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## ANTHROPOLOGICAL REVIEWS AND MISCELLANEA.

Readers of the Journal are invited to communicate any new facts of especial interest which come under their notice. Short abstracts of, or extracts from, letters will be published at the discretion of the Editor. Letters should be marked "Miscellanea" and addressed to The Secretary, 3, Hanover Square, W.

DENIKER'S CLASSIFICATION OF THE RACES OF EUROPE.

## [WITH PLATE XV.]

A MOST notable work upon the physical characteristics of the races of Europe by Dr. J. Deniker, Librarian of the Musée d'Histoire Naturelle, at Paris, is about to appear in the forthcoming *Compte Rendu de l'Association française pour l'Avancement des Sciences*; and in even more extended form in the *Mémoires de la Société d'Anthropologie* at Paris. Its character and general conclusions have been already made known to us in two preliminary articles.<sup>1</sup> Their interest and value prompt us to take note of their contents even in advance of the final publication of the whole work.

Let us at the outset state most positively that, so far as one can judge from the preliminary sketches, the work promises to be of the very highest scientific importance; it betrays a zeal in the examination of original sources, as well as a careful discrimination in their correction and digestion, which cannot be too highly commended. The author seems to have exhausted almost every possible source of information as to the cephalic index, the colour of the hair and eyes and the stature of the European peoples in all the known languages. In the course of our studies upon the subject,<sup>2</sup> and especially in the attempt to prepare an exhaustive Bibliography of the anthropology and ethnology of Europe for publication by the Boston Public Library, we have had occasion to examine every discoverable authority in the original. Nearly two thousand titles have been collected, especial attention, through the aid of translators, being paid to the more difficult Slavic languages. It must be confessed, in spite of this care on our part, that Deniker has succeeded in presenting results from a half dozen printed sources which were unknown to us. Two or three he has apparently omitted, such as Zakrezewski in Poland, De Man in the Netherlands and others of recent date-Blind Pitard, Gray, etc. On the other hand, he presents some entirely new data on the cephalic index from the manuscripts of Bassanovitch as to Bulgaria and Ferroz y Macedo as to Portugal. Bassanovitch has already given us one

<sup>1</sup> "Les races européenes," Bull. Soc. d'Anth., Paris, 1897, pp. 189-208 and 291-302; "Les races de l'Europe," L'Anthropologie, ix, 1898, pp. 113-133; with map.

<sup>2</sup> L'Anthropologie, vii, pp. 513-525, and also "The Racial Geography of Europe,' Appleton's Popular Science Monthly, February, 1897, to March, 1898, inclusive. The latter will shortly be published in New York and London, with many additions, as a separate volume. good monograph on his country; but Deniker's data add much to our knowledge. Portugal has till now been a *terra incognita* to the anthropologist, although Spain redeemed her reputation in that respect several years ago. This new material is therefore of great interest and value. If there be, indeed, any excuse for adverse criticism of this first part of his work, it would be in the apparently defective bibliographical methods. Names seem to be frequently misspelled; with here and there a date or volume misstated. Yet we will not prejudge the final work by these preliminary and hasty sketches. It would be fairer to ascribe these slips to careless proof-reading rather than to really grave errors in the manuscript.

Deniker's raw materials-his data as to cephalic index. colour of hair and eyes and stature-differ only in slight detail from our own; albeit, they were apparently collected in entire independence of one another. That is a comforting circumstance, which strikingly serves to confirm the fundamental accuracy of each. Only in one or two details do we take exception to his data. Thus in Holland, the extremely brachycephalous spot at the mouth of the Scheldt, does not seem to be sufficiently emphasized by him.<sup>1</sup> In Denmark, where we all are obliged to confess lamentable paucity of observations, there is also a discrepancy with our own figures as to the head form. Deniker, for example, assigns a cephalic index to it of about 77; that is to say, making it strongly Teutonic. Now, Beddoe's series2-the best we have-gave a much higher figure, viz. 80.5. Probability, especially the distinct broad-headedness of the southern Norwegians, just across the Skager Rack, as shown by Arbo,<sup>3</sup> shows a decided bent in this direction also. That the same brachycephalous element which has so infected the delta of the Scheldt is in Norway again in evidence seems to us beyond doubt. Beddoe certainly agrees in this view. In a few other minor details of this kind our data differ; but, as we have said, in the main the physical characteristics of the living population of the greater part of Europe are too well proven to permit of any divergence of testimony. Deniker has rendered a great service to anthropology by bringing the material as to cephalic index into convenient form for direct comparison. It is earnestly to be hoped that his later publications upon stature and pigmentation will be of equal value.

Here are the data on which all authorities are now perfectly agreed. I give them in his words: "The cephalic index is grouped in four regions: one dolichocephalic with an encircling zone of mesocephaly in the north (Scandinavia); a more strongly dolichocephalic one in the south (Mediterranean); a very broad-headed one in West Central Europe (Alps); and finally a sub-brachycephalic one in the east centre." (Russia, etc.). These relations were emphasized in our map of cephalic index in *L'Anthropologie* two years ago, to which reference has already been made.<sup>4</sup> It should be said here in justice, however, that the material on the cephalic index of Slavic Europe is here most ably collated by Deniker for the first time in print.<sup>5</sup> Our own data for this region, collected from entirely independent examination of the original Slavic sources, agree with his almost exactly. In places we have made use of some of his manuscript data above mentioned; for which due acknowledgment is here made. To Deniker, then, belongs the full credit for the first publication of the figures in these papers: his knowledge of Slavic authors is indeed most complete.

<sup>1</sup> See our map in Popular Science Monthly, lii, 1897, p. 315 et seq.

<sup>2</sup> The Races of Britain, p. 233.

<sup>3</sup> His map is reproduced in Popular Science Monthly, lii, 1897, p. 158.

<sup>4</sup> See also *ibid.*, l, 1897, p. 591.

<sup>5</sup> In "Russia and the Slavs," *ibid.*, October, 1898, we have just published our own results with maps and portrait types.

Our agreement with Deniker as to the main facts of stature distribution—although here his data are not yet published in any detail—is equally close; we judge from his knowledge of the cephalic index that it will be equally profound. Thus he concludes: "There are three centres of very tall population: one in the north (British Isles, Schleswig, Scandinavia, etc.) and two in the south (Bosnia, Servia, Dalmatia, and the eastern Caucasus). On the other hand, there are three centres of relatively short stature: one in the south (Spain and South Italy); one in the centre (Poland, Bavaria (?), Hungary), and one in the north-east (Lapps, and Russian aborigines)." Behold here again a perfect corroboration of our results.<sup>1</sup> Not to weary the reader with further details, let us dismiss the subject by giving our hearty approval to all his deductions as to the colour of hair and eyes as well. He has not yet published any details; but enough has been said to show substantial agreement.

Now we reach our apparent dilemma. From almost entire agreement as to the distribution of the three principal physical characteristics each by itself, Deniker reaches widely different conclusions as to their combination into racial types, from nearly every standard authority in Europe. We have recently in a general summary of the evidence,<sup>2</sup> found no occasion to differ from the opinions of Beddoe, Broca, Collignon, Livi, Topinard, and a host of others. These anthropologists all affirm the existence of three main racial types. These are: first, a tall long-headed blonde (Teutonic); secondly, a medium-statured, grey-eyed, brown-haired, and very brachycephalic type (Alpine or Celtic); and, thirdly, a short, dolichocephalic and very brunet race (Mediterranean or Iberian). Many admit the existence of a fourth sub-variety of the second and third in the dark, brachycephalic but very tall, type of Bosnia, Dalmatia, and the west Balkan States. Our author's very positive indication of this last as a permanent type is well worthy of consideration. Deniker differs from all others in combining his three separate physical traits into six principal races and four or more sub-races, to which entirely new names, unknown to anthropologists heretofore, are assigned. This seemingly unnecessary rejection of time-honoured names adds greatly to the difficulty of comparing his conclusions with those of others. For at least two of his combinations are like the commonly accepted ones. His "Nordic" type corresponds to the classical Teutonic; his Occidental or Cevenole is merely our old friend, the Celtic or Alpine type. He has, however, a good name (Adriatic or Dinaric) for the tall variety of the brachycephalic population of the north-west Balkan Peninsula, which seems well adapted to it. As to his other seven, they are merely sub-divisions of the three classical races. Thus, for example, our author splits the classic Mediterranean race into two groups (and we freely confess the fact of an existing difference of stature between them)-one tall, which he calls Atlanto-Mediterranean; and one short, named the Ibero-Insular. Thus it goes. There is a "sub-Nordic," a "Vistulan," a "Nord-Occidental," and so on. Fortunately, it is not necessary for us to attempt a comparison of these in detail.

The fact that from the same data such widely variant racial conclusions may be drawn is, at first sight, calculated to shake one's confidence in the whole attempt at a systematic somatological classification of the population of Europe. This we believe to be an unjustifiable inference. Deniker is too well equipped an anthropologist to go astray in such matters; and certainly the eminent names which we have just cited,

<sup>1</sup> Compare map in "The Racial Geography of Europe; IV, Stature" (*Popular Science Monthly*, li, 1897, p. 30). Reproductions of the great maps of stature for eastern Europe, after Anutchin, Zakrezewski, von Goehlert and others, are given in the article on Russia above noted.

<sup>2</sup> In extenso, in *ibid.*, li, 1897, pp. 192-207.

in favour of a simple tripartite division of races, preclude the chance of their being in error. What, then, is the matter? After a patient examination of Deniker's scheme, we claim to be able to reconcile both views. Unless this can be done, scientifically, someone must be proven in serious error.

The controversy involves, it seems to us, a question which has been much discussed of late by naturalists concerning the definition of the word "type." For in anthropology the term "race"—alas! so often lightly used—corresponds in many respects to the word "type" in zoology.

Deniker's elaborate scheme of six main, and four secondary, races is, in reality, not a classification of "races" at all, in the sense in which Topinard and others have so clearly defined it.<sup>1</sup> It is rather a classification of existing varieties. Here is Topinard's definition of the word "race": It is "in the present state of things an abstract conception, a notion of continuity in discontinuity, of unity in diversity. It is the rehabilitation of a real but directly unattainable thing." Apply this criterion to Deniker's six "races" and four "sub-races." Is there any ideality about them? Is there any "unity" in his scheme? If you think there may be, glance for a moment at his map (Plate XV). Italy is resolved into no less than five distinct "races." Norway, simple and retiring peninsula that it is, comprises four of these, exclusive of the Lapps. What say Livi and Arbo to this? And the British Isles! How can we describe their intricate maze of "Nordic," "sub-Nordic," and "Nord-Occidental" with nearly all Scotland and half of Ireland indicated as "unknown"? Dr. Beddoe, where is he? and Davis and Thurnam, the Anthropometric Committee, and all the rest? Is there anything "unattainable" about these? Certainly not. Does this prove then our author in error? With equal positiveness, no. His so-called "races," as we now see, are real, actual, living combinations of traits as they exist in Europe to-day. You may safely take Deniker's map in hand, and, going to any region you please, you will surely find the population there to be outwardly just as he describes it. No surer guide could be found. That is why the map, and the schematization is so elaborate; why it seems to lack that "unity in diversity," which we should seek. You are not discovering "races," in fact, at all. You are viewing existent, but not ideal types, which may once have existed, but may be now dissolved in a generalized mean. You are in possession of a living picture of the population of Europe as it stands, with all its complexities, its contradictions, and anomalies; but you will find no key to the relations of the several parts revealed, nor any idea of their possible origins.

How, then, are we to discover this ideal, this elusive, "racial type"? How are we to reach the conclusions of the great body of anthropologists in Europe as to the existence of three "races," and no more? The process seems to us simple. Three steps must be taken; three, which Deniker, in laying his superb foundation for future use, has not yet had opportunity to take. These are: first, to eliminate all disturbing factors, thus being sure that no elements save those of hereditary descent are in evidence; secondly, to seek for similarities, and not diversities of traits, turning the pages of the book of life backward—making use, that is to say, of the data both of historical ethnology and prehistoric archeology; and, thirdly, utilizing the probabilities of geography in seeking the affinities between divergent types. Only thus may we boil his "races" down. In this wise alone may we attain that "unity in diversity"

<sup>1</sup> "De la notion de race en anthropologie" (*Revue d'Anth.*, série 2, ii, 1879, pp. 589-660); and more recently in the *C. R. Congrès int. d'Anth.*, Moscow, 1893. We have discussed this more fully in our "Racial Geography of Europe," chapter v; "The Three European Races," above cited. which we seek; and we may thus pass imperceptibly from the real existent type to that of the "abstract" and "unattainable" concept, which we term race. And we see that, after all, both Deniker and his opponents are right in fact; they differ only in their use of this single word.

The primary reason why, we affirm, Deniker has not carried his analysis far enough really to have discovered "races" lies in his neglect to eliminate all the modifying influences of environment, physical or social; of selection in its various phases; and of those other disturbing factors; which, together with the direct and perhaps predominant influences of heredity, constitute the figure of man as he stands. Wherever Deniker has spied a more or less stable combination of traits, he has hit upon it as a race, to paraphrase a well-known injunction. It is a case of too devoted attachment to the school of Broca; to the neglect of the admonitions of the followers of Villermé. If a certain group of men be discovered short of stature they are at once assumed to be so by virtue of heredity. This is not always the case. For example, on Deniker's map of races, a "Vistulan" sub-type, so-called because of its prevalence among the Poles, is set apart because of its very short stature; from the main body of the Russians, who are termed "Oriental" by race. Is this justifiable ? Consult Zakrezewski's fine monograph on this country,<sup>1</sup> and it will be seen that the apparent short stature of the Poles is largely due to the presence of a vast horde of Jews, who by their inter-marriage have depressed the average for the country unduly. Is this mere political chance, the result of a few decrees of the Polish kings, to be allowed to father even a "sub-race"? Make allowance for this, and the Poles, it seems to us, fall at once into their proper place among the other Slavs.

A number of modifying factors are competent to effect a change of stature in a group of men. Deniker disregards this fact. Because of local differences of stature all through the brachycephalic middle zone of Europe, this great population, which has more and more universally been recognized as fundamentally a unit by descent from a broad-headed Celtic (?) ancestry, is by Deniker broken up into a number of sub-types. Wherever the broad-heads happen to be tall, they are set apart from the "Occidental" (Alpine) race by our author, and attributed to the "Adriatic" race, that darkish, very broad-headed, but, in contradistinction to the other brachycephals of central Europe, very tall type which certainly prevails in Bosnia, Servia and Dalmatia. Thus the proverbially tall population in the Rhône-Saone valley, which all other anthropologists since Broca have been content to consider tall by reason of an infusion of Teutonic blood from a Burgundian ancestry, is by Deniker attributed to the presence of this fardistant "Adriatic" or "sub-Adriatic" type. This is in utter defiance of geographical probability; it sets aside all historical evidence thus to herd the Burgundian and the Bosnian together. What if both are tall, brachycephalic and darkish in complexion? Is there no other explanation in natural science to be found? The Adriatic type is thus scattered broadcast all over Europe, by our author, wherever a darkish and broadheaded contingent happens to be tall. One bit lies isolated just east of the Black Sea; a second in south central Russia; and again in the lower Loire valley, in Provence, in Switzerland, in northern Italy. Call these "combinations," as we have said, if you please. Far be it from us to deny that they exist where indicated on the map. But who can say that the originally broad-headed peasantry in Burgundy are not tall because of the surpassing fertility and material prosperity of the Côte d'Or, with the addition perhaps of a strain of tall Teutonic blood, just as the Poles are stunted because of the intermixture with Jews? The two local anomalies are perfectly explicable by

Wzrost w Królestwie Polskiem (Zbiór wiad. do antrop. kraj., Kraków, xv, 1891, dział 2, pp. 1-39, with maps).

other means than to resort to the theory of race. That is the explanation to be adopted only when all environmental or other disturbing factors have been eliminated.

Just a word of minor criticism by way of interlude. Our author's map of the distribution of "races" seems to us a bit too minutely detailed to merit the fullest confidence. A little generalizing where specific data are not over-abundant would seem to yield a nearer approximation to the truth. Minute detail for outlying parts of the continent, where observations have been by scores and not by thousands, awakens distrust. Our author is fully acquainted with the best that is known; but even that is often little. His divisions of "races" is a bit too arbitrary, even if we view them only, as we have said, as "existent types." Thus his map of Spain shows the larger part to be constituted of his "Ibero-insular" race; that is to say, brunette, dolichocephalic, and undersized in stature. But his map shows also a number of regions in Spain where an entirely distinct one of his six main "races"-his "Atlanto-Mediterranean "-is indicated. Where is the division line drawn between "Iberoinsular" and "Atlanto-Mediterranean"? Judging by the tints of the map they are as different as their names. But compare this with Oloriz' map of the distribution of stature in Spain.<sup>1</sup> At once it appears that all provinces whose average stature falls below 1.65 are dubbed "Ibero-insular," classed, that is, with Sardinia, Corsica and Calabria; while all regions, quite the same in head form and pigmentation. characterized by a stature above this arbitrary line, become at once "Atlanto-Mediterranean." The continuity of type of the tallish population of Catalonia, along the east coast, is rudely interrupted in this way, as our map shows; and an appearance of disharmony, which not even Deniker himself would acknowledge to exist, is imparted to the map. One has no right to violate geographical probability in this way; a little healthy generalization would not have been amiss. In this connection, however, it should be said that our author has done well to emphasize elsewhere the radical difference in stature between these two varieties of what we have termed the Mediterranean "race." It is not easy to explain why the Corsican, Sardinian and Spaniard should be so many centimetres shorter than the Berber, when they all resemble one another so closely in other respects. Nevertheless, we find agreement among all the best authorities in affirming a substantial unity of origin of the two. Whether the divergence of stature be due, as we hold, to a degeneration attendant upon a too protracted civilization in Europe, to the evil effects of a long-continued survival of the unfittest through military selection, or to the depressing influences of malaria, and an unfavourable environment in Corsica, Spain and Southern Italy, no man can say with surety. We admit the fact of differences of stature, then; but we object to drawing the line at precisely 1.65 metres, and we believe the inclusion of both groups in a single all-embracing Mediterranean or Iberian "race" to be justified by the facts.<sup>2</sup>

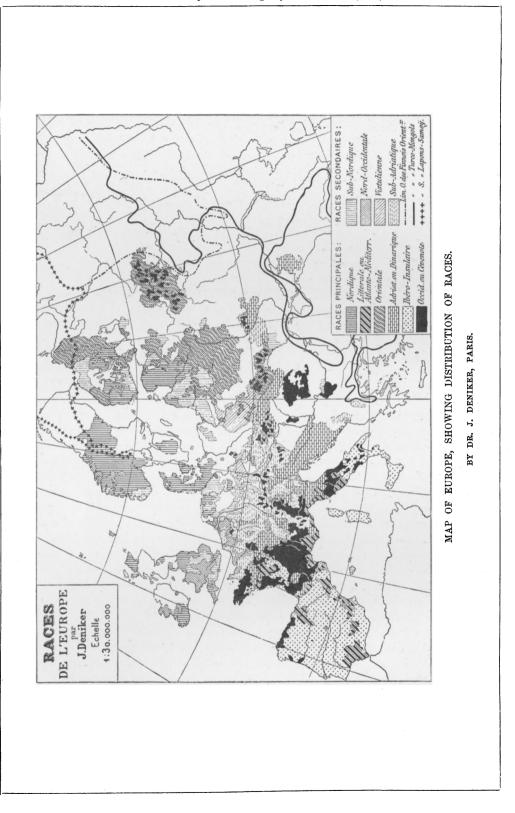
In eliminating all efficient factors save heredity, and in keeping an eye upon geographical probabilities, we have taken two of our three steps toward the scientific constitution of real "races" from Deniker's "existing varieties" of man. Now for the last. A "race" has been defined as an "hereditary type." Has our author

<sup>1</sup> "La talla humana en España," Madrid, 1896.

<sup>2</sup> A more logical division, if one is to be made, seems to be Colliguon's. He distinguishes the Cro-Magnon and Iberian types, relying therefor upon cranial differences and not those of stature alone, which latter are so open to the modifying influences of environment. (*Les sciences biologiques*, à la fin du scie siècle, 1893, p. 300.)

neglected this factor of heredity? Or has he merely hit upon transitory compounds of human traits? He is too keen for that. Fortunately, also, men considered in the mass are never fickle in this respect. They betray a marked persistency, even in their minor combinations. But it seems to us, nevertheless, that Deniker might have simplified his scheme by going back, even of his *immediately* hereditary combinations, to the consideration of at least penultimate derivation. We may rid ourselves of troublesome compounds of traits oftentimes in this way. Thus in Alsace-Lorraine there certainly is a peculiar persistence of a very tall, blondish, but anomalously broad-headed population. This is so marked that Dr. Collignon, prime authority upon the region, dubs it, with reservations, a Lothringian sub-race. Heredity is at work, for we know that this type has lasted in this locality for a number of generations at least, with some approach to constancy. But the consistent evolutionist must go behind this evidence. He must somewhere find an origin for this combination. It is not enough to affirm that it exists to-day. That is merely to dodge the issue of descent entirely. To stop here is to imitate Agassiz and the early systematists. We must cast about for affinities. Here we touch, as it seems to us, the tap root of Deniker's evil. The eye has been blurred by the vision of anthropometric divergencies, so that it has failed to note similarities. Wherein. for example, does this peculiar type of Alsace-Lorraine touch the neighbouring ones? Do not query yet as to the amount of its difference from its neighbours. Does it not in its tallness of stature show a distinct affinity with the "Nordic" or Teutonic type? Forget for the moment that it differs from it in head form and less so in pigmentation. Turn, on the other hand, toward central Europe; there you find a distinct point d'appui in the broad heads and grey eyes of the Alpine peoples. Collignon finds an explanation for the Lothringian type in a cross of this kind between two primary races. One confers its stature more largely than other characteristics; it betrays a distinct persistency in this respect. The other primal element has endowed the cross with its peculiarities of head form. Unless, in this way, we turn the pages of the book backward, we are speedily confronted with the endless varieties of the mere systematist. The broader our range of observation, the less do we clearly see. This, then, is perhaps the real fault of our author in his magnificent contribution. He certainly gives us one of the most complete pictures which we yet possess of the present anthropologic composition of Europe; but he leaves us more in the dark than ever as to the primary relation of the various parts to each other. Of course, if one be willing to accept the views of certain authorities as to the absolute immutability of certain morphological types, this scheme of Deniker's needs no further simplification. Those, however, it seems to us, are at variance with the whole evolutionary hypothesis.

Analyze our author's scheme in the way we have indicated, and we may, it seems to us, greatly simplify his elaborate classification. Even in the course of this hasty criticism we have incidentally stated what seem to us to be sufficient reasons for merging his "Vistulan" race in the "Oriental"; and for combining his "Ibero-Insular" and his "Atlanto-Mediterranean" into one. This reduces the number of his races to eight. Combine his Nordic and sub-Nordic, his Adriatic and sub-Adriatic, and we come quite near the three, or, as we have said, more probably three and onehalf races, whose existence is acknowledged by the great majority of the best authorities to-day. It is comparatively simple to dispose of the rest in like fashion, especially in the light of recent archeeological research; to discover such intimate relationships as to quiet our minds as to their primary derivation from the common sources. Only one great, insurmountable obstacle stands in the way of the ardent



evolutionist who would finally run even the three primary types to earth in the far distant past. How shall we ever reconcile the polar difference in every respect between the broad-headed Asiatic type of central Europe and its two dolichocephalic neighbours on the north and south. Suppose, as we have done,' that even these last two finally are traceable to a common African source, are we to confess the existence of two distinct and primary forms of the *genus Homo*—one Asiatic and one African ? are we to deny, in other words, the fundamental unity of the human species ? We are entering upon the field of speculation pure and simple. Only by the establishment of a broad and secure base of intellectual supplies in the detailed analysis of the present living populations can we hope to assure the safety of such expeditions into the remote past. We need, first of all, a complete knowledge of the living populations of the earth, with all their variations. Deniker has afforded this more thoroughly perhaps than any anthropologist heretofore for Europe. He has certainly cleared the way for all future investigators. To him all scientists should be duly grateful for this service.

Boston, Mass., U.S.A.

WILLIAM Z. RIPLEY.

## Explanation of Plate XV.

Map of Europe, by Dr. J. Deniker, showing the distribution of Races and Sub-races according to the author's scheme of classification. Reproduced by kind permission of the author.

EXCAVATIONS IN CRANBORNE CHASE, NEAR RUSHMORE, 1893-96. By Lieut.-Gen. Pitt-Rivers, D.C.L., F.R.S., &c., Vol. IV. (Printed Privately, 1898.)

This magnificent volume forms a worthy companion to the three preceding instalments of General Pitt-Rivers's great work, descriptive of the researches which he has so successfully carried on for many years in Cranborne Chase, on the borders of Dorset and Wilts. By way of Preface, the author has re-produced, in an amplified and illustrated form, the admirable Address which he delivered last year as President of the Local Meeting of the Royal Archeological Institute, on the occasion of its visit to Dorchester.

Whilst the previous volumes of General Pitt-Rivers's work related to excavations in villages of the Roman period and in tumuli of the Bronze Age, the present volume deals chiefly with the examination of certain enclosed entrenchments, or so-called camps, of the Bronze Age, and with the opening of a Long Barrow, believed to be of Neolithic Age. Four square-shaped camps were fully investigated; and the explorer, with characteristic thoroughness, dug each camp completely over—the ditch, the rampart and the internal space being alike excavated.

The first entrenchment here described is known as "South Lodge Camp." The ditch, though more than six feet deep, was completely silted up, whilst the rampart had been lowered by denudation, so that the relief of the entrenchment was very slight. Among the objects found at the bottom of the ditch were a so-called bronze razor, a bronze awl, and an urn of the Bronze Age: then, a little higher up, were discovered another razor, a bracelet and a bundle of wire, all of bronze ; whilst, quite near the top of the silting and immediately adjacent to deposits of Roman date, was a bronze looped spear-head, of late Bronze Age. In the rampart nothing bat relics of the Bronze period were found.

<sup>1</sup> "The Racial Geography of Europe"; xii, "The Aryan Question" (Popular Science Monthly, lii, 1898, pp. 304-322).