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1934

777TH ORDINARY GENERAL MEETING,  
HELD IN COMMITTEE ROOM B, THE CENTRAL HALL,  
WESTMINSTER, S.W.1, ON MONDAY, MARCH 26TH, 1934,  
AT 4.30 P.M.

K. B. AIKMAN, Esq., M.D., M.A., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed, and signed, and the HON. SECRETARY announced the following elections as Associates:—Albert Hooper, Esq., B.Sc., the Rev. T. C. Innes, M.A., and Professor E. McCrady, D.D.

The CHAIRMAN then called on Mr. G. R. Gair, M.A. (Edin.), F.R.A.I., F.S.A.Scot., to read his paper on "The Cradle of Mankind."

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### *THE CRADLE OF MANKIND.*

By G. R. GAIR, F.R.A.I., F.S.A. Scot., M.S.A.S. (Hon. Editor, The Scottish Anthropological Society, Lecturer in Anthropology and Allied Sciences, Free Church College, Edinburgh).

SCIENTIFIC enquiry has frequently turned to the subject of the origin of man and the lands where his first civilization developed. Unfortunately, the problem seems to have grown more complex with the advance of scientific investigation. Nevertheless, all this careful research cannot lead us into a quagmire—to believe that would be to avoid a problem because of its manifest difficulties. On the contrary, out of the natural confusion must come an ordered elucidation. Now is the time for this, since sufficient evidence has accumulated to make our study of scientific value and not purely apologetic.

The theories fall into two main schools of thought—an eastern and a western (or African). The latter has received considerable adherence, owing to the research work of recent years. Its growth was natural; the fact that relationships existed between Early Stone Age cultures in Europe and those of Northern Africa became strong presumptive evidence for a connection between the races of Europe and Africa. This, of

course, was more and more strengthened as discoveries in Africa proved that not only were the relations of European culture with Northern African demonstrable, but also with those of Kenya, Rhodesia and even South Africa.

The outcome of these discoveries developed a great school of thought which looked upon Africa as the primitive homeland, not only of the great apes, but also of early man. From little-known Africa, men streamed northwards to settle in Europe at the close of the glacial period. Some of these peoples fixed their homes on the shores of the northern seas and underwent a process of bleaching which gave rise to the fair-skinned, light-eyed and yellow-haired peoples of Britain, Scandinavia and Germany. Such is the viewpoint which we may term the African hypothesis and one accepted *in parte*, or *in toto*, by many leading anthropologists and archæologists. The theory of the independence of Europe from Asia, however, has in the past received strong support from well-known philologists as well. In fact, it is perhaps to the philologist that this outlook is very largely due.<sup>1</sup> Dr. Isaac Taylor<sup>2</sup> echoes the views of many scholars, both past and present, when he classes as a mere figment, wholly contrary to the evidence and highly improbable, "the hypothesis that a small Aryan clan in Central Asia could have sent out great colonies which marched four thousand miles to the shores of Europe."

It must be admitted that such views are widely held, and many philologists, ethnologists, archæologists and anthropologists have, in the past, slowly forsaken an Asiatic centre of dispersion for men and civilization, in favour of development, very largely, in Europe supported by inflowings of Africans.

A review of the question, however, shows that fifty years ago philologists were led to the valley of the Oxus and the mountains to the south as the starting points of the nations. These views were based on the then known historical and linguistic evidence. By comparative philological methods these views were raised almost to a level of an historical certainty. Adolphe Pictet<sup>3</sup> attempted to show that the Aryan cradle was ancient Bactria. From this original homeland of the white race, according to Pictet, came the Celts, who settled round the Southern Caspian in the region of the Caucasus, in the districts of Albania and Iberia, before they moved northwards to maritime Europe. But opinion slowly turned against such a hypothesis. The views of Karl Penka,<sup>4</sup> O. Schrader<sup>5</sup> and others represent the late

anti-oriental school. However, opposing these we have the famous Max Müller,<sup>6</sup> Ch. de Ujfalvy,<sup>7</sup> Van de Gheyn.<sup>8</sup> Max Müller's conclusion is interesting: "I cannot bring myself to say more than *non liquet*. But if an answer must be given as to the place where our Aryan ancestors dwelt before their separation, whether in large swarms of millions, or in a few scattered tents and huts, I should still say, as I said forty years ago, 'Somewhere in Asia,' and no more."

On the other hand, scientific evidence appears to have sufficiently advanced to enable us to re-consider the whole question with fuller knowledge, and in this light I believe that the oriental hypothesis contains the greater truth. Consequently, my thesis is given that it may contribute something towards a co-ordination of our knowledge of the origin of ancient peoples and their civilizations.

The archæological evidence clearly indicates a ring of the most ancient civilizations in the world around the high mountain area of Irania, and is represented by the discoveries in Mesopotamia (Kish, Ur, Al'Ubaid, Eridu, Erech, etc.), Susa, the Indus Valley (Mohenjo-Daro, Harappa), and even Anau in Turkestan, while Egypt and Syria must be looked upon as outliers. Not only this, but we have definite evidence of their inter-relativity.<sup>9a</sup>

This brings out three important facts; that at the base of the Iranian Highland Zone, and partly within it, there are the remains of ancient civilizations; that, although each is distinctly individualistic in character, they are obviously inter-connected and inter-related to a greater or lesser extent; that these civilizations are in the main the oldest in the world. Under such circumstances it is evident that the whole weight of evidence favours the cradle of civilization lying within this Iranian zone. In the light of such evidence the stigma (such as that of Salomon Reinach, who calls it a *mirage*) formerly hurled at this view by Occidentalists is invalidated. Indeed, weighing high antiquity and progressiveness on the one hand, in the Orient, and negation in early prehistoric Europe we are entitled to ask, as Peake has, "How did these (epipalæolithic) backward and unprogressive people develop into the Western Europeans of to-day?"<sup>9b</sup> The chronology alone gives the Iranian Highland Zone civilizations a start of several thousand years, while it may be questioned, on a biological basis, whether the degenerate and uncouth savages of Maglemose could ever aspire to the creation of modern Europe.

Frankfort<sup>10</sup> has shown that within the zone, at the first settlement of Susa, is to be found the most ancient pottery of south-west Asia, if not in the whole world.<sup>11</sup> Furthermore, an early form of pottery comes from Anau, although Frankfort has shown that Anau is not so old as Pumpelly believed.<sup>12</sup> Therefore to Irania and the adjacent regions belong some of the earliest manifestations of one of the foundations of civilization—the art of making a clay vessel.

The pre-Sumerian population of Mesopotamia appears to have been blonde as well as dolichocephalic, and in view of the general contacts with Irania, as well as the known fact of its former fair population, that region must be looked upon as the homeland of the earliest form of civilization in Chaldea.<sup>13</sup> Furthermore, there is now evidence to show that the whole of the adjacent areas to the Highland Zone, and its connected systems, were affected by the inflowing of proto-Aryan and probably proto-Nordic peoples, as for example the Mitanni, Kassites, and Hurri<sup>14</sup> while even the ancient Israelites had affinities with the northern mountain region rather than Arabia as most critics have conjectured.<sup>15</sup>

Mr. O. G. S. Crawford has attempted to show<sup>16</sup> that the civilization of Chaldea was scarcely influenced by the pre-Sumerians and that the Sumerians had their cradle in Arabia. The first contention would be difficult to prove, since the other civilizations in the peripheral zone had similar dolichocephalic peoples, and even if the Sumerians gained little from the pre-Sumerians directly, the latter were the common possessors with other regions of an early civilization, which seems from the evidence, to be Iranian. Consequently this does not affect the view that the earliest civilization was here. Furthermore the anthropological fact that the Sumerians were brachycephalic seems to unalterably attach them to Central Asia, where broad heads are and have been dominant, and not Arabia. He cites the kilt or kaunakes as evidence against a northern origin. But this seems of little weight against an Iranian origin, since the Sumerians could have come from the south-east of Irania. Furthermore, northern and mountain people have worn kilts in many regions (Scotland, the hills of Ireland and Albania). Consequently the evidence seems to clearly show the first-comers with any pretence to civilization, the pre-Sumerians, coming from the north or east with racial affinities to a vast number of peoples of long-headed types inhabiting the highlands of

Irania, while the Sumerians arrive in all probability from the same mountains, but from the south-east.

If civilization and the earliest races developed in this region, our case would be materially assisted if we were able to find remnants of those races, which we believe once inhabited that region but are now dispersed over wider areas of the earth's surface, still *in situ*. In addition we must be able to find from the evidence in archæological and historical research that such races as the Alpines and Nordics were once settled in the region and its outlying regions. This latter we have already seen to some considerable extent, since the dolichocephals of Mesopotamia, Syria and Anatolia were apparently congeners not only of other peoples of similar characteristics in Irania, Turkestan and India, but also of the modern Nordic populations of North-western Europe. History adds its support to this case. Thus on a native map in an old Chinese commentary on the historical books of Confucius, at a point in the Tarim basin (the northern peripheral zone of Irania) we read—"Here dwell the Usun, a people with blue eyes and red hair."<sup>17</sup> Herodotus tells us that the Budini, who also lived in Turkestan, were blue-eyed and red-haired,<sup>18</sup> evident references to Nordic-like (or at least Aryan) folk in early times living in this region. The evidence is very definite—on all sides of Irania there poured out in ancient times, streams of men with what may be termed Aryan affinities.

Strong support to this conclusion is given by the added fact that there are actually still surviving remnants of these ancient races in this region otherwise so Mongoloid. Sir Marc Aurel Stein measured the Pakhpo hillmen, in Chinese Turkestan at K k-yar, who originally spoke an eastern Iranian language (and who are allied to the Wakhs, Shughnis and other tribes). He says of these people that they have "in Alpine isolation preserved remarkably well the main physical features of that *Homo Alpinus* which in ancient times appears to have extended right through Khotan and farther east along the southern edge of the Taklam-Akan."<sup>19</sup> Likewise the Ghalchas, hillmen of Roshan,<sup>20</sup> display similar characteristics, being tall, well-built, of European appearance, and with fair hair, blue or steel grey eyes and flowing beards, and represents the Alpine type, probably with an admixture of Nordic blood, if we may note the wavy hair and other significant features. It is interesting to note that the women of Roshan "bleach" their skin as an aid to

beauty. This surely shows a value set upon a fair skin, and clearly indicates the desire of these people to maintain that evidence of their white affinity.<sup>21</sup> The Wakhi population, in the uppermost Oxus, speak an Iranian language and have fair hair and eyes, which were even noted as early as 1602, when the Jesuit, Benedict Goës, passed through Wakhan in search of Cathay, and remarked their resemblance to the Flemings, a Nordic-Alpine people.<sup>22</sup>

As a supplement to what has already been said we learn that these are not the only tribes in this highland area possessing such characteristics. Thus we find that the cephalic indices of the Biloch, Sayad, Sistani and Darwazi are 76·81, 77·21, 76·50, and 79·88 respectively. Here, then, we have peoples with mesaticephalic skulls, and therefore we can confidently believe that we are dealing with a strain of dolichocephalic peoples—who, in view of the tendency to fairness generally among these Non-Mongolic hillmen—were probably of proto-Nordic descent. In the case of the first three of the above tribes, we find these are the least fair of the hill tribes, probably due to an Afghan, Indo-Persian or other infiltration. Since we should expect to find light colour (which proves to be so easily recessive) rapidly influenced, even before any skeletal change is noticeable, it seems evident that we have a fair-long-headed strain, which has undergone a process of nigrescence-growth due to miscegenation. In the case of many of the more fair broad heads, miscegenation has likewise occurred, but its evidence is also not in skull type (since the surrounding Mongoloid peoples are likewise brachycephalic), but in the degree of nigrescence observable.<sup>23</sup>

In consequence of these considerations, investigators are being compelled to go back to theories of an older generation represented by the names of Max Müller, Lasson and others. We find that Dr. A. C. Haddon<sup>24</sup> voices these new, but old, concepts when he says: "The tall, fair, blue-eyed dolichocephals of North Europe are generally believed to be a variety of the Mediterranean race, but these may equally well be two varieties of a common stock, the former probably having their area of characterization in the steppes north of the plateaux of Eur-Asia," while Sir Arthur Keith, in his Frazer lecture at Glasgow University, on March 4th, 1932, says, speaking of the mountainous area of Iran, "Discoveries are being made which, if they do not reveal the actual original Aryan home, do guide us in its direction."



From their residence in the high lands of Inner Asia it seems clear that these peoples are not the residuum of immigrants, as we should be compelled to believe if we accepted the occidental view-point. Indeed, the evidence seems to show that the Aryan hillmen are still retreating as cut-off fragments of a former order before the Kirghis.<sup>25</sup> This is strengthened by the fact that there is evidence that Iranian speech was once current from the Black Sea across Turkestan to the borders of China, and, not only that, but persisted until a relatively late period. Thus at Dandan-oilik in Chinese Turkestan, as late as A.D. 713-41, we have paper MSS. written in Indian Brahmi script, with Buddhist texts partly in Sanskrit, and an unknown language (called Khotanese) which has been shown to be allied to that of ancient Bactria, and thus Iranian.<sup>26</sup> At the Niya site there was discovered writing in the Kharoshthi.<sup>27</sup> This seems to indicate that the Scythian influence spread as far as this region (as we may have concluded already from historical facts), and that it was Iranian in speech, another indication that the region was once Aryan-speaking. Remnants of the lost Sogdian script have been found by Sir Aurel Stein,<sup>28</sup> and, in particular, among Chinese records at a military station in the Tun-huang region, where a wooden tablet (c. 1st century B.C.), inscribed in Early Sogdian, was discovered.<sup>29</sup> Whilst at the "Caves of the Thousand Buddhas" have been discovered thousands of MSS. in Chinese, Tibetan, in Indian scripts, and Sanskrit. This is indicative of Iranian influences so far to the east as late as the 9th century A.D.<sup>30</sup> One language discovered is of special note—Tokhari, which was once spoken in the north of the Tarim basin and Turfan. This tongue has proved to be more nearly related to the Slavonic and Italic branches of the Aryan language than to those spoken in Asia.<sup>31</sup> In view of the late arrival of the Slavonic-speaking peoples in Europe from the east, this, on *a priori* grounds, goes far to indicate not an eastward but a westward movement, and is material to this thesis. It is also important to remember that the Slavonic languages of Europe are closely associated with the Alpine racial type, and in view of the already demonstrated survival of Alpine remnants in Central Asia, the evidence is considerably strengthened. Thus the philological evidence seems to be clearly in support of the archæological and anthropological, which indicates an outward movement from Central Asia. Like waves of the sea the peoples, their cultures and languages have flowed from the fountain-head, and have rarely returned,

leaving isolated "fossil" elements (as the Ice Age has left "fossil" ice on the high mountains in the same region) in dead languages or "lost" peoples here and there. From time to time "reflexive" movements have taken place—the march of Greeks to the heart of the Ancient World, or the spread of the Aramaic script (under the influence of the Manichæan church) to Sogdiana—but these are merely man-made interruptions of the natural flow of a tide which has never ebbed.

Therefore scientific discovery has completed its cycle of development in this matter, and is returning with added proofs, to a position in accordance with the minds of great scholars of the past. Furthermore, it is slowly, but surely, aligning itself with traditional and historical conceptions. From the Orient came our peoples and our civilizations—and from that Orient with which we are familiar in our ancient literature. Civilization and race-development neither started in the shell heaps of the Baltic nor in the equatorial regions of Africa.

In the foregoing I outlined the Caucasian theory as based upon the conceptions of philologists during the past century. Its growth and eventual decadence were traced. Finally, the resuscitation of the hypothesis, due to the amazing amount of archæological and anthropological evidence since discovered, was outlined. In this connection Professor Sir Arthur Keith's adherence to the Caucasian theory was welcomed.

Before dealing with evidence of an archæological or anthropological character (such as I have already done) in favour of this point of view, a natural difficulty—a question of biogeography, must have occurred to all. If we are to postulate that races and civilizations grew up in, and spread out of, Iran, what of the climatic factors? This is a very natural difficulty which is bound to present itself to enquirers at the outset. The plateau region of Iran is part of the great Eurasiatic spine, rising from 6,000 feet in Anatolia to nearly 12,000 feet over much of Persia. To-day this plateau region consists very largely of poor steppes and deserts. The January temperatures (reduced to sea level) are 60° to 50° Fahrenheit. Let us say 55° Fahrenheit. When due allowance is made for altitude, let us take an average height of 6,000 feet; this means that the average temperature in this month is about 35° Fahrenheit. The July temperature similarly approximated, gives us an average of over 70° Fahrenheit. A range of 35° Fahrenheit between the two months. (The range between these months in most of Britain is about

20° Fahrenheit.) The rainfall, which is a more important matter than temperature in this case, is less than one inch in January and July. The consequence is, the population is less than two persons to the square mile in some areas, and in the more populous parts, ranges from two to twenty-six persons per square mile. Bearing these facts in mind, the Caucasian theory, be it never so strong in its purely academical concepts, seems to be untenable on a physical basis. Can the great mountain mass of Iran really be the home of civilization? On first consideration it seems hard to believe such a region as this could be the centre of dispersion of hordes of humanity, and in particular the focal centre of the great Aryan peoples.

At this point it is necessary to remember that climate has not always been the same as it is to-day. In fact, concerning this region the many prehistoric sites demonstrate forcibly that something radical has happened to the general conditions of life during the last 6,000 years.

Meteorology, astronomy, anthropology, archæology, zoology and geology all unite in proving that there have been great changes in climate since life appeared on the earth; and in the case of geology alone, there is evidence of these changes before the appearance of life at all. Proof of an Ice Age is to be found in the oldest known rocks—the Archæan. Later in Lower Cambrian, then in Permo-Carboniferous and finally in Quaternary times, evidences of cycles of glaciation are found.

In post-glacial and historical times climatic alterations are known to have occurred. Some of these changes have been noted, either in early meteorological registers, *e.g.*, those of Ptolemaeus, first century; Tycho Brahe in the sixteenth century; or in legends and history; or else they are inferred from the distributions of civilization in now uninhabitable lands; or from the recording of lake levels, as for instance those of the Caspian Sea; and so on. Many reasons have been advanced to account for these changes of climatic conditions. We have theories of eccentricity of the earth's orbit, formulated by Croll, and of obliquity of the plane of the ecliptic, by Drayson. Then we have views based upon the changes in radiation and the consequent climatic variation with the changing amounts of carbon dioxide and impurities in the air, held by Chamberlain, Humphrey, Tyndall, and Frech. There is also the sun-spot cycle theory of Huntington and Visher. Finally, we have the hypothesis of

Continental Drift, and a movement of the poles which owes its origin to the work of Kreich-Gauer, Köppen and Wegener.

We cannot here discuss further the relative claims of these theories, but the fact remains that we have definite evidence of continuous change in climatic and meteorological conditions from earliest geological to recent times. Concerning our "home of the nations" (in particular, the Iran Plateau), we know that it formerly enjoyed much milder and more temperate conditions. The lake levels in the Near East were higher and steppe lands appeared where now is desert, and forest instead of steppes. These differences were no doubt due, in part at least, to the cyclonic paths following another track than that customary in modern times. To these great alterations in our climate we must attribute many stories which have been stigmatized by ignorant critics as fables. The Twilight of the Norse Gods and the Flood legends of the Chaldeans are all references to actual events which happened at periods of greater snowfall and more pluvial conditions.

A detailed study of climatic changes in post-glacial times brings out very clearly in what measure the Asian lands, which are now vacant wastes, or nearly such, were experiencing pluvial conditions. This is the more important when we realize that it is partly the existence of such conditions in Northern Africa, as well as the purely archaeological evidence, that has driven so many to search for an African cradleland. For example, the intense desiccation which Central Asia has undergone (even if sometimes spasmodically as well as progressively) is evidenced everywhere to the traveller. Thus are found the remains of temples and town sites of Greek, Roman, Chinese, and Buddhist character,<sup>32</sup> some of which contain extant Buddhist paintings, while others form mines for the meagre population in search of gold leaf (which formerly covered images and buildings, and now witnesses to a lost civilization) and other treasures.<sup>33</sup> Or else the desert is dotted here and there with the trunks of trees (willow, white poplar, and other planted trees, and fruit trees, such as peach, apple, plum, apricot and mulberry).<sup>34</sup>

These changes, which have brought about such widespread desolation, are not of recent occurrence, owing to the breakdown of irrigation or some other such cause. We find, for example, remains of very ancient date<sup>35</sup> in what are now completely arid regions. The history of the site of Anau gives conclusive proof of the desiccation which the Iranian region has undergone.

The aridity of Central Asia clearly seems to be correlated with the increase and decrease in the size of the lakes and oceans once existing in greater numbers than to-day. This phenomena was undoubtedly due to particular regimen of cyclonic activity, and in turn may be associated with the advance and retreat of the glaciers of the high mountains of Central Asia. From tertiary to post-glacial times an ocean stretched from the Middle Danube far into Central Asia, of which the remnants to-day are the Black Sea, the Sea of Azov, the Caspian, the Aral, and other smaller sheets of water. Owing to these conditions, Central Asia enjoyed pluvial conditions which only terminated with the retreat of the ice and the change of the cyclonic paths. Since when desiccation has been taking place, and will become more intense as the "fossil" ice on the high mountains grows less.

The existence of these former oceans and pluvial conditions had two important effects. Direct migration to the north-west was retarded at the earliest stages of civilization, and men were compelled to migrate through the Mediterranean and Northern Africa. Consequently the migration of cultures from the south into Europe is no argument for an essentially African origin, as has been maintained heretofore. Furthermore, the pluvial conditions brought about a region of increment in the whole of the foothills and higher lands of Irania and made the development of civilization, and the higher types of races, possible. Had this not been the case the civilizations of Chaldea, the Indus Valley and Persia could never have existed, and neither could Parthia have challenged the power of Rome.<sup>36</sup>

The evidence of science (archæology, anthropology, philology, geography and geology, and of botany and zoology if space had allowed further discussion) as well as of history shows clearly that the Asiatic hypothesis is not without considerable foundation—indeed, it seems certain that the whole weight of dispassionate enquiry must be held to favour an Iranian origin for civilization, and for the races and peoples to-day inhabiting Europe. Here then, at the feet of the western Eurasiatic mountains, forming a peripheral margin to the upland regions, existed civilization, while the rest of the world was still hidden in primæval darkness. It is to this region we must turn for our own ancestors and their first civilizations, and not to the dismal primæval European forests nor to Africa. Among the peoples

and civilizations of Irania, in a region of climatic optimum (as it then was), in the lands of Bactria, Persia, Elam, Media, Parthia, Sogdiana, of the Budini, the Massagetæ (the Sacæ and Yechi), from whence have flowed Aryans into India, peoples to China, Goths, Huns, Magyars and Avars to Europe, we turn for the original Ararat, the high-hills which were once the cradle of mankind.

#### APPENDIX A.

As early as 1851 Dr. R. S. Latham wrote against the then prevalent oriental hypothesis. He argued that since the bulk of the Aryan peoples are living in Europe and only detached fragments in the East, and since Lithuanian is clearly related to Sanskrit, and, if we had an ancient Lithuanian literature as old as the Sanskrit and Zend, the argument would more likely favour the Baltic. Among the criteria of the anti-orientalists are those based upon a botanical distribution of plants contained in the primitive roots of a language. For example, the word for "beech" tree (Latin, *fagus*) is common to all European Aryan languages. Since the beech is not found east of the Crimea and Caucasus it is argued that these languages must have evolved in Europe, from whence they overflowed into Asia. Such an argument seems to assume far too much. It is generally admitted that the Greeks used *φηγός* for oak and not beech, apparently, we are told, because they possessed few beeches but many oaks. But if this should have happened in this instance there is no reason why it should not have done so in others. Further, since the beech is so limited to Europe it seems clear that the distribution of the name should be European. Again, granted an eastward movement of peoples we should expect to find the distribution for the word beech among all the oriental Aryans, even if applied to other species. This is not so, and since distributions is expected within the habitat of the genus, there can be no evidence in this for a European cradle-land. Yet we find R. A. Smith using such in "The Bronze Age Guide," The British Museum, p. 12. Again, any arguments, such as those used, seem to vitiate themselves since they imply a static biological state in nature's distribution, whereas the contrary is rather the case.

## APPENDIX B.

This is clearly shown by the similarity of finds, for example, in the Royal Graves<sup>37</sup> at Ur and at Mohenjo-Daro,<sup>38</sup> where red carnelian beads decorated in an elaborate white design have been found.<sup>39</sup> The beads from India were in the highest levels, and consequently Mohenjo-Daro appears to be earlier than this date. At Chanhudaro, Nawab Shah district, Sind<sup>40</sup>, a flat oval bead with a figure of eight design was discovered and was exactly similar to that found by Mackay at Kish.<sup>41</sup> Another resembles in shape and marginal decoration a bead from Kish (dated about 3000 B.C.)<sup>42</sup> Other similarities exist.<sup>43</sup> Significantly also is the fact that painting upon carnelian is still practised in Persia, midway between Mesopotamia and the Indus Valley. Furthermore, such beads have been found in Russia, although of a later date.<sup>44</sup> We also find that the rectangular bead in the higher levels at Mohenjo-Daro is analogous to a bead from Queen Shubad's Grave (Ur—c. 3100 B.C.).<sup>45</sup> While serrated forms of beads have been found at Mohenjo-Daro<sup>46</sup> and at Ur and at Kish.<sup>47</sup> Furthermore, flattened hemispherical-shaped terminals are frequently found at Mohenjo-Daro,<sup>48</sup> and also well to the west on the other side of Iran at Byblos,<sup>49</sup> while hollow gold terminals of the same period have been found at Gizeh.<sup>50</sup> Of particular importance is the discovery at Tépé Douecya, Susa,<sup>51</sup> of representations of hemispherical and triangular-shaped terminals (dated First Period, c. 4250 B.C.).

The cubical dice also, as Mackay<sup>52</sup> shows, has many examples at Mohenjo-Daro<sup>53</sup> and one has been found at Ur, while another found at Tel el-Amarna has the numbers arranged identically as at Mohenjo-Daro<sup>54</sup> which must be more than a coincidence. A tetrahedron found at Al'Ubad is identical with another from India.<sup>55</sup> In addition thick pottery rings (internal diameter one inch) have been found at Kish<sup>56</sup> by Mr. Mackay, and at Mohenjo-Daro.<sup>57</sup> The framed Greek Cross as a decoration affords another link between Ur<sup>58</sup> and is associated with the Swastika, which is known at an early date in India, and on the Early Painted Pottery of Elam.<sup>59</sup> Feeding cups (with the spout rising from the bottom) are found in the Indus Valley and at Ur alike,<sup>60</sup> while a shell ladle is found at Mohenjo-Daro,<sup>61</sup> Kish and Ur. In the early graves at Ur, and in the Indus region, stone beads capped with gold are found, while certain perforated vessels found at Mohenjo-Daro<sup>62</sup> are

related to those found at Kish.<sup>63</sup> Zoomorphs show similarities (panther heads in India)<sup>64</sup> and masks at Ur, dated c. 3500 B.C., while Elam (Musyam), Crete, Harappa and Mohenjo-Daro<sup>65</sup> have yielded doves. The dove is of particular interest since it has been found in gold and lapis lazuli at Susa,<sup>66</sup> and at the temple at Al'Ubaid (where it is dedicated to the goddess Ninkharsag).<sup>67</sup> Mackay<sup>68</sup> points out that the doves occur in Crete and Sardinia as well, and is a Mother-goddess cult sign.

Ram-like zoomorphs have been found at Mohenjo-Daro,<sup>69</sup> at Ur<sup>70</sup> and at Kish.<sup>71</sup> Further links are proved by jar-borers found in the Indus region,<sup>72</sup> and at Meraijib (near Ur). A figure of eight design common to the Indus<sup>73</sup> has been found at Kish, and in Egypt, in the 13th-17th dynasties,<sup>74</sup> and probably in the Second Predynastic, when the people possibly came from the Red Sea and were therefore Asiatics. Commonly found at Mohenjo-Daro are four-petalled rosettes<sup>75</sup> and these are found on painted pottery at Tell Zeidan, in Northern Syria.<sup>76</sup> Mackay (*Kish*, p. 471) points out that this motif is unknown in the countries between, which seem to demonstrate the probability of the motif having been distributed by migrants along the Mountain Zone, and therefore in country as yet little excavated. "Reserved" slip-ware is common to the Indus,<sup>77</sup> and Ur<sup>78</sup>.

#### ABBREVIATIONS.

- |                          |    |                                                                                                              |
|--------------------------|----|--------------------------------------------------------------------------------------------------------------|
| Mackay, <i>Antiquity</i> | .. | Mr. E. Mackay, "Further Links between Ancient Sind, Sumer and Elsewhere." <i>Antiquity</i> , December, 1931. |
| Mackay, <i>Kish</i>      | .. | Mr. E. Mackay, <i>Sumerian Palace and a Cemetery at Kish</i> , Field Museum, Chicago.                        |
| M-D.                     | .. | <i>Mohenjo-Daro and the Indus Civilization</i> , edited by Sir John Marshall.                                |
| M.D.P.                   | .. | Mém. Délégation en Perse.                                                                                    |
| <i>J.R.A.I.</i>          | .. | <i>Journal of the Royal Anthropological Institute</i> .                                                      |
| Stein                    | .. | Sir Marc Aurel Stein, <i>On Central Asian Tracks</i> , 1933.                                                 |
| Pumpelly, 1905           | .. | <i>Explorations in Turkestan</i> , Carnegie Institution, Washington D.C., 1905.                              |



## BIBLIOGRAPHY.

- (1) See Appendix A.
- (2) *The Origin of the Aryans*, 1906, p. 5.
- (3) *Origines Indo-Européennes*, 1859.
- (4) *Origines Ariacae*, 1885.
- (5) *Sprachvergleichung und Urgeschichte*.
- (6) *Biographies of Words and the Home of the Aryas*, London, 1888.
- (7) *Le Berceau des Aryas d'après des ouvrages recents*, Paris, 1884 ;  
extrait des b. de la société d'anthropologie.
- (8) *L'origine européenne des Aryas*, Antwerp, 1885, Paris, 1889.
- (8a) See Appendix B.
- (9) Presidential address, *J.R.A.I.*, p. 21, vol. 57, 1927.
- (10) *Antiquaries Journal*, IV, 1924, p. 59.
- (11) That of Badari in Egypt (Sir F. Petrie, *Man*, XV, 78 ; XVI, 34)  
can be but very little earlier, if at all, while Knossos in Crete, which  
is Predynastic, is certainly no earlier.
- (12) *Antiquaries Journal*, IV, 1924, p. 84 ; Pumpelly, *Exploration in  
Turkestan*, Carnegie Institution, Washington, D.C., 1905 and 1908.
- (13) Prof. A. H. Sayce, "The Antiquity of Civilized Man," *J.R.A.I.*,  
vol. LX, 1930.
- (14) *Ibid.* and A. M. Tallgren, "Dolmens of North Caucasia," *Antiquity*,  
June, 1933, p. 200.
- (15) A short paper by myself on "Problems in Biblical and Mesopo-  
tamian Ethnography and Geography, read to an "Informal Study-  
Group" in London, 8, October, 1932, obtainable from the Secretary,  
Miss A. C. Robertson, 2, Thames House, E.C.4.
- (16) *Geographical Review*, 1926, p. 73 *et seq.*
- (17) R. Pumpelly, *Explorations in Turkestan, Expedition of 1904*,  
Carnegie Institution, 1908, Washington D.C., p. xxv.
- (18) Furthermore, the town of the Budini was Gelonius and had a  
Greek Colony—a fact more easily understood if they were Aryans and  
not Mongols.
- (19) Stein, p. 50.
- (20) *Ibid.*, p. 299.
- (21) Stein, pp. 319–20.
- (22) Stein, p. 310.
- (23) For a detailed study of these tribes see *Notes on the Physical  
Anthropology of the Pamirs and Oxus Basin*, by T. A. Joyce, M.A.,  
F.R.A.I. Appendix C, *Innermost Asia* (Stein), vol. II.
- (24) *The Wandering of the Peoples*, p. 16, Cambridge, 1927.
- (25) W. Rickmer-Rickmers, "The Alai-Pamirs Expedition in 1913  
and 1928," *Geographical Journal*, vol. LXXIV, 1929, p. 220.
- (26) Stein, p. 60.
- (27) An Aryan dialect, which in India is found on inscriptions of the  
Kushana or Indo-Scythian dynasty of the first three centuries A.D.  
Stein, p. 71 *et seq.*
- (28) Stein, pp. 139–140.
- (29) Stein, p. 80.
- (30) Stein, pp. 193 *et seq.*
- (31) Stein, p. 215.

- (32) Stein, p. 96 *et seq.* and elsewhere.
- (33) As at the ancient capital of Khotan, Stein, p. 55.
- (34) Stein, p. 59, p. 84, also see Pumpelly, 1905, pp. 276-277, T. H. Holdich, "The Indian Borderland," London, 1901, p. 107; W. T. Blanford, "On the Nature and Probable Origin of the Superficial Deposits in the Valleys and Deserts of Central Persia," *Journal Geological Society*, London, vol. 29, 1873, pp. 493-503; P. M. Sykes, "Ten Thousand Miles in Persia," London, 1902, p. 364; Vredenburg, "A Geological Sketch of the Baluchistan Desert, etc." *Mem. of the Geological Survey of India*, vol. XX, XII, pt. 2, 1901.
- (35) Such as Neolithic flint arrow-heads, knife blades and coarse pottery in one of the ancient deltas of the now dried up Lop-sea; and in other places, arrow-heads and jade celts. Stein pp. 135 and 149.
- (36) Owing to lack of space a detailed discussion of Central Asian desiccation and the distribution of cereals and fauna has been deleted.
- (37) C. 3500-3200 B.C. according to Woolley
- (38) See E. Mackay, "Further Links between Ancient Sind, Sumer and Elsewhere," *Antiquity*, December, 1931, p. 459.
- (39) In one instance the beads found in both sites were decorated with single circles.
- (40) The lowest levels of which belong to the Indus Valley culture.
- (41) Mackay, *Kish*, pl. 60, f. 55.
- (42) *Ut supra*, pl. 60, f. 62.
- (43) Mackay, *Antiquity*, pp. 460-461.
- (44) *Archæologia*, 1929, LXXIX, 144.
- (45) *Museum Journal*—Univ. Penn. XX, Nos. 3-4, pl. v.
- (46) Mackay, *Antiquity*, pl. 3, facing p. 459.
- (47) A. Graves—c. 3100 B.C.
- (48) M.-D., pl. 149, figs. 1-3; 151 (*f. b.*)
- (49) *Temp.* 4th Dynasty, Egypt, c. 2900-2750 B.C.
- (50) *Illustrated London News*, 21st February, 1931, p. 296.
- (51) Excavated by M. de Mecquenem, M.D.P., t. xx, 113, f. 19 (6-9).
- (52) Mackay, *Kish*, p. 463, etc.
- (53) M.-D., pl. 153, f. 7-10.
- (54) 1 opposite 2, 3 : 4, 5 : 6 : Mackay, *Antiquity*.
- (55) Mackay, *ibid.*, p. 464; M.-D., pl. 153, f. 40, 41.
- (56) Mackay, *Kish*, p. 206, pl. 44, f. 2.
- (57) M.-D., pl. 152, f. 16, top.
- (58) Dated 3500-3200 B.C., by Mr. Woolley.
- (59) J. de Morgan : *La Préhistorique Orientale*, t. 11, p. 266, fig. 293.
- (60) M.-D., pl. 83, f. 20.
- (61) M.-D., pl. 156, f. 26/29.
- (62) M.-D., pl. 84, f. 3-18.
- (63) Mackay, *Kish*, pl. 54, f. 36.
- (64) M.-D., pl. 96, f. 5, 6.
- (65) *q.v.*, pl. 96, f. 1.
- (66) M.D.P. t. 7, pl. 25, f. 1, 2.
- (67) Hall and Woolley, *Ur. Excavations*, 1, pl. 33.
- (68) *Antiquity*, p. 467.
- (69) *q.v.* pl. 153, f. 24.
- (70) c. 3500-3200 B.C. Woolley, *Antiquaries Journal*, x, pl. 41A.

- (71) According to Mackay, *Kish*, p. 470, not earlier than 3100 B.C.  
 (72) M.-D., pl. 130, f. 35.  
 (73) M.-D., pl. 118, f. 5.  
 (74) Petrie, *Buttons and Design Scarabs*, pl. 8, f. 129-30.  
 (75) M.-D., pl. 91, f. 9, 10.  
 (76) Dated 3500 B.C., according to Albright, *Man*, March, 1926, pl. c., f. 1.  
 (77) M.-D., pl. 159, f. 1, 2.  
 (78) Stratum E. before 3500 B.C.; *Antiquaries Journal*, x, 331 and 339.

#### DISCUSSION.

THE CHAIRMAN (Dr. K. B. Aikman) said: This very able paper shows how fashions change. Discoveries in Africa produced the African Theory. This paper, on the other hand, shows how much evidence, both old and recent, there is which favours the Asiatic Theory. I was specially impressed by references to the climatic changes in Europe and Asia, and should like more light on the contemporary changes in Africa. The philological evidence seems difficult to overcome.

One real difficulty has not been stressed. Even allowing for geologists' errors, the origin of man has been pushed back enormously beyond the usual ideas of the Adamic Creation. We find primary races—Caucasians, Mongolians, Negroes, whose differences would entitle them to rank as Species rather than varieties, if any organism, other than man, were under consideration. Either on the Evolutionary Theory or on the Creation Theory, we must postulate an extremely remote ancestor from which these three all-but "species" became differentiated. Even on the Creation Theory this must be so, for there is no record of the separate creation of White, Yellow and Black.

Whether regarding it from the Evolutionary or from the Creation standpoint, therefore, we must admit that the last word has not yet been spoken. There is no possibility yet of a final decision, and we are under a very real debt to Mr. Gair for his very able and scientific presentation of recent discoveries and evidence. These may yet prove sufficiently weighty to swing the pendulum until the Asiatic Theory once more holds the field, and when it does, I am sure it will be largely owing to the labours of Mr. Gair to whom I have much pleasure in proposing a hearty vote of thanks.

Lieut.-Colonel L. M. DAVIES, F.G.S., F.R.S.E. : This is a very interesting paper, collecting together many facts, brought out by workers in the East, to show that the chief modern civilizations are traceable to an Asiatic, and not to an African, origin. It is a pity that lack of space compelled Mr. Gair to cut out much of the evidence which he had originally collected to this effect.

Dealing only with relatively recent developments, the paper may not itself dispose of the African hypothesis as to man's *origin*, for the latter involves appeal to far earlier remains (Chellean and pre-Chellean) than the post-palæolithic data mainly referred to by Mr. Gair ; but even if we allow (as it seems that we must) of an extensive palæolithic distribution of mankind, not only in Africa but all over the world, it is at least remarkable to find that we have such good evidence of an *Asiatic origin for our post-palæolithic civilization*. It recalls the fact, definitely stated in the Bible, that, after the world disaster of the Flood, mankind made a fresh start (in the persons of the descendants of Noah) in Asia, for even Mesopotamia was subsequently colonized by them as they journeyed " from the East " (Gen. 11, 2) ; just such a migration as is pictured by Mr. Gair.

We cannot safely argue that mankind must have taken untold ages to split apart into its existing varieties. As regards the more marked peculiarities of the negro type of mankind, I would remind the Chairman that, on the theory of Creation, it may well be the case that species, like individuals, are more plastic in their youth, and even on the theory of evolution (to which I do *not* subscribe) it by no means follows that periods of rapid change may not be followed by much longer ones of relative stability. An extreme age for man, therefore, if it is to be proved, will have to be established by geological facts and not by inductions from present morphology.

Mr. SIDNEY COLLETT : I am sure we must all wish to express thanks to the learned lecturer for the paper he has read. The lecturer has given us the names of a number of scientific men who have gone into this question very closely. They have visited different parts of the earth, and have dug up bones and skulls and teeth, and flint implements, and examined monuments, etc., and, instead of coming to a unanimous conclusion we find them divided

into three distinct schools. One of these schools declares that the cradle of mankind was in Europe ; another school declares, with equal certainty, that it was in Africa ; while a third is equally sure that it was in Asia.

What are we to do ? We cannot all go round the world digging up bones and fossils and flint implements.

In Genesis 2 I read that when God created man He placed him in Eden. So that we know on the authority of God's Word that wherever Eden was there was the cradle of mankind. Hence the pressing question is : Where was Eden ? And the answer to that question is not difficult, for in that same chapter we read that a river went out of Eden and was parted and became into four heads, one of those heads being the Euphrates. While it must readily be acknowledged that at the time of the Flood there must have been tremendous upheavals of the surface of the earth, causing great changes in the *courses* of various rivers, it is unthinkable that a whole mighty river, such as the Euphrates could be lifted out of one continent and transferred to another. So that the cradle of mankind must have been somewhere in the neighbourhood of the Euphrates.

Now we know that the Euphrates is *not* in *Europe*, so the cradle of mankind could not have been in Europe. Secondly, we know that the Euphrates is *not* in *Africa*, so the cradle of mankind could not have been there ; but we also know that the Euphrates *is* in *Asia*. So the cradle of mankind *must* have been in *Asia*.

Colonel F. MOLONY, O.B.E., R.E., said : Speaking of great alterations in our climate, Mr. Gair says : " The Flood legends of the Chaldeans are all references to actual events which happened at periods of greater snowfall and more pluvial conditions," and " The aridity of Central Asia clearly seems to be correlated with the increase and decrease in the size of the lakes and oceans once existing in greater numbers than to-day. This phenomenon was undoubtedly due to particular regimen of cyclonic activity, and in turn may be associated with the advance and retreat of the glaciers of the high mountains of Central Asia."

Does Mr. Gair consider it probable that Noah's flood may have been caused by the break-up of a glacial dam at the outlet of Lake

Van during a period of heavy rain ? The area of Lake Van is 1,476 square miles. But a shore line has been noted 100 ft. above its present level, which would make its area 1,771 square miles. If this 100 ft. ran off suddenly it would send a flood of 30 cubic miles of water down the Tigris, and such a flood would take several months to run off the flat plain of Iraq—as described in the Biblical account of Noah's flood.

#### LECTURER'S REPLY.

It is quite possible that a breaking up of a lake in the neighbourhood of the present Lake Van might have produced results such as Colonel Molony speaks of ; but my main contention has rather been to discuss a wider area of pluvial and desiccation activity, namely, the whole of inner Asia, and to correlate that with the traditions, racial movements, cultures and the languages of the peoples.