

THE INFLUENCE OF ANCIENT EGYPTIAN CIVILIZATION IN THE EAST AND IN AMERICA.¹

BY G. ELLIOT SMITH, M.A., M.D., F.R.S., PROFESSOR OF ANATOMY IN THE VICTORIA UNIVERSITY OF MANCHESTER.

IN the lectures (2) which in former years I have delivered at the John Rylands Library, I discussed the problems of the gradual diffusion of Egypt's influence to the neighbouring parts of Africa, Asia, and the Eastern Mediterranean Islands and Coasts, which began at a very early historical period. On the present occasion I am calling attention to a mass of evidence which seems to prove that, towards the close of the period of the New Empire, or perhaps even a little later, a great many of the most distinctive practices of Egyptian civilization suddenly appeared in more distant parts of the coast-lines of Africa, Europe, and Asia, and also in course of time in Oceania and America; and to suggest that the Phœnicians must have been the chief agents in initiating the wholesale distribution of this culture abroad.

The Mediterranean has been the scene of so many conflicts between rival cultures that it is a problem of enormous complexity and difficulty to decipher the story of Egyptian influence in its much-scored palimpsest. For the purposes of my exposition it is easier to study its easterly spread, where among less cultured peoples it blazed its track and left a record less disturbed by subsequent developments than in the West. Mr. W. J. Perry has shown that once the easterly cultural migration has been studied the more complicated events in the West can be deciphered also.

The thesis I propose to submit for consideration, then, is (*a*) that the essential elements of the ancient civilizations of India, Further Asia, the Malay Archipelago, Oceania, and America were brought in succession to each of these places by mariners, whose oriental migrations

¹ An elaboration of the lecture delivered in the John Rylands Library, on 10th March, 1915. The numbers in brackets refer to the notes at the end.

(on an extensive scale) began as trading intercourse between the Eastern Mediterranean and India some time after 800 B.C. (and continued for many centuries [see (3) and (4)]) ; (b) that the highly complex and artificial culture which they spread abroad was derived largely from Egypt (not earlier than the XXI. Dynasty), but also included many important accretions and modifications from the Phœnician world around the Eastern Mediterranean, from East Africa (and the Soudan), Arabia, and Babylonia ; (c) that, in addition to providing the leaven which stimulated the development of the pre-Aryan civilization of India, the cultural stream to Burma, Indonesia, the eastern littoral of Asia and Oceania was in turn modified by Indian influences ; and (d) that finally the stream, with many additions from Indonesia, Melanesia, and Polynesia, as well as from China and Japan, continued for many centuries to play upon the Pacific littoral of America, where it was responsible for planting the germs of the remarkable Pre-Columbian civilization. The reality of these migrations and this spread of culture is substantiated (and dated) by the remarkable collection of extraordinary practices and fantastic beliefs which these ancient mariners distributed along a well-defined route from the Eastern Mediterranean to America. They were responsible for stimulating the inhabitants of the coasts along a great part of their extensive itinerary (a) to adopt the practice of mummification, characterized by a variety of methods, but in every place with remarkable identities of technique and associated ritual, including the use of incense and libations, a funerary bier and boat, and certain peculiar views regarding the treatment of the head, the practice of remodelling the features and the use of statues, the possibility of bringing the dead to life, and the wanderings of the dead and its adventures in the underworld ; (b) to build a great variety of megalithic monuments, conforming to certain well-defined types which present essentially identical features throughout a considerable extent, or even the whole, of the long itinerary, and in association with these monuments identical traditions, beliefs, and customs ; (c) to make idols in connexion with which were associated ideas concerning the possibility of human beings or animals living in stones, and of the petrification of men and women, the story of the deluge, of the divine origin of kings, who are generally the children of the sun or of the sky, and of the origin of the chosen people from incestuous unions ; (d) to worship the sun and adopt in reference to this

deity a complex and arbitrary symbolism representing an incongruous grouping of a serpent in conjunction with the sun's disc equipped with a hawk's wings (Fig. 1), often associated also with serpent-worship or in other cases the belief in a relationship with or descent from serpents ; (e) to adopt the practices of circumcision, tattooing, massage, piercing and distending the ear-lobules, artificial deformation of the skull, and perhaps trephining, dental mutilations, and perforating the lips and nose ; (f) to practise weaving linen, and in some cases to make use of Tyrian purple, pearls, precious stones, and metals, and conch-shell trumpets, as well as the curious beliefs and superstitions attached to the latter ; (g) to adopt certain definite metallurgical methods, as well as mining ; (h) to use methods of intensive agriculture, associated with the use of terraced irrigation, the artificial terraces being retained with stone walls ; (i) to adopt certain phallic ideas and practices ; (j) to make use of the swastika symbol, and to adopt the idea that stone implements are thunder-teeth or thunderbolts and the beliefs associated with this conception ; (k) to use the boomerang ; (l) to hold certain beliefs regarding "the heavenly twins" ; (m) to practise couvade ; (n) to adopt the same games ; and (o) to display a special aptitude for, and skill and daring in, maritime adventures, as well as to adopt a number of curiously arbitrary features of boat-building.

Many of the items in this list I owe to Mr. W. J. Perry, to whose co-operation and independent researches the conclusiveness of the case I am putting before you is due. But above all the credit is due to him of having so clearly elucidated the motives for the migrations and explained why the new learning took root in some places and not in others.

That this remarkable cargo of fantastic customs and beliefs was really spread abroad, and most of them at one and the same time, is shown by the fact that in places as far apart as the Mediterranean and Peru, as well as in many intermediate localities, these cultural ingredients were linked together in an arbitrary and highly artificial manner, to form a structure which it is utterly impossible to conceive as having been built up independently in different places.

The fact that some of the practices which were thus spread abroad were not invented in Egypt and Phœnicia until the eighth century B.C. makes this the earliest possible date for the commencement of the great wandering.

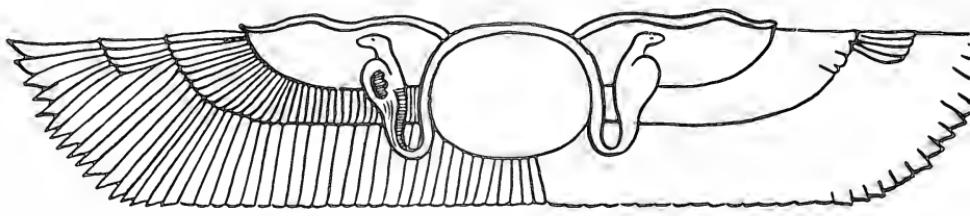


FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

FIG. 1.—The winged disc from the lintel of the door of an Egyptian temple of the New Empire Period (see note 23).

Note the serpents' tails along the upper margin and the first stage of conventionalizing the body.

FIG. 2.—The Assyrian winged disc. The figure in the winged circle is the god Ahuramazda. This illustrates the widespread custom of replacing the disc by the dominant deity.

FIG. 3.—A portion of the winged disc found on the lintel of the door of a temple at Ococingo in Chiapas, from a drawing by Waldeck, which is supposed by Bancroft (from whose book I have borrowed it) to be restored in part from Waldeck's imagination (Bancroft, "The Native Races of the Pacific States," 1875, Vol. IV, p. 351). Whether this is so or not, sufficient of the real design was reproduced by Stephens and Calderwood ("Incidents of Travel in Central America, Chiapas, and Yucatan," London, 1854, p. 384) to show that it is a winged disc, clearly modelled on the well-known Egyptian design, Fig. 1, but reversed (upside down), as in a Syrian relief figured by Spamer (see Nuttall, *op. cit.*, p. 428). Spinden, however, states that it is not the disc, but the "Serpent-Bird". The serpents of the Egyptian design have become transformed in the Mexican example into a conventionalized geometrical pattern.

FIG. 4.—The "Serpent-Bird" or "Feathered Snake" god Kukulkan, from Tikal (after Maudslay and Joyce). A later and more highly "Americanized" representation of the winged disc and serpents. The god's face now replaces the disc, as in some of the Asiatic derivatives of the Egyptian design. The conventionalization of the serpent's "body" into a simple cross (the first stage of this process is found on the Egyptian monuments) is seen here as in the Ococingo design (Fig. 3). A striking confirmation of this interpretation is supplied by Maudslay, who has shown that the pattern below the cross (which I have identified as the snake's body) is really a very highly conventionalized serpent's head reversed. The original design for this head was a dragon presenting close analogies with those of both China and Babylonia. The artist has confused the head with the tail of the serpent and blended them into one design. Further modifications and transformations of the winged disc design are seen in America, as, for example, the stone relief at Chichen Itza, showing Kukulkan-Quetzacoatl (see Joyce, "Mexican Archaeology," 1914, Fig. 87, p. 367).

In some of the earliest Egyptian graves, which cannot be much less than sixty centuries old, pottery has been found decorated with paintings representing boats of considerable size and pretensions. The making of crude types of boats was perhaps one of the first, if not actually the earliest, manifestations of human inventiveness : for primitive men in the very childhood of the species were able to use rough craft made of logs, reeds, or inflated skins, to ferry themselves across sheets of water which otherwise would have proved insuperable hindrances to their wanderings. But the Egyptian boats of 4000 B.C. probably represented a considerable advance in the art of naval construction ; and before the Predynastic period had come to a close the invention of metal tools gave a great impetus to the carpenter's craft, and thus opened the way for the construction of more ambitious ships.

Whether or not the Predynastic boatmen ventured beyond the Nile into the open sea is not known for certain, although the balance of probability inclines strongly to the conclusion that they did so.

But there is positive evidence to prove that as early as 2800 B.C. maritime intercourse was definitely established along the coasts of the Eastern Mediterranean, bringing into contact the various peoples, at any rate those of Egypt and Syria, scattered along the littoral. Egyptian seamen were also trafficking along the shores of the Red Sea ; and there are reasons ([5], p. 143) for believing that in Protodynastic times such intercourse may have extended around the coast of Arabia, as far as the Sumerian settlement at the head of the Persian Gulf, thus bringing into contact the homes of the world's most ancient civilizations.

More daring seamen were venturing out into the open sea, and extending their voyages at least as far as Crete : for the geographical circumstances at the time in question make it certain that Neolithic culture could not have reached that island in any other way than by maritime intercourse.

The Early Minoan Civilization, as well as the later modifications of Cretan burial customs, such as the making of rock-cut tombs and the use of stone for building, were certainly inspired in large measure by ideas brought from Egypt.

Long before the beginning of the second millennium B.C. the germs of the Egyptian megalithic culture had taken deep root, not



FIG. 6.—BAS-RELIEF OF SETI I PRESENTING THE FIGURE OF TRUTH TO OSIRIS, FROM THE TEMPLE AT ABYDOS.

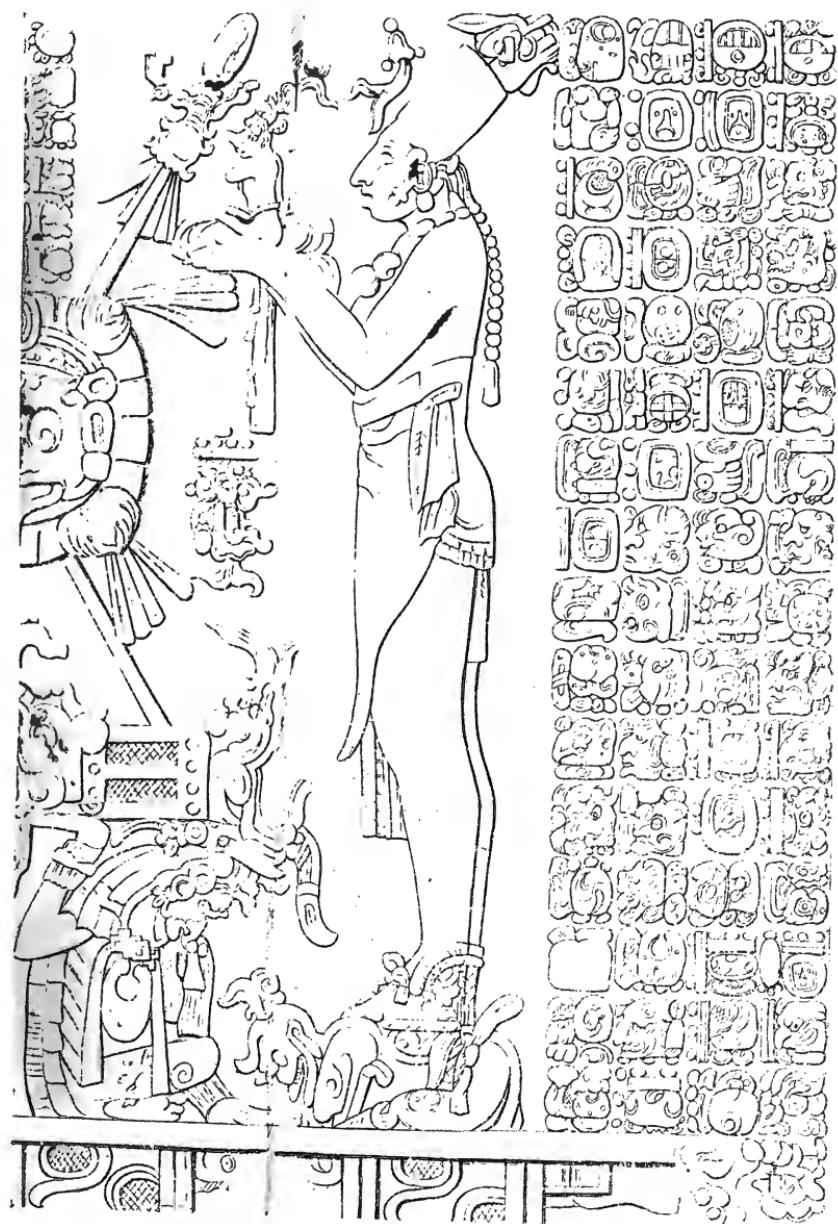


FIG. 7.—A SIMILAR RELIEF FROM THE SANCTUARY SHOWN IN FIG. 5.

only in Crete itself, but also throughout the Ægean and the coasts of Asia Minor and Palestine.

In course of time, as the art of ship-building advanced and the mariners' skill and experience increased, no doubt more extensive and better-equipped enterprises were undertaken. [For a concise summary of the evidence see [3], pp. 120 *et seq.*] Instances of this are provided by the famous expedition to the land of Punt in Queen Hatshepsut's reign (6) and the exploits of the Minoan seamen of Crete.

Such commercial intercourse cannot fail to have produced a slow diffusion of culture from one people to another, even if it was primarily of the nature of a mere exchange of commodities. But as the various civilizations gradually assumed their characteristic forms a certain conventionalism and a national pride grew up, which protected each of these more cultured communities from being so readily influenced by contact with aliens as it was in the days of its uncultured simplicity. Each tended to become more and more conscious of its national peculiarities, and immune against alien influences that threatened to break down the rigid walls of its proud conservatism.

It was not until the Minoan state had fallen and Egypt's dominion had begun to crumble that a people free from such prejudices began to adopt (7) all that it wanted from these hide-bound civilizations. To its own exceptional aptitude for and experience in maritime exploits it added all the knowledge acquired by the Egyptians, Minoans, and the peoples of Levant. It thus took upon itself to become the great intermediary between the nations of antiquity ; and in the course of its trafficking with them, it did not scruple to adopt their arts and crafts, their burial customs, and even their gods. In this way was inaugurated the first era of really great sea-voyages in the world's history. For the trafficking with these great proud empires proved so profitable that the enterprising intermediaries who assumed the control of it, not only of bartering their merchandise one with the other, but also of supplying their wants from elsewhere, soon began to exploit the whole world for the things which the wealthy citizens of the imperial states desired [P].

There can be no doubt that it was the Phœnicians, lured forth into the unknown oceans in search of gold, who first broke through the bounds of the Ancient East (8) and whose ships embarked upon these earliest maritime adventures on the grand scale. Their

achievements and their motives present some analogies to those of the great European seamen of the fifteenth and sixteenth centuries who raided the East Indies and the Spanish Main for loot. But the exploits of the Phœnicians must be regarded as even greater events, not only by reason of the earlier period in which they were accomplished, but also from their vast influence upon the history of civilization in outlying parts of the world, as well as for inaugurating new methods of commerce and extending the use of its indispensable instrument, gold currency (Perry, *vide infra*).

Their doings are concisely set forth in the twenty-seventh chapter of the Book of Ezekiel, where Tyre is addressed in these words : " Who is there like Tyre, like her that is brought to silence in the midst of the sea ? When thy wares went forth out of the seas, thou filledst many peoples : thou didst enrich the kings of the earth with the multitude of thy riches, and of thy merchandise."

Many circumstances were responsible for extending these wider ramifications of maritime trade, so graphically described in the rest of the same chapter of Ezekiel. As I have already explained, it was not merely the desire to acquire wealth, but also the appreciation of the possibilities of doing so that prompted the Phœnicians' exploits. Not being hampered by any undue respect for customs and conventions, they readily acquired and assimilated to themselves all the practical knowledge of the civilized world, whether it came from Egypt, Mesopotamia, Asia Minor, or the Ægean. They were sprung from a pre-eminently maritime stock and probably had gained experience in seamanship in the Persian Gulf : and when they settled on the Syrian Coast they were also able to add to their knowledge of such things all that the Egyptians and the population of the Levant and Ægean had acquired for themselves after centuries of maritime adventure. But one of the great factors in explanation of the naval supremacy of the Phœnicians was their acquaintance with the facts of astronomy. The other peoples of the Ancient East had acquired a considerable knowledge of the stars, the usefulness of which, however, was probably restricted by religious considerations. Whether this be so or not, there can be no doubt that the Phœnicians were not restrained by any such ideas from putting to its utmost practical application the valuable guide to navigation in the open sea which this astronomical learning supplied.

They were only able to embark upon their great maritime enterprises in virtue of the use they made of the pole-star for steering. This theme has been discussed in great detail by Mrs. Zelia Nuttall (9); and although I am unable to accept a great part of her argument from astronomy, the evidence in substantiation of the use made of the pole-star for navigation, not only in the Mediterranean, but also by seamen navigating along the coasts of Asia and America, cannot be questioned.

Within recent years there has been a remarkable reaction against the attitude of a former generation, which perhaps unduly exaggerated certain phases of the achievements of the Phœnicians.

But the modern pose of minimizing their influence surely errs too much in the other direction, and is in more flagrant conflict with the facts of history and archæology than the former doctrine, which its sponsors criticize so emphatically. Due credit can be accorded to the Egyptians, Minoans, and other ancient mariners, without in any way detracting from the record of the Phœnicians, whose exploits could hardly have attained such great and widespread notoriety among the ancients without very real and substantial grounds for their reputation. The recent memoirs of Siret (10), Dahse (11), Nuttall (9), and the writer (M) have adduced abundant evidence in justification of the greatness of their exploits. Professor Sayce says : "They were the intermediaries of the ancient civilizations"; and that by 600 B.C. they had "penetrated to the north-west coast of India and probably to the island of Britain". "Phœnician art was essentially catholic . . . it assimilated the art of Babylonia, Egypt, and Assyria, superadding something of its own. . . . The cities of the Phœnicians were the first trading communities the world has seen. Their colonies were originally mere marts and their voyages of discovery were taken in the interests of trade. The tin of Britain, the silver of Spain, the birds of the Canaries, the frankincense of Arabia, the pearls and ivory of India all flowed into their harbours" (quoted by Mrs. Nuttall (9), *op. cit.*, p. 520).

These were the distinctive features of the Phœnicians' activities, of which Mr. Hogarth (8, pp. 154-159) gives a concise and graphic summary. But, as Mr. Perry has pointed out (12), they were led forth above all in search for gold. As he suggests, the Phœnicians seem to have been one of the first peoples to have assigned to gold the kind of

importance and value that civilized people have ever since attached to it. It was no longer merely material for making jewellery : "it became a currency, which made the foundation of civilization not only possible but inevitable, once such a currency came into being" (Perry).

The remarks addressed to Tyre in the Book of Ezekiel (xxvii. 9 *et seq.*) give expression to these ideas : "All the ships of the sea with their mariners were in thee to occupy thy merchandise. . . . Tarshish was thy merchant by reason of the multitude of all kinds of riches ; with silver, iron, tin, and lead, they traded for thy wares. . . . Syria was thy merchant by reason of the multitude of thy handy-works : they traded for thy wares with emeralds, purple, and broidered work, and fine linen, and coral [probably pearls], and rubies ; they traded for thy merchandise wheat of Minnith, and Pannag, and honey, and oil, and balm. . . . The traffickers of Sheba and Raamah, they were thy traffickers : they traded for thy wares with chief of all spices, and with all precious stones, and gold. . . . The ships of Tarshish were thy caravans for thy merchandise ; and thou was replenished, and made very glorious in the heart of the seas. Thy rowers have brought thee into great waters : the east wind has broken thee in the heart of the seas."

The Phoenicians in fact controlled the commerce of most of the civilized world of that time ; and they did so mainly because of their superior skill and daring in seamanship, their newly realized appreciation of the value of gold, and their desire for precious stones and pearls, for which they began to ransack every country near and far. So thoroughly did they, and their pupils and imitators, accomplish their mission that only one pearl-field in the whole world (the West Australian site at Broome) escaped their exploitation (Perry, [12]).

Many of their great maritime adventures have been recorded by the ancient classical writers. The reality of others, for example, to India, which have not been specifically described, are none the less certain : not only was there most intimate intercourse between the Red Sea and India at the very time when the Phoenicians were displaying great activity in the Indian Ocean (M, p. 77 ; P, p. 210 and elsewhere), but the methods and the motives, no less than the cargoes, of these energetic and skilful mariners, whose exploits are celebrated in the *Mahābhārata*, and whose achievements are indelibly impressed upon Indian culture, proclaim them unmistakably to be Phoenicians.

(For a mass of detailed information on these matters see the notes in P.)

In the course of this trading there was not only an interchange of the articles of commerce provided by the Mediterranean countries and India, as well as by all the intermediate ports of call, but also there is the most positive evidence, in the multitude of western practices which suddenly made their appearance in India, at the very time when this free trafficking became definitely established, in demonstration of the fact that the civilizations of the West were exerting a very potent cultural influence upon the Dravidian population of India. Many of the customs which made their first appearance in India at that epoch, such as mummification, the making of rock-cut temples, and stone tombs (and many others of the long list of practices enumerated earlier in the present discourse) were definitely Egyptian in origin.

One of the most significant and striking of the effects of this maritime intercourse with Egypt was the influence exerted by the latter in the matter of ship-building (see M, p. 77 ; and especially P, p. 52 *et seq.*, among many other references in the same work).

The fact that such distinctively Egyptian practices were spread abroad at the same time as, and in close association with, many others equally definitely Mediterranean in origin (such as the use of Tyrian purple and of the conch-shell trumpet in temple services [21]), is further corroboration of the fact that the Phœnicians, who are known to have adopted the same mixture of customs, were the distributors of so remarkable a cultural cargo.

This identification is further confirmed by the fact that additions were made to this curious repertoire from precisely those regions where the Phœnicians are known vigorously to have carried on their trafficking, such as many places in the Mediterranean, on the Red Sea littoral, Ethiopia, and Southern Arabia.

In this way alone can be explained how there came to be associated with the megalithic culture such practices as the Sudanese Negro custom of piercing and distending the ear-lobules, the Armenian (or Central Asiatic) procedure for artificial deformation of the head, the method of terraced cultivation, which was probably a Southern Arabian modification of Egyptian cultivation and irrigation on a level surface ; certain beliefs regarding the "heavenly twins" ; and perhaps such institutions as "men's houses" and secret societies, and the building of pile-dwell-

ings, and customs such as trephining, dental mutilations, and perforating the lips and nose, which were collected by the wanderers from a variety of scattered peoples in the Ancient East.

Mrs. Nuttall (9) has made a vast collection of other evidence relating mainly to astronomy, calendars, the methods of subdividing time, and questions of political and social organization, upon the basis of which she independently arrived at essentially the same conclusions as I have formulated, not only as regards the reality and the time of the great migration of culture, but also as to the identification of the Phœnicians as the people mainly responsible for its diffusion abroad. She failed to realize, however, that this easterly diffusion of knowledge and customs was merely incidental to commercial intercourse and a result of the trafficking.

In addition to all these considerations I should like once more to emphasize the fact that it was the study of the physical characteristics of the people scattered along the great megalithic track—and more especially those of Polynesia and the Eastern Mediterranean—that first led me to investigate these problems of the migrations of culture and its bearers to the Far East (13). For one cannot fail to be struck with the many features of resemblance between the ancient seamen who were mainly responsible for the earliest great maritime exploits in the Mediterranean and Erythrean seas and the Pacific Ocean respectively.

The remarkable evidence (12) brought forward at the recent meeting of the British Association by Mr. W. J. Perry seems to me finally to decide the question of the identity of the wanderers who distributed early Mediterranean culture in the East.

His investigations also explain the motives for the journeys and the reasons why the western culture took root in some places and not in others.

Throughout the world the localized areas where the distinctive features of this characteristic civilization occur—and especially such elements as megalithic structures, terraced irrigation, sun-worship, and practices of mummification—are precisely those places where ancient mine-workings, and especially gold-mines, or pearl-fisheries, are also found, and where presumably Phœnician settlements were established to exploit these sources of wealth. "But not only is a general agreement found between the distributions of megalithic influence and

ancient mine-workings, but the technique of mining, smelting, and refining operations is identical in all places where the earliest remains have been found. . . . The form of the furnaces used ; the introduction of the blast over the mouth of the furnace ; the process of refining whereby the metal is first roughly smelted in an open furnace and afterwards refined in crucibles ; as well as the forms of the crucibles and the substances of which they were made, are the same in all places where traces of ancient smelting operations have been discovered. . . . The conclusion to which all these facts point is that the search for certain forms of material wealth led the carriers of the megalithic culture to those places where the things they desired were to be found (Perry [12]).

The distribution of pearl-shell explains how their course was directed along certain routes : the situations of ancient mines provide the reason for the settlement of the wanderers and the adoption of the whole of the megalithic culture-complex in definite localities.

From the consideration of all of these factors it is clear that the great easterly migration of megalithic culture was the outcome of the traffic carried on between the Eastern Mediterranean and India during the three or four centuries from about 800 B.C. onward, and that the Phoenicians were mainly responsible for these enterprises. The littoral populations of Egypt, Ethiopia, Arabia, the Persian Gulf, and India itself no doubt took a considerable part in this intercourse, for they all provided hardy mariners inured by long experience to such pursuits ; but for the reasons already suggested (their wider knowledge of the science and practice of seamanship) the Phoenicians seem to have directed and controlled these expeditions, even if they exploited the shores of the Mediterranean, Red Sea, Arabia, and farther East for skilled sailors to man their ships. That such recruits played a definite part in the Phoenician expeditions is shown by the transmission to the East of customs and practices found in localized areas of the coasts of the Mediterranean and Black Seas, and especially of Ethiopia, Arabia, and the Persian Gulf. It is probable that expert pearl-fishers were recruited on the shores of the Red Sea and gold-miners in Nubia and the Black Sea littoral.

The easterly migration of culture rolled like a great flood along the Asiatic littoral between the end of the eighth and the beginning of the fifth century B.C. ; and there can be no doubt that the leaven of

western culture was distributed to India, China, Japan, Indonesia, and possibly even further, mainly by that great wave. But for long ages before that time, no doubt a slow diffusion of culture had been taking place along the same coast-lines ; and ever since the first great stream brought the flood of western learning to the East a similar influence has been working along the same route, carrying to and fro new elements of cultural exchange between the East and West.

The "Periplus of the Erythrean Sea" (3) reveals to us how closely the old routes were being followed and the same kind of traffic was going on in the first century of the Christian era ; the exploits of other mariners, Egyptian, Greek, Arabic, Indian, and Chinese (4), show how continuously such intercourse was maintained right up to the time when Western European adventurers first intruded into the Indian Ocean. The spread of Brahmanism, Buddhism, and Islam are further illustrations of the way in which such migrations of new cults followed the old routes (compare [20]).

In the light of such knowledge it would be altogether unjustifiable to assume that the geographical distribution of similar customs and beliefs along this great highway of ancient commerce was due exclusively to the great wave of megalithic culture before the sixth century B.C. There is evidence of the most definite kind that many of the elements of western culture—such, for example, as Ptolemaic and Christian methods of embalming—were spread abroad at later times (M).

Nevertheless there is amply sufficient information to justify the conclusion that many of the fundamental conceptions of Indian, Chinese, Japanese, and American civilization were planted in their respective countries by the great cultural wave which set out from the African coast not long before the sixth century B.C.

One of the objections raised even by the most competent ethnologists against the adoption of this view is the assumption involved in such a hypothesis that one and the same wave carried to the East a jumble of practices ranging in dates from that of Predynastic Egypt to the seventh century B.C.—that at, or about, the same time the inspiration to build megalithic monuments fashioned on the models of the Pyramid Age and others imitating New Empire temples reached India.

But the difficulties created by this line of argument are largely

illusory, especially when it is recalled that the sailors manning the Phœnician ships were recruited from so many localities. It is known that even within a few miles of the Egyptian frontiers—Nubia, for instance—many customs and practices which disappeared in Egypt itself in the times of the New, Middle, or Old Empires, or even in Predynastic times, persist until the present day. The earliest Egyptian method of circumcision (which Dr. Rivers calls “incision”) disappeared in Egypt probably in the Pyramid Age, but it is still practised in East Africa; and no doubt it was the sailors recruited from that coast who were responsible for transmitting this practice to the East. When the first British settlement was made in America it introduced not only the civilization of the Elizabethan era, but also practices and customs that had been in vogue in England for many centuries; and no doubt every emigrant carried with him the traditions and beliefs that may have survived from very remote times in his own village. So the Phœnician expeditions spread abroad not only the Egyptian civilization of the seventh century B.C., but also the customs, beliefs, and practices of every sailor and passenger who travelled in their ships, whether he came from Syria, or the Ægean, from Egypt or Ethiopia, Arabia or the Persian Gulf. The fact that many extremely old Egyptian practices, which had been given up for centuries in Egypt itself, had survived elsewhere in the Mediterranean area and in Ethiopia explains how a mixture of Egyptian customs, distinctive of a great variety of different ages in Egypt itself, may have been distributed abroad at one and the same time by such mixed crews.

In her great monograph Mrs. Nuttall refers to “the great intellectual movement that swept at one time, like a wave, over the ancient centres of civilization”; and she quotes Huxley’s essay on “Evolution and Ethics” with reference to the growth of Ionian philosophy during “the eighth, seventh, and sixth centuries before our era” as “one of the many results of the stirring of the moral and intellectual life of the Aryan-Semitic population of Western Asia”; but Huxley was careful to add that “the Ionian intellectual movement is only one of the several sporadic indications of some powerful mental ferment over the whole of the area comprised between the Ægean and Northern Hindustan” (Nuttall [9], *op. cit.*, p. 526). She cites other evidence that points to the seventh century B.C. as about the time of

the extension of Mediterranean influence to India [and Indian influence to the west] through the intermediation of the Phœnicians.

It was not, however, merely to India that this diffusion extended, but also to China and Mexico. In the light of my own investigations I am inclined to re-echo the words of Mrs. Nuttall : "As far as I can judge, the great antiquity attributed, by Chinese historians, to the establishment of the governmental and cyclical schemes, still in use, appears extremely doubtful. Referring the question to Sinologists, I venture to ask whether it does not seem probable that the present Chinese scheme dates from the lifetime of Lao-tze, in the sixth century B.C., a period marked by the growth of Ionian philosophy, one feature of which was the invention of numerical schemes applied to 'divine politics' and ideal forms of government" (*op. cit.*, pp. 533 and 534).

To this I should like to add the query, whether there is any real evidence that the art of writing was known in China before that time? The researches of Dr. Alan Gardiner (14) make it abundantly clear that the art of writing was invented in Egypt; and further suggest that the idea must have spread from Egypt at an early date to Western Asia and the Mediterranean, where many diversely specialized kinds of script developed. Discussing the cultural connexion between India and the Persian Gulf "at the beginning of the seventh (and perhaps at the end of the eighth) century B.C.," my colleague Professor Rhys Davids adduces evidence in demonstration of the fact that the written scripts of India, Ceylon, and Burma were derived from that of "the pre-Semitic race now called Akkadians" ("Buddhist India," p. 116).

Dr. Schoff, however, in his remarkable commentary on the "Periplus of the Erythrean Sea," claims a Phœnician origin for the Dravidian alphabet (P., p. 229).

If then the knowledge of the art of writing reached India with the great wave of megalithic culture, it might be profitable to inquire whether the development of Chinese writing was really as ancient as most Sinologists assume it to be, or, on the other hand, may not its growth also have been stimulated by the same "great intellectual ferment" which is recognized as having brought about the new development in India? There is, of course, the possibility that the knowledge of writing may have reached China overland even before it is known to have reached India (20).

Professor Rhys Davids also calls attention (*op. cit.*, pp. 238 and 239) to "the great and essential similarity" between the "details of the lower phases of religion in India in the sixth century B.C., with the beliefs held, not only at the same time in the other centres of civilization—in China, Persia, and Egypt, in Italy and Greece—but also among the savages of then and now"; with reference to "a further and more striking resemblance" he quotes Sir Henry Maine's observation that "Nothing is more remarkable than the extreme fewness of progressive societies—the difference between them and the stationary races is one of the greatest secrets inquiry has yet to penetrate" ("Ancient Law," p. 22).

But is it not patent that what we who have been brought up in the atmosphere of modern civilization call "progress," is the striving after an artificial state of affairs, like all the arts and crafts of civilization itself, created by a special set of circumstances in one spot, the Ancient East? There is no inborn impulse to impel other people to become "progressive societies" in our acceptation of that term: in the past history of the world these other communities only began to "progress" when they had been inoculated with the germs of this artificial civilization by contact with the peoples of the Eastern Mediterranean area.

My colleague does not view the problem in this light. For him it is the most "stupendous marvel in the whole history of mankind" that the four great civilizations which grew up in the river basins of the Nile and the Euphrates, the Ganges and the Yellow River—through real and progressive civilizations, whose ideas and customs were no doubt constantly changing and growing—maintained merely "a certain dead level, if not a complete absence of what we should call philosophic thought," and "did not build up any large and general views, either of ethics, or of philosophy, or of religion"; but then "suddenly, and almost simultaneously, and almost certainly independently, there is evidence, about the sixth century B.C., in each of these widely separated centres of civilization, of a leap forward in speculative thought, of a new birth in ethics, of a religion of conscience threatening to take the place of the old religion of custom and magic".

But Professor Rhys Davids' opinion that this profound transformation occurred "almost certainly independently" is hard to reconcile with the fact, which he clearly explained earlier in the same book,

that for more than a century before the time of this "stupendous marvel" India had been in touch with the older civilizations of the West (pp. 70 and 113 *et seq.*). All of the difficulties of this, the most "suggestive problem awaiting the solution of the historian of human thought" (p. 239), disappear once the extent of this cultural contact with the West is fully realized.

The evidence to which I have called attention here, and elsewhere (M), makes it appear unlikely that these momentous events in the history of civilization were independent one of the other; to me it seems to prove definitely and most conclusively that they were parts of one connected movement. The "powerful ferment" of which Huxley speaks was due to the action upon the uncultured population of India (and in turn also those of China, Japan, and America) of the new knowledge brought from the Eastern Mediterranean by the Phoenician mariners, or the passengers who travelled with them in their trading expeditions.

To quote Mrs. Nuttall again: "Just as the older Andean art closely resembles that of the early Mediterranean, an observation made by Professor F. W. Putnam (1899), so the fundamental principles, numerical scheme, and plan of the state founded by the foreign Incas in Peru, resembled those formulated by Plato in his description of an ideal state" ([9], pp. 545-6). As one of the results of their intimate intercourse with Egypt the Phoenicians had adopted many of the Egyptian customs and beliefs, as well as becoming proficient in its arts and crafts. Perhaps also they recruited some of their seamen from the Egyptians who had been accustomed for long ages to maritime pursuits. In this way it may have come to pass that, when the Phoenicians embarked on their great over-sea expeditions, they became the distributors of Egyptian practices. They did not, of course, spread abroad Egyptian culture in its purest form: for as middlemen they selected for adoption, consciously as well as unconsciously, certain of its constituent elements and left others. Moreover, they had customs of their own and practices which they had borrowed from the whole Eastern Mediterranean world as well as from Mesopotamia.

The first stage of the oriental extension of their trafficking (15) was concerned with the Red Sea and immediately beyond the Straits of the Bab-el-Mandeb. [In his scholarly commentary on "The Peri-

plus of the Erythrean Sea," Dr. Schoff gives, in a series of explanatory notes, a most illuminating summary of the literature relating to all these early trading expeditions. The reader who questions my remarks on these matters should consult his lucid digest of an immense mass of historical documents.] In the course of their trading in these regions the travellers freely adopted the practices of the inhabitants of the Ethiopian coast and southern Arabia—customs which in many cases had been derived originally from Egypt and had slowly percolated up the Nile, and eventually, with many modifications and additions, reached the region of the Somali coast. Whether this adoption of Ethiopian customs was the result merely of intercourse with the natives in the Sabaean and East African ports, or was to be attributed to the actual recruiting of seamen for the oriental expeditions from these regions, there is no evidence to permit us to say : but judging from the analogies of what is known to have happened elsewhere, it is practically certain that the latter suggestion alone affords an adequate explanation of the potent influence exerted by these Ethiopian practices in the Far East. For such a complete transference of customs and beliefs from one country to another can occur only when the people who practise them migrate from their homeland and settle in the new country. It is, of course, well recognized that from the eighth century onward, if not before then, there has been some intercourse between East Africa and India, and the whole of the intervening littoral of Southern Asia (see Schoff's commentaries on the *Periplus*).

For reasons that I have explained elsewhere (5) it is probable that, even as early as the time of the First Egyptian Dynasty maritime intercourse was already taking place along the whole Arabian coast, and even linking up in cultural contact the nascent civilizations developing in the Nile Valley and near the head of the Persian Gulf. No doubt the following twenty-five centuries witnessed a gradual development and oriental extension of this littoral intercommunication : but from the eighth century onward the current flowed more strongly and in immeasurably greater volume. The western coast of India was subjected to the full force of a cultural stream in which the influences of Egypt and the Eastern Mediterranean world, Ethiopia, Arabia, and Babylonia were blended by the Phœnicians, who no doubt were mainly responsible for controlling and directing the current for their own pecuniary benefit (see especially 12 ; and M, p. 77 *et seq.*).

This easterly stream, as I have already explained above, was responsible for originating in India and Ceylon, at about the same time, temples of New Empire Egyptian type, dolmens which represent the Old Empire type, rounded tumuli which might be regarded as Mycenean, and seven-stepped stone Pyramids as Chaldean, modifications of Egyptian Pyramids ; and if the monuments farther east are taken into consideration, the blended influences of Egypt, Babylonia, and India become even more definitely manifested. In studying the oriental spread of Egyptian ideas and practices it must constantly be borne in mind that it was the rare exception rather than the rule for the influence of such things to be exerted directly, as for example when Cyrus definitely adopted Egyptian funerary customs and methods of tomb-construction (M, p. 67). His successors even employed Egyptian craftsmen to carry out the work. In most cases an alien people, the Phoenicians, were responsible for transmitting these customs to India and the Further East, and not only did they modify them themselves, but in addition they, or the crews of their ships, carried to the East the influence of Egyptian practices which had been adopted by various other alien peoples and had suffered more or less transformation. In this way alone is it possible to explain how large a part was played in this easterly migration of culture by the customs of Ethiopia. For many centuries the effects of Egyptian civilization had been slowly percolating up the Nile amongst a variety of people, and ultimately, with many additions and modifications, made themselves apparent among the littoral population of East Africa. Such Ethiopian transformations of Egyptian ideas and customs form a very obtrusive element in the cultural wave which flowed to India, Indonesia, and Oceania (M).

It is instructive to compare the outstanding features of tomb and temple-construction in Egypt with those of the Asiatic and American civilization. In Egypt it is possible to study the gradual evolution of the temple and to realize in some measure the circumstances and ideas which prompted the development and the accentuation of certain features at the expense of others (2).

For example, the conception of the door of a tomb or temple as symbolizing the means of communication between the living and the dead was apparent even in Protodynastic times, and gradually became so insistent that by the time of the New Empire the Egyptian temple has been converted into a series of monstrously overgrown gateways or



FIG. 5.—THE SANCTUARY OF A TEMPLE OF THE SUN IN PALENQUE, AFTER STEPHENS AND CALDERWOOD.

pylons, which dwarfed all the other features into insignificance. The same feature revealed itself in the Dravidian temples of Southern India ; and the obtrusive gateways of Further Asiatic temples, no less than the symbolic wooden structures found in China and Japan (*Torii*), are certainly manifestations of the same conception.

Among less cultured people, such as the Fijians, who were unable to reproduce this feature of the Egyptian and Indian temples, the general plan, without the great pylons or gopurams, was imitated (16). The Fijians have a tradition that the people who built these great stone enclosures came across the sea from the West (M, p. 29).

Other features of the Egyptian temples of the New Empire period, which were widely adopted in other lands, were the placing of colossal statues alongside the doorway, as in the Ramesseum at Thebes, the construction of a causeway leading up to the temple, flanked with stones, carved or uncarved, such as the avenue of sphinxes at Karnak, and the excavation of elaborate rock-cut temples such as that at Abu-Simbel. In the temples of India, Cambodia, China, and America such features repeatedly occur ([17], p. 153).

A whole volume might be written on the evidence supplied by Oriental and American Pyramids of the precise way in which the influences of Egypt, Babylonia, and the *Æ*gean were blended in these monuments.

In the Far East and America the Chaldean custom obtained of erecting the temple upon the summit of a truncated Pyramid. In Palenque and Chiapas, as well as elsewhere in the Isthmus region of America, many temples are found thus perched upon the tops of Pyramids. In design they are essentially Egyptian, not only as regards their plan, but also in the details of their decoration, from the winged disc upon the lintel (Figs. 3 and 5), to the reliefs within the sanctuary (23). For in the Palenque temples are depicted scenes (such as the one shown in Fig. 7) strictly comparable to those found in the New Empire Theban temples (compare, for example, Fig. 7 with the relief from temple of Seti I at Abydos, Fig. 6).

I need not enter into the discussion of mummification and the very precise evidence it affords of the easterly spread of Egyptian influence, for I have devoted a special memoir (M) to the consideration of its significance. I should like to make it plain, however, that it was the data afforded by the technique of the earliest method of embalming

that is known to have been adopted in the Far East which led me to assign the age of the commencement of its migration to a time probably not earlier than the eighth century B.C. ; and that this conclusion was reached long before I was aware of all the other evidence of most varied nature (mentioned in the writings of Vincent Smith [17], Rhys-Davids, Crooke, Nuttall, Oldham, and many others) which points to the same general conclusion. As several different methods of embalming, Late New Empire, Graeco-Roman, and Coptic, are known to have reached India it is quite clear that at least three distinct cultural waves proceeded to the East : but the first, which planted the germs of the new culture on the practically virgin soil of the untutored East, exerted an infinitely profounder influence than all that came after.

In fact most of the obtrusive elements of the megalithic culture, with its strange jumble of associated practices, beliefs, and traditions, certainly travelled in the first great wave, somewhere about the time of, perhaps a little earlier or later than, the seventh century B.C.

Although in this lecture I am primarily concerned with the demonstration of the influence exerted, directly or indirectly, by Egyptian culture in the East, it is important to obtain confirmation from other evidence of the date which the former led me to assign to the great migration. I have already referred to the facts cited by Mrs. Nuttall in proof of her contention that Ionian ideas spread East and ultimately reached America. Since her great monograph was written she has given an even more precise and convincing proof of the influence of the Phoenician world on America by describing how the use of Tyrian purple extended as far as Mexico in Pre-Columbian times (18). The associated use of conch-shell trumpets and pearls is peculiarly instructive : the geographical distribution of the former enables one to chart the route taken by this spread of culture, while the latter (the pearl-fisheries) supply one of the motives which attracted the wanderers and led them on until eventually they reached the New World.

Professor Bosanquet has adduced evidence suggesting that Pur-pura was first used by the Minoans : in Crete also the conch-shell trumpet was employed in the temple services. No doubt the Phoenicians acquired these customs from the Mycenean peoples.

In his monograph (19) on "The Sacred Chank of India" (1914) Mr. James Hornell has filled in an important gap in the chain of dis-

tribution given by Mrs. Nuttall. He has not only confirmed her opinion as to the close association of the conch-shell trumpet and pearls, but also has shown what an important role these shells have played in India from Dravidian times onward. His evidence is doubly welcome, not only because it links up the use of the Chank with so many elements of the megalithic culture and of the temple ritual in India, but also because it affords additional confirmation of the date which I have assigned for the introduction of the former into India (see M, especially pp. 117 *et seq.*).

In India these new elements of culture took deep root and developed into the luxurious growth of so-called Dravidian civilization, which played a great part in shaping the customs and practices of the later Brahmanical and Buddhist cults. From India a series of migrations carried the megalithic customs and beliefs, and their distinctively Indian developments, farther east to Burma, Indonesia, China, and Japan ; and, with many additions from these countries, streams of wanderers for many centuries carried them out into the islands of the Pacific and eventually to the shores of America, where there grew up a highly organized but exotic civilization compounded of the elements of the Old World's ancient culture, the most outstanding and distinctive ingredients of which came originally from Ancient Egypt.

I do not possess the special knowledge to estimate the reliability of M. Terrien de Lacouperie's remarkable views on the origin of Chinese civilization (20), some of which seem to be highly speculative. But there is a sufficient mass of precise information, based upon the writings of creditable authorities, to discount in large measure the wholesale condemnation of his opinions in recent years. Whatever justification, or lack of it, there may be for his statements as to the early overland connection between Mesopotamia and China, his views concerning the later maritime intercourse between the Red Sea, Persian Gulf, India and Indo-China, and China are in remarkable accordance with the opinions which, in the absence of any previous acquaintance with his writings, I have set forth here, not only as regards the nature of the migration and the sources of the elements of culture, but also the date of its arrival in the far east and the motives which induced traders to go there.

There can be no reasonable doubt that Asiatic civilization reached

America partly by way of Polynesia, as well as directly from Japan, and also by the Aleutian route.

The immensely formidable task of spanning the broad Pacific to reach the coasts of America presents no difficulty to the student of early migrations. "The islands of the Pacific were practically all inhabited long before Tasman and Cook made their appearance in Pacific waters. Intrepid navigators had sailed their canoes north and south, east and west, until their language and their customs had been carried into every corner of the ocean. These Polynesian sailors had extended their voyages from Hawaii in the North to the fringe of the ice-fields in the Far South, and from the coast of South America on the East to the Philippine Islands on the West. No voyage seems to have been too extended for them, no peril too great for them to brave."

Mr. Elsdon Best, from whose writings (21) I have taken the above quotation, answers the common objection that the frailness of the early canoes was incompatible with such journeys. "As a matter of fact the sea-going canoe of the ancient Maori was by no means frail : it was a much stronger vessel than the eighteen-foot boat in which Bligh and his companions navigated 3600 miles of the Pacific after the mutiny of the 'Bounty'."

Thirty generations ago Toi, when leaving Raratonga to seek the islands of New Zealand, said, "I will range the wide seas until I reach the land-head at Aotearoa, the moisture-laden land discovered by Kupe, or be engulfed for ever in the depths of Hine-moana".

It was in this spirit that the broad Pacific was bridged and the civilization of the Old World carried to America.

When one considers the enormous extent of the journey, and the multitude and variety of the vicissitudes encountered upon the way, it is a most remarkable circumstance that practically the whole of the complex structure of the megalithic culture should have reached the shores of America. Hardly any of the items in the large series of customs and beliefs enumerated at the commencement of this lecture failed to get to America in pre-Columbian times. The practice of mummification, with modifications due to Polynesian and other oriental influences ; the characteristically Egyptian elements of its associated ritual, such as the use of incense and libations ; and beliefs concerning the soul's wanderings in the underworld, where it under-

goes the same vicissitudes as it was supposed to encounter in Pharaonic times [New Empire]—all were found in Mexico and elsewhere in America, with a multitude of corroborative detail to indicate the influence exerted by Ethiopia, Babylonia, India, Indonesia, China, Japan, and Oceania, during the progress of their oriental migration. The general conception, no less than the details of their construction and the associated beliefs, make it equally certain that the megalithic monuments of America were inspired by those of the ancient East ; and while the influences which are most obtrusively displayed in them are clearly Egyptian and Babylonian, the effects of the accretions from the *Æ*gean, India, Cambodia, and Eastern Asia are equally unmistakable. The use of idols and stone seats (22), beliefs in the possibility of men or animals dwelling in stones, and the complementary supposition that men and animals may become petrified, the story of the deluge, of the divine origin of kings, who are regarded as the children of the sun or the sky, and the incestuous origin of the chosen people—the whole of this complexly interwoven series of characteristically Egypto-Babylonian practices and beliefs reappeared in America in pre-Columbian times, as also did the worship of the sun and the beliefs regarding serpents, including a great part of the remarkably complex and wholly artificial symbolism associated with this sun and serpent-worship. Circumcision, tattooing, piercing and distending the earlobules, artificial deformation of the head, trephining, weaving linen, the use of Tyrian purple, conch-shell trumpets, a special appreciation of pearls, precious stones, and metals, certain definite methods of mining and extraction of metals, terraced irrigation, the use of the swastika-symbol, beliefs regarding thunder-bolts and thunder-teeth, certain phallic practices, the boomerang, the beliefs regarding the "heavenly twins," the practice of couvade, the custom of building special "men's houses" and the institution of secret societies, the art of writing, certain astronomical ideas, and entirely arbitrary notions concerning a calendrical system, the subdivisions of time, and the constitution of the state—all of these and many other features of pre-Columbian civilization are each and all distinctive tokens of influence of the culture of the Old World upon that of the New. Not the least striking demonstration of this borrowing from the old world is afforded by games (M, p. 12, *footnote*).

When in addition it is considered that most, if not all, of this

variegated assortment of customs and beliefs are linked one to the other in a definite and artificial system, which agrees with that which is known to have grown up somewhere in the neighbourhood of the Eastern Mediterranean, there can no longer be any reasonable doubt as to the derivation of the early American civilization from the latter source.

All the stories of culture-heroes which the natives tell corroborate the inference which I have drawn from ethnological data.

When to this positive demonstration is added the evidence of the exact relationship of the localities where this exotic Old World culture took root in America to the occurrence of pearl-shell and precious metals, the proof is clinched by these unmistakable tokens that the same Phœnician methods which led to the diffusion of this culture-complex in the Old World also were responsible for planting it in the New (Perry [12]) some centuries after the Phœnicians themselves had ceased to be.

In these remarks I have been dealing primarily with the influence of Ancient Egyptian civilization ; but in concentrating attention upon this one source of American culture it must not be supposed that I am attempting to minimize the extent of the contributions from Asia. From India America took over the major part of her remarkable pantheon, including practically the whole of the beliefs associated with the worship of Indra (24).

NOTES.

(1) In the strict sense, the statement set forth here is not a report of the lecture delivered at the Rylands Library, although it deals with essentially the same body of facts and expounds the same inferences. The lecture was an ocular demonstration of the facts to which I am endeavouring to give literary expression here. By means of a large series of photographic projections of tombs, temples, and other objects scattered broadcast in Egypt, Asia, and America, together with maps to illustrate the geographical distribution of particular features, the attempt was made to appeal directly to the common sense of the audience in support of the proposition that the fundamental constituents of all civilizations spread from one centre. In setting forth the argument here I have in mind a different audience and am making use of a good deal of evidence to which no reference was made in my lecture. Much of it, in fact, has come to my knowledge since the lecture was delivered.

In collecting the material for the purposes of my discourse at the Rylands Library I found that it was impossible to tell the whole story in one hour. The evidence derived from the study of tombs and temples in the different countries was therefore communicated to the Manchester Egyptian and Oriental Society, and has been published in the form of an abstract ("Oriental Tombs and Temples") in that Society's "Journal". The vast collection of data relating to the practice of mummification, and the customs and ideas associated with it, was presented to the Manchester Literary and Philosophical Society and published in their "Memoirs". It has since been issued in book form by the Manchester University Press under the title, "The Migrations of Early Culture". As I shall have occasion in the present discourse repeatedly to make use of the statements of fact, and especially the bibliographical references contained in that memoir, it will save trouble if I adopt the letter "M" as a form of brief reference to it.

In the Rylands lecture I made use of the general results set forth in the other two discourses and, with the addition of new evidence, dealt with the broader aspects of the problem.

(2) The former lectures have not been published as such, but most of the materials employed will be found in my book "The Ancient Egyptians," 1911; my contributions to the British Association Reports for 1911-15 (see "Man," 1911, p. 176; 1912, p. 173; 1913, p. 193), and the article on "The Evolution of the Rock-cut Tomb and Dolmen," published in the Essays and Studies presented to William Ridgeway, Cambridge, 1913, p. 493. The general statement with which the present discourse begins is the abstract of the address which I delivered at the recent meeting of the British Association in opening the discussion on

"the Influence of Ancient Egyptian Civilization on the World's Culture".

(3) "The Periplus of the Erythrean Sea: Travel and Trade in the Indian Ocean by a Merchant of the First Century": Translated from the Greek and annotated by Wilfred H. Schoff, Longmans, Green & Co., 1912.

This scholarly work is so packed with historical facts and critical digests of a vast mass of literature relating to early maritime expeditions and other matters intimately related to the subject of my lecture that I shall have to refer to it repeatedly. It will save constant repetition of the title if I adopt the letter "P" as a concise form of reference to it.

(4) Chau-lu-kua: His work on the Chinese and Arab Trade in the twelfth and thirteenth centuries, entitled *Chu-fan-chi*, Translated from the Chinese and annotated by Friedrich Hirth and W. W. Rockhill, 1911.

(5) "The Ancient Egyptians," *op. cit. supra*, p. 143.

(6) As the study of the geographical distribution of mummification originally formed the foundation of my argument it is important to note in this connexion that these earliest maritime expeditions were largely inspired by the desire to obtain the aromatic materials and wood for the purposes of embalming, preparing incense, and making coffins.

(7) The readiness of the Phoenicians to accept the beliefs and practices of all these ancient civilizations was no doubt due, in part, to the fact that at different times Phoenicia formed part of the dominions of each of the ancient empires in turn, so that its inhabitants naturally came into possession of a composite culture and grew accustomed to a free trade in the arts of civilization as well as in merchandise.

(8) In this discourse I have used the phrase "Ancient East" in the sense defined by Mr. Hogarth in his book with that title.

(9) Zelia Nuttall, "The Fundamental Principles of Old and New World Civilizations: a comparative research based on a study of the Ancient Mexican Religious, Sociological, and Calendrical Systems," "Archæological and Ethnological Papers of the Peabody Museum, Harvard University," Vol. II, March, 1901.

A large part of Mrs. Nuttall's great treatise is devoted to the consideration of this astronomical knowledge and its influence of its acquisition upon the history of civilization, and especially the phase of it with which I am concerned here. The initial part of her argument credits primitive mankind with powers of observation and scientific inference which I cannot believe: but even if her speculations concerning the origin of the swastika be put aside as incredible, it cannot be denied that she has brought forward a sufficiently imposing collection of unquestionable data to demonstrate the important part played by a knowledge of the stars as an aid to navigation by the Phoenicians, and also by all the peoples whom both she and I suppose to have derived their knowledge of seamanship from them.

(10) Siret, "Les Cassitérides et l'Empire Colonial des Phéniciens," "L'Anthropologie," 1908, p. 129; 1909, pp. 129 and 283; and 1910, p. 281.

(11) Dahse, "Ein Zweites Goldland Salomos," "Zeitsch. f. Ethn.," 1911, p. 1.

(12) W. J. Perry's contribution to the discussion on "The Influence of Ancient Egyptian Civilization on the World's Culture," at the Manchester meeting of the British Association, 1915, since published in the Proceedings of the Manchester Literary and Philosophical Society under the title "The Geographical Distribution of Megalithic Monuments and Ancient Mines".

Although I am wholly responsible for the form of this (Rylands) address, a great deal of the information made use of was collected by Mr. Perry, and most of the rest emerged in the course of repeated conversations with him.

(13) See "The Ancient Egyptians," p. 61; also my article on "The Influence of Racial Admixture in Egypt," the "Eugenics Review," Oct., 1915.

(14) Alan H. Gardiner, "The Nature and Development of the Ancient Egyptian Hieroglyphic Writing," "Journal of Egyptian Archaeology," Volume II, Part II, April, 1915: also "Fresh Light upon the Origin of the Semitic Alphabet," a communication made at the British Association meeting at Manchester, September, 1915. In the latter Dr. Gardiner gave an account of a newly discovered method of writing from Sinai which is certainly earlier than 1500 B.C.: it is a proto-Semitic script inspired by the Egyptian method of writing and it makes it no longer possible to doubt that Phœnician, Greek, and Sabaean letters, no less than Minoan, were borrowed from, or modelled upon, the Egyptian hieroglyphic system of writing.

(15) The views which I am setting forth here are, as a matter of fact, substantiated by linking together the evidence collected in a large series of scattered areas by leading scholars. It is a commonplace of scientific inquiry that the man who devotes himself with the greatest concentration of mind to the investigation of some isolated or localized subject of research may be blind to the precise relation of his work to wider problems. He may become so obsessed by the difficulties which he encounters as to fail to realize the progress of the whole campaign. During the last few months it must have been the experience of all of us stay-at-home people to find that, without possessing any expert military knowledge, the scraps of news which come to us from all sides have made us more fully acquainted with the progress of the war than many of the soldiers who are actually participating in the fighting in some one spot. So the untrained on-looker in the ethnologists' great battle may see most of the fight and see it more clearly than many of those whose attention is riveted on their own special difficulties.

(16) Lorimer Fison, "The Nanga, or Sacred Stone Enclosure, of Wainimala, Fiji," "The Journal of the Anthropological Institute," Vol. XIV, 1885, p. 14.

(17) "The Imperial Gazetteer of India, the Indian Empire," Vol. II, Historical, New Edition, 1903.

(18) Zelia Nuttall, "A Curious Survival in Mexico of the Purpura Shell-fish for Dyeing," Putnam Anniversary Volume, 1909.

(19) James Hornell, "The Sacred Chank of India," Madras, Government Press, 1914.

(20) Terrien de Lacouperie, "Western Origin of the Early Chinese Civilization," 1894, Asher & Co., London.

(21) Report of a lecture delivered by Mr. Elsdon Best to the Wellington Philosophical Society in New Zealand, July, 1915.

(22) The peculiar custom of providing stone seats in tombs or for councils of special solemnity (in association with burial places) which probably developed out of certain Egyptian conceptions ([M], p. 43), is seen in its most typical form in a tomb of the First Late Minoan period excavated at Isopata by Sir Arthur Evans in 1910, as well as in Etruscan sites. Mr. Perry has shown that this custom also occurs in precisely those places (beyond the limits of the Ancient East) where the megalithic culture is seen in its fully developed form—for example, in India only in those localities where megalithic monuments occur, as also in the selected spots in Indonesia and Oceania. But the practice attained its greatest development in Ecuador, where enormous numbers of such seats, many of them curiously suggestive of Old World design, have been found (see Saville's "Antiquities of Manati, Ecuador," Preliminary Report, 1907, pp. 23 *et seq.*, and Final Report, 1910, pp. 88 *et seq.*).

The use of conch-shell trumpets in certain temple services, which also is to be referred to Minoan times in Crete, has been recorded in India, Oceania, and America ; and in itself is a very clear demonstration of the transference of a peculiar custom from the Mediterranean to America.

(23) The winged disc with a pair of serpents (Fig. 1) is the commonest and most distinctive symbol of the Ancient Egyptian religion, and is constantly found carved upon the lintels of the great doors of the temples. It appeared in a great variety of forms in Egypt and was widely adopted and distributed abroad, especially by the Phoenicians (see Count d'Alviella, "The Migration of Symbols," 1894, p. 204 *et seq.*). It is found in Palestine ("The Sun of righteousness with healing in his wings," Malachi IV. 2), Asia Minor, Assyria, Babylonia, and Persia, as well as in Carthage, Cyprus, Sardinia, and elsewhere in the Mediterranean. In modified forms it occurs in India and the Far East, and ultimately it reappears in America in a practically complete form (Figs. 3 and 4) and in precisely homologous situations, upon the lintels of doors in sun-temples (Fig. 5). But the curious feature of these American winged discs is that they are invariably reversed ; and the body of the serpent, which even in the Egyptian models is often conventionalized into a lattice-like pattern, is now replaced by a geometrical design (Fig. 3). This only becomes intelligible when it is compared with the (reversed) Egyptian original. In most instances (as, for example, Fig. 4) the design is still further modified in a characteristically American manner : but if one disregards the ornate embellishments, the distinctive features of the severer Egyptian-like pattern of Fig. 3 leave no doubt as to the homologies. The face of the god takes the place of the sun's disc, as so often happens in the Old World varieties (compare Fig. 2, and especially William Hayes Ward's monograph, "The Seal Cylinders of West Asia," Carnegie Institute, Washington, 1910, pp. 211-252 and 395-6 ; and the series of treatises on the History of Art by Perrot and Chipiez). Spinden ["A Study of Maya Art," Cambridge (Mass.), 1913, p. 196] states that

the "Serpent Bird" and not the disc is represented at Ococingo (Fig. 3): but this is by no means fatal, as he imagines, to the views set forth here. That this "Serpent Bird" or "Feathered Snake" occurs in temples of the Sun completes the proof of the identity with its Egyptian prototype.

In fact all the associations of these winged discs in Mexico and Central America—the Egyptian-like temples, perched upon the tops of Pyramids; the sanctuaries (Fig. 5) embellished with designs (Fig. 7) essentially identical with those found in analogous Egyptian temples (Fig. 6); and the nature of the gods worshipped, and their various attributes—are eloquent of the source of their inspiration in the Old World. These temples with their embellishments in fact afford a remarkable demonstration of the blended influences of Egypt, Babylonia, India and China, with those of America.

Incidentally they supply the most striking corroboration of the views set forth by Dr. Rivers ("'Conventionalism' in Primitive Art," Report Brit. Association, 1912, p. 599) that the transformation of a naturalistic into a geometrical design is not usually due to simplification, but to a blending of different cultural influences. The American development of the winged disc, for example, is essentially geometrical, but enormously more complicated and richly embellished than the original.

(24) "Pre-Columbian Representations of the Elephant in America," "Nature," December 16, 1915.