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From the EDITOR.—Correspondenz-Blatt. October, November, December, 1882.

—“Nature.” Nos. 685–88.

—Revue Scientifique. Nos. 25–27, 1882; No. 1, 1883.

—Journal of Mental Science. January, 1883; October, 1881; January, April, October, 1882.

—Revue Politique et Littéraire. No. 26, 1882; No. 1, 1883.

—Bullettino di Paletnologia Italiana. Nos. 10, 11.

The election of Admiral F. S. TREMLETT, F.G.S., was announced.

Mr. WORTHINGTON G. SMITH exhibited four palæolithic implements from Madras, upon which Mr. Walhouse offered some remarks.

The following paper was read by the author :—

On the PROBABLE REGION of MAN'S EVOLUTION.

By W. S. DUNCAN, Esq., M.A.I.

ASSUMING that man was evolved from a form lower in organisation than that of the lowest type yet discovered, that his origination formed no exception to the general law of evolution recognised as accounting for the appearance of the lower forms of life, Man's most immediate ancestors must have been similar in structure to that of the existing anthropoid apes. Yet it is not necessary to suppose that any of the anthropoid apes at present existing belong to the same family as that of man. It is only indispensable to the hypothesis of man's evolution to say that man formed one at least of a set of families of man-like animals somewhat similar to the present apes. For in seeking for a transitional link between man and a lower form we naturally look for a structure having a smaller brain capacity, and a body less adapted to the upright posture. To seek for this is to search for a form more ape-like in all respects. As was admirably summarised by Darwin in his “Descent of Man” (p. 190), “Nearly all the more important differences between man and the quadrumana are manifestly adaptive in their nature, and relate chiefly to the erect position of man, such as the structure of the hand, foot, and pelvis, the curvature of the spine, and the position of his head.” If, then, by palæontological evidence we can trace the changes through which the human form has passed from a semi-erect, quadrumanous, small-brained creature to an erect, large-brained biped, we shall have raised the doctrine of

man's evolution from the low ground of hypothesis to the elevated platform of historical fact.

I shall now inquire what evidence, if any, we possess to lead us to hope for success in the search for fossil remains demonstrating the existence in past geological time of such transitional links.

The quarter from which our first ray of light comes is that of the science of distribution, or the compilation of facts which proves the geographical distribution, in present and past time, of the order *Primates* to which man belongs. According to the standard work of reference by Mr. A. R. Wallace, namely, his "Geographical Distribution of Animals," we learn that there is no evidence to show that any but the lowest families of the *Primates*—to wit, the Lemurs, and the lowest types of monkeys, were distributed to both the New and the Old World, man of course excepted. It is therefore probable that these families originated within the Arctic Circle so as to become easily distributed over both hemispheres; for their powers of locomotion are so limited, and their dependence on a warm climate where fruit-trees abound is so absolute, that the distribution of these animals from one hemisphere to another after they had passed south of the Arctic Circle is extremely improbable, if not altogether impossible. The least indispensable conditions under which animals, originated in either hemisphere south of the land passage between the two, could pass from one hemisphere to the other, must be that they should be compelled to accommodate themselves to lower temperatures, and to entirely new kinds of food. There is no evidence to show that either the lemurs or the lowest types of monkeys were compelled to fly northwards, and so to alter their habits and constitutions, and therefore we account for their existence in both hemispheres by supposing them to have been originated within the Arctic Circle at a period when that region was tropical.

But while it may safely be supposed that the lowest members of the *Primates* took origin in what is now the frigid zone, it cannot be deemed at all likely that the higher types of monkeys, much less the anthropoid apes, ever existed so far north. There is no evidence that they ever appeared in America, while they have been and still are distributed in the Old World. Had the higher monkeys, or the anthropoid apes, been evolved within the Arctic regions they would in all probability be found, living or fossil, in the New as well as in the Old World. Until any evidence is adduced that these higher families of the *Primates* were distributed to America it would be idle conjecture to suppose that they originated within the Arctic Circle; and if there is no evidence to show that these families took origin in

that region it is infinitely less probable that the latest, highest, most specialised of all animals—man—began being in these remote regions. On the other hand, since only the lowest members of the Primates have been distributed to both eastern and western hemispheres, while the higher members exist abundantly in the Old World, these facts indicate emphatically that the higher primates were originated on this eastern hemisphere—and this, too, in a latitude so far south of the land connection between the two worlds that, for reasons already mentioned, it became impossible for them to enter afterwards the continent of America.

Again, the fact that man, in remote antiquity, became universally distributed only proves that at that distant epoch he had thoroughly acquired the necessary powers of locomotion, and of accommodating himself to varieties of climate, temperature, and food, which among other characteristics mark him off as an improved and highly specialised type. What we already know of distribution, then, points to this first important conclusion—that the higher primates, and therefore man, were not originated within the Arctic Circle, nor yet in the New World, but somewhere in the Old World alone.

Being now confined to the Old World in our quest for the remains of incipient man, let us next see whether we cannot get some definite evidence as to the locality in this hemisphere where his relics are to be found, still taking as our clue to search the known facts of distribution, in past and present time, of the monkeys and apes of the Old World, and beginning with the lowest family, according to Mr. Mivart's classification (which is adopted by Mr. Wallace): it is as follows:—

The *Cynopithecidae*, or Old World monkeys of the dog-shaped type, have, according to evidence, lived during the middle and later tertiary time in the south of England, the south of France, and in Northern India. At present they are found in Gibraltar, Northern, Western, Tropical, and Eastern Africa; they are also in Arabia, India, Eastern Thibet, Japan, and the Malay Islands, including the Phillipines and the Celebes. This goes to show that this, the lowest family of monkeys, has been distributed, since middle Tertiary time, from the west of Central Europe to Southern Europe and Eastern Asia, and from thence as far south as the tropics of Africa and Malaysia.

The next higher family of Simii, namely, the *Semnopithecidae* have during the same middle and later Tertiary periods lived in Southern Germany and France, Italy, Greece, and Northern India. They are now found in Eastern and Western Africa, Indo-China, India, Ceylon, and Malaysia. Thus this family, which is intermediate between the lowest monkeys and the

anthropoid apes, has, like the former, been dispersed from Central and Western Europe to Southern Europe and South-Eastern Asia, and thence down as far as about the Ethiopian and Oriental tropics.

As yet no evidence exists that the highest family of the Simii, namely, the anthropoid apes, ever had a range so far north as that of the Semnopithecidae or the Cynopithecidae. Of the man-shaped apes the lowest genus, *Siamanga*, has not as yet been found fossil: at present it ranges through Malacca and Sumatra. Remains of the genus next in order, namely, *Hylobates* (or of forms closely allied to this genus), have been found in the south of France (I allude to *Dryopithecus* and *Pliopithecus*), but the living representatives are now confined to Java, Assam, and Southern China.

Though the genera next in order, namely, those to which the Orang, the Gorilla, and the Chimpanzee belong, have not yet been discovered fossil, a genus, different from all but more nearly allied to that of the chimpanzee, has recently yielded remains in the Siwalik hills of India. I refer to *Palæopithecus*, as described by Lydekker in Part XII of the "Records of the Geological Survey of India."

But though our palæontological evidence is meagre as to the place of origin and past distribution of the anthropoid apes, yet the fact that one genus, allied to *Hylobates*, has been proved to have existed in the south of Europe in Miocene times, and is now represented by the Gibbons in South-Eastern Asia and Java, while another genus more nearly allied to the chimpanzee of Western tropical Africa is proved to have lived in Northern India in Pliocene times,—these facts, I say, prove that a wave of anthropomorphic life existed from later Miocene to Pliocene times in the south of Europe and sub-tropical Asia.

The question next arises whether the genera of apes now existing have not been all derived from the south of Europe and sub-tropical Asia, as is proved to be the case with *Hylobates*. It is a most noteworthy fact that the whole of the existing genera of apes are equally divided between two regions so remote as Central Africa and Malaysia. It is a fact that indeed cannot be accounted for by supposing either of these regions to be a centre of ape-origin. Apes are too fond of the comforts of warmth and abundance of fruit to exchange without compulsion a tropical for a sub-tropical region. And this they would require to do if it were supposed that the apes of one of these regions were derived from the other region.¹ Again, the difference between

¹ The supposed lost continent underlying the Indian Ocean—*Lemuria*—is, for reasons given by Mr. A. R. Wallace, assumed to have had no existence.

the apes of Africa and those of Malaysia is too great to allow of the supposition that one set is derived from the other set. The supposition that Africa and Malaysia were each a separate centre of ape-evolution is too far-fetched for acceptance, seeing that the Oriental group is distinctly proved to have been derived from the south of Europe. The simplest inference, then, seems to be that all the genera of living apes are derived from Southern Europe and sub-tropical Asia.

But the lowest types of mankind are also found in the very regions where the anthropoid apes now exist. Our next question, then, is whether, on the assumption that man was evolved, he passed through the transition stage between ape and man in the tropics of Africa, or Malaysia, or in a latitude higher up?

Although many naturalists, and among them some of the most eminent, have regarded the present home of the anthropoid apes as the most probable region where man was evolved, and although I must confess that this was my own earlier belief, I must now dissent from this view for the following reasons:—

Firstly, the presence in the tropics of Africa and Malaysia of about equally inferior types of man, such as the Akka dwarfs in Africa, and the Aetas in Java—the former being characterised by prognathism most pronounced, and the latter by the most generally ape-like type of head and face—suggests derivation from a higher latitude as truly as does the presence in the same regions of the existing genera of anthropoid apes. In other words, just as apes existed in Europe and Asia before they reached the tropics, as is proved by palæontological facts, so we may infer that man existed in Europe and Africa before the low types referred to occupied tropical Asia and Malaysia. At least the presence in these latter regions of the low human races referred to need not suggest their origin in either Africa or Malaysia, any more than does the presence there of the anthropoid apes suggest their separate tropical origin.

Secondly, there is no evidence that the present habitat of the apes, regarded in its physical or geographical character, is such as to supply the forces necessary to evolve apes into manhood. The character of the habitat is too well suited to the wants of the ape to furnish any sufficient stimulus to its raising its status. We must look to some region where apes were compelled gradually to give up ape-habits of living in trees, and feeding on a mere fruit diet,—a region where apes were *compelled* to change their food and mode of locomotion, so as to develop more erect and elegant forms, with enlarged brains, and quickened intelligences,—a region forcibly subjecting them to lower temperature, and so making it possible for them ultimately to

become universally distributed. No topical region supplied the conditions necessary to produce such changes. In what direction, then, must we look?

We have seen that it would be out of all reason, as far as present evidence goes, to suppose that the ape, out of which man sprang, was an inhabitant of America or of the Arctic regions. We have also seen that there is no evidence to show that apes existed farther north than Central Europe, and we have seen that they have been traced to Southern Europe and Northern India in Miocene and Pliocene times. In short, we have seen that there has been a gradual southward distribution of simian life, as of every other form of life, in consequence of the gradual cooling down of the northern zones of our globe.

The tendency of the steady process of refrigeration was of course to drive all forms of life, by degrees, southward to the tropics, excepting such as should become compulsorily adapted to temperate or cold climates; and had there been no barriers to this southward distribution in the Old World it is very probable that apes would never have had a fair chance of becoming evolved into manhood.

But geographical barriers did exist that were, on the one hand, unfavourable for apes moving southward, and so continuing to be apes, and on the other were favourable to their detention in the very region in which they had the best chance of becoming men, if they were to survive at all. What then were those barriers?

The principal barrier which prevented the apes from easily moving southwards was, briefly, the enormous extent of sea border on the south of Europe and sub-tropical Asia. On the south of Europe was the Mediterranean, separating Europe from Africa. On the south of sub-tropical Asia was the Arabian sea and its diverging branches, which in Miocene times extended from at least high up the Euphrates valley, down the Persian Gulf, round into the valley of the Indus and the Punjab. The Red Sea and Gulf of Suez, moreover, then ran into the Mediterranean. It is not impossible even that the Jordan valley was then filled with water, extending from the Red Sea to the Euphrates valley, thereby probably cutting off Arabia from Asia. It is not certain that, in Miocene times, what is now the Strait of Gibraltar was dry land, or that Europe was connected by an isthmus through Italy and Sicily to Africa. But allowing that land connections did exist, both between Gibraltar and Tangier, and between Italy and Tunis, yet there was still a water separation of some five thousand miles extent on its northern border between Europe and Africa, as compared with two bands, of fifty and a hundred miles respectively, of land

connection. Then, even if we admit that Arabia and India, as well as Malaysia, might have been reachable by similar narrow land routes, there was still a sea-barrier, of four to five thousand miles extent, cutting off the tropical from the sub-tropical regions of Asia.

Thus the Mediterranean Sea on the one hand, and the Arabian Sea, with its diverging branches up the Euphrates, Scinde, and Punjab valleys, on the other, proved immense sea-barriers, which must have arrested the southward migration of the anthropomorphous apes in Miocene and Pliocene times, preventing them from reaching the tropical regions of the Old World, so necessary to their comfort, and so well suited to their physical constitution.

Let us now inquire into the importance of this fact of a southern sea-barrier, together with attendant physical conditions on the future of anthropomorphic life.

The gradual southward dispersal of all forms of life was due to the approach of cold from the northern latitudes, distantly premonitory of a coming Ice Age. Impelled southwards by cold, and arrested by a southern sea-barrier, what must have been the effect upon the anthropoid apes of Southern Europe and sub-tropical Asia? Those apes that were near to the narrow land connections between Europe and Africa would of course escape (as far as to North Africa) from the effects of approaching cold; those similarly placed in Asia would be able to save themselves from like discomfort. *All the rest, however,—and they must have formed a vast majority—*who never knew of a possible way of escape, must have been obliged to remain and contend with adverse circumstances. First, they would have to contend with the conditions of a climate to which, for temperature, they had hitherto been unaccustomed. They had to become adapted to withstand a low temperature, and so develop one of the distinguishing characteristics of man, whereby he became universally distributed; or else they had to perish, as soon happens with apes brought from a tropical to a temperate region at the present day. Here, then, was the first struggle for existence, or for the development of one characteristic of man. Some, perhaps many, genera of apes died out in this struggle, but others doubtless were for a time successful, and were followed by a posterity still more successful. It must be remembered that this change from a warm to a temperate, or even cold climate, was gradual, and therefore admitted of adaptation more easily than at first sight might be imagined. Yet, doubtless, many genera died out, unable to protract the struggle. One thing seems very probable, namely, that the apes at present occupying the Equator are not likely to have been derived from the stock that were obliged to

remain and contend with cold, but are more likely to be the descendants of those who were near the narrow land connections from Europe to Northern Africa, and from Asia down into Malaysia. The Ethiopian apes, however, are on the whole more highly developed than the Oriental ones, possibly on account of the long detention of their ancestors in the mountainous district of Northern Africa, arrested by the Sahara sea or desert.

The recently discovered Pliocene fossil, *Palæopithecus*, too, which has been shown by its teeth to be more highly developed than any existing Oriental ape, probably owed its superior development to its detention in the Himalayan region.

The same set of circumstances which drove the apes from Central to Southern Europe and Asia, and arrested their progress farther southwards (namely, on the north the increasing cold and on the south the sea-barrier), would operate upon immense hordes of other animals that had to contend with the same climatal hardships. The crowding together in this region of all kinds of animals must have given rise to other struggles, fiercer perhaps than those due to a lowering of temperature. In this region the struggle between natural enemies must have been intense, and was well calculated to sharpen intelligence, and promote the growth of brain. The apes, by nature endowed with imperfect powers of locomotion, would be compelled in self-defence to use their hands and arms in wielding weapons, instead of taking shelter in trees. Wood, horn, bone, and stone weapons or missiles would doubtless be used for such purposes with at first, perhaps, little care as to their suitability, and with no attempt at construction. But they doubtless played their part in training and educating the arms and hands of the improving ape.

The continued increase of cold would have another great result. By eliminating the number and extent of fruit-forests, the surviving apes would be compelled to adapt themselves gradually to new varieties of food. The compulsory departure from an exclusively fruit diet would probably be followed by the use of roots; or, in the neighbourhood of rivers, lakes, and seas, the apes would probably seek to secure a diet of mollusks, or of fish, or even now and then, perhaps, of stranded cetaceans. Is it not possible, then, that the man-like apes were by this means so far developed into ape-like men as to be intelligent enough to make for themselves implements of some kind, whereby they cut away the flesh of stranded whales, and left their ribs marked and notched (as Professor Capellini has found them) as a memento of this transition period of struggle? Whatever the apes of that time were obliged to live upon, it is certain they

would in many cases have been obliged to change from a purely vegetarian diet.

But this necessity of resorting to search for other kinds of food would have the effect of shortening the upper limbs that had hitherto been so much applied to purposes of swinging from bough to bough in the luxuriant forests of fruit-trees. The upper limbs would shorten from the cessation of this habit: the hand would become developed into a more man-like organ of prehension. The lower limbs, on the other hand, would become stronger with exercise, and the foot, by frequent use, more adapted to support the body, and would more and more depart from the character of a prehensile organ.

But there is one other set of circumstances remaining to be considered, that must have greatly augmented the force of such conditions as I have described, and therefore have greatly increased the results I have shown, that must have flowed from them. It is this: the dry land in the south of Europe and sub-tropical Asia was steadily rising from the beginning of Miocene times, became gradually hilly, then mountainous, till eventually it became, as it is at the present day, "almost wholly a region of mountains and elevated plateaus." As the greater part of this district coincides with the south of the Palæarctic region or the Mediterranean sub-region in Mr. Wallace's "Geographical Distribution," and as that writer has given an admirable description of its present state, I cannot resist making the following extract:—"On the west, Spain is mainly a table-land of more than 2,000 feet elevation, deeply penetrated by extensive valleys, and rising into lofty mountain-chains. Italy, Corsica, Sardinia, and Sicily are all very mountainous, and much of their surface considerably elevated. Further east, we have all European Turkey and Greece, a mountain region with a comparatively small extent of level plain. In Asia the whole country from Smyrna, through Armenia and Persia, to the further borders of Affghanistan, is a vast mountainous plateau, almost all above 2,000 feet, and extensive districts above 5,000 feet in elevation. The only large tract of low-land is the valley of the Euphrates. There is also some low-land south of the Caucasus, and in Syria the valley of the Jordan. In North Africa, the valley of the Nile, and the coast plains of Tripoli and Algiers, are almost the only exceptions to the more or less mountainous and plateau-like character of the country" (pp. 199, 200).

The more eastward part of sub-tropical Asia, namely, the north and north-east of India, is so well known to be mountainous that it needs no description.

Now, in order to prove that the whole of this district of Southern Europe and sub-tropical Asia has been gradually raised

during Tertiary time, I give a short extract from Sir Charles Lyell's "Elements of Geology":—

"The nummulitic limestone [which I need hardly say is of Eocene date] of the Swiss Alps rises to more than 10,000 feet above the level of the sea, and attains here and in other mountain-chains a thickness of several thousand feet. It may be said to play a far more important part than any other tertiary group in the solid framework of the earth's crust, whether in Europe, Asia, or Africa. It occurs in Algeria and Morocco, and has been traced from Egypt (where it was largely quarried of old for building the Pyramids) into Asia Minor and across Persia by Bagdad to the mouths of the Indus. It has been observed not only in Cutch but in the mountain-ranges which separate Scinde from Persia, and which form the leading passes into Cabul; and it has been followed still farther eastward into India as far as Eastern Bengal and the frontiers of China." Further, "Dr. Thomson found nummulites in Western Thibet at an elevation of 16,500 feet." Again, summarising the facts, he says: "All the mountain-chains, such as the Alps, Pyrenees, Carpathians, and Himalayas, into the composition of whose loftier parts the nummulitic strata enter bodily, could have had no existence till after the middle Eocene period. During that period the sea prevailed where these chains now rise" (pp. 260-1).

Since elevation has never taken place suddenly, it follows that from the beginning of Miocene times these mountains and plateaus have gradually risen, through the Miocene and Pliocene epochs, till at last they attained their present elevation. The fact of their gradual and not sudden elevation is marked by the known deposits of Miocene and Pliocene age on the flanks and bases of mountain-ranges of the Pyrenees, the Caucasus, the Himalayas, as well as the mountain-ranges of Italy, and also in Greece. Now it was in later Miocene and in Pliocene times that the family of anthropoid apes occupied this region, and were, along with hordes of other animals, endeavouring to become adapted to the lower temperature which was stealing upon them gradually from the north. As time went on, the increase of cold, which proceeded from the refrigerating causes that culminated in the last glacial epoch, had *added to it* the increase of cold due to gradual elevation of the land in this extensive zone. The effect of gradual elevation would manifestly be to greatly augment the changes of structure, habit, and character of those apes that were able to keep up the struggle. These changes, as I have already said, would be—first, a hardened power of contending with cold; the acquisition of habits of living on varied food; of using weapons of self-defence,

and so improving the hand; of abandoning the forest-life, and so improving the powers of locomotion and proportioning the lower to the upper limbs as in man; growth of brain by virtue of the stimulus afforded by all the factors in this long-protracted struggle. And to all this I add yet farther that the mountainous character of the region perfected the human characteristics of an erect posture—curving the spine forward in the lumbar region, and widening the pelvis as the result of action in ascending and descending the mountain sides.

Having completed my argument as respects the region of Man's evolution, I am bold to repeat that the due consideration of the geographical, climatal, and other conditions of this southern portion of the Palæarctic Region upon the anthropoid apes which occupied it in later Miocene and Pliocene times, taken in connection with the facts of distribution of the higher *Primates*, must lead to the conclusion that this region was of all others the most likely to have supplied the conditions necessary to the evolution of the bimanous erect and large-brained form of Man out of the quadrumanous semi-erect and small-brained form of the Ape.

One word, in conclusion, with respect to the practicability of discovering those remains which my argument goes to show lie entombed in strata of the south of the Palæarctic Region.

I have already quoted authorities to prove that the whole of this zone had undergone a process of gradual and continuous upheaval during Tertiary time. The lowest of the Tertiary strata, in point of actual altitude, namely, the Eocene, is found at heights from 10,000 to 17,000 feet above sea-level. Since upheaval must at all times be gradual it follows that the continuous rising of the land into what are now lofty mountain-ranges would have the effect of tilting the various layers of strata deposited through Miocene and Pliocene times.

The inclination of these strata, therefore, gives us every encouragement to believe in the accessibility of the remains of which we are in quest. Though there is yet much to learn about the geology of the south of the Palæarctic Region there is even now abundance of information to guide exploration. Unfortunately, perhaps, for *us* most of this extensive region is under other than British rule, else we might prosecute inquiries in the Pyrenees or the Caucasus, or in some of the promising districts of Italy. Our protectorate of Asia Minor, however, might enable us to obtain leave of the Turkish Government to explore any portion of that country that might be deemed fruitful of search. Having retired from Afghanistan we need not indulge the hope of soon exploring that country. But there is India at our command. According to evidence confirmed by

the Records of the Geological Survey of India, Miocene and Pliocene deposits occupy the northern border of the Punjab, the western border of Scinde, and the mountain-range between India and Burmah. In exploring for the remains of pithecoïd man it is of course necessary to confine our search to deposits of fresh-water or brackish water origin. In marine deposits we of course would search in vain. Moreover, it would be advisable to limit our search, even among fresh-water strata, to such as gave promise of good preservation of osseous remains. Matters such as these, however, constitute details that would be sure to receive the attention of any earnest investigator. The main question to be settled first is, whether my argument in favour of the evolution of man in the south of Europe and sub-tropical Asia is sound. If not, let it be mercilessly overthrown. If, on the other hand, it be deemed feasible, can any reason be advanced against a Committee of Exploration being formed out of the members of this Institute to prosecute this inquiry, which of all others in anthropology or biology—nay even of all knowledge—is fraught with the deepest interest to mankind?

If it be urged that such a committee, by being destitute of funds, is helpless, I reply that this is far too desponding a view to take. Who knows but that the formation of such a committee might be followed by the arrival of funds? But even without funds a small but earnest committee might be of incalculable service in stimulating and keeping alive inquiry into the palæontological history of man. Such a committee, for example, might call the attention of anthropologists, or men of science interested in anthropology, who happened to be located in the region I refer to, or who contemplate exploring any portion of that region, to the bearing of the evidence I have just pointed out on the question of the evolution of man, so that they might be induced to add to that evidence. The Institute already adopts this mode of procedure in adding to its information respecting other fields of anthropological inquiry, such as the acquisition of facts of measurement, form and colour of the living races of mankind. Why should not inquiry be also stimulated to search for palæontological traces of pithecoïd man in Miocene and Pliocene fresh-water strata of Southern Europe, Northern Africa, and sub-tropical Asia? There is no reason that I can find against such an inquiry being prosecuted; but it is clearly necessary to its being properly attended to that a committee, however small, should be appointed which shall at once possess the authority and prestige of this Institute, and be responsible for reporting to it from time to time the results of its acquired information, or of the amount of stimulus it has given

to individuals or expeditions favourably situated for prosecuting such an investigation.

I close by earnestly hoping that the Council may take an early opportunity of favourably considering my suggestion for forwarding enquiry into this subject of palæontological anthropology, or the question of the When, Where, and How of man's origin.

DISCUSSION.

Mr. JAMES HEYWOOD, Mr. PARK HARRISON, M. BERTIN, and Dr. GARSON took part in the discussion.

The CHAIRMAN, in summing up, expressed his opinion that the paper was well and carefully put together, and had elicited a very useful discussion, but he doubted whether it took in all the circumstances of the case. Assuming that man was descended from a lower creature he thought it more likely that several of the different races originated in different places than that they were all descended from the same stock; and some of the areas of evolution were very likely buried in the sea. He doubted whether any one had ever supposed that men were descended from monkeys, although many thought that monkeys and men were descended from the same source. The district in which the author expected to find the missing link was well looked after by continental anthropologists, and in view of this, and of the fact that the whole Institute was a standing committee for the collection of anthropological information, he thought the appointment of a special committee was not necessary.

The ETHNOLOGY of GERMANY.—PART VI.

THE VARINI, VARANGIANS, AND FRANKS.—SECTION I.

By HENRY H. HOWORTH, F.S.A.

WE will commence our paper, in which some very heterodox views will be maintained, by a survey of the various theories about the origin of the Franks. One of these may be dismissed almost in a sentence. This is the theory of some too patriotic Frenchmen, including Dom Bouquet, Hadrianus Valesius, and Dubos, who argued that the Franks were of Gallic race—one author urging that they were descended from the Gauls who had formerly lived in the Hercynian forest. I need not say that no historian holds this view now. The facts are absolutely over-