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Cretan Palaces and the Aegean Civilization. II

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CRETAN PALACES AND THE AEGEAN CIVILIZATION. II.

IN my previous paper¹ on Cretan Palaces and the Aegean Civilization I sought to give a general account of the architectural evidence resulting from excavation, in its bearing on the disputed question as to the continuity of Aegean culture throughout the course of its development.

It will now be advisable to consider the problems involved on a wider basis, in the light of the objects other than architectural, found in Crete and elsewhere in the Aegean world.

The Carian Hypothesis as to the Origins of the Aegean Civilization.

That the implications of the question are of an ethnological character will at this stage in the inquiry be generally admitted. And here it will be convenient to take as our point of departure a standpoint that may now perhaps be regarded as pretty general, though negative in its bearings, and which is to the effect that the originators of the Aegean civilization, at any rate in its pre-Mycenaean phases, were not 'Achaeans' in the vague general sense of being a people from the mainland of Greece. But the attempt to give a positive form to this conclusion has led to the revival of an old hypothesis which is perhaps not so entirely out of date as has lately been supposed.² According to this hypothesis, the originators and representatives of the Aegean civilization were Carians from south-west Anatolia, and it was they, according to Doerpfeld, who built the earlier palaces of Crete. The later Cretan palaces, on the other hand, according to the same authority, were built by people of Achaean, and so of Hellenic race.³

¹ See *B.S.A.* xi. pp. 181 ff.

² See some strictures in this connection by Mr. H. R. Hall in *Clas. Rev.* xix. 81.

³ *Athen. Mitt.* xxx. 258.

It is surprising that this 'Carian hypothesis' should still continue in its old form to bear authority, considering that in recent years the results of excavation over a wide area in the eastern Mediterranean Basin have contributed so much to transform previous conceptions; we now see more clearly what were the real ethnological connections between the pre-Hellenic peoples of Anatolia and those of the Aegean and Greece, in the period preceding the era of Hellenic migrations into the Aegean world. Doerpfeld in this connection refers to the speculations of Ulrich Köhler, who at an early period in Mycenaean research sought to bring the Mycenaean civilization into connection with the Carian sea-empire.¹

As regards the latest phase of this civilization, Doerpfeld prefers his own hypothesis of an Achaean origin. This fact—especially in view of the great anachronism involved in the original theory—is sufficient justification (if any were needed) for subjecting the whole of Köhler's theory to criticism in the light of recent discovery.

It would lead us too far to go into any detailed account of the evidence resulting from these researches. Accordingly I shall content myself here with restating the chief conclusions arrived at in the course of them.

The explorations of Paton and Myres in south-west Anatolia, which for our purpose come first in order, have made it highly probable that 'Caria was, in fact, so far from spreading the Mycenaean civilization among the islands, in Crete, or in Greece, that it only felt its influence towards the close of the period, and, like Cyprus, retained and adapted it when it was already becoming extinct in the Aegean. The theory, therefore, formerly proposed by Köhler and Dümmler, that Mycenaean civilization originates in Caria, and represents the Carian thalassocracy of Hellenic tradition, would seem to interpret such a series as that at Assarlik in exactly the wrong direction.'²

On the other hand, the explorations in question, while they disprove the suggested Anatolian origin of Mycenaean civilization, do not support the further thesis that the pre-Hellenic non-Aryan peoples of Caria and adjoining regions (until we get as far afield as the Hittite country) had no racial affinity whatever with the pre-Hellenic and non-Aryan inhabitants of the Aegean.

The tendency of the most recent discoveries in the Aegean itself points

¹ *Athen. Mitt. ibid.* 288.

² *J.H.S.* xvi. 270.

in the other direction. The Eteocretans, with their very apparent pre-Hellenic linguistic affinities, appear no longer as an isolated phenomenon in Crete. The linguistic importance of the inscribed tablets of Knossos and H. Triada must be taken in connection with the general import of the other evidence; and we then perceive that the Eteocretans and their language belong to that wider context of Aegeo-Cretan culture for which the momentous discovery of the prehistoric script of Knossos now affords a real basis. The incised signs of a connected character found on pottery of the First City at Phylakopi in Melos, date back the origins of such writing in the Aegean with the time of the Early Cycladic culture, which cannot be much later than the fourth millennium B.C.; a unity of language (judging from the analogy of Melos) which would extend to different parts of the Aegean and would be left as a heritage from the Neolithic era, would naturally presuppose racial unity extending over the same area and period. Unfortunately linguistic data from excavation on the mainlands of Greece and Anatolia, such as would help to bring us back to so remote a past, are still lacking. In this connection, however, on the Anatolian side the pre-Hellenic inscriptions of Lycia and the script of the Hittite culture present phenomena that cannot be left out of account in relation to the question of linguistic affinities in the Aegean.

Meanwhile it has been possible to attack the problem from the point of view of comparative philology, as has been done by various scholars. It was a great step in advance when philological research made it appear probable that on the mainland of Greece, in the Aegean (notably Crete) and in Asia Minor there existed certain common pre-Hellenic, apparently non-Aryan and non-Semitic elements in Hellenic speech; and that these, (to judge especially from certain anomalous phenomena in place-names), could hardly be explained except on one hypothesis; namely, that a pre-Hellenic, non-Aryan and at the same time non-Semitic language must have been current in different dialectical variations over areas so far apart as the lands of Hellas and the Hittite country, in the prehistoric period preceding the era of Greek migrations from the north.

In this connection much has rightly been made of Mayer's suggestion regarding the words *λάβρυς*, *Λαβύρινθος*, *Λάβρανδα* as probably being linguistically related words, which Kretschmer again claims as of non-Hellenic pre-Aryan origin. But when, with the designation 'pre-Aryan,' the specific identification is made which would assign the root-word to a

Carian origin, the stage in inquiry has evidently been reached when the question has to be asked: by what philological process has it been possible to arrive at a definite degree of probability in favour of a Carian origin for the root in *Λάβρανδα*, such as would exclude a genuinely Cretan origin for the cognate root in the word *Λαβύρινθος*? The roots may be cognate without there having been derivation one way or the other. Similarly the cult of the God of the Labrys or Double Axe, which was common to Caria with Crete, does not necessarily lead us to the assumption of derivation either way. On the hypothesis of racial affinity between the people of Caria and the prehistoric inhabitants of Crete, the cult of the divinity in question may be native to south-west Anatolia, equally with Crete, without any need for the perilous assumption that it was from Caria the divinity passed to Crete. If the assumption of derivation one way or the other were to be at all admitted, the probability in the circumstances would appear more feasible were the derivation regarded as having been the other way about. In the palmy days of the Aegean polity, Caria was as outlying and provincial in relation to the sea-empire of Crete as was Pelasgian Thessaly. To derive that polity from Carian Anatolia is hardly more feasible than to deduce it from previous conditions that existed in Pelasgian Hellas, and we know already, in relation to the history of Cretan palaces, at what point the Pelasgians probably came on the stage of Cretan history.

But the mention of Pelasgian Greece, of Minoan Crete, and of Carian Anatolia, in a connection which would exclude any hypothesis as to the derivation of the Aegean civilization one way or the other, does not equally exclude the possibility of racial affinity between the peoples of the provinces in question.

It is here that recent philological investigations, notably by Fick, come in to make such affinity seem highly probable.¹ The tendency of these researches has been to bring out into clear relief the cognate character of the linguistic phenomena in a sense which, at the present stage, is inimical to hasty speculation as to the direction taken by racial migrations one way or the other.² The question of fact as to the geographical distribution of

¹ *Vorgriechische Ortsnamen*, pp. 1-5 and *passim*. Conway, *B.S.A.* viii. 125-156, 'The Pre-Hellenic Inscription of Praesos,' makes what, in view of Fick's conclusions, must be regarded as an unsuccessful attempt to show the Aryan affinities of Eteocretan.

² Fick himself is hardly discreet in this connection, when he would account for the dynasty and following of Minos by the hypothesis of a later migration into Crete of a people from south-east Anatolia cognate with the original Eteocretans of the island. See *ib.* 37.

allied races over different areas should always take precedence of the more remote, and therefore more risky, inquiry as to the migratory movements of such allied races which may be taken to have led to this distribution. The special circumstances of racial affinity are here indeed such that we must not make the transition from the ethno-geographical use of the word 'Carian' to a signification which would presuppose a migration of actual Carians in prehistoric times into Crete without extreme caution; since we probably have here an instance of two cognate non-Aryan peoples coming into contact and yet arriving by opposite ways from a common home, which may have been in Africa. In this way the development of separate institutions in polity and of dialectical variations in language, may well in prehistoric times have gone on independently though parallel lines, such as would not at all necessarily presuppose the actual presence of Carians in Crete or of Cretans in Anatolia in any period of Aegean culture. The same set of probable relations would in that case hold of the rôle played by Pelasgians in prehistoric Hellas. It is in this connection that the special value of the philological researches carried on by Fick comes in. Accordingly, if the roots in such words as *Λάβρανδα* and *Λαβύρινθος* and the place-names instanced by Fick are not more distinctively Carian than they are Cretan or Pelasgian, then the designations 'kleinasiatisch' and 'Asianic' must not be given a meaning which would conflict with such a designation as, for example, 'Eteocretan' for the primitive language of Crete, or 'Pelasgian' for the pre-Hellenic speech of Hellas.¹

It is in this way that the results of the philological researches of Fick, following on those of Mayer, Kretschmer, and others, have done so much to supplement and correct previous conceptions as to the bearing of the Carian evidence. Thus, as indicated already, though it is still possible to agree with Paton and Myres that Caria in itself cannot be made responsible for any phase of Aegean civilization, it can no longer be held with them that the pre-Hellenic, non-Aryan and non-Semitic races of southern Asia Minor, from Caria to the Hittite country, had no affinity with the pre-

¹ See H. R. Hall on 'The Two Labyrinths' (*J.H.S.* xxv. 323). The designations 'kleinasiatisch' and 'Asianic,' as well as other statements in the passage cited, would seem to indicate an underlying belief on Mr. Hall's part that the primary movement of the Aegeo-Pelasgian people was from an initial centre of departure somewhere in Asia. Even Fick continues to behold one last vestige of the same oriental mirage. The initial racial movement which led to the Aegeo-Pelasgian culture would, according to Fick, have to be assigned a starting-point at some centre in Asia beyond the Hittite country.

historic people of the Hellenic seas who were really responsible for Aegean culture.¹

All the indications then are in favour of Fick's conclusions as to the linguistic and racial affinities, with dialectical and local variations, existing between the Carians and allied races of Asia Minor and the pre-Hellenic people of the Aegean. And if further, with Paton and Myres, we place the first hegemony of Carians on the coasts of south-west Anatolia in post-Minoan times, we shall be able better to understand the indications as to the probable trend of events in the era previous to the formation of the Carian League; with this in view we can neither ignore Aegean influence on the Anatolian littoral at the time of the break-up of Aegean culture, nor can we, admitting the racial affinity of the Carians and allied Anatolian peoples with the Aegean race, regard them in all essential respects as the givers and not the receivers in their relation to the peoples of the West. The characteristic feature of the Carian League is that we see here a ruling race and dynasty which, although allied by race with the prehistoric peoples of the Aegean, had little intimate knowledge of marine affairs; and which, in order to assert its hegemony at sea, must needs have contact and fusion with a race dwelling on the shores of Asia Minor; and this race even in post-Minoan days always remained a people of the sea. The more permanent elements of continuity in culture were supplied by the old Aegean race. It is thus we have to account for the Aegean factors in art and civilization in the sphere of influence covered later by the new League in the eighth and seventh centuries B.C. It is in this way, for example, that the post-Mycenaean pottery of this region, as recent researches have taught us, is found to preserve so many elements of genuine Minoan style.² The impetus given to survival, through the process of organic disintegration and translation into a new environment, was enhanced and reinforced by the fact that the new though allied elements of race, while supplying the dominant force now in the field of enterprise, had been largely and for long the recipients in relation to the old elements of culture.

The underlying fact of racial affinity, we may be sure, facilitated, in the period which led to Carian hegemony, a process of give as well as take.

¹ See *Excavations at Phylakopi*, 243, where under the influence of these earlier conceptions I have characterized the Carians as a foreign race. I should say now that Carians and Cretans were foreign to each other somewhat in the same way as the Dutch and English.

² See *J.H.S.* xxiii. 178-9, note 20.

It is thus we have to explain the later brotherhood in religion. The cult of the God of the Double Axe, as we saw reason to conjecture, was no more intimately native to the Carians in the period preceding their hegemony than it had been in Crete in the era that preceded the break-up of the Aegean polity. As an outcome of the fraternization of the Carians with the Aegean 'Lelegians' it was but natural that the cult of the God of the Double Axe should have become part of the official religion of the new Caria on the conclusion of the Carian League

It is highly improbable that people of actual Carian race could themselves have played any dominant *rôle* in the Aegean previous to the conclusion of the Carian League; on the contrary, we find that this league itself presupposes the concurrence of influences that themselves were derived from the Aegean; this must have taken place before the first hegemony of Carians or the first appearance on the shores of Anatolia of those early settlers of Hellenic race who themselves were the other party in the Carian League. On their first appearance on the stage of history the movement of the Carians towards expansion was in the direction of the Hellenic seas, but they attain to hegemony on the shores of the Aegean too late to account for any phase of Aegean civilization. The latest wave of Minoan culture in its movement eastward had long ago found a home in the Sporades and in Rhodes; and in the post-Minoan era Aegean tradition had already found a new environment towards survival in Samos, Rhodes, and in the adjacent Anatolian coast regions, by the time the Carians attained to predominance in Myndos, and long before there was any word of such an event in history as the formation of the Carian League.

The events which followed the break-up of the Aegean polity form at the same time the opening chapter in the history of a new Aegean culture.

The tide of mainland influence from Greece, determined as that was by causes beyond and behind itself, was of persistent and continuous force. A process of immigration from Greece into the Aegean that, as in my former paper I gave reasons to conclude, began with a wave of Pelasgian wanderings, conditioned emigration thence in turn on to the Asiatic coast.

The process of organic race-severance in the course of this southward and eastward movement, with transference into a new medium consequent on the break-up of the Aegean polity, was undoubtedly favourable to the

survival of Minoan forms of life in the isolation of a new home. In this process of organic separation, the Sporades, as we have suggested, must have played a dominant part along with Rhodes and the Anatolian littoral. The new centre of life presupposed by the Carian League was found in that region of south-west Asia Minor—the later Myndos—which had received its earlier name of Lelegia from earlier settlers from the West.

In the fulness of time, the tidal flow of immigration from the mainland of Greece brought with it in their turn the first Hellenic settlers to the Anatolian shores, and the environment they found around them was one prepared, in the long interval succeeding the break-up of the Aegean polity and preceding their own arrival, by the concurrence of influences that were only partly Asiatic and were largely of the Aegean. It was with these Hellenic settlers that the Carians, with the help of the now subservient tribes of Aegeo-Lelegian race, formed the Carian League of early Ionic history. But the really dominant influence in the earlier culture is clearly traceable in the one set of phenomena that has been carefully observed: the special characteristics of the early Hellenic pottery belonging to the sphere of influence covered by the Carian League.¹ We now know the true original source of the Minoan survivals in details of ornament which form so remarkable a feature of that pottery.² That source can be as little sought in Caria as the Carian League itself can be shifted back some thousands of years in history to account for the origins of the Aegean civilization.³

The Aegean Race and the Aegean Civilization.

The general results of excavation in the Aegean, culminating in those of Crete, have given a new starting-point to research as to the origins of the Aegean people.

Following the previous investigations of Dümmler, himself one of the earlier supporters of the Carian hypothesis, came the diligent researches of Dr. Tsountas in different islands of the Cyclades. As a happy

¹ See Boehlau, *Aus Ion. u. Ital. Nekropolen*, 61 ff.

² *Ibid.* Figs. 25, 26, 29a, 30. Taf. ii. 5, iii. 1, 3. *J.H.S.* xxiii. 179, note 20, where however '29' has been misprinted for '29a.'

³ This is what Doerpfeld does when, *ib.* 290, he says that for present-day research, with its gradual accumulation of new material for observation, it can no longer be doubtful that the early Cretan civilization 'die Kultur jener Karischen Seeherrschaft oder kurz die Karische Kultur ist.' The anachronism involved is evident.

culmination to those investigations in the Cycladic area followed the excavations of the British Archaeological School at Athens, at Phylakopi in Melos. These excavations, at what is perhaps the most important Aegean site in the Cyclades, revealed a regular sequence in the succession of settlements, in the light of which it was now possible to see the results of earlier researches in the Cyclades in their true prehistoric perspective. Then, as a result of international co-operation on a great scale, came the series of brilliant discoveries in Crete to confirm the reasonableness of previous conjecture as to the true centre of Aegean culture. In this connection it was no wonder that the Cycladic sequence, from the end of the Neolithic Age onwards, should have but found its final luminous illustration in the parallel sequence of development in Minoan Crete.

Research in the Cyclades, while tracing back the origins of the Aegean civilization to the borders of the Neolithic Age, nowhere yielded results that could throw any light on that previous era itself. Yet from the Early Cycladic era onwards, the continuity of development, revealed as a result of excavation more especially at Phylakopi in Melos, was such that there could be no longer any doubt whatever that the originative centre of the Cycladic civilisation was to be sought in the Aegean itself, not in any outside area. This result, however, left untouched the previous question regarding the origin of the Aegean race itself. Yet in view of these researches there could be no further doubt that the investigations of Messrs. Paton and Myres, already referred to, only received new confirmation in the absolute exclusion now of one special hypothesis in explanation; the Carian people, as we have seen already, could not be supposed to have arrived in the Aegean in an era previous to that of the earliest cist-tombs of the Cyclades, without employing an anachronism which flatly contradicts the evidence as to the late hegemony in culture and politics of that people on the coasts of Asia Minor.

Then it was that in the first year of the excavations at Knossos came a discovery of the greatest importance in this connection: that of the Neolithic People of Crete. The far-reaching consequences that follow from this discovery cannot easily be overestimated. To realize this, we have only to recollect that the Neolithic town of Knossos, at the centre of which in a later era were built the royal palaces, has a uniform stratification varying from six to eight metres in height before we come in sequence upon remains that can in any way be co-ordinated with the earliest

finds from the Cyclades : those of the cist-tombs. But the sequence is undoubted, and the transition is made without perceptible break in many successive stages.

When once Crete had revealed the existence of a remote past behind the Early Cycladic era, it was clear that any hypothesis as to the origins of the Aegean people must take as its starting-point the beginning of the Neolithic Age.

In relation now to later development beginning with the Early Cycladic era, or what with regard to Crete has been termed the Early Minoan Period, it is only natural, apart from any question of scientific method, to seek the explanation of this later development in the first instance in the light of what went before it on the spot, before we proceed to seek the help of any hypothesis of external derivation in explanation of the phenomena. Not only so, however, but scientific method itself is in favour of exhausting all the possibilities of the internal explanation of pre-historic development, before the processes of elimination themselves compel us to seek an explanation of any residual phenomena inexplicable from within, on the hypothesis of racial influence on race-movement from without. The presence of a Neolithic people in the Aegean in the age preceding the Early Minoan era in Crete, presents a real factor or moment in racial evolution on the spot which is presupposed in all the later development. Against this real moment in the initial stages of development any mere hypothesis as to later derivation from without, which takes no account of this factor, has to be ruled out of court. At every later stage in inquiry we have to be on our guard against admitting any such hypothesis of derivation from without, as long as the conception of internal development continues to stand the test in explanation of the phenomena. Thus when we come to the Early Minoan Age, we must not have recourse to the hypothesis of migration from without in explanation of the phenomena, until we have exhausted all the possibilities of explanation supplied by the presence of a Neolithic people on the spot. When once in Crete we have come into touch with what is so apparently the centre of the Aegean civilization, we have to admit the theory of race-immigration and invasions only as a last resort, in explanation of any residuum of phenomenon not explicable on the hypothesis of development from within.

At Knossos then, when we come to the Early Minoan era, we have present as a prior factor, and so as a condition of all later development, the

Neolithic people of Crete. And we have the presence of the same people already verified at Phaestos and again at one extremity of the island in the neighbourhood of Palaikastro in East Crete.¹

In all these instances of the presence of this people, what we have got is the evidence afforded by the remains of settlement. Burials have not as yet been discovered, and thus the more precise evidence afforded by the observations of burial customs is as yet lacking. For the same reason it has not yet been possible to have the further aid of craniological observation. Accordingly, we are practically limited to observation of the finds from the settlement-deposits. But those are of so massive a character and present so gradual a process of accumulation in the standard case of Neolithic Knossos, that certain definite fundamental results come out with uniform and consistent clearness.

1. There is no doubt whatever that we are still in the Age of Stone, and there is a complete absence of all metals. 2. The uniform character of the stratification, allowing for the gradual processes of development, as illustrated by the gradual progress in ceramic evolution, is in itself evidence that we have here to do with one practically unmixed race-substratum from beginning to end. 3. At the end of the deposit-series, as judged by the pottery, there is a gradual transition to the earliest phases of the series which follows, and which begins in the 'sub-neolithic' period without any apparent break in the processes of development, as judged again by the one set of data that is always present: the pottery.² One phenomenon of constant though rarer occurrence in these deposits is of the highest importance in the light of later development. This is the occasional presence of female images in the same incised clay as the pottery,³ which, allowing for differences of outward appearance, largely owing to the special difficulties presented by difference of material, are undoubtedly the prototype of the female images that play so prominent a rôle in deposits of a later time in the Aegean, beginning with the Early Cycladic or Early Minoan era.⁴ Not only so, but in the

¹ By Mr. R. M. Dawkins while working for the British School. See *B.S.A.* xi. 260-8.

² For a summary account of the Neolithic pottery of Knossos see *J.H.S.* 158-164 and Pl. IV. 6-31. Fragment 19 is Early Minoan. The Neolithic pottery of East Crete is described and illustrated in *B.S.A.* xi. 264-5, Pl. VIII. Nos. 24-31, and Fig. 3.

³ For a female image of this kind from Neolithic Phaestos see Mosso, *Escursioni nel Mediterraneo e gli Scavi di Creta*, 214, Fig. 119. The Knossian figurines await publication.

⁴ See *B.S.A.* vi. 6.

later transitional strata and apparently overlapping with these clay figures, occurred in fine alabaster a squat variant of the clay images, as well as a flat fiddle-shaped variety in the same material, which to all appearance stands in a parental relation to the somewhat similar images found in early Cycladic tomb-deposits.¹

The best known and most developed 'Cycladic' type of female image does not in its actual Cycladic shape go back to Neolithic deposits in Crete. But in the immediately succeeding era it need no longer be regarded as a stranger there, since its occurrence in the well-known Hagios Onouphrios deposit from near Phaestos and at Siteia,² has been followed by its presence in the important Early Minoan tholos-tomb discovered by the Italians at Haghia Triada³ and again in the somewhat later necropolis of Koumássa near Gortyna.⁴ Indeed, notwithstanding the apparent antithesis of shape that emerges at the end of the series, the squatting clay images may themselves be the originals of the flat Cycladic type, a middle link being probably preserved in the hideous half squatting varieties. A reminiscence of the squatting seems still preserved in the zigzag profile with out-bending knees, characteristic of all but the very latest of the erect variety. Not only so, however, but the most typical squatting images of the Neolithic deposits probably have a more direct relation to the squatting women seen in representations of a later time. Thus the incised ornament on many of these steatopygous clay images, taken in combination with the voluminous appearance of the lower part of the figure, may indicate an attempt to render the characteristic loin-cloth skirt-costume of Neolithic women squatting on the ground. In that case these women, with the suggestion they convey of primeval African customs, would be the true ancestresses of the elegant gowned women

¹ The squat clay figures when seen *en face*, themselves give the outline of the most typical 'fiddle' shapes.

² See *Cretan Pictographs*, 126, Figs. 129, 131, 133-4. As Dr. Evans says, they 'are of essentially the same class as those found in Amorgos and other Greek islands.'

³ See *Memorie del r. Istituto Lombardo*, xxi. Tav. xi. Fig. 27, 13, 14, in the series. Prof. Halbherr here rightly emphasizes the Libyan affinities of the great majority of the tholos figurines. See *ib.* 251 and note 1, where the apt comparison is made with the similar 'figurine antichissime dell'Egitto . . . trovate dal Flinders Petrie, il quale vi ha appunto notato "the domed head and the pointed chin of the prehistoric people."' *Man*, 1902, p. 17.

⁴ The finds from this necropolis await publication at the hands of its explorer, Dr. Stephanos Xanthoudides, Ephor at Candia.

of the Late Minoan era, who are seen squatting in portentous multiple skirts in the Miniature Fresco of Knossos.

It has already, however, come out, in the above reference to recent discoveries and their bearing in this connection, that our knowledge both of what in Crete coincides with the Early Cycladic era elsewhere, and of what in sequence fits on to that, has been very much widened since our first discovery in 1900 of the Neolithic people of Crete. Thus it is no longer possible to be misled into the statement that in any circumstances in which we have preserved to us a fairly complete record of gradual stratification, the deposits of the 'Kamáres' period are found to lie immediately above the Neolithic strata in Crete.¹ This it is possible now to affirm only of localities in which there has been either no Early Aegean settlement at all, or removal of this in course of the processes of levelling away, preceding new building operations. Misconception on this point has had the effect of making the 'Kamáres' or Middle Minoan civilization in Crete coincide roughly with what previously had been known as the Early Cycladic or Early Aegean culture. The resulting confusion of ideas has been very serious, and—to cite only one example—Dr. Hubert Schmidt makes the implications of the error in question a convenient support to a far-reaching hypothesis of his own as to the supposed northern affinities and connections of the Aegean civilization.² In refutation of this misunderstanding, it may be noted that one of the most remarkable results of recent Cretan excavation has been its bearing upon the question of the Early Aegean, Cycladic, or Minoan civilization. This civilization begins with the period of the earliest Cycladic cist-tombs (as illustrated by the cave-burials of Hagghios Nikolaos in East Crete³); it passes through the phase represented by the early Tholos of Hagghia Triada near Phaestos; and it ends with the era illustrated by the finds of Hagghios Onouphrios and again in the necropolis of Koumássa near Gortyna; we now perceive that the whole of it must be placed between the long Neolithic development and the 'Kamáres' or Middle Minoan Period. If this recession of our perspective is taken into account, it is clear that the southern series which centres in Crete cannot be made to fit on in sequence to the Hungarian

¹ See *J.H.S.* xxi. 78, for a statement to this effect.

² *Zeitschrift für Ethnologie*, 1904, *Troja—Mykene—Ungarn*, 608–56. See particularly for the repetition of the mistake referred to, page 650.

³ *B.S.A.* ix. 336–343, Figs. 1, 2.

one nearly so well as Schmidt is anxious to make it do. The extension indeed of our field of vision into the prehistoric past of Crete, thus opened up as a result of Cretan discovery, has consequences which as seriously threaten to reverse the conclusions arrived at by Schmidt, as they tend to confirm anew previous ones put forward in this very connection by Dr. Arthur Evans, as to the predominantly southern Africo-Mediterranean connections of the Aegean civilization, and, by implication, of the Aegean race.¹

Attention was drawn on a previous occasion to certain analogies between the Neolithic pottery of Crete and that of Pre-dynastic Egypt; and the hypothetical suggestion that followed such comparison was to the effect that the Cretan series, equally with the Egyptian, may have been the work of one original race, developing on gradually diverging lines in different environments.² Sicily again was found to present us with a very early Mediterranean ceramic series with characteristic white-filled incisions, the closest analogies to which as yet are furnished by the similar Neolithic technique of Crete. The Sicilian series again has turned out, as a result of special study, to present the same continuity in development from the Neolithic era onwards, which is so noticeable in the Aegean. The general tenor of my own observations on the point, in the course of a special journey to Sicily, turned out to be quite in harmony with those of Professor Petersen, who argues with great probability that Orsi is as little justified in making a racial break between his earliest, Sikanian, and his First Sikel Period, as Patroni again is, in making this racial division between the First and the Second Sikel Period.³ As regards the South Mediterranean connections of the prehistoric peoples of Sicily, a still more suggestive result is obtained by Petersen's further refutation (which in my opinion is conclusive) of Patroni's attempt to observe (at Matera) the Sikels on their way from the Italian continent to Sicily.⁴ The existence of 'Sikels' on the mainland would in that case be explicable as a case of northward movement from the south, which would have to be brought into some connection or other with the original Ligurian occupation of the Italian continent.⁵

¹ See *J.H.S.* xvii. 362-395.

² *J.H.S.* xxiii. 162-4.

³ See Petersen in *Röm. Mitt.* xiii. 171-191.

⁴ *Ibid.* xiv. 167-172.

⁵ Arthur Evans, 'Prehistoric Tombs of Knossos,' *Archaeologia*, 1906, 17, cites this evidence in a connection which bears in the same direction.

Speculations that lead us so far away from Crete as Sicily, might seem at first sight without a practical bearing for the Aegean area, were it not that investigations starting from the same point have already led inquiry still further afield; to the definite inclusion in the racial area of the Mediterranean of ethnological provinces so far apart as Egypt and Libya on the one hand, and prehistoric Morocco and Spain on the other.¹ It is not less symptomatic of the general tendency of the evidence when we find that Orsi, starting from the Middle and West Mediterranean provinces, makes a synthesis in his conclusions so wide as to include within the range and habitat of the Mediterranean race, inclusively of the North-African littoral, not only the prehistoric Iberian people of Spain and the Ligurians of Italy, but the Pelasgian race of the prehistoric Aegean world.² In so doing, however, Orsi is not content to rely entirely on the purely archaeological evidence; for he instances, as corroborative of his view, the anthropological conclusions as to the affinities of the Mediterranean Race.

The Mediterranean Race.

If we turn now to the Aegean and to Crete, we are confronted by the fact that there is as yet no craniological evidence regarding the Neolithic people of the Aegean. It is not a little remarkable that such evidence, when it begins to be available for the succeeding era, turns out to be entirely in harmony not only with Dr. Evans's views regarding the Egypto-Libyan connections of the Aegean race, but with Orsi's similar conclusions regarding the North-African affinities of the earliest people of Sicily. When head-types of the earliest known Cretan class—those from early Aegean or 'Minoan' deposits—become available for measurement, they are found to be of the same well-marked dolichocephalic 'Mediterranean' stamp as are those from the Middle and West Africo-Mediterranean provinces³: notwithstanding the widely current

¹ The reference is to Evans's 'Further Discoveries of Cretan and Aegean Script,' *J.H.S.* xvii. 362-385, 385-390.

² *Mon. Ant.* ix. 502-4. Orsi in this connection makes the island of Pantelleria, with which he is specially dealing, like the Straits of Gibraltar, one of the stepping-stones from the African continent.

³ Rendered familiar to us from the works, among others, of Sergi. Quoted also by Orsi, *ibid.* 503, note 1. See especially *The Mediterranean Race*. Sergi brings out similar results for Sardinia, see *La Sardegna*, 1-74.

scepticism in regard to the results of craniological investigation and the prejudice touching conclusions derived from statistical records, this must at least be regarded as a startling coincidence. Thus the skulls found at Haghighios Nikolaos, together with pottery which is assigned to nearly the beginning of the Early Aegean or Minoan series, show the distinctly marked dolicho-cephalic proportions that had already come to be regarded as characteristic of heads referable to the Mediterranean race.¹

If we now take this craniological evidence in connection with the data afforded by the pottery, we find that the indications thus afforded have an ethnological bearing of a startling character in another direction. Tod in his discussion of the pottery has rightly emphasized two points: firstly, the strong analogy with that from the earlier period of the Second City at Hissarlik; secondly, the more primitive appearance of the Cretan vases, with their close affinities in particular features with the pottery of the lowest stratum at Troy. When we find the Cretan pottery associated with dolicho-cephalic skull-types like those usually referred to the so-called Mediterranean Race, we seem to be distinctly on the track of an interesting conclusion as to the orientation of the race-movement which led to the first peopling of Hissarlik. On the other hand, the attempt has been made (notably by Hubert Schmidt) to derive the origins of the Early Aegean Civilization from the north.² In view of the new evidence from Crete, this hypothesis has three difficulties in its way: 1. The immensely more primitive character of the Neolithic people of Crete, in relation both to the Aegean people and to the earliest settlers of Hissarlik, makes it probable that they were in a relation of racial affinity to the ancestors of the earliest settlers of Hissarlik, and equally, that they were the actual ancestors of the earliest people of the Aegean. 2. The craniological evidence from Crete as to the southern (Mediterranean, and North-African) affinities of the Aegean people contradicts the hypothesis as to their northern extraction. 3. The more primitive character of the Cretan ceramic affinities of the earliest Aegean age with the earliest pottery of Hissarlik puts the outlying and seemingly derivative character of that, into an apparent relation with probable race-movements from the south which

¹ For a short report on this interesting discovery see *B.S.A.* ix. 336-43, 344-50. These remarkable results have all the more importance on account of the exceptional care with which both the excavation itself and the craniological observation of the remains were conducted.

² See *Zeitschr. für Ethnol.*, 1904, pp. 608-56.

would have touched Crete and the Cyclades before reaching outlying regions of the Aegean and Anatolian Littorals, such as in the fulness of time would have led to Pelasgian Hellas and to Troy. In its strongly pronounced Mediterranean affinities the pottery of Hissarlik is characterized by a thoroughgoing continuity of development from the First Settlement to the Sixth; and there is, apart from Mycenaean importations in the Sixth Settlement, no real break in this continuity until we come to the 'Buckel-keramik' of the Seventh Settlement, and the first probable appearance of people of Aryan origin on the stage of Trojan history.

In comparison with the remains from the deposit of Haghios Nikolaos, there can be no doubt whatever that the finds from the early ossuary discovered by the Italians at Haghia Triada near Phaestos, represent a considerably more advanced phase in the same Early Aegean Civilization in Crete. Yet here again the results of craniological measurement of a series of skulls from this ossuary, made by Sergi at Rome, show that the people represented by these remains have the same distinctly marked dolichocephalic characteristics as those of the Haghios Nikolaos deposit.¹

Somewhat later still in the Early Aegean series came the burials of the necropolis at Koumássa near Gortyna already referred to, and it can hardly now be regarded as an accident that one available skull from this site, measured by Max Kiessling of the Anthropological Institute of Berlin, proves, like the large majority of skulls from the other sites, to be dolichocephalic.

When we come to the succeeding Middle Aegean or Minoan Period in Crete to which the well-known Kamáres ware belongs, we find that the continuity with the previous era which is so strongly marked in the one set of data that never fails, the pottery, is more than confirmed again by the results of craniological research. Thus Duckworth, in summing up his conclusions regarding the skulls of the Haghios Nikolaos deposit, says: 'the net result, then, of my investigations is to indicate that the inhabitants

¹ See *Mem. r. Ist. Lomb.* Vol. xxi. Fasc. v. 252. 'I crani meglio conservati, e in parte portati al museo antropologico di Roma, appartengono,' Prof. Halbherr here writes, 'come mi comunica il Prof. Sergi, alla *varietà mediterranea* già nota, la quale comprende le forme ellissoidali, ovoidali e pentagonali corrispondenti alla misura craniometrica dei dolicomsocefali.' See Angelo Mosso, *Escursioni nel Mediterraneo e gli Scavi di Creta*, 265-281. Mosso here, page 273, note 1, announces that he is publishing a special work on Cretan craniology. His general conclusions coincide with those of Sergi referred to above.

of Crete who used the earthen vessels found at Hagios Nikolaos belonged to the same stock as those whose remains are found at Roussolakkos and at Patema, and that they are, like them, referable to the so-called 'Mediterranean Race.'¹ Now the ossuaries at Roussolakkos, though apparently going back in their first origin to the Early Minoan Period, have already, in regard to the great bulk of their pottery and other finds, been classified as belonging to the earlier part of the Middle Minoan Period (Middle Minoan I and II).² Another link in the chain of craniological evidence connecting the Early with the Middle Minoan Period in Crete is afforded by corroborative evidence from another quarter: the skull already referred to from the necropolis of Koumássa, which itself belongs to the latter part of the Early Minoan Period (Early Minoan III), was found by Kiessling to be of the same dolicho-cephalic type as the bulk of the skulls from the ossuary at Roussolakkos.

The Africo-Mediterranean affinities of Aegean Dress.

This cumulative evidence is now rendered still more interesting in the light of a discovery which has enabled us to ascertain how this Mediterranean people of Crete dressed towards the beginning of the Middle Minoan Age: I mean the important terracotta figurines³ from the Sanctuary-site of Petsofà near Palaikastro excavated and published by Mr. J. L. Myres. By means of these figurines the far-reaching ethnological sequence is established, that the main features of male and female dress at the beginning of the Middle Minoan Age is identical not only with that in use (as far as the women were concerned) at the end of this period, as proved by the dress of the Snake Goddess and her 'Votaries' of the Temple Repositories, but with that worn at the end of the later Palace Period as illustrated by the 'Cupbearer,' by the full-sized figures of men and women on the wall-paintings of the 'Corridor of the Procession,' by the crowds of the Miniature Fresco at Knossos,⁴ by the Harvest Procession on a steatite vase and the Ritual Scenes on the celebrated painted stone sarcophagus from Hagia Triada near Phaestos.⁵

¹ *B.S.A.* ix. 349.

² *B.S.A.* x. 194-5. Mr. R. M. Dawkins, who has examined the pottery of Roussolakkos, rightly emphasizes the fact of continuity in this very connection. See also *ibid.* 26.

³ *B.S.A.* ix. 356-57, Pls. VIII.-XIII.

⁴ *B.S.A.* vi. 15-16, 12-13, 46-48.

⁵ *Mon. Ant.* xiii. 78-131, Figs. 1-4. Tav. i.-iii., xiv. 713-19. *Rendic. Lincei*, xii. 343.

If we now take the normal dress of the men, we find that this consists essentially of a loin-cloth dress, of which the use is now proved by the Petsofa figurines to go back to the beginnings of the Middle Minoan Age.¹ That is to say : the people who used this article of attire are of the same Mediterranean stock as those whose remains and pottery were found in the already mentioned ossuary of Roussolakkos of the same period. Having, however, once got so far, we can safely conclude that it must have been equally in use by the people of the same race, and of a still earlier age whose remains and pottery were found at Hagios Nikolaos. Thus we are, brought back, with an extremely primitive article of dress, to the borders of the Neolithic Age. If this is so, we need not be misled by the extreme elegance of the loin-apparel worn by the young courtiers of the Palace at Knossos and attempt to seek a foreign oriental derivation for, and adoption of, an article of primitive attire which the Neolithic people of Crete probably brought with them from their original home.²

Now it is notorious that the characteristic male attire of Egypt from the earliest dynasties onwards, was a loin-dress of essentially the same general character as that of the Aegean in pre-historic times ; and notwithstanding the many vicissitudes of fashion of later times, the further we get back in history towards the Pre-dynastic Period, the less articulate appear the differences which distinguish the Aegean loin-cloth from that of Egypt. Thus it is not difficult to surmise, without the help of any monument, that the primitive loin-dress of the Pre-dynastic Libyan population of the Nile-valley was much less unlike that of the Early Minoan Era in the Aegean than the fashionable loin-apparel of the Middle and New Kingdoms in Egypt was to that of courtier-youths in the Late Minoan Period of Crete.³ The divergencies that emerge in the course of ages in a new environment

¹ *B.S.A.* ix. 361, 365.

² As is done by Prof. Savignoni, *ib.* xiii. 109, when he suggests that the loin-cloths of the 'Harvesters' of Hagia Triada were received by the Cretans from the Orientals. It may be as well to remark here that Dr. Savignoni's 'tasca o sacchetto' which appears above the left thigh of all the 'Harvesters' and which forms no intrinsic part of the loin-costume is more probably a pad meant to obviate friction to the leg during sheaf-binding. A close examination of the original has convinced me that the 'cordoncino rilevato, che si nota lì accanto' has really to do with the pad which it fastened round the leg at the knee. The sheaving pad and the cord or strap, thus mutually explain each other.

³ Mr. R. M. Dawkins makes the interesting suggestion that what is apparently the most primitive part of the Aegean loin-cloth arrangement (Mr. Myres's 'loin-cloth proper') 'may be a "Bantu sheath" of the type which is familiar on sculptured and modelled figures of Pre-dynastic style in Egypt.' See *B.S.A.* ix. 387, note to p. 364.

are not less due to changing conditions of climate than they are to the vicissitudes of fashion and the growth of the aesthetic feeling for ornament and style. The loin-cloth has existed in Africa from time immemorial and the Semitic people of Asia on entering the Nile-valley found this to be the ordinary male attire of the Libyan people of the land.

When now we come to the Mediterranean, we find the true explanation of the apparent anomaly of a loin-cloth apparel there, on the hypothesis alone that this characteristic attire of a warm climate was original to the people of the Aegean in their original home. And it is apparent that this original home and this warmer climate could only have been in Africa, where indeed climatic conditions have enabled the loin-cloth to survive to the present day from the earliest times. If, on the other hand, we regard the case as that of a northern people emigrating southwards into the Mediterranean Basin, we cannot easily suppose them laying aside one day one of the articles of their original dress, and adopting in the Aegean a loin-cloth apparel which is essentially that of Africa; though in accordance with the conservatism of custom in matters of dress, we can easily understand why a southern people emigrating to a cooler climate should stick to its immemorial loin-cloth, while eventually adding other articles of over-attire to it in accordance with the climatic needs of a new environment. Those therefore who attribute a northern origin to the Aegean people, must explain both the giving up of their native costume and the adoption of the foreign African loin-cloth in the Aegean; whereas if we accept the theory of the African connections of the Mediterranean Race, we hardly need explain the retention in a new environment, of a garment which, on this hypothesis, the Aegean people had always worn.

What the people of the North looked like in costume, and what they wore next their skins when in the fullness of time they at length appear upon the scene, is clearly shown on the Warrior Vase and on the painted stelè of Mycenae.¹ These doughty heroes from the North, in accordance with the warmer climate of their new environment, may have found it good to dispense on occasion with some of their heavier upper garments, but at any rate, as we see, they retained their northern shirt as obstinately as the Aegeo-Pelasgian people of the South in an earlier age had retained their

¹ See Furtwängler and Loeschcke, *Mykenische Vasen*, Taf. xlii. Text 68-9. These 'Schurzgewänder,' in the sense of loin-cloths beneath the short chiton or shirt, quite clearly do not exist. The Warrior Vase belongs to their decadent 'Fourth Style' and to the period of the break-up of the Aegeo-Pelasgian Culture. For the stelè, see 'Εφ. 'Αρχ. 1896, Pls. I., II.

immemorial loin-cloth of Africa. If, therefore, with Hubert Schmidt or von Stern, we seek a northern origin for the Aegeo-Pelasgian Race, and further assume that the loin-cloth costume was an importation from the south or east adopted by a race to whom it did not originally belong; we must explain how it is that when the Achaeans and other Greeks of northern Aryan race appear on the stage of Hellenic history, they neither wear a loin-cloth costume which has originally belonged to them, nor do they adopt one ready-made from the people of the land to which they come. On the other hand, the earlier Pelasgic population of the Greek mainland do not disappear from view with the first arrival of these invaders from the north. And if the older stock is responsible, as Kretschmer, Fick, and others have shown, for many Pelasgian elements in the later language of Greece, it is equally responsible for many survivals, which at first sight seem anomalous, in the costume of later, Hellenic times.¹ But in all this there is naturally nothing to suggest the universal adoption of the loin-cloth costume, which is the phenomenon that would have to be reckoned with, on the hypothesis of a northern origin for the Aegeo-Mycenaean people themselves. The Achaean hypothesis as to the origins of the culture of Mycenae leaves the universal use of the loin-cloth costume in the Aegeo-Mycenaean world—which is so much in evidence in the pictorial representations of the time,—entirely unexplained.

In contradistinction then to the native dress of all northerners of Hellenic origin, we find (and it can hardly now be regarded as surprising) that whenever there is any clear portrayal of people of Aegean race, the loin-cloth costume always recurs in representations of the men. In case it should be thought that such portrayal was due to influence from the south, and that therefore other islanders to the north of Crete did not necessarily in real life wear the garments represented in the pictures, it is particularly fortunate that we have preserved evidence to the contrary; this is afforded by a terracotta object of native Melian fabric from Phylakopi, with a procession of simple fishermen, who as toilers of the sea may have put off their boots for convenience, but who still stick to their loin-cloths as their one indispensable garment.² We have to remember that these are simple people who adhere to immemorial custom in the essentials of dress, and who are usually shy of putting on borrowed feathers in order to

¹ See Myres on the Petsofa figurines, *B.S.A.* ix. 386.

² See *Excavations at Phylakopi*, 123-5, Fig. 95, Pl. XXII.

ape their betters and be in the fashion; as would clearly have been the case, were the loin-cloth an exotic importation from the east, for use by elegant persons in the chase and in war, as was thought, for example, by Savignoni.¹ The 'Fishermen' of Melos, like the 'Harvesters' of Crete, are racy of the soil, and they go about their daily avocations with the natural *éclat* of healthy persons enjoying human life with the pleasant fruits of honest labour. Thus there is really no more reason to be surprised at the uniformity in the use of the indispensable loin-cloth than there is any cause to puzzle over the divergencies in detail in either case. The 'Harvesters' of Haghia Triada add a sheaving-pad, and the Melian 'Fishermen' dispense with their top-boots as part of their costume, in perfect keeping with their respective occupations.²

In this same connection it would be interesting to know more about the use of the loin-cloth in pre-historic Italy; at any rate there is one curious circumstance which militates against the importation theory; so far afield in the Middle Mediterranean as the Italian continent, we actually do find references to the existence of the loin-cloth there, under conditions which point distinctly against the theory of a late artificial adoption of such a garment, and in favour of a probable ethnological connection with the primitive customs in dress of the earlier pre-Aryan inhabitants of the country. 'At Rome, as in Greece, the apron or loin-cloth seems to have been an older undergarment than the shirt or Tunica. It was worn not only by men, but also by women (Mart. iii. 87. 4), and was known as the *subligaculum* (Non. p. 29, 20), *subligar*, or *campestre*.'³

There is no doubt, however, that in cases of primitive survival into a later time like that of the loin-cloth, whether in Italy or in Greece, the men will have been found much more conservative of tradition, and much less under the sway of passing fashions, than the women; so that at first sight one is indeed apt to be surprised at the appearance, on the wall-paintings of Knossos, of loin-clothed gentlemen alongside of ladies who seem to be dressed in the latest modes of Paris.

What is remarkable, however, is that when we come to consider

¹ *Mon. Ant. Linc.* xiii. 109.

² See the very pronounced white top-boots of the male figurine from Petsofà, *B.S.A.* ix. Pl. IX. which Myres (*ib.* 363) would regard as the prototype of the characteristic modern Cretan white top-boot.

³ Smith, *Dict. Gk. and Roman Ant.*, ii. 721, s.v. *Subligaculum*.

closely the women's dress of the Aegean, we do not find a different story as to origin and genesis, notwithstanding all the apparent disguise of Parisian-like mode revealed to us in the low bodices, puffed sleeves and multiple skirts worn by the fashionable court dames of Knossos. People have been scandalized by the excessively low dress of these court ladies into serious reflections as to the decadent character of the Late Minoan culture in general, without considering that what looks so shamelessly modern, is really the survival of very primitive custom in dress. The lady of Petsofà, belonging though she does to the early part of the Middle Minoan Age, with all her high 'Medici' collar behind, is quite as décolletée in front as her later sisters of Knossos. This being so, we can hardly expect the evidence of a still earlier period to contradict the later data as to the continuity of so remarkable a custom, seeing that the still more primitive figurines of the Early Minoan Age are there to confirm the usage, in a sequence that in turn goes back to Neolithic times.

In this connection it is startling to find that the steatopygous figurines of the Neolithic deposits of Knossos conceal beneath their primitive crudeness the existence of the gown, equally with the low-cut bodice. I had moreover already arrived at the conviction that the squatting skirted women portrayed in these figurines were thus the true prototypes of the squatting 'flounced' ladies of the Miniature Fresco at Knossos, when I found my conclusion confirmed by the similar opinion expressed by J. L. Myres.¹

Since therefore the use of the low bodice and the squatting attitude of Minoan women go back to the most primitive times, it is clear that we should no longer be misled by the semblance of ephemeral fin-de-siècle fashion, conveyed by the multiple skirts and puffed sleeves of the palace ladies of Knossos. The use of the low bodice is in reality no less primitive than the squatting attitude. We are thus justified in surmising that the features referred to may point back to an earlier time, when the ancestresses of these women wore no bodices and no multiple skirts. But they still wore their loin-cloth and belt like the men, and they squatted on the ground. This could only have been in torrid Africa! These women then, we must believe, were from time immemorial accustomed, through climatic conditions, to the low-cut dress in their original home in Africa. And their

¹ See *ib.* 386 and *Journ. Anthr. Inst.* xxx. pp. 252 ff.

kindred who later passed into the Aegean world, notwithstanding the passage to a cooler climate, could never entirely give up the low bodice any more than the men could abandon what, after all, was only an exaggeration of the same feature, their loin-cloth costume, inherited as these were under similar climatic conditions. The squatting is also the custom of a dry, hot climate, and the habit could no more be derived from the cold, damp climate of Central and Northern Europe than the characteristic dress could have been.

It would indeed be needless to insist on the probability of such connections of Aegean costume with the south, were it not for the current tendency to regard the very peculiarities on which we have been insisting, as pointing in the direction of the loin-cloth being the original dress of Aryan Greeks. In this connection it may be regarded as particularly fortunate that the Petsofā figurine and the faience statuettes of Knossos have now come to contradict Studniczka's rather plausible attempt to explain away the low-cut bodice, which Milchhoefer rightly found to be so characteristic of the dress of the Pelasgian women of Greece. As, however, it has thus turned out that this dress was a notorious fact, it is all the more easy to agree with Studniczka that the proof as to the real existence of such a dress would only tend to militate against Milchhoefer's own thesis, to the effect that we have here the primitive Aryan costume of Pelasgian women. The most recent views regarding the earlier habitat of the only Aryan people with which we have to do in Greece, would on this thesis be made to derive such a costume from Central Europe! When on the other hand Studniczka himself, in agreement with Milchhoefer, would accept the loin-cloth costume as belonging 'überhaupt der indogermanischen Tracht an,' we see at once that he has got off the track; for 'indogermanisch' and 'urgriechisch' in this connection can be made to come into an ethnological sequence, only on an assumption which would make the Pelasgians, who are here in question, themselves Indogermanic.¹

Surprising now as it might at first sight appear, there are certain anomalies in the dress of Aegean women which make it quite clear that they originally did, and still could, wear the loin-cloth like the men. We know from the faience figurines of the Temple Repositories at Knossos,

¹ See Studniczka, *Allgriechische Tracht*, 32-3. Milchhoefer, *Anfänge der Kunst*, 35.

belonging to the latter part of the Middle Minoan Age, that at that period the women of Crete wore as part of their dress a belted polonaise or panier, which is only a fashionable-looking transformation of the original loin-cloth costume.¹ But, that there should be no mistake upon this point, it happens that the men of the Miniature Fresco wear as part of their loin-cloth dress an apron-like panier, which in all essential respects is identical with that of the faience ladies of the Temple Repositories. That the women on occasion wore this type of loin-cloth by itself, and not always over a bodice and skirt costume, is shown by the Cowboy Fresco of Knossos, where the female performers are seen wearing a belted loin-cloth arrangement which is identical with that of the men both there and in the Miniature Fresco just referred to.

The elongation and transformation of the original loin-cloth, as common to both sexes, was in itself responsible in the natural course of development for the belted panier in the case of the women. And this is proved by the fact that in certain representations, typical of an intermediate phase in development, we have the belted panier by itself without any skirt or bodice. It is thus we have to understand the short costume of certain women that appear occasionally on Cretan seal-impressions, such as the series from Zakro and Haghia Triada.² In essentials a costume of this kind comes into the same category as the loin-cloth dress of the men. Both men and women in this case are nude above the belt and clothed below that in a similar way, which again is intrinsically that illustrated in the Cowboy Fresco.³ It is interesting in this connection to observe that a loin-cloth panier of the same kind as that on the seal-impressions referred to, is worn by some of the officiating priestesses in the Ritual Scenes of the painted stone sarcophagus from Haghia Triada; and here a reminiscence of very primitive, probably African, custom seems preserved to us; Halbherr has observed that in this case the panier is painted all over with elongated spots as if to represent the variegations caused by the tufts of hair of an

¹ See Lady Evans's description of the dress in *B.S.A.* ix. 80. For the panier, *ib.* Figs. 55, 56, 57.

² See *J.H.S.* xxii. Pl. VI. 6, 7, 8; *Mon. Ant.* xiii. 39-41. Figs. 33, 35 = our Figs. 1, 2. I have here warmly to thank Prof. Frederico Halbherr for his generous permission to reproduce a number of these sealings from the original excellent drawings by Signor Stefani.

³ The man to the right in Fig. 2 has below his armour a loin-cloth skirt like that of his female companion. These 'vesti globulari a grandi sgonfi' closely resemble the baggy breeches worn by modern Cretans. A bronze statuette from the Dictaeon Cave, now in the Ashmolean Museum, has a loin-cloth arrangement of very similar character.

FIG. 1.

FIG. 5.

FIG. 2.

FIG. 3.

FIG. 4.

FIGS. 1, 2 3, 4, 5.—CRETAN SEAL-IMPRESSIONS, SHOWING DEVELOPMENT OF COSTUME.

original animal's skin worn as perizoma in the ritual, in the same way as leopard skins appear as loin-cloths in certain wall-paintings of Egypt.¹

Here, however, we are faced with the seemingly puzzling question as to how the fully developed skirt came to be sub-added to the loin-cloth apparel. The modern-looking cut of the skirts of the faïence ladies conceals whatever original connection there may have existed between the two articles of attire; but when we penetrate beneath the caprices and disguises of passing fashions, we shall find that the so-called flounced skirt in its origin is nothing but an elongated reduplication and multiplication of the more normal type of loin-cloth polonaise, repeated at ever greater lengths beneath that. The elliptical curve upwards over the hips at either side, is a primitive feature of the faïence paniers which brings these into the general normal category of one type of loin-cloth costume: that worn, as we have seen, by the men of the Miniature Fresco and the men and women of the Cowboy Wall-painting: but when we come to consider the front, we find that the rounded apron-like contour of the panier there, is hardly so normally characteristic as that which brings the polonaise to a point in front. This is very well illustrated by the bronze Snake Goddess statuette from the Troad in the Museum at Berlin.² Here the panier, curving up over the thighs and then down to a point in front, if repeated once and again at gradually increasing lengths, gives us all the elements of the compound skirt below it; yet the pointed front of the panier itself at once betrays its affinity with the shorter pointed loin-cloth costume of the men, as illustrated, for example, by the leaden figurine from Abbia in Laconia, known as the 'Kampos statuette.'³ That the 'bathing-drawers' arrangement, pointed front and back as here, could be repeated even in the case of the men, but without the joining between the legs, is shown by the Haghia Triada sealing seen in Fig. 3.⁴

The genesis of the so-called flounced skirt is most easily explained then as, in the first instance, having its origin in a repetition, with elongation, of the peaked loin-cloth beneath that, in the guise now of a

¹ Compare the white spots on the panier of the Snake Goddess of Knossos, which may have a more symbolical relation to the spots of the snakes coiled round her body. See *B.S.A.* ix. 75, Fig. 54a and b; 76, Fig. 55.

² Perrot-Chipiez, vi. Figs. 349, 350; Furtwängler, *Aegina*, Text, 371, Abb. 296.

³ *Ibid.* Fig. 355, 'Εφ. 'Αρχ. 1891, 190-1; Tsountas and Manatt, *The Mycenaean Age*, Pl. XVII.

⁴ *Mon. Ant. Linc.* xiii. 44, Fig. 40.

petticoat. This stage is very well represented typologically by one variety of dress that appears on the Haghia Triada sealings, as, for example, that worn by the ladies who appear in Fig. 4.¹ Here we have the belted panier in its more elegant, tunic-like form with a repetition of itself in the shape of a pleated skirt below it. One of the sealings again from the Shrine Repositories at Knossos, that with the Warrior Goddess and Lion, *B.S.A.* ix. Fig. 37, has the tunic simply repeated twice below itself, so as to form a multiple skirt-costume that comes down to just below the knee. This repetition may take place three or four times, each successive repetition bringing with it an elongation sufficient to bring each successive border into view beneath the upper one. Thus we have a series of under-skirts, each longer than the one above it, so that what appears as an arrangement of flounces, and may ultimately have become so through the artifices of fashion, is in origin a series of petticoats, each longer than the one above it; with the result that the borders of all, in different colours and plain or embroidered, are visible. The culmination of this tendency is well illustrated by the gay, richly embroidered and variegated costume of the painted lady from the Palace at Haghia Triada, in whose case indeed we are left in some uncertainty as to whether we have to do with a multiple gown or a series of divided skirts.² The fact, however, that the whole costume has its explanation in the reduplication of what was originally the loin-cloth, is here brought out with unusual distinctness; for in this case the loin-cloth polonaise itself is repeated below two intermediate underskirts, with its original embroidered pattern appearing below the knee in a broad border above two further underskirts, with which the costume terminates somewhat above the ankle. The seated lady of the Haghia Triada sealing shown in Fig. 5,³ seems to wear a real divided multiple skirt. The divided skirt again in that case, however, is probably a direct descendant of the 'bathing-drawers' loin-cloth, with joining between the legs, illustrated by the Kampos statuette.

In this connection it may not seem perhaps too far-fetched to record the curious fact that the men of Sardinia from the mountain villages wear above wide linen trousers coming to below the knee, a very short kilted 'bathing-drawers' arrangement in black woollen homespun; these have a

¹ *Ibid.* Fig. 34.

² *Mon. Ant. Linc.* xiii. Tav. x.

³ *Mon. Ibid.* Fig. 38.

joining from front to back between the legs: a feature which, like the multiple skirts sometimes still worn by Sardinian women, is suggestive of primeval affinities with the dress of the Aegean, going back to a common origin in Africa.¹ We should not here forget that one, and probably the earliest type of Sardinian bronze statuette, itself connected with the pre-historic civilization represented by the Nuraghi monuments, shows figures of men that are nude with the exception of a loin-cloth below the waist, and occasionally tight-fitting leggings about the calf like the ones in black woollen stuff worn by the present-day Sardinian mountaineers.

Although the lady of Haghia Triada probably belongs to a somewhat later period than her sisters of the Temple Repositories at Knossos, the bizarre character of her gorgeous skirts does not conceal the genesis of these, nearly so much as does the more modern capricious fashion of the gowns worn by the Knossian dames. These, as we have seen, wear a belted polonaise which is essentially of the same character as the loin-cloth of the men on the Miniature Fresco; but the borders of their skirts, in obedience probably to the fiat of a passing fashion, follow strictly horizontal lines, and that whether they are in relief or merely painted. Thus the primitive connection between derivative parti-coloured border and original petticoat edge, and between that again and the primeval loin-cloth, has become much obscured. Yet the necessity of painting on the borders, even if only in the flat, which is so glaringly betrayed by *B.S.A.* ix., Fig. 55, only shows how deeply ingrained was the idea that the dress, to have any verisimilitude, must have the series of petticoat edges. This necessity is not done away with, even in the case of the gorgeous panelled skirts of Fig. 58, for the embroidered side-panels are clearly a fashionable accretion which still have to allow the original skirt-edges to appear in the intervals.²

¹ See Sergi, *La Sardegna*, Figs. 21, 39, 46, 50, 51, etc. The women's dress is not so well illustrated. Sergi does not include places like Ergosolo and Fonni, where two- and three-fold multiple skirts are often to be seen. The women of Sardinia squat while occupied with such household avocations as baking, as well as in their Sunday best at Mass in Church, in a way which is as suggestive of primitive African connections as the similar custom of their pre-historic sisters of Crete.

² I suggest that these are side-panels, because otherwise the front and back parts of the polonaise have to be conceived as shifted to either side, which does not seem probable. The side of these invisible in the illustrations is left rough: this suggests that they belonged to figures appearing in relief-profile on the background of an elaborate ritual composition, which had the Snake Goddess, Votaries, etc. in the round, in front. The suggestion that what we really see is one side of these gowns, fits in with this conception of the composition, since it is well known that in Minoan

The development of Aegean dress, through addition to the original loin-cloth costume, under stress of changing climatic conditions, of parts not already belonging to it in its most primitive African stage, need not surprise us in connection with the early doings of a race whose migratory movements were presumably northwards towards cooler regions. We do not know when the bodice was added above the loin-cloth belt, any more than we can say when the skirt was added below, but the figurine of Petsofà shows us that it already existed along with the skirt, in a developed form at the beginning of the Middle Minoan Age. Its existence along with the skirt, which itself (as we have seen reason to conclude), went back to Neolithic times, can thus be very safely assumed for a still earlier Minoan period. In this way we are brought back to a time so primitive that it is difficult to account for whatever additions have been made to the primeval loin-cloth costume, except out of primitive needs. The additions were made, clearly because they were needed, and they were needed because we have here apparently to do with a people moving northwards, to a cooler climate than the one to which they had previously been accustomed in Africa. The genesis and elaboration of the bodice are thus explained in the same way as those of the skirt. The sleeves were probably an after-thought, added owing to similar climatic necessities, and they never apparently in the Aegean got below the elbow, though the fashions of a later time caused them to be puffed up above the shoulders. The sleeved bodice is already very elaborate in the prime of the Middle Minoan Period, and by the close of that era the laced corsage, as illustrated by the faïence figurines of Knossos, has reached the extreme pitch of embroidered elaboration. Yet with all this elaboration it must not be forgotten that in its original connection with the primitive loin-cloth belt, the bodice had probably as natural a process of genesis in the development of Aegean dress, as the multiple skirt itself. The fact, however, that even at a comparatively late era, in circumstances apparently demanding very active exercise, the bodice was not always

art all figures painted in the flat or in relief, appear in profile, the bust, however, as here, being shown *en face*. The relief part of the composition was apparently made up of separate pieces fitted on to each other, and it is in this way apparently that we may account for the separate girdles shown in *B.S.A.* ix. Fig. 58, for the busts *en face* made separate from the skirts, and (though these were not found), probably, for the heads in profile fitted on to the busts, etc. We have an analogous example of this kind of technique in the faïence House-Façades of Knossos. See *B.S.A.* viii. 14-22, Figs. 8-10.

regarded as indispensable, is proved by its absence in the case of the women with simple paniers, as well as with paniers and skirts, on the sealings of Zakro and Haghia Triada referred to above; this affords us a typological reference back to a time when there was no bodice at all in ordinary use. On the other hand, the Warrior Goddess, on the sealing already referred to from the Shrine Repositories, shows us the multiple tunic-skirt in combination with a bodice having short tight sleeves, of the same fashion as those of the faience figurines with which it was found, and belonging, like them, to the end of the Middle Minoan Age.

The dress in its fully developed stage, as illustrated by the faience ladies of Knossos, and those again of the Miniature Fresco, represents essentially the result of gradual additions to a loin-cloth arrangement; and this embodies the original rudimentary nucleus that gave the initial start to the whole subsequent process of development. But we cannot understand the later phases of this development in the Aegean, except in relation to a race-movement which, as has been suggested, was northwards in the direction of Europe. This took place probably at a time succeeding the last ice-age, when the north of Europe was not yet habitable, though the north part of Africa was. At an era when Central and Northern Europe were gradually becoming habitable, the great racial movements were northwards, not southwards; and it is this racial movement northwards, with its dependance on climatic changes, in the course of which the Central and Northern parts of Europe were gradually becoming peopled, that would most easily explain the problem of an earliest race-substratum in the remoter regions north of the Mediterranean, of one original kin with the Mediterranean Race itself. This was probably the original cause that introduced into Central Europe that particular type of bodice and skirt dress of primitive type, which has been already recognised there as so closely akin to the earliest dress of the Aegean, and which (let us conjecture hypothetically) probably had close analogies with the general type of pre-historic women's dress of the Mediterranean area as a whole. If on the other hand, this European type of dress was not itself of Mediterranean origin or introduced from there, then it must have had an independent origin. In that case, however, the origin of an independent type of costume, in all essential respects resembling the Aegean one, whose genesis we have attempted to explain through the process of additions to

the primitive loin-cloth, has to be explained in the reverse order with a start from the north, which could not have been with the loin-cloth. On that supposition again, since this hypothesis presupposes a southward racial movement (which in any case, in agreement with the gradually changing climatic conditions of Europe at so early an age, could only have been subsequent to the most primitive northward migration succeeding the last ice-age), the theory in question has to explain the genesis of a dress, which consists essentially in the addition of part to part, as if it were a process of subtraction, part from part. The implications of such a supposition are not fanciful, since peoples in movement towards warmer climates from a cold one, start fully clothed and do not add to their attire in their southward movement but lighten it and subtract from it. On our supposition, however, such a people on reaching the Mediterranean and North Africa, and continuing the process of lightening and subtraction of their garments, would in the Aegean afford us in the end the highly curious spectacle of men like the 'Fishermen' of Melos, with nothing on but loin-cloths, which on the theory in question they had taken with them from the frigid zones of Northern and Central Europe! Before accepting such fantastic conceptions as a Europeo-Aryan origin for an article of dress of this kind, it ought always to be remembered that in its original use the loin-cloth is not worn as clothing to protect from the cold, but for modesty's sake, in spite of the heat.

When in the fulness of time the movement was at length from the north, and started thence from causes that were independent of the previous doings of the Mediterranean peoples in Europe, it is easy to conjecture from the one example of the Warrior Vase of Mycenae what these northern men were like, and what we may suppose their dress to have been. But that, with all which relates to the migratory movements of Achaean and Dorian peoples of Hellenic race, is another story, and does not concern us at the present stage of our inquiry.

Our general conclusion then is, that a dress like that of the Aegean in the Minoan Age of Crete, which starts from the time-honoured loin-cloth as foundation, and develops by the gradual addition of parts, could only have had its origin in a warm climate like that of Africa. But it is a long story from the primitive aprons of Neolithic Crete to the gorgeous loin-cloth costumes and elaborate embroidered gowns of the Queen's Procession at Knossos. The high puffed sleeves and intricate mazziness of skirts, so

characteristic of the series at its end, bring us to the great days of the Cretan Palaces, and to scenes like those of the Miniature Fresco. This in its general connection, as now reconstituted through the labour and insight of Dr. Arthur Evans and M. Gilliéron, shows us a grand levée of high court dames, backed by galaxies of gallant and noble youths, seated in balconies and on elevated terraces of the palace, while below, in a wide interval among the olives, a crowd of Knossian women in vivid skirts are weaving the mazy dance.¹ In the dizzy final spin which ends the ballet, and was the triumph and the applauded climax of their choric art, their skirts are whirling outward to the throbbing measures of a fervid Cretan music, of which the primal home may well have been in Africa!

A skirt-dance of this kind, such as indeed we may take to have been inevitable with frocks like those of the Miniature Fresco, may be supposed to have vanished in Crete with the multiple skirt itself. In other outlying parts of the Mediterranean area, however, as, for example, in the Quarnero at Cherso, there still survives a time-honoured ring-dance, probably of old-world Mediterranean origin, in which the multiple skirts of the woman who takes the lead, as she spins round rapidly as on a pivot, play an essential part.² The ring- or spiral-dance itself, looks externally much more primitive than the ballet, which in the Miniature Fresco seems to be performed by experts for the delectation of the palace. That this dance goes back in the Aegean to Minoan times, is now shown by the 'Dancing Women' of Palaikastro,³ and it has survived continuously in the Mediterranean to the present day, as in Crete, where it is seen at its best, the Cyclades, Anatolia, Bosnia, Quarnero, Sardinia, etc. The circular dance has indeed shown such a conservative power of survival in the Mediterranean in historic times, that we need not be surprised if, going back to periods anterior to written history, it were also true that the Pelasgian people of Attica had danced and sung for ages in the ring on feast-days below the slopes of the Acropolis, before there was ever such a thing as a circular orchestra in the Theatre of Dionysos at Athens. And if in legend

¹ Part of this wall-painting, after a coloured drawing by M. Gilliéron, has been published by Dr. Evans in *J.H.S.* xxi. Pl. V.

² This dance is performed to the music of a bag-pipe which is in all essentials like the Cretan one. Of stringed instruments Crete still retains the very primitive but expressive three-stringed 'lyra' or fiddle.

³ *B.S.A.* x. 217, Fig. 6. Mosso, *Excursioni nel Mediterraneo e gli Scavi di Creta*, 225, Fig. 124.

as in art we know that Pelasgian Theseus from Athens was partner to Cretan Ariadne in a dance that once was famous, we need not even be surprised at such a story, since now we know its inner meaning.

The Minoan women of Crete danced to the music of the lyre, as the Palaikastro figurines now tell us;¹ the famous sarcophagus of Haghia Triada shows us not only that the lyre was seven-stringed, but that the double-flute was also in common use among Cretans of the Late Minoan Age; the lyre also occurs as a Minoan Pictograph.² In the Museum at Athens are two marble figures of the Cycladic idol type, representing respectively a player on the harp and on the double-flutes, so that in any discussion as to the provenance of musical instruments like these, critics disposed to set them down as late ready-made importations into the Hellenic world, must reckon with the fact that the use of them among the pre-Aryan people of the Aegean goes back from Late Minoan to Early Cycladic times.³ The sistrum again, itself of African origin, though not necessarily therefore an importation from Egypt, is played by the 'Harvesters' of Haghia Triada; and here Savignoni's strange hypothesis, to the effect that the sistrum-player himself, as well as the singers whom he accompanies, are foreigners from Egypt, is hardly credible. 'Hanno pure forse,' Savignoni asks, 'qualcosa di europeo?' The most convenient answer is that which would admit what may be mere professional peculiarities of attire in the case of these musicians, and at the same time would emphasize the resemblance in general appearance characteristic of all the personages in this picture. Then it may seem more reasonable to believe that the sistrum-player and the singers are Cretans like their fellows, though they may be, as we would suggest, of African origin all the same, without their being at all a mere hireling band of strolling players from Libya or, still more unlikely, from Egypt.⁴

¹ The man or woman in the middle of the 'Dancing Women' of Palaikastro, Mosso, *ib.* rightly recognises as a lyre-player. The musician there, as now, has his place in the centre of the ring of dancers. The lyre-player of the Haghia Triada *larnax* teaches us that the long skirts in themselves, do not disprove the possibility that the musician of Palaikastro was also a man.

² Mosso, *ib.* 260-1, Figs. 145, 146.

³ Perrot-Chipiez, vi. pp. 760, 1, Figs. 357, 358.

⁴ Savignoni suggests that the three singers are women, 'ma tre donne che nell'aspetto poco si distinguono dagli uomini, perchè incolte e barbaresche.' Is it not more likely that they are men wrapped up in conventional mantles like the musicians of the Haghia Triada *larnax*? The breasts in the case of women are always so clearly rendered in Minoan art that it seems incredible there should be no indication whatever of them in a representation which surprises by its minute rendering of details. *Mon. Ant. Linc.* xiii. 86, Fig. 3; 120.

The Southern Connections of the Mycenaean Central Hearth.

In another connection I drew attention to the significance to be attached to the phenomenon of the appearance in the Aegean, towards the end of the Late Minoan Age, of a form of palace identical with the Mycenaean type of the mainland of Greece. This type, with its distinguishing feature of a central hearth in the hall, and consequent interior isolation of that, from the complex of adjoining rooms in this type of building, we found present in the latest settlement at Phylakopi in Melos and at Haghia Triada in Crete.¹ The occurrence of this curious phenomenon I sought to account for on the hypothesis of the appearance in the Aegean, at the period which coincides with the destruction of the Minoan palaces of Crete, of migratory bands of people of Pelasgian race who (as I suggested) were forced to emigration through the pressure southwards into the mainland of Greece, for the first time of people of Hellenic race. I have purposely used the designation 'Pelasgian' for the people who built the palaces referred to; for, notwithstanding the apparent difference between the halls of the Cretan palaces and the Mycenaean type of megaron of the mainland of Greece (which receives its fullest expression in the central hearth present in the latter and absent in the former), I still regard the Pelasgian people and their culture as having the closest affinity with those of the Aegean. It is this community of culture that is really presupposed in the phenomenon of the continuity of Minoan forms of life into the period succeeding the destruction of the Cretan palaces, which is represented to us at Knossos by the partial re-occupation of the Palace and by the finds from the post-palace necropolis of Zafer Papoura.²

Now, it happens that the presence of the central hearth is one of those characteristic features which, taken in connection with the internal isolation of the Pelasgian type of megaron, have led to the conception, mistaken as we think, that the mainland type of megaron must be traced back to an origin entirely different in its ethnological connections from that of the Aegean hall. The real connection of the phenomena, however, does not justify this conclusion. The internal isolation of the Mycenaean megaron, of which so much has been made in the interests of the hypothesis in question, instead of being a unique constructive feature

¹ See *B.S.A.* xi. Cretan Palaces, 220, Fig. 4.

² These have been published by Dr. Arthur Evans, *The Prehistoric Tombs of Knossos*, *Archaeologia*, 1906. [Separately in Book-form: B. Quaritch.]

indicative of ethnological relations with the North, and away from the Aegean, has been really brought about by the introduction of a central hearth into a type of hall that did not originally possess it. In reality, the internal isolation of the megaron, far from being a phenomenon concomitant with the original presence of a central hearth in a European type of megaron, was brought about as a mere structural effect, through the introduction of that into a type of hall of which the original connections were not European at all, but African.

This isolation of the Mycenaean megaron, which brings it into seeming contrast with the Cretan type of hall, was structurally brought about through the introduction of the central hearth: this follows from the mere fact that such an arrangement of hearth, if lateral draughts and consequent smoke-currents are to be avoided, makes openings such as doors or windows impossible on any side but one. The only opening, besides the main door, at all admissible on such a system is the chimney, which may serve at the same time as a window, above the central hearth. All thoroughfares through the hall, such as occur in the Aegean system, have to be carefully avoided. The internal isolation of the megaron thus proves to be a structural necessity, consequent, as I would suggest, on the introduction of the fixed central hearth into a system that did not originally possess it. If then we would conceive the mainland type of megaron as having been one in origin with the Aegeo-Cretan type—which had no central hearth, but which, in accordance with the ‘b’ut-and-b’en’ relation of rooms to each other in the primitive Aegeo-Pelasgian house, might have doors and other openings such as light-wells or windows behind—what do we find? When such a type is transferred to a more northern climate, where the introduction of fire and a central hearth have become advisable, the thoroughfares of the ‘b’ut-and-b’en’ arrangement have to be given up, wherever such a central hearth is placed in the front room with its gable portico. On such an explanation the various speculations which have tended to regard the Mycenaean type of megaron, with its internal isolation, as an intrusive appearance within the sphere of influence of Aegeo-Pelasgian architectural development and its ‘b’ut-and-b’en’ systems fall at once to the ground. Thus, for example, J. L. Myres, who indeed has been one of the first to appreciate the real characteristics of the Aegean house, was right in pointing out the apparently anomalous character of the internally isolated Mycenaean type of

hall in the midst of a 'b'ut-and-b'en' system, but he was clearly wrong in regarding the type itself as a foreign intrusion into the Aegeo-Pelasgian architectural cycle.¹ Noack, again, who has apparently overlooked the 'b'ut-and-b'en' connections that, apart from the megaron, hold at Tiryns and Mycenae as well as in the Aegean, has in this connection gone much further astray than Myres. For him the whole Mycenaean system of architecture in its essential character is derived from the North.² Accordingly he would, for example, regard the central hearth as something in its nature originally connected with the Mycenaean type of hall. It would thus, according to him, not have been added on the mainland of Greece to a type of house derived originally from the South: it would simply in a type of house derived, on this view, from the North, never have reached the Aegean at all. If, however, we are not committed to the hypothesis of a disparate origin for the pre-historic civilizations respectively of mainland Greece and of Crete, we can explain what is seemingly anomalous in the phenomena of house-construction much more reasonably, if we assign a southern origin to the primitive Aegean house, and conceive as probable a gradual modification of that, with migration northwards to a colder climate, than is at all possible by assuming with Noack, an entirely northern origin for the primitive mainland type of megaron, and a fusion of northern and southern elements in the Palaces of Mycenae and Tiryns. Noack, *Homerische Paläste*, p. 3, speaks of a profound difference between the Cretan Palaces and those of the mainland of Greece; and in the further course of his investigations he endeavours to show that this difference is most clearly seen in the architectural antithesis that exists between the Cretan type of hall, in its fully developed form, and the true Mycenaean megaron. In this connection, Noack lays stress upon the contrast between the broad front characteristic of Aegean palace architecture, as against that of the mainland of Greece. The cogency of Noack's conclusions based upon this supposed antithesis is, however, vitiated by his initial mistake of comparing with the Mycenaean type of megaron what in the case of Phaestos, as we saw, proves to have been not a real megaron at all, but something quite different: namely, a state-entrance into the palace. The one-and-three-column system, as we also saw, is characteristic, not of the real Cretan megaron, but of the entrance portico; whereas the normal arrangement for the megaron—whether Aegean or Pelasgian—is the two-column system

¹ See *J.H.S.* xx. 149.

² *Op. cit.* 34-6.

between two side walls; a third column, where it exists, appearing only in one flight with one or other of the side walls. The broad front again, so far as portico and ante-room are concerned, is as characteristic of the Mycenaean megaron as of the Cretan hall; there is no justification for regarding characteristic features of this kind as a new-fangled importation from the Aegean; they are more probably an outcome of the natural processes of architectural development in a common ethnological environment which includes the Greek mainland along with Crete. It need not even be said that the orientation of the Mycenaean megaron, towards a court outside it, is a peculiar feature of mainland architecture, since a system of the same kind undoubtedly existed at Knossos fronting the Central Court on the east side, above the area of the Corridor of the Bays and the adjacent Room of the Olive Press. Here again the two strong intermediate piers, forming on the ground-floor part of the system of the Bays, supported on the upper-floor (which again was level with the Central Court) two columns between two side walls, in a manner which has as many analogies in Crete itself as it has at Mycenae and Tiryns. The only genuine difference then is limited to the living-room itself of the megaron, and that consists essentially in this: that the mainland type has a central hearth, with the necessity of a roof-hole to let out the smoke and let in the light, whereas the Cretan hall has no central hearth and has a special light-well arrangement for admitting light and air. In the more southern type it is evident that the portable fire-place or brazier played the same rôle as the central hearth, which, as I have suggested, was introduced into the more northern type as a permanent substitute for the portable fire-place. And here we must be careful not to conceive the process of development in a manner which would make the fixed central hearth the original, and the movable one the derivative.¹ In other words, we must be on our guard against conceiving the megaron as wandering southwards, to a climate where it could dispense with fixed central hearths and take to braziers, but consider it as travelling northwards to regions where braziers in the hall and movable fires before the portico were inadequate, and a fixed central hearth was introduced into the megaron to suit the needs of a more rigid climate than the original Africo-Aegean one.²

¹ For this view see *Homerische Paläste*, 34.

² The connection of the primitive Mediterranean type of house with the original troglodyte dwelling of North Africa probably preserves to us a reminiscence of original custom in the fondness.

A type of megaron, however, that once has a fixed hearth introduced into the centre of it, can no longer, as we have seen, have thoroughfares in 'b'ut-and-b'en' fashion, and if a light-well is presupposed behind, it can no longer have that. This is all in virtue of the physical laws that govern draughts and air-currents. The central hearth does not allow of a draught such as would divert the smoke from the chimney. Accordingly, where this arrangement exists, there can be no extra openings such as windows or doors behind, but only the one door in front, and the one roof-hole above for light and smoke. Thus the true reason why the mainland type of megaron is internally isolated in its construction, and has no openings of any kind apart from the front door and the smoke-hole, is that it cannot have any.¹ It is the introduction then of the central hearth into a system which originally did not possess it, that necessarily led to the seeming anomaly of the isolated mainland megaron in the midst of a system which in Pelasgian, as in Aegean Greece, was essentially of a 'b'ut-and-b'en' character. Thus the Mycenaean type of megaron proves to be not, as Myres supposed, an intrusion on the Aegeo-Pelasgian system, but a transformation of that which, as the mere outcome of a structural necessity, followed on introduction of the central hearth.

A further feature of the Mycenaean type of megaron, which brings it into seeming contrast with the Cretan system, is the elongation of the hall. Here again we find that this elongation is an equally necessary consequence following on the introduction of the central hearth, since the room thus taken up by this hearth in the original system has to be made good by extension of length in front and behind. Further, once we have the isolation of the back part of the hall, that back part immediately becomes the real living part of the megaron, and the deepening of that follows as a convenience, if not as a necessity. We have also another possibility to consider: suppose that, at an epoch anterior to the construction of the megaron of Troy II. some feature corresponding to the light-well at the back of the hall was already existing in buildings within

for hill-slope positions, preferably looking east, with the house foundations laid upon artificial terraces cut into the side of the hill. Compare at Knossos the Royal Villa, *B.S.A.* ix. 130-153, and Pl. I. and The House of the Fetish Shrine, *B.S.A.* xi. 2-16. For similar houses excavated at Knossos by Mr. D. G. Hogarth, see *B.S.A.* vi. 70-79, Pls. III.-VII.

¹ Noack, *Hom. Pal.* 21, says: 'In Tiryns wäre es ein leichtes gewesen, durch ein paar Türen eine direkte kürzere Verbindung des grossen Megaron (Abb. 3, M) mit den Nebenräumen herzustellen.' But, it was not at all so easy, and that quite apart from the reasons given by Noack.

the Aegeo-Pelasgian ethnological area ; a moment must in that case have come in the process of transformation, when this feature was necessarily modified in consequence of the removal of all openings behind, such as roof-light windows and doors, on the introduction of the central hearth. In this way the apparent elongation of the hall observable in the Mycenaean type of megaron would be already *ipso facto* accounted for.

The internal isolation and elongation of the Mycenaean type of hall appears to me due to modification, in its movement northwards, of a primitive type of front-room. This originally had no central hearth, and was not internally isolated, but was in 'b'ut-and-b'en' communication with rooms behind it or alongside of it, as always indeed continued to be the case with the more southern or Africo-Aegean variety. This explanation does no violence to the probabilities of architectural development, while at the same time it falls easily into line with the other evidence regarding the southern affinities of the Aegeo-Pelasgian race which is now so rapidly accumulating in the Mediterranean world.

The view set forth above as to the causes which, in the natural course of architectural development, have led to the isolation and elongation characteristic of the Mycenaean type of megaron, has an important bearing in another connection. Thus, for example, Percy Gardner, Jebb, and others have attempted a reconstruction of the Homeric type of megaron with central hearth, and at the same time with doorways at the back of the hall.¹ These doorways we now see to be impossible for structural reasons of an architectural character, quite apart from any assumption such as would, without further ado, identify the typical megara of which we read in Homer, with those characteristic types of hall preserved for us at Tiryns and Mycenae.

Since, indeed, recent investigations have made it probable that the original pre-Aryan type of South European house penetrated in very early times as far northwards as Norway,² we need not be surprised, if, in the

¹ Gardner in *J.H.S.* iii. 264-282; Jebb, *J.H.S.* vii. 170-188. The former wrote before the discovery of Tiryns; the latter writing after, 'deliberately rejects the comparison proposed by Dr. Dörpfeld in *Tiryns*.' See Myres *J.H.S.* xx. 129. Gardner 'while making large concessions to the alternative view' (*New Chapters in Greek History*, pp. 103 ff.) also made certain reservations which were more than justified.

² See Meitzen, *Das Deutsche Haus*, 17-19. Meitzen here compares the Nordic type of house with the Lycian on the one hand, and the Bosnian on the other, and (page 19) concludes 'Der Zusammenhang des Nordischen Hauses mit dem Oriente lässt sich also nicht ohne Weiteres abweisen.' Meitzen follows out these connections still further in *Siedelung und Agrarwesen*, iii. 464-520, *Das nordische und das altgriechische Haus*. On the Greek house see also Ernest Gardner in *J.H.S.* xxi. 293-305.

regions immediately north of Hellas, a fusion of primitive pre-Aryan architectural forms with later Aryan elements should have taken place in course of time, such as were calculated to leave more than an echo of themselves in many lines of Homer. And it would seem as if it were this penetration of an Africo-Mediterranean type of house into the southern, central, and northern regions of Europe in pre-historic times that has made the fallacy appear at all feasible, which would identify the megaron of Homer with the type preserved for us at Tiryns and at Troy.

In a wider ethnological connection it is interesting to note that the presence of the central hearth in the Nordic house is accompanied by the same internal isolation of the living-room as we found to be characteristic of the Pelasgian megaron.¹ In the Mediterranean itself again, as far afield as Sardinia, we seem to have the original pre-Aryan Africo-Mediterranean type of house, with central hearth in the living-room, preserved to us in circumstances of isolation of the phenomena in the mountain villages, which would appear absolutely to exclude northern affinities or even collusions in early times. The survival to the present day of the same type of Mediterranean house, with or without the central hearth, in peripheral regions so far apart as Lycia and Bosnia, opens out a very wide horizon of architectural affinities in the Mediterranean with remoter vistas going back to pre-historic times. The possibility of pre-Aryan affinities in the Mediterranean at such wide intervals becomes endowed with new significance, now that we begin to realize that the ethnological connections of south-west Anatolia, on philological and other grounds are to be regarded as phenomena parallel with those of the Aegean, and that the pre-historic civilization of Bosnia, as represented by the settlement at Bulmir, was the creation of a people whose ethnological affinities were with the Mediterranean and the South, not with Hungary and the North. It is this racial movement, of expansion northwards of people of Africo-Mediterranean provenance, that really accounts for the Mediterranean affinities of the earliest pottery even of Hungary, as at Lengyel and elsewhere. Thus when Hubert Schmidt, for example, would put this earliest pottery in an originative relation to the earliest pottery of the Aegean as derivative, on the pre-supposition that the racial movement was in the other direction, he is trying to establish a sequence of the

¹ See Meitzen, *op. cit.* 476, Fig. XIV. ; 478, Figs. XVIa, XVIIa.

phenomena which reverses the order of development.¹ That the earliest pottery of Bosnia and the Danube valley cannot be brought into one simple ethnological sequence with the incised white-encrusted pottery of true northern origin of Austria-Hungary, is now becoming equally apparent.² There is an ethnological gulf fixed between the two, which excludes community of origin, though the later complication of racial development brought with it in fulness of time a mingling of northern and southern waters in the Balkans, the Danube Valley and elsewhere, that have strongly coloured the tides of later history.³

In relation again to the presence of people of pre-Aryan Africo-Mediterranean affinities in the Aegean and in Anatolia in pre-historic times, the outlook northwards towards the Dardanelles and the Euxine Sea falls naturally into line with what we are now beginning to know of that general East Mediterranean movement of expansion towards the north, in the remote era which saw the first beginnings of the early Hittite power and the foundation of earliest Troy. In view of what we can already conjecture regarding such a northward movement, the Pontic Hinterland beyond the Euxine Sea might well have formed the convenient goal of further efforts at expansion northwards; and this possibility seems to be fully confirmed by certain dominant characteristics of the latest discoveries in South Russia itself, relating to the earliest civilization there.⁴ The painted pre-historic pottery of this region, notwithstanding its strongly marked local differentiation, comes into the same general context as the analogous, though again locally differentiated, ware of East Galicia

¹ *Zeitschrift für Ethnologie*, 1904, 645 ff. I am thus glad to find myself in entire agreement with the judicious criticism of Hubert Schmidt's views by Hoernes, *Die neolithische Keramik in Oesterreich (Jahrbuch der k. k. Zentral-Kommission für Erforschung und Erhaltung der Kunst und Historischen Denkmale, 1905, 25 and note 1)*. He says: 'Ich glaube nicht, dass in dieser aus einigen Punkten der Umgebung von Kronstadt massenhaft überlieferten bemalten Keramik, wie H. Schmidt a. O. 1904, 645 ff. beweisen will, die Voraussetzungen für die Entwicklung der mykenischen Vasenmalerei gesucht werden müssen.'

² I was brought to conclusions in this sense in the course of researches in Bosnia and Austria-Hungary undertaken in 1906. Special travelling funds for this purpose were generously placed at my disposal, while Carnegie Fellow in History at the University of Edinburgh, by the Carnegie Trust. I have also to thank the same enlightened patrons of scientific research for similar liberality in connection with journeys to Turkey, Syria, Egypt, and Sardinia.

³ Hoernes, *ib.* 126-7 suggests a cautious conclusion in the same sense, to which I would attach all the more value because he and myself seem here to have reached common ground after an independent start on either side, from the opposite poles of Hungary on the one hand, and the Aegean on the other.

⁴ von Stern gave some account of the Neolithic pottery of this region at the Archaeological Congress at Athens in 1905. See Hoernes, *ib.* 117.

and the Bukowina ; and the affinities of this, in its primitive connections, are with the earliest ceramics of southern derivation of South Hungary and Bosnia as at Lengyel and Butmir, not with the white-encrusted pottery of northern origin of the Danubian provinces.¹ Thus von Stern² in reporting on these discoveries has as little real justification for putting the earliest ceramics of South and South-west Russia in a parental relation towards the pre-historic pottery of the Aegean, as Hubert Schmidt had for claiming the same parentage in favour of Austria-Hungary.

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(*To be continued.*)

¹ This white-encrusted pottery is very amply illustrated in Wosinsky, *Die inkrustierte Keramik der Stein- und Bronzezeit*. See Hoernes, *ib.* 41 ff., especially on the pottery of Debelo-brdo near Sarajevo in its contrast with that of Butmir.

² *Die prä-mykenische Keramik in Süd-Russland*, Moscow, 1905.