

Before Columbus: The Question of Early Transoceanic Interinfluences

Striking similarities between the cultures of the Old and New Worlds before 1492 indicate there were early contacts between the hemispheres, resulting in the civilizations influencing each other.

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My topic today is an attempt to address the question, How can we explain the existence of striking similarities between certain ancient cultures of the Old and New Worlds? Early Spanish visitors to the Western Hemisphere noted such things as pyramids in Middle America that reminded them of ancient structures in the Old World. The Spaniards also learned about certain religious beliefs that were reminiscent of Christianity, and so forth. These kinds of similarities were talked about from the very beginning of sizable European contact with the Americas at the turn of the sixteenth century.

The possible explanations for such similarities are basically twofold. One is that they resulted from independent development, separate and isolated innovation on the part of the distant cultures that resembled each other in these particular ways. The other possibility is that some historical connection existed anciently between these cultures. The second idea is the topic that I am treating here.

As my colleague at Brigham Young University, Professor John Sorenson, has pointed out in his publications, this is an extremely controversial area of research. There is a great deal of resistance even to talking about the idea of significant long-distance contacts prior to the time of Columbus. The resistance is even greater to the notion that there were significant, perhaps even fundamental, *influences*, especially on the New World civilizations, as a consequence of such transoceanic interactions. Dr. Sorenson has made a major

contribution to the study of this topic as cocompiler of a massive, two-volume annotated bibliography on the subject of pre-Columbian transoceanic contacts, and it will stand as a monument and a tremendously valuable research tool for those interested in this topic.¹

Significance of Exploring Early Transoceanic Influences

The question of transoceanic influences is an appropriate subject at a time when the first voyage of Columbus has recently been celebrated by some, deplored by others, or at least observed throughout the United States, Latin America, Spain, Italy, and other places. We have tended to take the 1492 voyage as a watershed, as a time before which no one in the Old World knew anything about the New World, a time after which massive changes took place in the New World as a consequence of the impact of Spanish, English, French, and Portuguese colonization. Major impacts occurred in the Old World as well, as a consequence of the bringing back to Europe of American food crops and great wealth from the gold and silver mines of Mexico and South America. Overall, there resulted the most massive cultural and demographic change that the world has ever experienced.² In that sense, the Columbian discovery, if it can be called that, really was a watershed event.

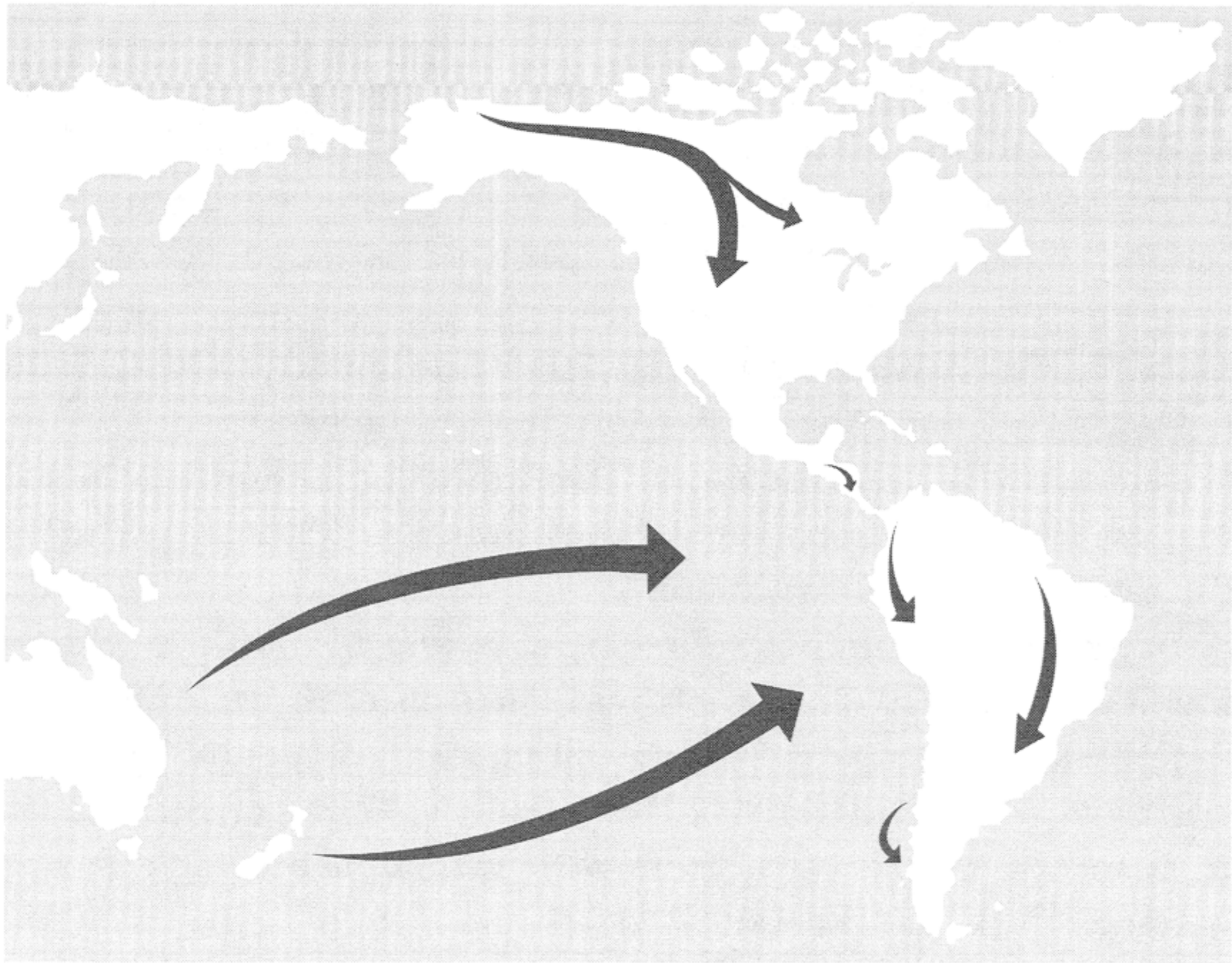
On the other hand, as we remember the first voyage of Christopher Columbus, it is appropriate to take a look at the possibility that Columbus not only was not first, but was a successor to the many before 1492 who crossed the Atlantic and the Pacific. We can consider the possibility, at least, that these earlier voyages, if they took place—and I do believe many *did* take place—had highly significant impacts on the cultures of the New World and that there were some reciprocal impacts as well, from the New World to the Old.³

The study of this twofold question is intellectually significant partly because we want to do the best we can to get a true picture of the culture history of the New World and, indeed, of the world as a whole. One thing that I have tried to do in my work is to put the cultures of the New World, particularly the civilizations of the Western Hemisphere that existed before Columbus, into the context of global history. Too often, those advanced cultures have been

considered as isolated phenomena that had nothing to do with the history of the rest of the world. Archaeologist Gordon Ekholm some years ago made the following observation:

This is perhaps *the* most important question confronting those working in the field of American archaeology and seeking to make known the true history of the American Indian. It is also a question of outstanding significance to our general understanding of how civilizations came into being, of how simple and primitive cultures develop into more complex ones.⁴

So the *ultimate* goal of studying these questions is to gain an understanding of how human cultures work, how cultural change takes place, what the nature of cultural evolution is—to what extent it is spontaneous and independent and to what extent it is dependent upon interaction between cultures and exchange of ideas. Sensitivity about this question is one of the main reasons for the controversy that surrounds the issue of transoceanic contacts before Columbus.



One version of migration to America. Rendition of a large map displayed at the national archaeology museum in Guatemala City, showing movements of peoples into ancient America.

Sensitivity exists because scholars in anthropology and other fields have had as a primary goal the formulation of a general theory to account for cultural elaboration and change.

Resistance to the Possibility of Early Interinfluences

The difficulty is, that in order to make generalizations in science, we need to have more than one case to observe. Ideally, we would have a considerable number of cases. It has long been recognized that there were a limited number of centers of origin of civilization in the Old World: the Mesopotamian region in what is now Iraq and adjacent countries; the Nile Valley in Egypt; the Indus Valley in Pakistan; and the Yellow River Valley in China. In the New World, there were the Mesoamerican area in Mexico and Central America, and the central Andean region of Peru and Bolivia. It was long thought that these were all independent centers of evolution of civilization, so that if you looked at each of these and determined the commonalties behind the rise of the cultures involved, it would be possible to derive general laws of the evolution of culture.

On the other hand, if it turns out—as increasingly seems to be true—that the early centers of civilization were interconnected, particularly by trade, that they actually influenced each other to a significant degree—then we no longer have the independent cases that scholars need to make generalizations about cultural development. The last bastion of independent cases seemed to be the gulf between the Old World civilizations on the one hand and the New World civilizations on the other. The prospect of losing the chance to make that vital comparison, of proving unable to test any “law” of the development of civilization by comparing independent cases, dismays those historians, anthropologists, and geographers who so much want to do so. Thus, there is a built-in disincentive to entertain the possibility that New World civilizations have a close historical connection with the Old World civilizations. That is one reason for resistance to the idea that there were early transoceanic contacts between the hemispheres.⁵

There are, of course, alternative explanations to account for the cultural similarities that I mentioned. These we can call “independent-inventionist” or “isolationist” explanations. Such explanations

posit that human beings everywhere have similar psyches—similar mental capacities—and that human beings are therefore likely to approach the challenges of living and making a living in a similar fashion. This theory is sometimes termed the “psychic unity of mankind.” It is an old idea—that when humans are faced with universal challenges, they tend to come up with similar solutions; and that since physical materials have particular characteristics and limitations, those characteristics channel the directions in which invention proceeds, which channeling can result in shared solutions to similar sorts of problems in widely separated areas.

Another alternative theory is that because all aspects of human life are interrelated, if a change in one part of a culture occurs, every aspect of the culture will have to adjust, in turn, to that change. So in theory, even a single change that happened to occur independently in two different cultures could lead to a whole host of similar consequences as a result of the entrained effects from the initial changes, like ripples on a pond, working their way throughout each of the cultures.

These are some of the ideas that have been proposed to explain why similarities are found in geographically separated societies. These ideas certainly have considerable plausibility as explanations of cultural parallels. With these kinds of explanations, their proponents have asked the question, “Why do we need to invoke the idea of people sailing across ten thousand miles of the Pacific in frail watercraft with incredible problems of navigation to try to explain these similarities?” So the availability of these alternative explanations has been a second reason for resistance to the idea of trans-oceanic contacts.

We have all been brainwashed, too, with the idea that Columbus was first, and we have also been subject to the ethnocentric assumption that the watercraft of Europe were always the best in the world. So we have assumed that if European ships could not and did not cross the Atlantic, then certainly the vessels of other peoples could not have crossed the oceans either, particularly something as vast as the Pacific, which is much wider than the Atlantic.

Finally, the perception exists among quite a few scholars—I think wrongly, but it does exist—that to try to account for similarities between the New World cultures and those in the Old World

on the basis of contact and influence from the Old World is a racist point of view. The complaint is that the contact hypothesis implies that Native Americans *could* not have come up with inventions themselves, that they had to have outside help. This view also encompasses the idea of “Great White Gods” (or Asian “gods” as the case may have been) or culture-bearers coming in and bringing the arts of civilization,⁶ an idea that is claimed to denigrate the abilities of American Indians to have produced their own civilizations that existed for thousands of years prior to Columbus.

I will return to that allegation a little bit later; meanwhile, I might also mention that at least in some circles, particularly in Latin America, it is considered “politically incorrect” to claim that there were pre-Columbian voyages from the Old World, this time not only because it supposedly subtracts from the accomplishments of countries’ earlier civilizations but also because it attacks the priority of Columbus, who is the great Hispanic hero throughout much of Latin America.⁷ My feeling is that we who are scholars have to try to determine what *did* happen, not what *ought* to have happened. Our consideration should be for the truth rather than for whom we are going to please or offend. Not that I suggest being offensive, but we do need to keep our eyes on searching for the truth rather than on diplomatic considerations.

My own point of view has changed over the years. Although I started out very much a skeptic, I have become increasingly convinced that there were, indeed, contacts by sea between the Old and New Worlds before Columbus. Furthermore, I have become convinced that those contacts were not just incidental, but had extremely significant impacts. While these impacts appear to have been more from the Old World to the New, there also seem to have been reciprocal influences, which I will talk about later.

The Diffusionist Paradigm

I have organized my presentation so as to discuss general questions relating to this whole issue first, and then to give specific cases of possible contact and influence that seem to have merit. But first, I would like to talk a bit about the general perspective that diffusionists have. We could call this either the *diffusionist* or

culture-historical paradigm (a paradigm being a general view of how things operate with respect to the question involved).⁸ Diffusionists start out with the supposition that each culture has its own unique history and experiences, with its own particular physical environment as a setting. Because of the uniqueness of these histories, to the extent that they were not in contact with one another each culture would have tended to develop in somewhat different directions and thus to exhibit distinct characteristics. To use the language of evolutionary biology, radiation would occur, and we would get something like speciation with respect to these cultures. One sees examples of this process in places such as New Guinea, where different groups are isolated from each other by the rugged landscape even though they may live only a few miles apart. Under such conditions, we get a tremendous variety of cultures.

Second, diffusionists postulate that in isolation human societies are basically conservative, that people tend to assume that what they have always done is the only proper way that things *can* be done, so they continue with their traditions. Under these circumstances, innovation is rare and, in fact, even deviant in a sense. Humans, according to this point of view, are really not particularly inventive—to the degree that their societies live in isolation.

Another tenet of the diffusionist paradigm is that it is easier to copy something than to invent something. If the opportunity to copy is available, people can much more readily incorporate an action pattern into a culture by imitating somebody already doing it than by sheer mental effort—independently and separately. So when we find complex similarities between two cultures, even though they may be separated geographically, the implication drawn from the diffusionist paradigm is that historical connection and influence is a more likely explanation for such similarities than independent development.

These ideas combine to imply that prerequisite to any major and complex innovation is culture contact, the coming together of cultures, cross-fertilization you might say, or even hybridization. Historians of technology point out that major changes arise by the conjoining of ideas from different sources. When two or more cultures come into contact and exchange ideas, then, of course, each culture involved in that exchange has the potential of enriching

its repertoire of ideas, adding to the knowledge it already has, bringing in new principles, thereby producing an *accumulation* effect. Even more important, perhaps, is that when different sets of ideas come together, they may be joined together in new ways, resulting in cultural creation by *combination*.

No doubt also extremely important is that by being forcibly made aware that there are other ways of doing things, the taking for granted of one's own ways is suddenly shaken and the mind is opened, freed to consider that alternatives do exist. This result is perhaps the major prerequisite for actual *invention*. One first has to believe, to recognize, that innovation is possible. Coming into contact with other cultures is perhaps the primary way that recognition dawns.

If we accept this general view of culture change, this diffusionist paradigm, I think that we gain a better understanding of the situation in the past, an understanding that before modern ways spread virtually everywhere, a tremendous diversity of cultures existed, including a great deal of differentiation from place to place in the degree of *elaboration* of cultures. There existed cultures that were extremely simple in technology and in most other aspects of culture. For example, compare the hunting-and-gathering groups of southern South America, southern Africa, or Baja California to the elaborate civilizations of the Middle East, China, Mexico, or the Andean region of South America.

Why do these tremendous differences in degree of cultural elaboration exist? Part of the reason could be differences in physical environment; certain areas were more limited in their resources than others or provided serious constraints with respect to climate which prevented agricultural development and so on. Yet, we find areas that were basically environmentally similar to one another but where very different levels of elaboration developed or that were permissive but in which little elaboration occurred. Hence, environment's effects must not be highly determining.

How, then, can we account for these differences other than by attributing them to intrinsic racial differences? I mentioned earlier that diffusionism has been criticized because of what some see as its racist implications. I suggest, rather, that the opposite is the case.

If we accept a diffusionist explanation for why innovation and elaboration in culture take place, that is, owing to cultural contact, then we have a nonracist explanation for why cultures vary in complexity in different parts of the world. Less elaborated cultures simply had less access to the ideas of others because of their isolation.

Possibility of Pre-Columbian Ocean Crossings

All of the foregoing is by way of background to more immediate issues. First, *could* people have crossed the oceans in early times, and more specifically, *did* people in fact make such voyages, and if so, who went where? These questions apply not only to pre-Columbian times generally, but even at least as far back in time as the fourth millennium B.C. There is concrete reason to say very definitely, "Yes, they could have made crossings." Contrary to our assumption of the superiority of European ships, Southeast Asia actually seems to have seen the development of the earliest seaworthy craft. People there came up not only with many different kinds of very capable watercraft, but also with effective sailing rigs—how sails were hung and manipulated—to allow sailing against the wind, that is, tacking. Even the rigid-hulled ships of the Mediterranean world were capable of crossing the ocean well before 1000 B.C. But other dramatically different vessel traditions existed, notably in southern and eastern Asia. One of these, on the coasts of southern Asia, featured sailing rafts, and a second was characterized by sailing canoes, which became typical of Indonesia and the Pacific islands. A third was the junk tradition of China and neighboring lands, the characteristic Oriental type of watercraft.

These three great traditions of ocean-going sailing vessels existed in Asia in surprisingly ancient times.⁹ Each provided possible means for long-distance voyaging, including crossing the entire Pacific, which is ten thousand miles wide in places. We know that Polynesians and other Pacific island peoples, for example, were living on their islands in some fairly remote parts of the Pacific by the mid-second millennium B.C.,¹⁰ so Neolithic peoples were certainly capable of notable voyages.

Many of us have been falsely led to believe that Columbus was the first to conceive the idea of a spherical earth, that everybody

else up to his time thought the earth was flat. That was not at all the case. In fact, the Greeks and the Chinese had already developed the spherical-earth theory—by the sixth century B.C., in the case of the Greeks. The Greeks had even developed a system of coordinates to describe locations on the earth, similar to latitude and longitude.¹¹ Columbus certainly was reasonably well read with respect to the ancient geographers and was quite aware of this sort of knowledge, as were most educated people in the Renaissance period.

In the maritime world of Southeast and East Asia, navigational abilities were highly developed, including celestial navigation, which utilizes the heavenly bodies, as well as knowledge of other natural phenomena to find locations. But in any case, we are not talking about finding tiny specks of land or one particular small harbor. We are talking about sailing across the ocean and hitting a continent. As one sixteenth-century Spanish navigator put it, “The most stupid can go in their embarkations . . . to seek a large country—since if they do not hit one part they will hit another.”¹² And so, navigation was not really a big problem for ancient mariners in terms of hitting a continent. Asians did, nevertheless, have some highly developed methods of navigation. The Chinese, in fact, many centuries ago developed the magnetic compass, which ultimately spread to the Western world.

The prevailing winds and currents of the globe also have a great deal to do with the possibilities of transoceanic voyaging. Figure 1 points out ocean surface currents. These currents are generated by major prevailing wind systems that are approximately parallel, so if sailors were aware of the existence of these persistent winds and currents, they could locate an appropriate channel and thus greatly facilitate traversing the ocean. In the Atlantic, there is a major current from Africa to the New World that comes down through the Canary Islands and then flows westward to hit the Caribbean region. Return voyages could be made via the Gulf Stream and North Atlantic Current. In the Pacific, the most likely route from Asia to the Americas was by way of the Japan and North Pacific currents, whose extension comes down the coast of California. A return might be possible by way of the North Equatorial Current, which arrives at the Philippines from the east.

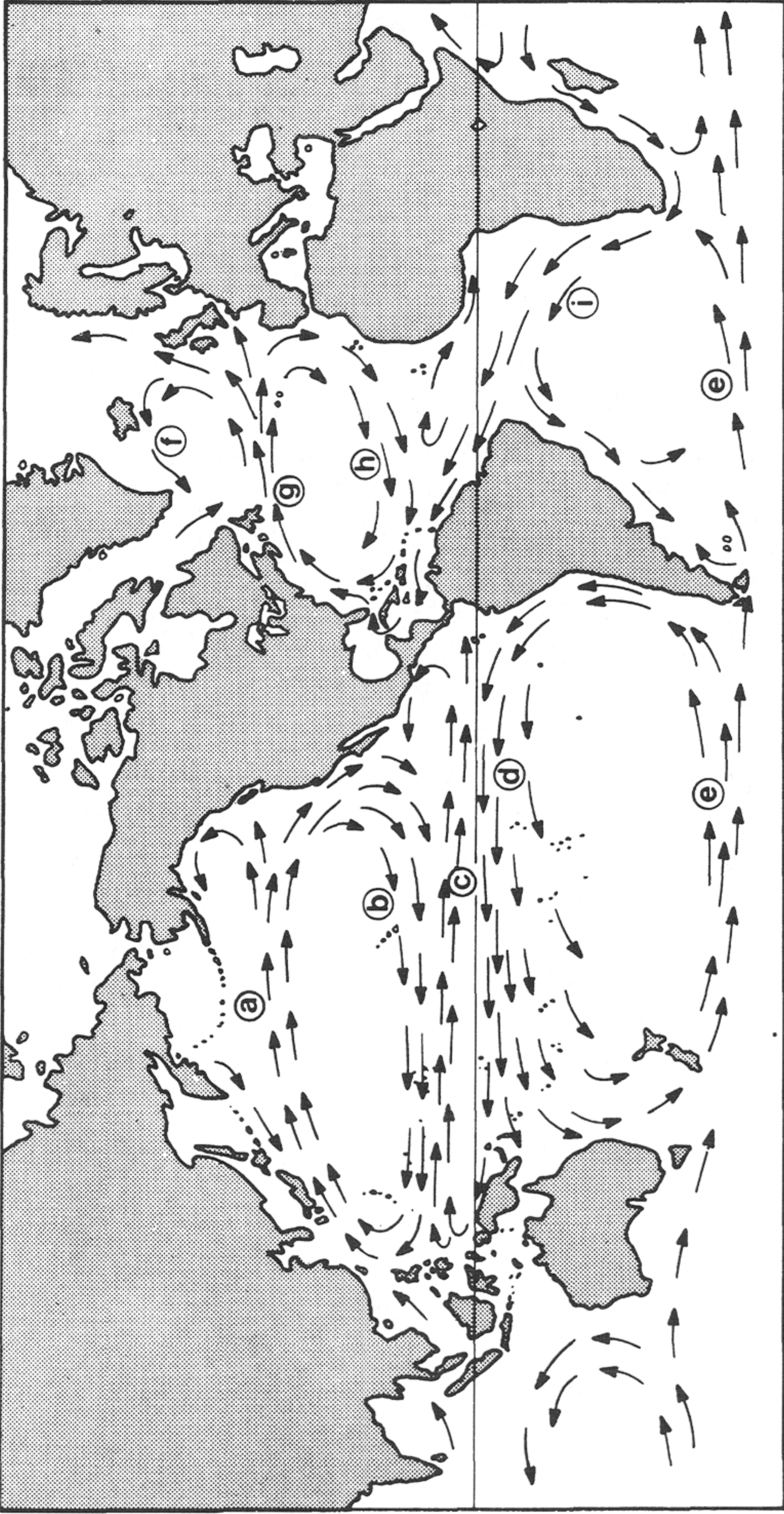


Figure 1. Generalized map of the principal ocean currents: (a) Japan-North Pacific Current; (b) California-North Equatorial Current; (c) Equatorial Countercurrent; (d) Peru-South Equatorial Current; (e) Antarctic Current; (f) Irminger Current; (g) Gulf Stream-North Atlantic Current; (h) Canaries-North Equatorial Current; (i) Benguela-South Equatorial Current.

Reasons for Transoceanic Crossings

It may reasonably be asked, "What could possibly have motivated people to make extraordinarily long voyages such as we are talking about here?" Part of the answer is that such voyages may seem long in terms of miles, but in terms of time, depending on sailing speed and so forth, traverses of the Pacific could be accomplished in a few months under ideal conditions. Certainly, there were accidental discoveries. There is good historical evidence that considerable numbers of Asian watercraft were dismantled in storms or otherwise damaged, then drifted across the north Pacific, and, because of the currents and winds, were naturally brought ashore on the coasts of North America. We have accounts of such drift voyages from Japan. So accidental Pacific crossings were possible and certainly *did* take place, at least in recent centuries.

I also think it likely that intentional voyages were made, perhaps being more frequent even than accidental voyages. In terms of motives, I think we should not underestimate the importance of the simple spirit of adventure that we see today in people engaged in all kinds of explorations. Earlier peoples had this spirit of adventure in many cases as well; they wanted to see what was over the horizon. But more pragmatic considerations may also often have been involved. If, for example, some area was becoming excessively populated and there was not enough agricultural land remaining for the population, motivation would be strong for people to seek new lands. This is a very common phenomenon in history.

The motives also presumably included seeking wealth, developing trade relations, and seeking out precious materials such as metals or precious stones. Certain kinds of feathers were extremely valuable in both Asia and America, as were furs and various kinds of drugs used for religious and other purposes. These kinds of items were traded and served as easily transported, high-value products that might have been incentives for initiating and continuing contacts between almost anywhere, including between Old and New Worlds. Then, there was missionary activity. The Buddhists, for example, were very active in missionizing during certain periods of Buddhism, and we need to consider that as a possible motive.

Biological Evidence of Early Transoceanic Contacts

I believe that the foregoing facts demonstrate that transoceanic voyages in early pre-Columbian times were definitely feasible. Motives certainly existed, motives similar to those familiar to us today. But is there evidence of actual contacts? What can we say about that? First we must ask, What kinds of evidence would demonstrate, or at least suggest, contact?

The best kind of evidence may be in the biological realm.¹³ Scholars have given much attention to cultivated plants and domesticated animals as indicators of human movements in early times.¹⁴ In some cases, we can find archaeological remains of certain indicatory plants and animals, and I will mention one or two particular instances later. The significant thing about biological entities is that they are not human inventions. People cannot have invented independently the same cultivated plant unless they had the same wild ancestor available from which to domesticate that plant. (With very few exceptions, the Old and New Worlds do not share the same wild ancestors that gave rise to cultivated plants). Most cultivated plants, again with some exceptions, are not readily transferred successfully by natural means and do not thrive on their own without human intervention. Indeed, some cultivated plants are unable to reproduce at all without human aid. Corn is one example. Bananas are another. And yet there is, for both of these plants, significant evidence that they were present on both sides of the Pacific in pre-Columbian times.¹⁵

Human parasites have also been researched in recent times as indicators of early transoceanic contacts. Certain parasites are tropical and, owing to the nature of their transmission and reproduction, could not survive in human populations migrating through the Arctic by way of the Bering Strait, and yet, certain Asian species of intestinal parasites have been found in pre-Columbian remains in South America. The only plausible explanation that has been offered is that humans carried these pests directly via sea voyages.

Other kinds of biological evidence suggesting transoceanic contact are physical anthropological measurements and other characteristics, such as human blood groups and other serological factors.¹⁶ For example, certain mummy bundles from pre-Columbian

burials unearthed in Peru are interesting because the color and the form of the mummies' hair are like those of Caucasoid peoples rather than the usual American Indian Mongoloid type. This suggests the presence of a foreign racial type in early Peru.

Archaeological Evidence

From archaeology we have sculptural depictions in stone and clay of individuals who give the appearance of being non-“Amerindian” types—bearded figures, for example (see figure 2). Some of these representations have been suggested to be actual imports from the Mediterranean world. Also as potential evidence, we have occasional artifacts and materials originating in the other hemisphere. However, most of the small number of objects found in the New World that are of ancient Old World origin have not been found in situations or archaeological contexts that give much confidence in their validity as evidence. Ancient objects could have been brought later—even by modern travelers—and then discarded or lost, only to be found by somebody else and concluded to be ancient in the area of discovery. There have been some items considered to constitute reliable evidence (for example, Polynesian axes on the coast of South America), but they are few.

Another area of some promise, but still quite controversial, is New World inscriptions written in ancient Old World languages and alphabets. I am not going to get into that particularly, but it is an area that is being actively investigated. However, this evidence needs much more rigorous study before we can have firm confidence in it.

Evidence of Cultural “Trace Elements”

The most abundant type of evidence, and that which has attracted the most scholarship, is what we might call “cultural trace elements.”¹⁷ These are not broad, general similarities in cultures, but are typically highly specific and unusual minor features, what we term “arbitrary” cultural characteristics—peculiar things that are not called for by any universal human needs or by properties of the materials involved. For instance, cultural trace elements may include particular words that mean the same thing in separate languages,



(a)



(b)

Figure 2. Olmec stone sculptures from Mexico depicting faces with Old World racial traits: (a) Stella 3, La Venta; (b) Monument 1, San Lorenzo.

or shared unusual beliefs and practices. Or they can be art motifs or styles, in which there is normally a great deal of scope for variation, so that when you find very detailed similarities, “independent invention” is not a reasonable explanation. When one finds these sorts of arbitrary traits held in common by widely separated cultures, such traits raise the possibility that there was contact, because they are not the kinds of things likely to have cropped up even once, much less twice or more. By the same token, any highly complex cultural phenomenon is unlikely to have arisen more than once.

Important in making comparisons of cultural trace elements is their spatial and temporal grouping. Similarities are less convincing indicators of contact if they are thousands of years apart than if they are from about the same time period. Geographical clustering is another factor, because the greater the number of co-occurring commonalities, the greater the probability that there was historical contact and exchange between the specific locations involved.

Indications of Lungshanoid Contacts. The following are among the earliest examples of fairly probable contacts. First, we find a culture called Lungshanoid, in what is termed Neolithic times, on the southeast coast of China around the mouth of the Yangtze River (Chang Jiang). Archaeological excavations of Lungshanoid sites have revealed several pottery vessel forms that are very, very similar to some early New World pottery that we call Formative. In figure 3, we see these vessels from China compared with those from the New World, and there are striking similarities. Bark cloth, which is made by beating tree bark to make a felted cloth-like material, is also manufactured in both hemispheres. In the archaeology of Southeast Asia and Middle America are found the bark-cloth beaters shown in figure 4. Five of those illustrated are from Mexico, the two others from Southeast Asia; the implements are almost identical. There are also dozens and dozens of different aspects of the process of bark-cloth manufacture that are shared between the two areas, and many of these practices are arbitrary—not required by the actual process, but nevertheless performed in a particular manner in both areas.¹⁸

At two Neolithic archaeological sites in southeastern China, peanuts have reportedly been dug up, yet the peanut is a South

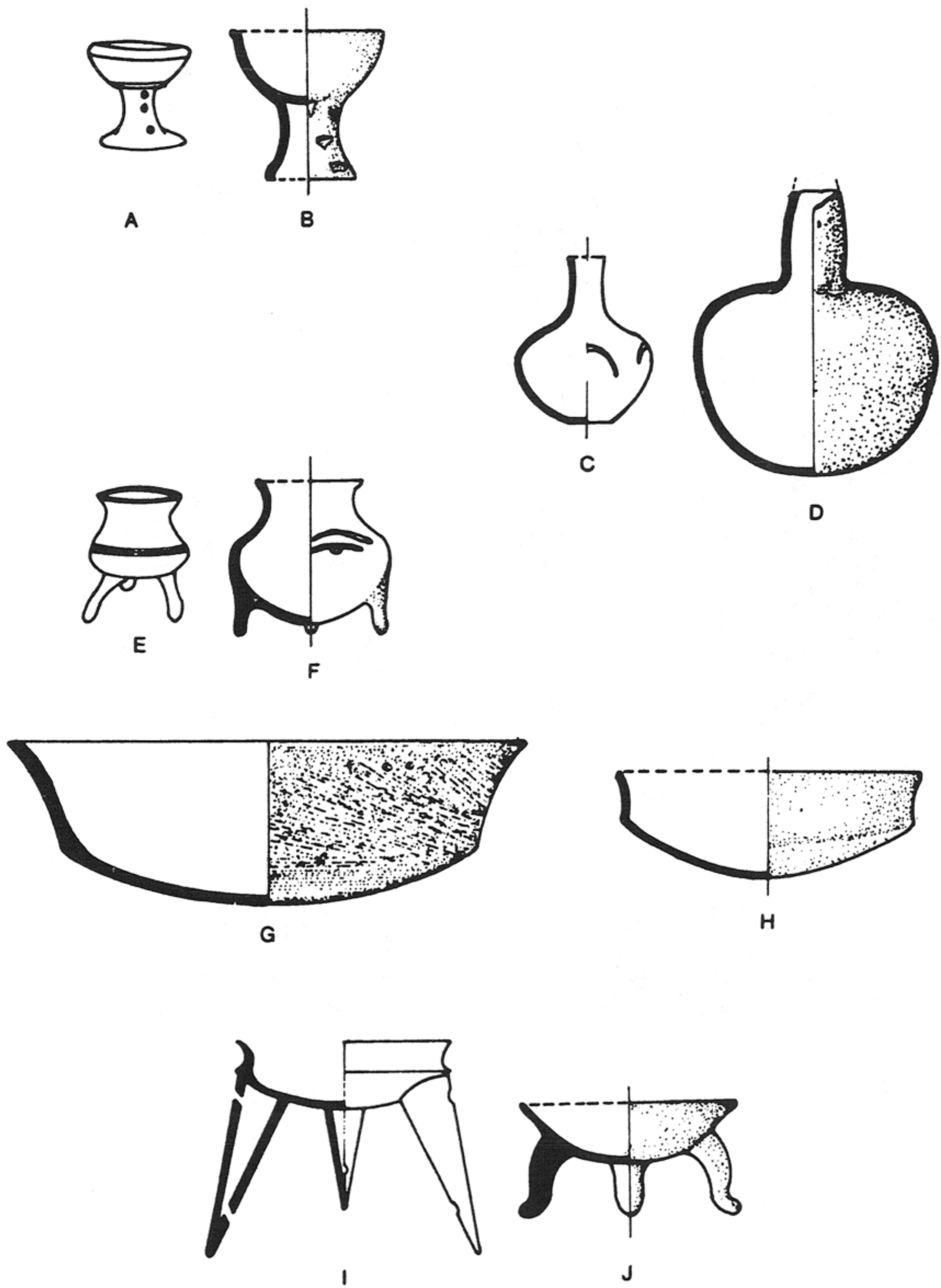


Figure 3. Pottery from pre-Christian South China and Southeast Asia (A, D, E, G, I) compared to similar forms from Tlatilco, Mexico (B, C, F, H, J). From Tolstoy, "The Maya Rediscovered."

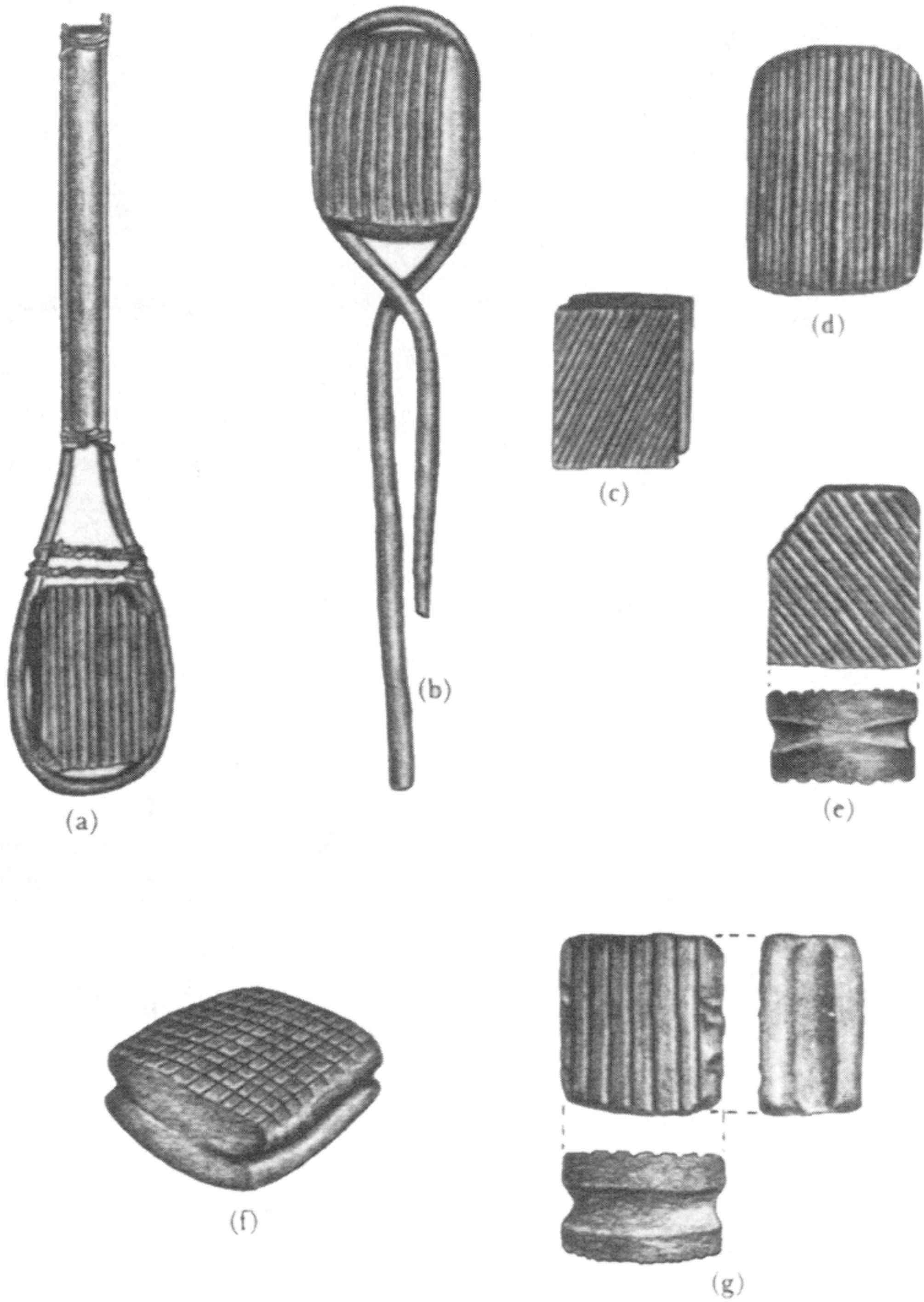


Figure 4. Nearly identical Southeast Asian and Mesoamerican bark-cloth beaters: (a) and (b), central Celebes, Indonesia; (c), (d), (e), (f), and (g), Middle America.

American domesticate. Because we do not have access to the specimens, some Western archaeologists and botanists wonder whether the identifications are accurate, but competent Chinese scientists have accepted the identifications.¹⁹ South China also had the sailing raft, which is found in northwestern South America as well.

Indications of Indonesian Contacts. Another area which gives good evidence of probable contact in very early times—during the first three millennia B.C.—is Indonesia. We find in common between Indonesia and tropical South America such practices as shifting cultivation based on crops that reproduce by cuttings rather than seed, long houses (communal dwellings, often on stilts), headhunting and ritual cannibalism, and a long list of other shared cultural traits. One of these is the blowgun, which I have studied at some length. Dozens of characteristics of the blowgun complexes are held in common in early Indonesia and tropical South America. Dugout canoes, including sailing canoes, also existed in both regions, and the same name is applied to certain canoes in coastal parts of South and Middle America and in Southeast Asia.

As a possible triggering mechanism for some of the voyages that I have suggested as having taken place from Indonesia to tropical South America, I propose sea-level rises that occurred after the end of the Pleistocene period. Most of you probably know that with the melting of the glaciers around ten thousand years ago, sea levels rose quite quickly by three hundred feet or perhaps even more. What is not as well known is the fact that off the south coast of China and into Indonesia, there were submergences of lands that took place much later than the end of the Pleistocene. These submergences occurred during the late B.C. millennia I am talking about here. The sea level rose as much as four meters (fifteen feet). The general rise in ocean level at the end of the Pleistocene Age would have inundated tremendous areas of what is now shallow water in the South China and Indonesian seas, and the later relative rises of sea level would have resulted in the further covering of enormous areas of presently existing land in Sumatra, Java, and Borneo. The obliteration of such huge extents of settled land would almost certainly have provided an incentive for people to move elsewhere if they happened to be aware

of other places to go. One very comparable environment to which some of them may have gone would have been the tropical areas of South America.²⁰ Figure 5 shows a possible route across the North Pacific from Southeast Asia to tropical America.

Origins of the Olmec. As I have noted previously, figure 2 shows two stone sculptures from the Olmec civilization, the first great civilization of Mexico. This picture shows not only the kinds of sculptures the Olmec produced but also exhibits racial characteristics of apparent Old World type rather than of any local "Indian" population. The giant stone heads have often been considered to exhibit Negroid characteristics, and the relief sculpture on the left has been thought by many to have the appearance of a Middle Eastern physical type. One hypothesis holds that ancient Egyptians were instrumental in the seemingly sudden inception of the Olmec, Mesoamerica's first "high culture," a few centuries before 1000 B.C. That culture involved, in addition to the sculptures, massive earthen platforms and mounds as well as organized religion. Mexican Indian legends recorded later spoke of bearded culture-bearers coming from across the eastern sea.²¹ Shang Dynasty China has also been considered as a possible major influence on the Olmec, possibly contributing religious iconography and the use and veneration of jade. With respect to jade, at least in later times China and Mexico shared a number of arbitrary beliefs about, and uses of, jade—for example, the concept that jade boulders could be found by sensing their "exhalations" and the placing of a piece of jade in the mouth of a corpse.²² There may be a relationship, too, between Olmec and Chinese knowledge of magnetism.

Indications of Hindu and Buddhist Contacts. Possible contacts much later in time than the ones I have mentioned so far concern the proposed Hindu and Buddhist influences on the Maya and Toltec of Middle America, just prior to A.D. 900. Items in common include the use of friezes showing a garland of lotuses or waterlilies with human figures holding the stems and fishlike creatures (for example, the mythical *makara* of southern Asia) at the ends (see figure 6). Also in the sculpture of the Buddhist and Maya worlds, we have particular formal gestures and seating positions. In India these are called *mudras* and *asanas*. We cannot know for sure what the

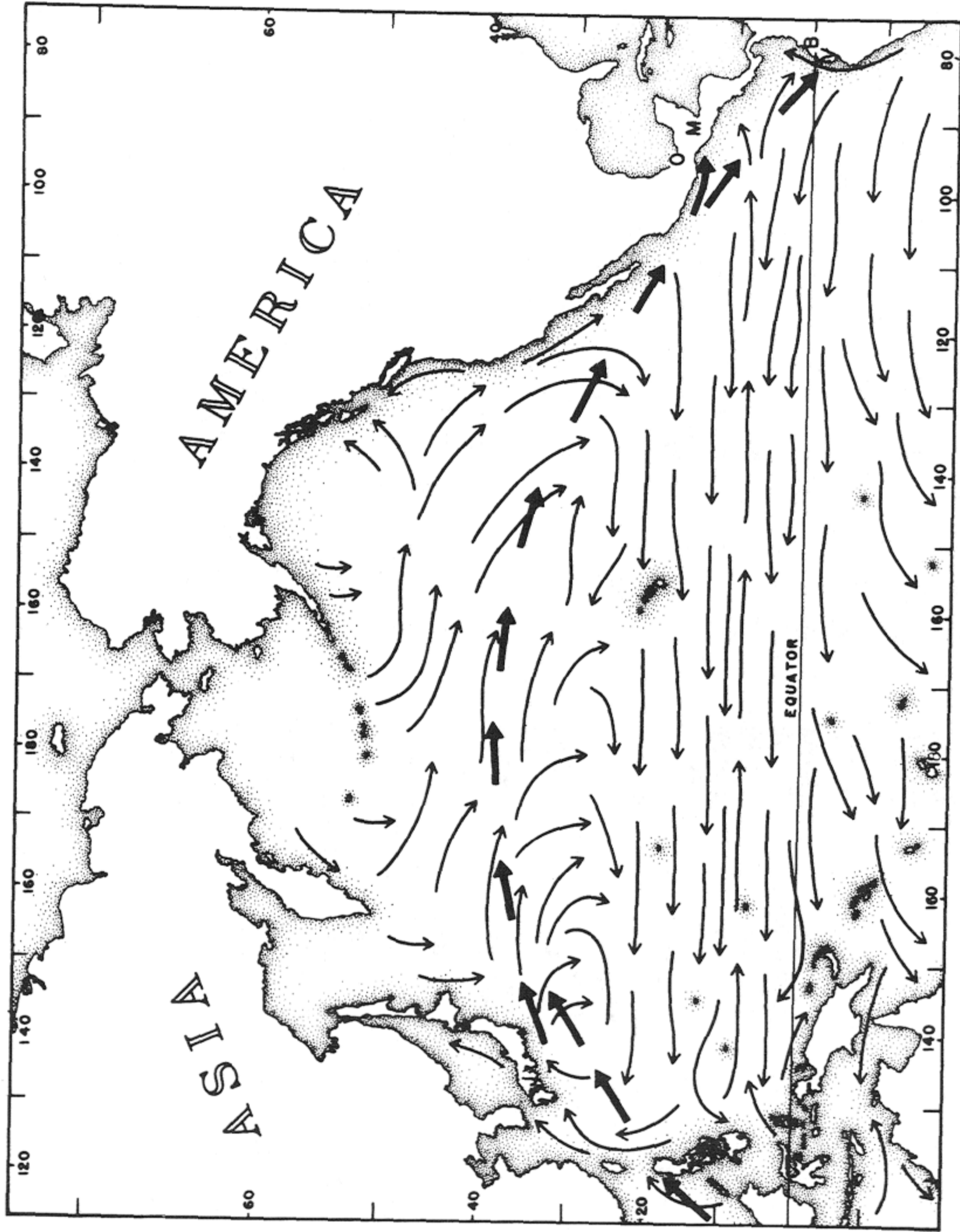


Figure 5. Probable sea route from Southeast Asia to tropical America, as suggested by Meggers (1971). O stands for the Olmec, M for Maya, V for Valdivia, and B for Bahía.

meanings of these positions were among the Maya, because neither knowledge of the positions nor any written explanation seems to have survived, but we do know them in Asia; and at least in terms of the positions themselves, we find great similarities.

Reciprocal Influences

Finally, I want to suggest the possibility of reciprocal influences from the New World to the Old. Looking again at the Maya and the Hindu/Buddhist areas of southern Asia, and particularly Cambodia, consider two things in figure 7. The left side shows two stepped pyramidal platforms, on top of which are temples. The upper structure is in Guatemala; the lower one is in Cambodia. In Mesoamerica a long sequence of evolutionary development lies behind these temple pyramids. But in Southeast Asia they suddenly appear around A.D. 800 in Cambodia and Java. To me, this situation suggests the possibility of an influence from Middle America to southern Asia.

On the right side of figure 7 is a sculpted figure from a temple in southern India of late pre-Columbian age. The personage is holding in his hand an ear of corn. My colleague at the University of



(a)



(b)



(c)



(d)

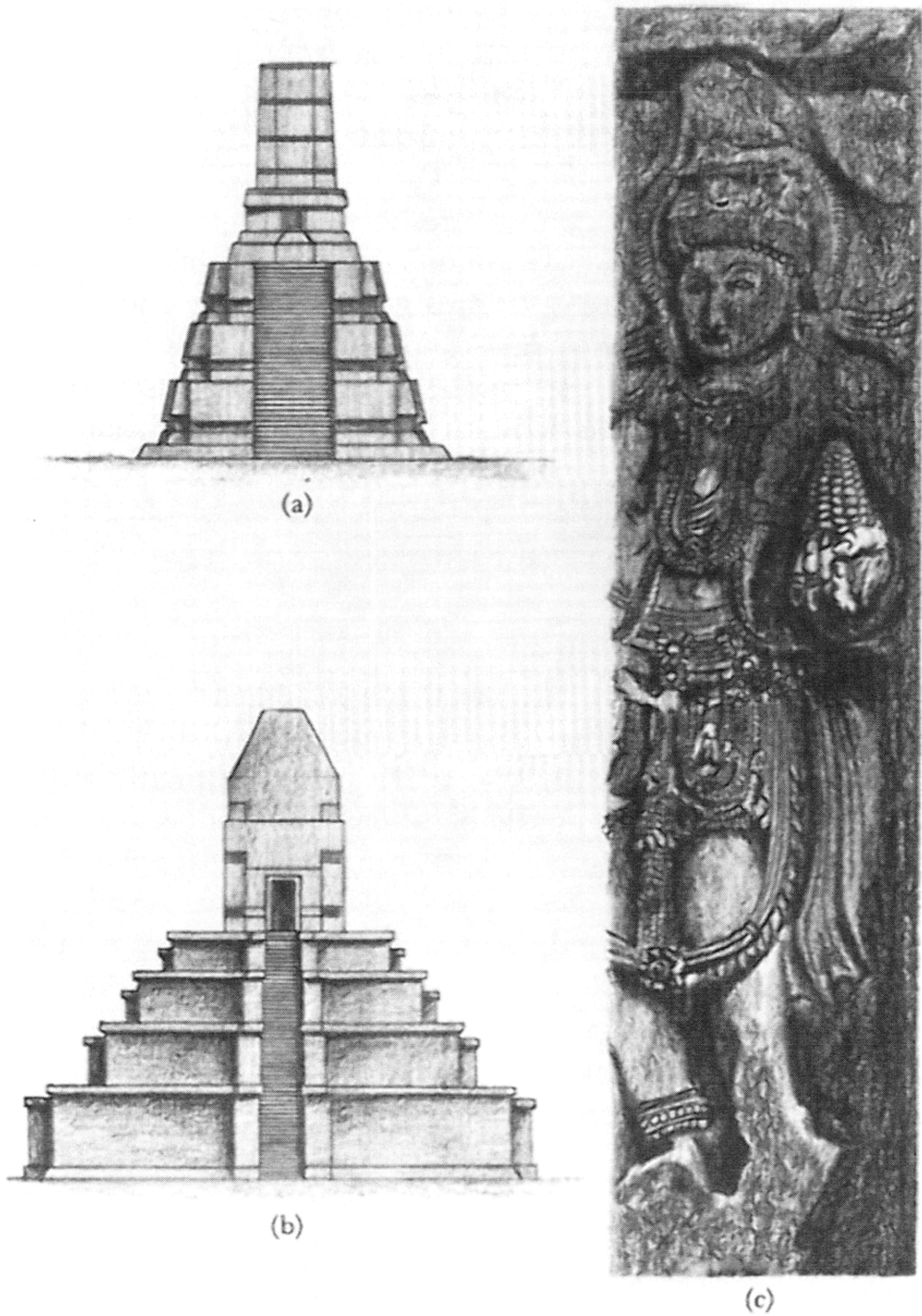


Figure 7. *Left*, similar first-millennium A.D. temple pyramids: (a) Maya, from Tikal, Guatemala, and (b) Khmer, from Angkor, Cambodia. *Right*, (c) relief figure holding ear of maize, Halebid, Karnataka, India.

Oregon, Carl Johanessen, has gone into great detail studying these sculptures and has found that the objects held can be nothing but corn, which is a native American crop. However, these sculptures date some centuries before the time of Columbus and the usually assumed Spanish and Portuguese introductions of maize to Europe and Asia.

As my last observation with respect to this possible Mayan/southern Asian connection, I mention something you may be familiar with, namely, that Mayan civilization largely collapsed around A.D. 900. Extensive areas were depopulated, and tremendous cities were abandoned. I would like to suggest the possibility that the same sort of thing that happened to the Indians of the New World after Columbus's voyages also happened earlier with respect to the Maya. That is, the introduction from the Old World of diseases to which the local natives were not immune may have triggered the Mayan collapse.²³

Conclusion

In conclusion, I would like to repeat that the question of whether or not early ocean crossings and contacts took place, and especially, whether voyaging resulted in major influences in one or both directions, has profound implications for our understanding of cultural history and its processes. It is my belief that ancient Old World watercraft were completely capable of making oceanic crossings with relative safety and speed, and that there existed, in various times and places, sufficient motives for long-distance exploration and even settlement (including seeking new lands, obtaining precious materials, and making religious converts, as well as fleeing personal constraints, scarcity, and turmoil at home). It is plausible, moreover, that once transoceanic discoveries were made and contacts established, opportunities for diffusion of culture—massive, in some cases—were created. Evidence is both biological (certain shared crop plants and intestinal parasites, for instance) and cultural (e.g., the bark-cloth and blowgun complexes). I believe it likely that many unrecorded (and perhaps a few recorded) crossings occurred and that these *did* have highly important, perhaps fundamental, impacts, particularly on the emergence and development of a number of Middle and South American cultures. Among the impacted recipients may have been Amazonian tribes, the Olmec, and the Maya.

Columbus' voyages certainly precipitated the most massive cultural and demographic changes the world has ever known; but the Admiral of the Ocean Sea may have been only the latest in a long line of transoceanic voyagers.

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NOTES

¹ John L. Sorenson and Martin H. Raish, *Pre-Columbian Contact with the Americas across the Oceans: An Annotated Bibliography*, 2 vols. (Provo, Utah: Research Press, 1990).

² Alfred W. Crosby, Jr., *The Columbian Exchange: Biological and Cultural Consequences of 1492*, Contributions in American Studies 2 (Westport, Conn.: Greenwood Press, 1972); David Hurst Thomas, ed., *Columbian Consequences*, 3 vols. (Washington: Smithsonian Institution Press, 1989-91); in a polemic vein, see Kirkpatrick Sale, *The Conquest of Paradise: Christopher Columbus and the Columbian Legacy* (New York: Alfred A. Knopf, 1990).

³ Of course, I use these terms Old and New worlds as we conventionally use them. One can object and say that the hemispheres are both of equal antiquity and that speaking of a "New World" is an ethnocentric European point of view. But since these terms are well imbedded in the language, I will continue to use them.

⁴ Gordon F. Ekholm, "Is American Indian Culture Asiatic?" *Natural History* 59 (1950): 344-51.

⁵ See John L. Sorenson, "The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica," in *Man across the Sea: Problems of Pre-Columbian Contacts*, ed. Carroll L. Riley and others (Austin: University of Texas Press, 1971), 219-41. This attitude is still very strong; see, for example, Michael D. Coe, *Breaking the Maya Code* (New York: Thames and Hudson, 1992), 106, 153, 260-61.

⁶ See, for example, Pierre Honoré, *In Quest of the White God: The Mysterious Heritage of South American Civilization* (London: Hutchinson, 1963); Constance Irwin, *Fair Gods and Stone Faces* (New York: St. Martins Press, 1963); Robert F. Marx with Jennifer G. Marx, *In Quest of the Great White Gods: Contact between the Old and New World from the Dawn of History* (New York: Crown, 1992); and

Henriette Mertz, *Gods from the Far East: How the Chinese Discovered America* [originally, *Pale Ink: Two Ancient Records of Chinese Exploration in America*] (Chicago: Swallow Press, 1972).

⁷The racism view is still very current but is not new. See, for example, Clyde Kluckhohn's 1947 review of "Men out of Asia," *New York Herald Tribune Weekly Book Review*, December 14, 1947, 10. Compare George F. Carter, "Invention, Diffusion, and Racism," *Anthropological Journal of Canada* 19, no. 1 (1981): 10-12. On Latin Americans' wish not to believe in the presence of pre-Latin foreigners, see, for example, Frederico Kauffmann Doig, "El Período Formativo," *Historia del Perú* 1 (1980): 259-60.

⁸For a succinct statement of this paradigm and the opposing one, see Stephen C. Jett, "Precolumbian Transoceanic Contacts," in *Ancient South Americans*, ed. Jesse D. Jennings (San Francisco: W. H. Freeman and Company, 1983), 338-39.

⁹Edwin Doran, Jr., "The Sailing Raft as a Great Tradition," in *Man across the Sea*, 115-38; and *Nao, Junk, and Vaka: Boats and Culture History* (College Station: Texas A&M University Lecture Series, 1973).

¹⁰Settlement by Paleolithic peoples occurred much earlier in the nearer islands: by ca. 26,000 B.C. in the Solomons and before 17,000 B.C. in New Ireland. Geoffrey Irwin, *The Prehistoric Exploration and Colonization of the Pacific* (Cambridge: Cambridge University Press, 1992).

¹¹On ancient geographical and navigational knowledge and oceanic voyaging capabilities, as well as motives, see Stephen C. Jett, "Diffusion versus Independent Development: The Bases of Controversy," in *Man across the Sea*, 6-18 and references.

¹²Pedro de Quiros, 1597, quoted by Charles A. Borden, *Sea Quest: Global Blue-Water Adventuring in Small Craft* (Philadelphia: Macrae Smith, 1967), 44.

¹³Norman Totten, "Categories of Evidence for Old World Contacts with Ancient America," in *The Book of Mormon: The Keystone Scripture*, ed. Paul R. Cheesman (Provo, Utah: Religious Studies Center, Brigham Young University, 1988), 187-205.

¹⁴George F. Carter, "Before Columbus," in *The Book of Mormon*, 164-86.

¹⁵On plant evidence in general, see George F. Carter, "Domesticates as Artifacts," in *The Human Mirror: Material and Spatial Images of Man*, ed. Miles Richardson (Baton Rouge: Louisiana State University Press, 1974), 201-30; Jett, "Diffusion versus Independent Development," 22-29 and references; and Gunnar Thompson, *American Discovery* (Seattle: Argonauts Misty Isles Press, 1992). On corn, see Carl L. Johannessen and Anne Z. Parker, "Maize Ears Sculptured in 12th and 13th Century A.D. India as Indicators of Pre-Columbian Diffusion," *Economic Botany* 43 (1989): 164-80; Carl L. Johannessen, "Distribution of Pre-Columbian Maize and Modern Maize Names," in *Person, Place and Thing: Interpretive and Empirical Essays in Cultural Geography*, ed. Shue Tuck Wong, *Geoscience and Man* 31 (1992): 313-33. On plantains, see William J. Smole, "Musa Cultivation in Pre-Columbian South America," in *Historical Geography of Latin America*, ed. William V. Davidson and James J. Parsons, *Geoscience and Man* 21 (1980): 47-50. On recent finds of parasites, see Luis Fernando Ferrera and others, *Paleoparasitologia no Brasil* (Rio de Janeiro: Programa de Educação Continuada/Escolad Nacional de Saúde Publica, 1988) as listed in Karl J. Reinhard, "Parasitology as an Interpretive Tool in Archaeology," *American Antiquity* 57 (April 1992): 231-45.

¹⁶ For general discussions of physical-anthropological comparisons and of artifacts, see Jett, "Diffusion versus Independent Development," 29-30, 50-52, and references. Mitochondrial-DNA studies hold promise in this connection.

¹⁷ The methodology of cultural comparisons is discussed in Jett, "Diffusion versus Independent Development," 5-59.

¹⁸ All these proposed influences are discussed in Jett, "Precolumbian Transoceanic Contacts"; for some updating, see Stephen C. Jett, "Asian Contacts with the Americas in Pre-columbian Times: The Principal Proposals" and "Hypotheses of Mediterranean/Southwest [Asian] Influences on New World Cultures," *New England Antiquities Research Association Journal* 26 (Winter/Spring 1992): 62-68, 82-85; also, Thompson, *American Discovery*. For a recent article on the bark-cloth complex, see Paul Tolstoy, "The Maya Rediscovered: Paper Route," *Natural History* 100 (June 1991): 6-8, 10, 12-14. For a review of possible Formative period influences in Ecuador from Japan, see Betty J. Meggers, "Jomon-Valdivia Similarities: Convergence or Contact?" *New England Antiquities Research Association Journal* 27 (Summer/Fall 1992): 22-32.

¹⁹ Since this address was presented, plant geographer Carl Johannessen has examined one of the specimens and has concluded that it is not a peanut (personal communication, April 1993).

²⁰ For discussions of these hypotheses, see Stephen C. Jett, "Malaysia and Tropical America: Some Racial, Cultural, and Ethnobotanical Comparisons," *Congreso Internacional de Americanistas* 37, *Actas y Memorias* 4 (1968): 133-77; Stephen C. Jett, "The Development and Distribution of the Blowgun," *Annals of the Association of American Geographers* 60 (1970): 662-88; and Stephen C. Jett, "Further Information on the Geography of the Blowgun and Its Implications for Early Transoceanic Contacts," *Annals of the Association of American Geographers* 81 (1991): 89-102. Thompson, *American Discovery*, 25-27, also cites sea-level rises.

²¹ For example, see John L. Sorenson, "Some Mesoamerican Traditions of Immigration by Sea," *El México Antiguo* 8 (December 1955): 425-37.

²² For a summary of proposals, see Jett, "Precolumbian Transoceanic Contacts," 350-54, 366-69. The principal proponents have been R. A. Jairazbhoy and Betty J. Meggers.

²³ These proposals concerning Southern Asia and the Maya are summarized in Jett, "Precolumbian Transoceanic Contacts," 374-81; and Jett, "Asian Contacts with the Americas," 66. Important modern contributors to this discussion have included Robert Heine-Geldern, Gordon F. Ekholm, David H. Kelley, Paul Kirchoff, Thomas S. Barthel, Balaji Mundkur, and Kornelia Giesing. On corn in India, see Johannessen and Parker, "Maize Ears Sculptured"; and Johannessen, "Distribution of Pre-Columbian Maize." See also, John W. Verano and Douglas H. Ubelaker, eds., *Disease and Demography in the Americas* (Washington: Smithsonian Institution Press, 1992).



Robes with ribbons tied on shoulders. Early Christian burials with multiple layers of clothing often include one or more robes with linen strips wrapped around the upper half of the body and gathered into a knot on either the left (top) or, more commonly, on the right shoulder (bottom). These robes were among ten like them placed on the same burial. The knots may indicate priestly authority.