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THE ORIGIN OF ANCIENT CIVILIZATIONS AND TOYNBEE'S THEORIES

Some of us may still remember the time when the ancient civilizations—the Babylonian, Egyptian, Greek, Indian, and Chinese—were considered as isolated phenomena and as products of completely independent developments. It was only for later periods that influences from outside were conceded to a certain, rather limited, extent, such as those of the Near East in Greece, of Hellenism in India, or of the nomad peoples in China. In general, specialists looked but rarely beyond the invisible walls with which they had surrounded their domains. There were even those who resented any allusion to the possibility that foreign influence might have contributed to the formation of their favorite civilization. A few bold scholars had already attempted to trace cultural diffusion across wider expanses, to prove, for instance, that Chinese civilization was derived directly from that of Babylonia. But these premature and rather naïve attempts, based on entirely insufficient data, were only apt to discourage any too daring comparison.

The progress of archaeology has caused all those invisible and artificial walls to crumble and has shown that the isolation of the ancient civilizations was never as complete as had been supposed, not even during the initial periods of their development. However, the already moribund

theory of the independent origin of the various ancient civilizations was revived by Toynbee, who even made it one of the fundamental theses of his *Study of History*. He distinguishes six original and allegedly independent civilizations, "emerged through mutations of primitive societies": in the Old World the Egyptian, Babylonian, Minoan, and Chinese, and in America the Andean and Mayan civilizations; should it turn out that the Harappa civilization of India was not derived from Babylonia, he says, it too would have to be added to that list.[1]

These six or seven civilizations which, despite all their differences, have so much in common with regard to general character, urbanization, economy, social and political organization, etc., and which so often surprise us by striking similarities even in details, did they really evolve independently one from another? Or were they not, after all, derived from a common source? The answer to this question will be of fundamental importance for our whole concept of history and our understanding of the evolution of human culture in its totality.

It goes without saying that the formation of higher civilizations was possible only after the transition from the economy of nomad hunters and food-gatherers to agriculture and to a sedentary life. Therefore it is significant that the most ancient cultures of neolithic farmers all cluster around the eastern part of the Mediterranean Sea, in Cilicia, northern Mesopotamia, Syria, Palestine, and Egypt. Some of them go back as far as 5000 or even 6000 B.C. The fact that in all the other parts of the world the Neolithic appears later, seems to indicate that its various local branches did not originate independently, as was once believed, but that they were the result of diffusion from the Near East.

Archaeological research is in fact revealing more and more ties between the neolithic cultures of different regions. The derivation of the Neolithic of western Europe from that of Egypt by way of North Africa is generally admitted.[2] Near Eastern affinities of the neolithic cultures of southeast and central Europe were pointed out by Childe, Fewkes, Hawkes, Menghin and others, and final evidence of their derivation from Anatolia, Syria, and Northwest Mesopotamia was recently produced by Fritz Schachermeyr.[3] The western origin of the Chinese painted pottery

1. Arnold J. Toynbee, *A Study of History*, Vol. I, pp. 131, 184, 188.

2. C. F. C. Hawkes, *The Prehistoric Foundations of Europe* (London, Methuen, 1940), pp. 82–84, 125–148; Kurt Tackenberg, "Die jüngere Steinzeit Europas," *Historia Mundi*, Vol. 2 (Bern, 1953), pp. 34–35.

3. Fritz Schachermeyr, "Die vorderasiatische Kulturdrift," "Saeculum," Vol. 5 (1954), pp. 268–291.

cultures, as well as of the Lung-shan culture with its gray and black ceramics, has been the subject of a number of treatises, but I shall not stress it here, since these cultures were relatively late and since we still know very little about the older Neolithic of China. However, as I was able to demonstrate, it was from China that neolithic cultures spread to Southeast Asia and Oceania.[4] Let us add that American archaeologists are currently trying to trace the spread of neolithic influences from Siberia to North America. Of course there are still gaps between various neolithic cultures, but there is little doubt that they are merely due to the insufficiency of our data and that one day the progress of archaeological research will enable us to fill them.

This great neolithic movement revolutionized the economy of vast regions of the earth. By disseminating agriculture and cattle-breeding and making a sedentary life possible it created the conditions necessary for the formation of higher civilizations. But did these civilizations then really spring up independently from the various local neolithic and chalcolithic cultures, as Toynbee claims?

Like the oldest neolithic cultures, the oldest of the higher civilizations, too, are found in the Near East. Archaeologists more or less agree that the Babylonian culture of the protoliterary period, toward the end of the fourth millennium B.C., was the first that may be termed a full civilization.[5] Egyptian civilization, in the precise sense of the word, emerged but little before the advent of the first dynasty, perhaps toward 2800 B.C., while it would hardly be justified to speak of Minoan "civilization" prior to about 2600 B.C. Turning toward the East, we find that higher civilizations appeared for the first time in India toward the middle of the third, in China toward the middle of the second, and in America toward the middle of the first millennium B.C. Does not this sequence of diminishing dates indicate that, like the stimuli and formative elements of the neolithic cultures, those of the higher civilizations too spread from a common source in the Near East? But before approaching this problem we must first examine the manner in which the most ancient civilizations of that region emerged.

Only a few years ago a theory according to which the first civilizations

4. R. Heine-Geldern, "Urheimat und früheste Wanderungen der Austronesier," *Anthropos*, Vol. 27 (1932), pp. 543-619.

5. I have provisionally adopted the term "protoliterary civilization," used by American archaeologists, even though I am not yet quite convinced that it will maintain itself permanently. It comprises the second part of the Uruk period and the period of Jemdet Nasr.

resulted from the subjection of agricultural populations by pastoral nomad tribes from the steppes enjoyed a certain popularity, particularly among German scholars. These nomads—supposedly equestrian warriors comparable to the Scythians, Sarmatians, Huns, Turks, and Mongols of historic times—were believed to have organized their subjects and, while adopting their cultures, to have founded the first great states, thus creating the necessary conditions for the development of civilizations.[6] This was pure hypothesis, based upon no tangible archaeological evidence. In the meantime it has been shown that the nomadism of Central Asia is a far more recent phenomenon than one had thought and that the equestrian and martial nomadism of the East European and Asiatic steppes emerged only toward 1000 B.C., therefore at least two millennia after the appearance of the most ancient civilizations of the Near East.[7] According to another hypothesis, no better founded than the first, it was not nomads, but warrior tribes from the mountains who, by "organizing" the agricultural peoples, led them toward civilization.[8]

Actually, the archaeological evidence suggests a completely different explanation. During the course of the fourth millennium B.C. all the cultures of Mesopotamia, Syria, Palestine, Egypt, and probably of Asia Minor as well, were on the road to civilization. This does not mean that they were in the process of being transformed into higher civilizations independently of one another. Let us merely recall the origin of our own western civilization. Is it not the issue of an uninterrupted cultural exchange between the Italian, French, German, English, Scandinavian and Iberian civilizations during the course of the Middle Ages and throughout the modern period? It is by an analogous process that the oldest civilizations of the Near East came into being.

In the course of the neolithic expansion, a number of local cultures of well defined characters and marked differences had arisen in southwestern Asia and in Egypt. These cultures were in more or less constant contact with one another. It is significant that even in as ancient a culture as that of Hassuna in northern Iraq (fifth millennium B.C.), apart from pottery

6. Cf., for instance, the first chapter in Alexander Rüstow's *Ortsbestimmung der Gegenwart*, Vol. I (Zürich, 1950).

7. Franz Hančar, "Stand und historische Bedeutung der Pferdezucht Mittelasiens im 1. Jahrtausend v. Chr.," *Wiener Beiträge zur Kulturgeschichte und Linguistik*, Vol. 9 (1952), pp. 480–482; Karl Jettmar, "Seit wann gibt es Reiternomaden in Zentralasien?" *Die Umschau*, Vol. 53 (1953), pp. 590–592; "Les plus anciennes civilisations d'éleveurs des steppes d'Asie Centrale," *Cahiers d'Histoire Mondiale*, Vol. 1 (1953–54), pp. 760–783.

8. Peter Bensch, "Die Entstehung der primären Hochkulturen als ethnologisches Problem," *Zeitschrift für Ethnologie*, Vol. 77 (1952), pp. 165–187.

of local type, sherds have been found which are reminiscent of the contemporary ceramic style of North Syria and Cilicia. Miss Perkins concluded from this that influences from these more westerly regions had contributed toward the formation of the Hassuna culture.[9] Indications of similar or even more important contacts abound. One has only to recall the wide dissemination, during somewhat later periods, of ceramics of the Tell Halaf and Ubaid types. Even the prehistoric cultures of Egypt, although more isolated than those of Asia and developing along a completely unique tradition, were not exempt from foreign contacts. As far as the Badarian and the Amratian are concerned, at least the importation of raw materials from Asia has been noted. Later, in the culture of Maadi and in the early Gerzean, pottery types of Palestinian and Mesopotamian origin make their appearance.[10]

In appraising the significance of all these relations, we must not lose sight of the fact that we have at our disposal mere fragments only of what were originally the total contents of the various prehistoric cultures. Except in Egypt, all perishable materials have long since disappeared. The lack of written sources leaves us in almost complete ignorance of the social and political organization, of religions and myths. Therefore it would be absurd to believe that those cultural relations which are documented by ceramics and by types of tools and weapons were limited to trade in pottery and implements or to the imitation of objects which had been imported. The tangible proofs that we possess are no more than indications of cultural exchanges which must have been far more voluminous than the archaeological finds permit us to ascertain, exchanges which certainly were not confined to material goods and to technology. There can be little doubt that, in many cases at least, they affected also the social and religious ideas. In this context, let us not forget that the vast diffusion of female idols throughout the prehistoric and protohistoric cultures of the Near East allows us to perceive at least one common trait with regard to religion.

No doubt the geographical conditions and above all the existence of cultivable grasses in the regions concerned were particularly propitious,

9. Ann Louise Perkins, *The Comparative Stratigraphy of Early Mesopotamia* (Chicago, 1949), p. 15.

10. Henri Frankfort, *The Birth of Civilization in the Near East* (Bloomington, Indiana University Press, 1951), pp. 42–43; Helene J. Kantor, "Further Evidence for Early Mesopotamian Relations with Egypt," *Journal of Near Eastern Studies*, Vol. 11 (1952), pp. 249–250. V. Gordon Childe, *New Light on the Most Ancient East* (London, Routledge & Kegan Paul, 1952), pp. 43, 53–54, 72, 74, 75.

but they alone would not have sufficed to cause civilizations to come into being. It was the continuous exchanges which resulted in increasingly important accumulations of cultural possessions and in technological and spiritual advances. Moreover, we know, thanks to well-established facts from historic periods, that in similar circumstances, apart from the mere accumulation of native and foreign cultural traits, the stimuli resulting from contacts may give rise to completely new creations.

In the manner indicated, the various prehistoric cultures of the Near East drew closer and closer toward civilization.[11] In fact, it is not at all easy to trace a definite boundary between some of the later village cultures, still half rustic, but already affected by the beginning process of urbanization, and the oldest true civilizations. Both are mere stages within one and the same powerful trend toward civilization. What is astonishing is the rapidity of this process. Only two millennia separate the first appearance of metals, and no more than three millennia the first appearance of writing and the emergence of full civilization from the beginning of the Neolithic. While the neolithic currents emanating from the Near East were still spreading across distant continents, the development had already attained at its source the stage of true civilization.

There would be little point in discussing here the various circumstances which favored the cultural development of Babylonia.[12] We must, however, remember one fact that emerges from the archaeological evidence and which seems to confirm what we said about the important role of cultural exchanges. At the end of the Ubaid period and during that of Uruk the advent of new influences is indicated, among others, by the appearance of a type of pottery original to northern Syria and eastern Asia Minor.[13] This is soon followed by writing and the efflorescence of

11. I had already written these pages when an article by E. A. Speiser came into my hands in which this eminent orientalist expresses the same ideas. Cf. E. A. Speiser, "The Beginnings of Civilization in Mesopotamia," *Supplement to the Journal of the American Oriental Society*, No. 4 (1939), pp. 17–25, 28–29.

12. One thinks, for instance, that the necessity to create and maintain a system of canals in order to irrigate the arid plains of Babylonia resulted in the development of states with powerful central governments. Cf. "Irrigation Civilizations, a Comparative Study," *Social Science Monographs*, No. 1 (Washington, 1955). It is quite probable that the necessity to provide for irrigation may have contributed to the formation of Babylonian civilization, but one must not exaggerate its importance.

13. Henri Frankfort, *Archaeology and the Sumerian Problem* (Chicago, University of Chicago Press, 1932), pp. 30–31, 33–34, 39–40; C. Leonard Woolley, *The Development of Sumerian Art* (New York, Scribner's, 1935), pp. 49–53; Speiser, *op. cit.*, pp. 21, 28–31; Seton Lloyd, *Twin Rivers*, 2d ed. (London, Oxford University Press, 1947), pp. 6–7; Perkins, *op. cit.*, p. 98; "The Relative Chronology of Mesopotamia," *Relative Chronologies in Old World Archaeology*, Robert W. Ehrich, ed. (Chicago, 1954), pp. 46–47; Childe, *op. cit.*, pp. 123–124.

that "protoliterary" culture which we can regard as the oldest civilization. Regardless of whether these influences which inaugurated the new period were due to mere cultural currents or, which seems more likely, to ethnic infiltrations, they seem to have provided the stimulus which led Babylonia—already very close to civilization in the proper sense of the word during the periods of Eridu and Ubaid—to take the final and decisive step in this great evolution that had begun three thousand years before with the substitution of agriculture and domestication for hunting and the gathering of wild fruits.

Scarcely had the protoliterary civilization of Babylonia been born, when it started to radiate toward other Near Eastern countries. In the course of its second period, that of Jemdet Nasr, its influence made itself felt from Troy in the West to Iran in the East. The first Elamite civilization came into being and immediately spread to the Iranian plateau. Stimulated by influences emanating from Babylonia, Egypt took its final step toward civilization. We do not know the circumstances which led to relations between protoliterary Babylonia and Egypt, nor how and in what way they were effectuated. Like Babylonia in the Ubaid period, Egypt in the Gerzean was already well advanced along the path toward civilization. This must have facilitated the adoption of all those innovations of Babylonian origin which we can observe in the Late Gerzean and during the period of the first dynasty: cylinder seals, new types of pottery, Babylonian motifs in art, architecture of Babylonian type, etc. Furthermore, orientalists have shown with good reason that the invention of hieroglyphic writing must have been stimulated by the knowledge of Babylonian writing of the Jemdet Nasr period.[14] The Babylonian influence in architecture and writing seems to indicate direct and rather intimate contacts. In this context, let us remember once more that archaeology cannot disclose more than a part of the cultural exchanges and that many more, the majority perhaps, may escape us.

It is hardly necessary to emphasize that it was from Babylonia and Egypt that civilization spread through Palestine, Syria, and Asia Minor, and finally reached Crete, in part through Asia Minor and in part by sea from Egypt. The facts are known and well documented.

In India, the Harappa culture, the beginnings of which may be dated

14. Speiser, *op. cit.*, p. 22; Alexander Scharff, "Die Frühkulturen Aegyptens und Mesopotamiens," *Der Alte Orient*, Vol. 41 (Leipzig, 1941); "Archäologische Beiträge zur Frage der Entstehung der Hieroglyphenschrift," *Sitzungsberichte der Bayerischen Akademie der Wissenschaften*, 1942, No. 3; Frankfort, *The Birth of Civilization*, pp. 82–83, 100–111; Kantor, *op. cit.*; Childe, *op. cit.*, pp. 130–131, 238–244.

around the middle of the third millennium, was preceded by simple village cultures, extensions of the painted pottery cultures of the Iranian plateau. However, these cultures were far from having reached a stage of near-civilization comparable to that of the Ubaid culture of Babylonia or the Gerzean of Egypt. On the other hand, the Harappa civilization appears even at the deepest levels of the ancient cities with all the maturity which it was to preserve for a millennium and a half, until its destruction by the Aryans between 1200 and 1000 B.C. This sudden emergence, without any trace of prior development, suffices in itself to indicate its foreign origin.

Sir Mortimer Wheeler called attention to the difference between the plans of ancient Babylonian cities and that of Mohenjo-daro. While the city of Ur, with its twisting and winding streets, gives evidence of slow and organic growth, the regular lay-out of Mohenjo-daro and its rectilinear streets, crossing each other at right angles, remind us of cities of the Hellenistic period and of modern American cities. There can be little doubt that in India, too, we are confronted with colonial cities, built according to pre-established plans. Around the middle of the third millennium B.C. such ideas of city planning could have come only from Babylonia or, perhaps, from Elam.[15] Despite all the differences between the civilizations of Harappa and Babylonia, no one, as far as I know, has ever seriously doubted that they were linked to each other by some kind of tie.

The situation is further complicated by the fact that still another cultural movement from the west contributed to the formation of the Harappa civilization. Starting from eastern Asia Minor, it reached India by way of northern Iran and southern Turkestan. As I indicated elsewhere, it is not unlikely that it was to this current that pre-Aryan India owed its still undeciphered script.[16] The sudden efflorescence of the Harappa civilization may have been due precisely to this confluence of several cultures. Summarizing, we can say that, as mysterious as the origin of the pre-Aryan civilization of India may still appear, it is certain that it stemmed from the advanced civilizations of the Near East.

In China, the ground had to some extent been prepared by the introduction of the neolithic painted pottery cultures, probably toward the

15. Sir Mortimer Wheeler, "Iran and India in Pre-Islamic Times," *Ancient India*, Vol. 4 (1947–48), pp. 91–92; "Archaeology and the Transmission of Ideas," *Antiquity*, Vol. 26 (1952), pp. 185–187.

16. R. Heine-Geldern, "China, die Ostkaspische Kultur und die Herkunft der Schrift," *Paideuma*, Vol. 4 (1950), pp. 76–77, 80.

end of the third millennium. Their European derivation (Ukraine, Rumania, eastern Hungary) is not doubtful, but it seems that in the course of the migration they had also acquired certain elements of Iranian origin.[17] This introduction of an advanced Neolithic into China was followed by an immigration of far greater importance: that of the people (or peoples) whose culture, with gray and black pottery, flourished in northern Iran and southern Turkestan during the third and second millennia B.C. and is known to us through the excavations at Têpe Hissar, Turang Têpe, Shah Têpe, Namazgah Têpe and Anau. Would we be justified in applying to this culture of the region southeast of the Caspian Sea the term of "civilization"? In view of the density of its population, the large size of some of its sites, and the fact that it probably knew writing, this appears not quite impossible. At the very least it was a near-civilization, strongly imbued with influences from the high civilizations of the Near East. Its introduction into China, probably around 1900 B.C., and its amalgamation with some of the neolithic cultures which had preceded it there, gave rise to the Lung-shan culture. The black and gray Lung-shan wares, closely related to the pottery of northern Iran and southwestern Turkestan, as well as the building with pounded earth, so characteristic of these same countries, are merely the outward signs of the new contributions introduced by this movement from the West. The influences in the domains of economy, social and political organization, and religion must have been far more important. Of course, archaeology is incapable of revealing them or, at the very best, allows us to catch a glimpse of them through a dusk difficult to penetrate. The classical site of the Lung-shan culture, Ch'êng-tsu-yai, by its considerable size, its regular, quadrangular form, and the powerful wall of pounded earth which surrounded it, seems to indicate the beginnings of urbanization. Moreover, it is probable that it was to the western current which introduced the Lung-shan culture that China owed its knowledge of writing. The absence of metals, which had been known in Iran and Turkestan since the 4th millennium, and the fact that, in consequence, the Lung-shan culture appears purely neolithic, can easily be explained by the difficulty the ancient peoples encountered in discovering ores in a new country.[18]

17. Max Loehr, "Zur Ur- und Vorgeschichte Chinas," *Saeculum*, Vol. 3 (1952), pp. 31–46.

18. R. Heine-Geldern, "China, die Ostkaspische Kultur und die Herkunft der Schrift," *Paideuma*, Vol. 4 (1950), pp. 51–92. See pp. 78–83 for my conjecture that writing probably was introduced into China during the Lung-shan period. Although it was not published until 1950, my article was written in 1948. I did not know at that time that two sherds of Lung-shan ware had been found which actually bear inscriptions in two up till then unknown and of

The Lung-shan culture was not yet a full civilization, but it was not far removed from that stage. The last step toward civilization was initiated by the advent of a new current from the West. Although perhaps an unjustified simplification, it is convenient, for the time being at least, to designate it by the name of the dynasty which it installed in China, that of the Shang. We do not know from where the Shang came. It is improbable that they were the carriers of a fully developed civilization. But there can be no doubt that they had acquired, either through direct or, more likely, indirect channels, many of the elements of ancient civilization. They introduced into China the knowledge of bronze casting, new types of tools and weapons, made of bronze, the use of war chariots, a new art style, probably also new political institutions and new religious concepts. It was through the combination of their culture with the Lung-shan culture, that Chinese civilization was born. The founding of their kingdom, in the second half of the 16th century B.C., marks the beginning of the historic period in China.

Even though the introduction of civilization into China came about indirectly and by stages, the facts I have indicated entitle us to assert that Chinese civilization did not arise independently from a neolithic substratum, but that it, too, owed its birth to stimuli which originally emanated from the civilized countries of the ancient Near East.

We now come to the last two of Toynbee's protocivilizations, supposedly born through spontaneous mutation: the Maya civilization of Central America and the civilization of Peru.[19]

A century and a half ago as eminent a scholar as Alexander von Humboldt was convinced of the Asiatic origin of the American Indian high civilizations. However, when, in the second half of the 19th century, evolutionist (or, rather, pseudo-evolutionist) ideas based on Bastian's concept of the *Elementargedanke*, captured the imagination of anthropologists, it seemed no longer necessary to have recourse to the supposition of real contacts in order to explain the similarities between New and Old World civilizations. According to these theories, what was called the "psychic unity of mankind" was bound to lead everywhere to

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course undeciphered scripts. They have been reproduced by Sidney M. Kaplan in his paper, "Early Pottery from the Liang Chu Site, Chekiang Province," *Archives of the Chinese Art Society*, Vol. 3 (1948–49).

19. It should be noted that the Maya culture can no longer be considered as the most ancient civilization of Meso-America.

similar parallel and independent developments which produced similar or even identical results.

These "evolutionist" ideas have long since been abandoned, but, curiously enough, the belief in the independent origin of American Indian civilizations was nevertheless retained. This means that in general the validity of the conclusions based on the *Elementargedanke* and on the 19th century conception of the "psychic unity of mankind" is no longer admitted, but that it is tacitly acknowledged as far as conformities between American and Old World civilizations are concerned.

This lack of logic results in a truly paradoxical situation. No archaeologist today would attribute to prehistoric Europeans the independent invention of bronze casting, iron work, the wheel, weaving, pottery, writing, and so many other cultural elements derived from the Near East. Margaret Hodgen has shown that all industrial innovations that can be noted in England, from the earliest times up to the 18th century, were introduced by immigrants from the European continent.[20] But what is not conceded to the inhabitants of the British isles nor to Europeans in general, that is, to have repeated the same complicated inventions that had already been made elsewhere, is willingly conceded to American Indians. O course, all peoples have made inventions, and the argument of some diffusionists who stress the alleged lack of inventive spirit among primitive peoples is completely erroneous. We need only recall, for instance, the American Indians' invention of rubber, which became so important to our modern technology. But it is quite another matter to invent or to repeat those very same inventions which had previously been made in other parts of the world.[21] Isn't our credulity being taxed too much when we are asked to believe that a whole series of complicated techniques, like casting by the lost wax method, the extraction of tin from cassiterite, the alloying of copper and tin, the coloring of gold by chemical processes, weaving, tie-dyeing, and batik were by a real miracle invented twice, once in the Old World and once in America? And what mysterious law of psychology would have caused the peoples of America, as well as those of Asia, to invent the parasol and to use it as an emblem of rank and royalty, to invent the same game with rather complicated rules (*pachisi* in India and Southeast Asia, *patolli* in Mexico), to imagine similar cosmo-

20. Margaret T. Hodgen, "Change and History," *Viking Fund Publications in Anthropology*, Vol. 18 (New York, 1952).

21. Of course very simple inventions may have been made repeatedly. In general it is very difficult to prove it.

logical systems, and to attribute certain colors to the different directions? After all, the south is not really red, the east not blue, etc., and the idea is singular enough to make us doubt that it was conceived more than once.

The arguments advanced in order to prove the independent origin of the ancient American civilizations are, without exception, rather strange. We are told, for instance, that if Asiatics had really come to America, they would certainly have introduced the true vault. Obviously, the Americanists who made this assertion believed that the vault had been known in eastern Asia since the most ancient times. Actually, it became known in China only after contacts with the Iranian and Hellenistic West had been established under the Han emperors, that is to say around 100 B.C., or even later. Moreover, in China it was in the beginning used only for tombs. It was never adopted by the Indianized countries of Southeast Asia, with the exception of Burma. Even more surprising is the belief that the independent development of American Indian civilizations could be proved by stressing the absence of the carriage and the plow in America. What would have been their use in countries where there were no draft animals?

It is not necessary to list here all the alleged proofs that have been advanced to support the dogma of the independent origin of the Meso-American and Andean civilizations.[22] They are all more or less of the same order. Their lack of logic and the fact that all those who were not willing to accept that dogma were considered as heretics indicate that we are confronted not so much with a rational theory as with a predominantly emotional conviction. It is significant that now that it becomes increasingly difficult to deny the existence of ancient links between Asia and America, one begins to admit their possibility, but adds that it is still too early to speak of them.[23] If one cannot prevent the destruction of the cherished dogma, one tries at least to postpone it as long as possible.

I have mentioned those invisible walls with which specialists of an earlier period had surrounded Egypt, Greece, China, etc. They all have crumbled, one after the other. Only the last and most formidable one remains, that with which Americanists have encircled the continent which is the subject of their studies. We shall have to tear it down if we wish to

22. For a brief discussion of this subject, see Heine-Geldern, "Das Problem vorkolumbischer Beziehungen zwischen Alter und Neuer Welt und seine Bedeutung für die allgemeine Kulturgeschichte," *Anzeiger der phil.-hist. Klasse der Oesterreichischen Akademie der Wissenschaften*, Vol. 91 (1954), pp. 346–348, 355–356.

23. See Wendel C. Bennett's remarks in *Selected Papers of the XXIXth International Congress of Americanists*, Vol. 1 (Chicago, 1951), and in *Anthropology Today*, A. L. Kroeber, ed. (Chicago, University of Chicago Press, 1953), p. 212.

attain a correct and thorough understanding of the global history of civilization.

I can present here no more than the barest outline of the results of my own research and that of Gordon Ekholm on the relations between Asiatic and American civilizations.

Some of the sculptures of the Chavin culture, the oldest of the higher civilizations of Peru, show very special motifs, closely corresponding to Chinese ones. In China these motifs occur only in the eighth century B.C. This corresponds exactly with the date of the Chavin culture obtained by the carbon-14 method. Is it a mere coincidence that it is precisely in the Chavin period that metal (gold) and weaving appear for the first time in South America? It is significant that the art of the following period, that of the Salinar culture, again shows motifs of definitely Chinese character, but now of the seventh or sixth century B.C. All these influences must have emanated from the coastal states of ancient China, Wu and Yüeh. The relations which they indicate seem to have been interrupted when Yüeh lost its independence in 333 B.C. However, it appears that the trans-Pacific voyages were immediately resumed by Yüeh's neighbors in northeastern Indo-China, the carriers of the Dong-son culture and ancestors of the present-day Vietnamese. Traces of Dong-son influence are far more numerous in South America than those of Chinese influence. One finds them throughout the Andean region from Panama to northern Chile and northwestern Argentina. They are particularly conspicuous in the forms and ornamental designs of metal objects and in the metallurgical processes, but there are many other indications of them, far too numerous to be cited here. The trans-Pacific voyages of the Dong-son people may have come to an end as the result of the final conquest of Tonkin and North Annam by China toward the middle of the first century A.D.[24]

The magnificent marble vases from the Uloa Valley in Honduras have more than once been compared to Chinese objects of the Late Chou period.[25] The similarity, not only of their single ornamental motifs, but of the very essence of their style to the designs on certain Chinese bronzes and jades is truly striking. In the art of Mexico, too, indications of Chinese influence abound. In the ornamental style of the Tajin culture of eastern Mexico it is so pronounced that one would be justified in speaking of a local variant of the Chinese art of the seventh to the fourth centuries B.C.

24. R. Heine-Geldern, "Die asiatische Herkunft der südamerikanischen Metalltechnik," *Paideuma*, Vol. 5 (1954), pp. 347–423.

25. Cf. for instance Miguel Covarrubias, *Mexico South* (New York, Knopf, 1947), p. 110.

The presence, in Mexico, as well as in Guatemala, of pottery types closely resembling Chinese ones of the Han period indicates that the relations of China with Meso-America either continued after the fall of Yüeh or, as seems more likely, were resumed under the Han. They may have terminated as a result of the political troubles which, in the third century A.D., culminated in the fall of the Han dynasty.[26]

It appears that when the Chinese voyages to Mexico and Central America were discontinued, they were immediately resumed by the Hinduized peoples of Southeast Asia. When, in New York in 1949, Gordon Ekholm and I began for the first time to compare systematically the Mexican and Mayan civilizations with those of the Hindu-Buddhist countries of Southeast Asia and even of India itself, we experienced one surprise after another. The architecture and the art, the religious symbols, the cosmological ideas, the institutions of the states and the royal courts, the insignia of kings and dignitaries, even the games—all this to an unsuspected and overwhelming extent—reminded us of the civilizations of Southeast Asia and India. The relations seem to have been particularly close between Cambodia and the Maya and Olmec areas from the seventh to the tenth century A.D., but there are indications that they may have continued until the twelfth century. Could their rupture have been caused by the political catastrophe of the Khmer empire after the death of Jayavarman VII around 1219 A.D.?[27]

Those who believe that the ancient peoples of Asia were incapable of crossing the ocean have completely lost sight of what the literary sources tell us concerning their ships and their navigation. The kings of Wu undertook military expeditions against distant islands, perhaps Formosa or the Ryûkyû Archipelago, and from one of them brought back thousands of prisoners of war.[28] This presupposes, of course, the existence of ocean-

26. The relations between ancient China and Meso-America will be dealt with in an article which is to be published in *Saeculum*.

27. R. Heine-Geldern and Gordon F. Ekholm, "Significant Parallels in the Symbolic Arts of Southern Asia and Middle America," *Selected Papers of the XXIXth International Congress of Americanists*, Vol. 1, *The Civilizations of Ancient America* (Chicago, 1951), pp. 299–309; Gordon F. Ekholm, "A Possible Focus of Asiatic Influence in the Late Classic Cultures of Mesoamerica," *Memoirs of the Society for American Archaeology*, No. 9 (1953), pp. 72–89. A French scholar, Jean Naudou, arrived at practically the same conclusions as Ekholm and I. Mr. Naudou was kind enough to allow me to read his manuscript, but I do not know if it was ever published. For an excellent general discussion of the problem of Asiatic-American cultural relations and of the problems involved, cf. Gordon F. Ekholm, "The New Orientation toward Problems of Asiatic-American Relationships," *New Interpretations of Aboriginal American Culture History, 75th Anniversary Volume of the Anthropological Society of Washington* (Washington, D.C., 1955), pp. 95–109.

28. Wolfram Eberhard, *Kultur und Siedlung der Randvölker Chinas* (Leiden, 1942), pp. 332–335, 338, 345.

going ships. Since the state of Wu was annihilated in 473 B.C., these expeditions must have occurred before that date. In the first century A.D. the Periplus of the Erythraean Sea mentions the large ships of southern India which engaged in trade with the countries of the East. A Chinese source of the third century A.D. describes vessels from southern Asia which were 150 feet in length, had four masts and were able to carry six to seven hundred men and one thousand metric tons of merchandise. When the Buddhist pilgrim Fa-hien returned from Ceylon to China, in 414 A.D., the ship on which he embarked carried two hundred persons. It did not sail along the coasts, but right across the ocean. In 817 A.D., a Chinese author speaks of the large ships of southern Asia which could carry a thousand men and whose crews consisted largely of Malayans.[29] There seems to be no reason why these Asiatic vessels could not have crossed the Pacific Ocean just as well as Magellan did later with his much smaller ships.

We shall hardly be wrong in assuming that the old Asiatic sailors followed the same route that the Spaniards took on their voyages between the Philippine Islands and America for two and a half centuries. That is to say that they used the western winds and currents in the North Pacific to reach California and then sailed south along the coast, while they returned to Asia with the help of the trade-winds, taking a more southerly route, without, however, touching the Polynesian islands.

How did the ancient Asiatics discover America? An article published in 1875 lists twenty Japanese junks which, having lost their masts or their rudders in storms, were carried by currents toward the American coast which they reached at various points from the Aleutian Islands to Mexico.[30] The list covers only about one century. One can well imagine the number of Asiatic ships which must have met with the same fate in earlier times. If, among hundreds of shipwrecked vessels, a single one was able to return, that sufficed of course to reveal the existence of a continent on the other side of the ocean.

Whatever may have been the incentive for the first intentional trans-Pacific voyages, there can be little doubt that it was gold which through centuries attracted Asiatic adventurers to South America. It is significant that in Peru gold appears as the first metal known precisely in the Chavin culture, at the same time as the oldest indications of Chinese influence. The

29. *The Travels of Fa-hsien (399–414 A.D.), or Record of the Buddhistic Kingdoms*, re-translated by H. A. Giles (Cambridge, 1923), pp. 76–79; Paul Pelliot, "Quelques textes chinois concernant l'Indochine hindouisée," *Études Asiatiques*, Vol. 2 (Paris, 1925), pp. 255–260.

30. Charles Wolcott Brooks, "Reports of Japanese Vessels Wrecked in the North Pacific, from the Earliest Records to the Present Time," *Proceedings of the California Academy of Sciences*, Vol. 6 (1875), pp. 50–66.

traces of Dong-son influence are in the main confined to the countries where gold abounds. It may perhaps have been jade and feathers which were sought in Central America and in Mexico, since both were no less appreciated in ancient China than in America. What really counts is the fact that the tradition of trans-Pacific voyages seems to have been handed down without interruption from the eighth century B.C. until the tenth or perhaps even the twelfth century of our era.

We may be sure that these voyages led not merely to ephemeral contacts. Metallurgical techniques, styles of art, cosmological concepts, and political institutions can have taken root only as the result of continuous and prolonged relations. We can conclude from this that Asiatic immigrants, single persons and small groups, settled down in America to stay. The introduction of weaving proves that these colonies included even women. Of course, all these Asiatics, probably never very numerous, must have soon been absorbed into the native population. However, their cultural influence was profound. In many respects the social structure and the whole cultural atmosphere of the ancient civilized countries of America are far more reminiscent of the civilizations of eastern and southern Asia than of the more primitive tribes of the American continent. The processes involved in the formation of the Meso-American and Andean civilizations can be compared to those which resulted in the Hinduization of Southeast Asia: the implantation of a foreign civilization upon more primitive indigenous cultures by small groups of immigrants, soon absorbed by the local population, and, in consequence, the birth of new civilizations which, despite their original character, nevertheless reveal the features of both the foreign and the native sources from which they were derived. Therefore we shall be justified in saying that the higher civilizations of America were Asiatic approximately in the same sense and within the same limits as the civilizations of Southeast Asia are Indian.

From what I have tried to sketch here, the following conclusions can be drawn:

However original and unique each of the ancient civilizations may appear to be, not one of them came into being independently. Fecundation by another civilization was always necessary. The American civilizations are no exception to this rule. The alleged isolation of America was nothing but an illusion. Even the oldest of the higher civilizations, that of Babylonia, ancestor of all the others, did not come into being through "mutation," as Toynbee believes, but emerged as the result of the mutual contacts of a whole series of cultures which had preceded it.

This picture of the development of civilizations is quite different from that which Toynbee has drawn. If we hold to the facts that I have indicated, we are forced to see the evolution of human culture from a point of view totally different from his. The one he has chosen, founded upon a preconceived theory and far too much influenced by obsolete ethnological concepts, could not fail to distort the salient features and to create a seductive but incorrect perspective.[31] Let us examine merely one of the consequences that result from this.

According to Toynbee, all peoples were in theory capable of creating high civilizations. If they did not succeed it was either because, inhabiting a country too richly endowed by nature, like Central Africa, they were satisfied to live a lazy life, comparable to that of the lotus-eaters in the *Odyssey;* or because, on the contrary, their energies had been sapped by the severity of an inhospitable environment, such as that of the Arctic regions; or, finally—and here the Polynesians, the Eskimos, and the nomads of Eurasia are cited—because they were exhausted by their efforts to adapt themselves to the conditions their surroundings had imposed upon them and therefore lacked the strength to continue the march toward the common goal. Toynbee compares all these peoples to individuals who, climbing a mountain, had lain down to rest and remained asleep. He defines their cultures as "abortive or arrested civilizations."[32]

All this corresponds in essence to the concept of the "evolutionist" ethnologists of the nineteenth century who believed that in principle culture should evolve everywhere in the same way. If in actuality the facts did not conform to this theory, an explanation had to be given, since the theory counted for more than the facts. Toynbee attempts to give that explanation.

We have seen that on the contrary the birth of the oldest civilization was a unique fact, due to exceptionally favorable circumstances. Certainly, under the conditions that existed in the Near East in the fourth millennium B.C., the unfolding of civilization was practically inevitable. It was perhaps only due to the advent of new stimuli during the Uruk period, thus to what one could call "an historical accident," that Babylonia was the first to take the decisive step, and not Egypt or Syria. But the fact remains that Babylonia was the first, and that all the other civilizations of

31. It is hardly necessary to say that even the most severe critics of Toynbee will still find in his work a prodigious number of precious and stimulating ideas.

32. Toynbee, *op. cit.*, Vol. 1, pp. 192–195; Vol. 2, pp. 12–15, 26–29, 300–301; Vol. 3, pp. 1–22.

the world are in a certain measure, directly or indirectly, derived from it.[33] In other words, we are confronted with a great historical movement or, more precisely, with a concatenation of movements which, in the last analysis, radiated all from a common source. It is by taking this movement and its diverse branches into account that we shall have to envisage the problem of the origin of the ancient civilizations, and not by resorting to concepts borrowed from biology, as Toynbee does.

In one passage of his work, Toynbee himself has come very near to the truth. Discussing why no "unrelated" (that is spontaneously born) civilizations had arisen after the six or seven which he regards as such, he says:

"After the first few civilizations had emerged, it did not take long (on the time-scale of societies of this species) for the whole of Mankind to be affected by their existence—consciously or unconsciously, in greater measure or less. . . . The world-wide vibrations, by occupying the entire field of action, may have made it impossible for other vibratory movements of the same kind any longer to be generated independently at fresh centres in the manner in which these earliest vibrations, which had thus monopolized the field, had themselves been generated originally. This would explain why all the later vibratory movements that occurred were generated in a new way, by derivation. To drop our metaphor, it would explain why the mode of emergence of the 'unrelated' class of civilizations became obsolete and the mode of the 'related' class became the rule."[34]

The assertion that "the whole of Mankind" was affected by the earliest civilizations is an exaggeration. But apart from this, one need only replace the words "the first few civilizations" by "the first civilization" in order to arrive at a conception, though not identical with, at least not so very different from the one I have indicated.

From what has here been said, it becomes clear that the peoples who have not attained high civilizations cannot be compared to idlers or weaklings who fell asleep along the road, as Toynbee contends. Nor is it admissible to call their cultures "abortive or arrested civilizations." They are merely the peoples who, for one reason or another, were not reached by the great expansive movement of civilization or were affected by it only

33. I hope no one will think that I intend to replace the pan-Egyptian theories of Sir G. Elliot Smith and W. J. Perry by a pan-Babylonian theory. I have no such intention. Things are not as simple as that. Indeed, they are far more complicated than I was able to show in this brief article. The fact that a man is the descendant of a certain very distant ancestor does not mean that all his genes, all his bodily and mental characteristics, were inherited from that source.

34. Toynbee, *op. cit.*, Vol. I, p. 187.

to a minor degree. In the majority of cases the cause was no more than their isolation on islands or in the interior of continents, in forests or mountain regions difficult of access. Is it necessary to remind oneself of Australia, where even the neolithic influences have scarcely penetrated?

If we wish to understand correctly the origin and evolution of civilizations, we shall have to approach the problem from a strictly historical point of view and not from that of a preconceived theory, however brilliant and seductive it may be. Above all, even in studying civilizations as isolated as those of China or of America, we must not lose sight of the fact that they are linked, directly or indirectly, with all the others, and that in a certain sense the history of civilization is one.