON, *On the Indians of the Paraná.*

JOHN COLLINSON, Esq., *On the Indians of the Mosquito Territory.*

A. H. W. INGRAM, Esq., *On a Slate Armlet.*

J. W. FLOWER, Esq., *On a Kjökkenmödding in the Island of Herm.*

Sir EDWARD BELCHER, *On the Stone Weapons and Ornaments of the Esquimaux.*

Dr. MANN, *On the Mental and Moral Characteristics of the Zulu Kaffirs of Natal.*

S. PHILLIPS DAY, Esq., *On the Power of Rearing Children among Savage Tribes.*

Dr. GUSTAVE LAGNEAU, *On the Sarrazins in France.*

Professor TENNANT, *On the Traces of an Irish Lake Dwelling found by Captain L'Estrange.*

J. PRIGG, Esq., junior, *On Flint Implements from Drift of Little Ouse Valley.*

W. BOLLAERT, Esq., and Professor RAIMONDY, *On Ancient Engravings on Stone, Southern Peru.*

C. CARTER BLAKE, Esq., F.G.S., *On a Condylus Tertius.*

J. ANDERSON, Esq., *On Recent Explorations in Chambered Cairns of Caithness.*

C. S. WAKE, *On Antiquity of Man in Relation to Comparative Geology.*

Many papers were read in abstract, as there was neither time for reading them at length nor discussing them. This was especially the case the last day. The uncertainty as to the appointment of a Department rendered many authors of papers unable to send them in until the last moment. These papers will, however, be read before the Anthropological Society, and we need not therefore again revert to them. The interest of the Department was becoming greater every day, and much satisfaction was expressed on all sides at the amount of work done. After a complimentary vote of thanks to the President, moved by Sir John Lubbock and seconded by Dr. James Hunt, the Department was adjourned by Mr. Wallace to Dundee in September 1867.





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