

PRE-COLUMBIAN TRADE

BETWEEN NORTH AND SOUTH AMERICA

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INTRODUCTION

In any study of prehistoric intercontinental relations, nothing would seem more fundamental to the reconstruction of culture history than the role of trade. Short of the actual migrations of peoples, which seem to have been relatively infrequent, aboriginal trade must have played the decisive role in the spread of cultural influences. A consideration of the extent, composition and routes of trade would seem basic to any study of such problems. Furthermore, even though such an antiquated technique as cross-dating by trade objects - once the sole hope for any sort of absolute chronology over most of the New World - still has its modest merits. The wise archaeologist will beware of discarding his controls too hastily.

The intrinsic importance of the general topic seems, however, to bear little relation to the treatment it has thus far received in the literature. Sweeping, unsubstantiated generalizations may be located without much difficulty, and have probably served to create a somewhat erroneous picture in all too many minds. But specific discussions are widely scattered and well hidden in archaeological literature, and critical examination of them proves often unrewarding. In many cases, the reader at long last succeeds in identifying the writer's primary source, only to find he is dealing once again with one of two or three, by this time, all-too-familiar incidents retailed by all chroniclers. There is, one is forced to conclude, very little concrete evidence, but an effort has been made to assemble as much as possible of it in this paper.

The author has admittedly relied heavily on secondary sources, but feels that an exhaustive combing of the Spanish chroniclers would not significantly alter the conclusions arrived at, and thus would not justify the time and labor required. Wherever practicable, the original authority for statements of fact is indicated. Where primary sources are directly cited, they have actually been examined.

The subject of aboriginal trade between North and South America comprises a number of unrelated phenomena which it has seemed best to describe separately under geographical headings. A map is appended to picture the data presented in a general way, with the routes divided somewhat arbitrarily into: 1) Established, 2) Sporadic and 3) Conjectured - this is an attempt to weight the data in the interests of conveying a somewhat more accurate, or at least more realistic, impression.

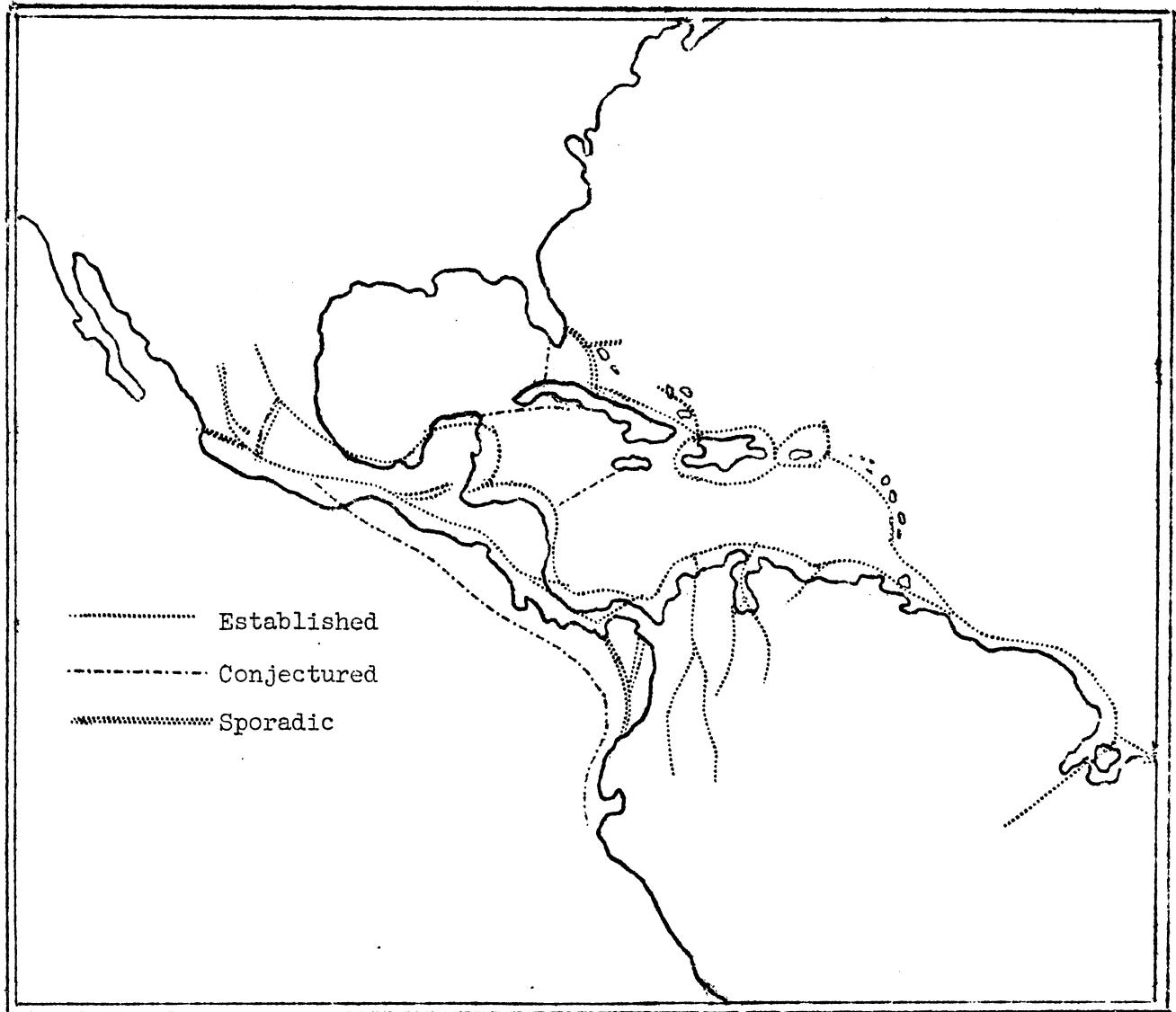


Figure 1: Aboriginal Trade Routes

ANTILLES

The Greater Antilles region (i.e., Cuba, Jamaica, Hispaniola, Puerto Rico and the Bahamas) was an area characterized by active commerce in our sense of the term. Individuals and groups traveled by canoe from village to village, from province to province, and from island to island. Certain localites specialized in particular products; for instance, gold in Hispaniola, wooden bowls in La Gonave. The principal items of internal trade were manioc, pepper, stools, wooden bowls, pottery, gold and carved stone objects.² Of these, gold was the most important. Since Cuba and the Bahamas lacked any local source, their needs had to be supplied by the producers of cold-hammered gold in Hispaniola, who, however, kept all the largest pieces themselves.³ It was also necessary for the Bahamas to import stone celts, no suitable material being available. Cotton was exported in exchange.⁴

The Taino canoes, in which this commerce was carried on, were huge dugouts: average-sized ones carried 70 to 80 men, while the largest one on record is said to have held 150. When we realize that they had no sails, the length of the voyages commonly undertaken is astounding - 110 kilometers for ordinary trips, 180 to 230 for the longer ones. The great speed of these canoes alone made such feats possible, a speed that was a source of amazement to the Spaniards since it exceeded that of any European rowboat or racing boat of the period.⁵

External trade centered around the gold-copper alloy known here as "guanin", which was used in the form of neck pendants by chiefs and people of high rank, even in such relatively remote areas as Jamaica. This metal was apparently obtained from Columbia via Trinidad.⁶ Stone beads were also prized by the Antilleans, and a center for bead manufacture existed on the island of Montserrat which imported semi-precious stones from great distances (e.g., the nearest source of carnelian is on the Magdalena River).⁷ Antillean nephrite was in great demand for axes on the South American mainland. The Carib invasion of the Lesser Antilles halted much if not all of this trade, though guanin may have continued to filter through the hostile intermediary. The memory of the former commercial activity, however, was still extant at the time of the conquest, both in the islands and on the mainland. Trading expeditions had been carried on from both sides, even groups as distant as the Guiana Arawak making the voyage to the Greater Antilles.⁸

As for contacts between the Antilles and the mainland of North America, we find that the Bahamas were apparently visited on occasion by bird hunters from Florida,⁹ and that the Taino of Cuba also had knowledge of the continent to the north (whence the inspiration for Ponce de León's quest for the Fountain of Youth).¹⁰ There was apparently even a settlement of these Cuban Arawaks on the southern tip of Florida about the year 1492.¹¹ As Willey says, "...it is indeed curious

that more evidences of trade or inter-communication have not been found" archaeologically.¹² But with the exception of a single axe recently reported by Goggin and Rouse, no actual objects of undisputed Antillean origin have ever been found in Florida or elsewhere on the mainland.¹³ Trade, if any, must have been restricted to perishables - which does not fit the prevailing Antillean pattern. (It is true that the Floridians, well supplied with gold from Georgia, would not have needed this favorite item of Taino commerce, but it is hard to see why the other major export - the celt of island stone - would not have enjoyed the same demand it had on the northern coast of South America.) Saville studied the distribution of the monolithic axe throughout this area in an attempt to establish continental-insular trade connections, but the results were inconclusive.¹⁴ Although Cushing suggested an Antillean origin for certain items of his Key Dwellers' culture,¹⁵ and Rouse guardedly speaks of "certain similarities" in pottery, wood and shell, between Florida and the Taino cultures,¹⁶ the weight of opinion, in general, is that close cultural relations between the Antilles and Florida did not exist or at least have not been demonstrated.¹⁷ (The possible Florida origin of the Ciboney culture is another matter, quite immaterial to our present topic.) But even should such cultural similarities be established, this would still not suffice to prove the existence of actual trade relations.

Fewkes claims that the Spaniards first heard of Mexico and its high civilization from the Cubans,¹⁸ and from remarks of Martyr, cited by Loven, a knowledge of land to the west is inferred.¹⁹ Trade between Yucatan and Cuba has been claimed as a matter of historical record,²⁰ but this is undocumented. The fact that Columbus noticed some beeswax in an Indian hut in Cuba is frequently cited as proof of commerce, on the grounds that Cuba had no indigenous bees, while Yucatan was noted for its production of honey.²¹ Columbus is also reported to have seen a single silver ornament on the island, and this, it is suggested, might have come from Yucatan, or from Florida.²² Recently reported is the discovery of two Maya sherds and an obsidian blade on the surface near the western tip of Cuba, but unassociated with any of the Ciboney sites of the region.²³ Other reported Central American material was probably introduced by slaves in post-contact times.²⁴ Mason sums up the problem: "The geographical distances separating Florida from Cuba and the Bahamas, and Cuba from Yucatan, are so slight that the presumption of contact is very great... [He cites the Arawak colony in Florida, and the bird hunters visiting the Bahamas.] There are said to be historical records of pre-Columbian trade between Cuba and Yucatan [he cites Gower], but if so they left absolutely no archaeological record, had apparently no influence on native culture, and must have been at a very late period."²⁵ A lengthy study of the problem by Berlin comes to the same general conclusions,²⁶ while Joyce suggests that a few trading voyages may have taken place shortly before the conquest.²⁷

Contacts are also suggested between Jamaica and the mainland of Central America. On his first voyage, Columbus was told by the Jamaicans of a great land ten days' journey by canoe to the west, where the people wore clothes,²⁸ and such specific knowledge might have been based on actual contact. Diaz del Castillo records the case of a woman and ten men who drifted in a canoe from Jamaica to Cozumel in 1516, indicating one possible type of contact.²⁹ (Since most of the men were promptly dispatched on the sacrificial altar, the incident is not very encouraging as evidence of commercial relations.)

We must also note the discovery on Jamaica and other islands of the Greater Antilles of figurines showing Mexican type ear plugs, which are unknown in northern South America and may therefore have reached these islands directly from Middle America.³⁰

NORTHERN SOUTH AMERICA

The island of Trinidad was the great trade center of this region and all routes converged there. From the west, as far as Colombia, and from intermediate points, came gold, guanin, stone beads and pearls. From the Antilles came greenstone for axes, and from Guiana and beyond as far as the Amazon (for the Guiana Arawak and Carib traded with the Lower Amazon tribes by sea), manioc and feathers. The tribes of the Lower Orinoco, to the southwest, made regular trading trips to the island. The inhabitants of Trinidad acted as middle-men for all this activity. Their warrior chieftains wore crowns of gold and gold eagles on their breasts after the Colombian fashion.³¹

Another probable center of commerce was the dry, treeless but well-populated island of Margarita which produced and exported pearls, and handled gold and guanin, but doubtless had to import much of its food supply and such necessities as feathers. In early Spanish times, great fleets of Arawak canoes from Guiana visited Margarita regularly with large cargoes of cassava to exchange for knives, and this may well have been simply a continuation of an earlier pattern.³²

All along the north coast between Trinidad and Colombia there was very active local trade, both by water between neighboring coastal peoples, and overland between the coast and interior. The coast tribes bartered pearls, salt, fish, cocoa, strings of shell money, cotton and tobacco for the gold, jewels, guanin necklaces, maize and slaves of the interior. Gold appears always to have been in greatest demand.³³

MIDDLE AMERICA

Columbus encountered, at the Bay Islands, a large Indian trading canoe, which is described as being eight feet wide, having a shelter amidships, a crew of twenty-five, provisions, and a large cargo

consisting of colored cotton blankets, shirts and breech clouts, flint-edged wooden swords, copper axes, bells and ornaments, crucibles for melting copper, and "many cacao nuts which they use for money."³⁴ There has been a great controversy ever since over the nationality and destination of this canoe, centering on whether or not it was Maya. Since a number of early sources indicate that trade to this area was an established institution, the point no longer seems particularly crucial. Landa mentions trade to Ulua in northern Honduras as a common activity, and one to which the Maya were particularly inclined, exchanging salt, cloth and slaves for cacao.³⁵ Oviedo also speaks of "an extensive trade" in cacao, with canoes from Yucatan going to Ulua loaded with clothing and other goods, and returning with cacao.³⁶ And Torquemada, writing of Nicaragua, notes that most of the foreign trade was from Yucatan by sea in canoes, bringing clothing, feathers, and other things, and returning with cacao.³⁷ In the Titles of Ebtun we read that the Lords of Chichen Itza carried on trade in feathers and cacao with Honduras, their embarking point being the Bay of Ascension on the east coast of Yucatan; and a reference to the son of the ruler of Mayapan notes that he was away on a business trip to Honduras.³⁸ Strong concludes as follows: "It is evident therefore that the region around the mouth of the Uloa was an important trade center where much cacao was obtained, and that canoes such as the one encountered by Columbus were common carriers along this coast. This, however, does not mean that only the Maya indulged in the carrying trade... There seems good reason to believe that not only Yucatecan Maya, but also Chol or Chorti Maya and Jicaque from the Uloa region, the Bay Islanders themselves, and certain peoples on the Nicaraguan Coast, all indulged in coastal trading."³⁹ Large canoes and marine scenes are represented in the frescoes of Yucatan only during the Mexican period (1191-1437). Their absence from the Mayan art of earlier periods would indicate that such commerce was a relatively late phenomenon.⁴⁰

The Maya, according to Landa,⁴¹ were more inclined to trade than to any other occupation, and they seem, indeed, to have been a very active commercial people. Various parts of the Maya areas specialized in different products, or had a monopoly of the natural supply of some article such as salt or obsidian, and all these were exported, principally to the great centers of population. Lowlands traded with highlands, and region with region, the most important commodities being salt, chicle, rubber, feathers, obsidian and jadeite.⁴² With neighboring peoples they exchanged cloth, clothing, fish, salt, copal, feathers, wax, honey, flint knives and swords, and slaves, for stone beads, cacao, feathers of other kinds, bells and other objects of metal. Most of this latter trade was overland with Tabasco and by sea to Honduras and Nicaragua as previously described.⁴³ There is no evidence that Maya traders themselves reached the highlands of Mexico; they traded their goods in the

great commercial center of Xicalango, whence others carried them on.⁴⁴ It is reported that the merchants of Xicalango furnished Cortez with fairly correct maps of the entire region to the south as far as Panama,⁴⁵ which suggests extensive trade contacts. Commercial activities of the Maya were handled by a class of professional merchants, many of whom themselves traveled. The profession was evidently regarded as highly honorable, since members of ruling families took part in it. There is little doubt of the existence of a great market at Chichen Itza - pilgrims flocking thither from foreign parts to trade as well as worship (just as they do today at the shrine of Guadelupe).⁴⁶ Among the Maya the cacao bean was a real unit of exchange, in our sense of the word, functioning as money in every capacity, which explains the great demand for it. Stone beads (not necessarily of jade, as sometimes stated), copper bells, shells and Mexican copper axes were also employed for the purpose, but none of these achieved the importance of cacao which functioned as an international monetary unit from Mexico to Nicaragua, a factor which must have had a profound effect on the development of long-distance trade.⁴⁷

Among the Mexicans, commerce was equally brisk. There were regular fairs in the great commercial centers where home products were exchanged for foreign merchandise or sold for export to the merchants from distant nations who attended these fairs in large numbers. Itinerant traders continually traversed the country in bands. The Aztec had a separate class exclusively devoted to commerce. This trading class was a monopoly, a sort of commercial corporation which in the last years controlled the whole trade of the country; and the rising power of this class, which enjoyed its own laws and tribunals, was beginning to clash with that of the nobility. Trading expeditions to distant provinces were undertaken almost entirely by this commercial corporation or by government order for political purposes - only rarely by individual merchants for their own account. Although in pre-Aztec times trade appears to have been conducted with some show of fairness, commerce being kept separate from politics, the Aztec merchants seem to have been little better than armed bands of robbers. They also served as spies for future conquest, examining the resources and riches of a country and its means of defense. All in all, Mexican commerce seems to have been of a very different nature from that of the Maya.⁴⁸

We read of gold from Almirante Bay, Panama, and from Nica-
ragua, going to Montezuma by these merchant-soldier expeditions. The Sigua of Panama were one such group who decided to settle down where they were when news of the conquest reached them.⁴⁹ Morley has suggested that the Great Plague of 1516 may well have been transmitted overland from Darien to northern Yucatan by traders "who are known to have plied their calling back and forth across

the intervening region."⁵⁰ However, the theory that the Pearl Islands in the Gulf of Panama were the source for the Aztec's pearls was not substantiated by Linne's excavations.⁵¹

"How did the Aztec bands reach Panama? No doubt there was an overland route passing through the Nahua-speaking Toltec enclaves in Costa Rica, Nicaragua, Salvador and Guatemala. In addition there was a sea route, for a royal cedula dated 1535...directs that the outlet of the San Juan River in Nicaragua be explored because gold was carried thence to Montezuma by way of Yucatan. From another authority (Alonso Ponce) we learn that Chetumal Bay on the east coast of Yucatan was the port for this southeastern trade."⁵²

The Mexicans apparently had little love for the sea and it would seem likely that the Maya handled this part of the trade for them. "The Mexican historians tell us nothing of the maritime commerce of the Mexicans. It is probable that it was very trifling, and that their vessels which were seen coasting on both seas, were chiefly those of fishermen."⁵³ Certain peoples, i.e., Zapotechs, Mijes, Xicalancas, and Huaves, "engaged to some extent in a maritime coasting trade, mostly confined, however, to the coasts of their own territories [i.e., southern Oaxaca and Tabasco] and those immediately adjacent; and in this branch of commerce little or no advance had been made at the time when the Spaniards came."⁵⁴

What concrete evidence from archaeology have we to substantiate these early accounts? There is a certain amount. Coclé agate pendants have been found in Chiriquí and Oaxaca;⁵⁵ Nicoya jade in Chiriquí;⁵⁶ Chiriquí metal in Nicaragua⁵⁷ - most of the so-called Chiriquí gold was itself obtained by trade from Veraguas.⁵⁸ Chiriquí bronze is probably from Mexico; Rivet suggests it traveled by sea, since none is known from the intervening regions.⁵⁹ The unique plumbate ware, which may have a single source on the Pacific slope of Guatemala, is found scattered from Panama to Nayarit;⁶⁰ a comparable trade ware, Puebla thin orange, has turned up from Colima to Honduras.⁶¹ Tombs in the Vera Paz region of Guatemala produced objects originating from Costa Rica to Central Mexico.⁶² Pottery from Teotihuacan, Monte Albán and Salvador occurs at Kaminaljuyú. "The Kaminaljuyú finds," writes Kidder, "make it clear that an active exchange of commodities was going on all over Middle America... Whether the pottery was brought by organized trading parties or was passed from tribe to tribe is unknown. Long range commerce among the American Indians seems to have gone on more or less uninterruptedly in spite of wars."⁶³ There is an Old Empire Maya jade plaque from Teotihuacan, which Morley suggests had wandered perhaps a century or more in merchants' packs.⁶⁴ (If true, this would be a good example of the limited cultural significance of this aboriginal trade.) The only metal known from

the Maya Old Empire is represented by two small fragments of gold-copper alloy at Copan, which must have come from Panama-Costa Rica.⁶⁵ (In later periods the Maya probably obtained this alloy, known in Middle America as "tumbaga", in trade via Chiriqui from Colombia, as did the peoples of the Antilles and northern South America.)⁶⁶ "Most of the gold and copper objects recovered from the Well of Sacrifice [at Chichen Itza] were not made [there] at all, but had found their way thither either carried by pilgrims to the holy city or as articles of trade. Chemical analyses have established that the metal objects found in the well came from as far south as Colombia, Cocale, Chiriqui, Honduras, and Guatemala, and from as far west and north as Chiapas and Oaxaca and the Valley of Mexico."⁶⁷

Yet the reverse does not seem true. "Imperishable objects of Mayan manufacture rarely crossed their own frontiers. Among thousands of pottery vessels from Nicaragua [examined by Lothrop] only one was obviously Mayan, and there is only one other on record; among tens of thousands of specimens from Costa Rica only one jar may possibly be Mayan. Nothing at all which beyond argument must be of Mayan manufacture is known from Panama or South America."⁶⁸ Mason, it is true, makes the statement that "Maya trade objects have been found in the Chiriqui region,"⁶⁹ but he does not say what objects, nor give any references for his assertion. It is not inconceivable, remembering the historic accounts, that the bulk of Maya export trade was in such perishable commodities as cotton cloth, but it would be hard to believe that it was exclusively so in view of the material remains left by all the other peoples of the region. This lack of Maya trade objects to the south remains as one of the enigmas of our subject.

Panama and South America

Typical of the treatment of our subject, and the status of knowledge concerning it, are such glib statements by competent writers as the following assertion: "Traders were traveling up and down the Ecuadorean, Colombian, and Peruvian coasts."⁷⁰ Lothrop on Navigation is cited in substantiation, yet an examination of the latter paper reveals that Lothrop confines himself to a description of the various types of boats found on the west coast of South America. With two exceptions, he does not go into the use to which these craft were put and there is no mention whatever of trips being made to Panama in Spanish times.⁷¹

However, since the possibility of such a maritime trade hinges very largely on the means available, it is important to note the types, out of the total number described by Lothrop, which could conceivably have been employed for such purposes. These boil down to three: One is the Peruvian square-ended dugout, up to sixty feet

in length, sometimes propelled with cotton sails, but usually paddled.⁷² The second is the so-called "imbabura" of the Colombia-Ecuador coast, up to forty feet long, with a pointed bow and square stern, built-up sides, a steering oar, and sails. These are described as being very seaworthy, and in historic times vessels of this type often made the voyage to Panama. Third, and probably most important, are the large log rafts of balsa wood on the north Peru-Ecuador coast. Lothrop calls these the most capable vessels produced in the New World. Cotton sails supplied the motive power, and they were controlled by an ingenious system of centerboards, by the raising and lowering of which the craft was steered and kept on its course. (It is interesting to note that this was several centuries prior to the invention of the centerboard in Europe.) These rafts had one great handicap because they lost their buoyancy after several weeks in the water and had to be beached and dried out. It was a Peruvian raft of this type, captured by Ruiz off the Ecuadorean coast in 1527, that has been cited ever since by countless writers as proof of the existence of an active maritime commerce in this part of pre-Columbian America.⁷³ Means vigorously attacks this interpretation, asserting that the voyagers were more likely some local chieftain and his entourage on their way up the coast a short distance to set up a new colony. He implies an obvious contempt for the vessels and navigational ability of the Peruvians, which is, however, specifically refuted by Lothrop's description summarized above.⁷⁴ The famous and controversial voyage of an armada to the Galapagos Islands under the Inca Tupac Yupanqui is also frequently cited in this connection. Its status is still in doubt, though Lothrop's assertion that it was probably a sea-borne raid up the northern coast of Ecuador is unacceptable.⁷⁵

At this point mention must be made of the very unfavorable navigational conditions for small craft along the Pacific coast of Colombia, which have been described from first-hand experience by Robert Cushman Murphy.⁷⁶ Linne, after a pretty thorough examination of the sources, had commented some years previously on the subject: "We know the Indians of the Pearl Islands were capable sailors, but on the coast [of Panama] the inhabitants do not seem to have been very good seamen. None of the chroniclers have any mention of the first conquistadores meeting Indian vessels on their reconnoitering expeditions to the south... It is a remarkable fact that several of the best harbors on this coast seem not to have been inhabited... The difficult wind and current conditions... in combination with the inaccessibility of the coast, must have contributed in a high degree to cultural influences from both north and south having been so inconsiderable along this part of the coast."⁷⁷ Lothrop states, however, that the natives of Panama "are known to have traded by sea as far south as Ecuador", although he gives no source. He does, however, describe canoes capable of

carrying seventy men each on the Asuero Peninsula, in which an early Spanish expedition (1617) voyaged as far as the Gulf of Nicoya, suggesting that these Indians were accustomed to travel and well acquainted with the coasts. "Because of their ability to build and navigate such large vessels, the natives clearly had a rapid means of access to distant lands," concludes Lothrop.⁷⁸ With regard to actual trade, however, we must remember that Linné discovered no foreign objects in his extensive sampling of the Pearl Islands, and these islanders, we have noted, were rated the best sailors in the region.

Despite the practical obstacles and difficulties, there is some direct historical evidence that we must consider. In 1522, Andagoya sailed south along the Panama coast and "received information about all the country that was subsequently explored right down to Cuzco. This considerable geographical knowledge was said to be based on the commercial intercourse of the Indian tribes."⁷⁹ Kidder II was doubtless referring to this when he wrote that "in the Isthmus knowledge of the Inca and of the wealth of the Inca empire was current."⁸⁰ Lothrop writes further: "...we have definite evidence that the inhabitants of Panama were sending their ships southward to Ecuador during the sixteenth century. [No authority cited for this.] At the same time it seems probable that the natives of Colombia were expanding northward, perhaps as a result both of Inca pressure from the south and of disturbance in the Amazon and Orinoco basins."⁸¹ And again: "The inhabitants of the Inca empire regarded those beyond its limits as uncivilized barbarians and probably did not often venture among them to sell their wares. On the other hand, these barbarians flocked to the Inca domain. That the Indians of eastern Panama did so is attested by Las Casas, who cites descriptions of llamas and of the strange sailing rafts of Ecuador, given on the Isthmus to Nunez de Balboa by the chiefs Tumaco and Comogre many years before South America was known to the Spaniards."⁸² In all this, however, there is no direct evidence of sea trade, and we may well be forced to conclude that the contacts which probably occurred on occasion must all have been overland, though the geographical barriers to this seem even more formidable.

What are the material remains of such trade? Two late Chimú style trade vessels have been recovered in Panama,⁸³ though no claim is made that the actual vessels originated in the Chimú area; presumably Ecuadorean goldwork and more probably Ecuadorean emeralds were found at Coclé, and also gold ornaments of Chibcha, Sinú and Quimbaya origin.⁸⁴ Raw agate was apparently imported from Colombia and made into beads and pendants at Coclé.⁸⁵ Also to be mentioned are the Colombia-type animal effigies of Chiriquí,⁸⁶ the "presumably South American emeralds in the loot of Mexico,"⁸⁷ and the "distinct Peruvian artistic strain" in pottery and metal designs

in Panama and southern Central America.⁸⁸ We have previously noted the gold objects from Chichen Itza which Morley says have now been chemically proven to be of Colombian origin (previous writers called them "probably from Colombia"). But in direct and surprising contrast to all this, we hear that "no actual objects of Central American manufacture have ever been recorded in South America, although many cultural traits and a traffic in shell may be noted." (No reference for the latter is vouchsafed.)⁸⁹

Long-distance Intercontinental Trade

The casual reader will encounter a considerable number of sweeping generalizations on this subject in the literature, such as: "That considerable trade in artifacts from distant regions obtained in pre-Columbian days is well proved by frequent [sic!] finds."⁹⁰ Or again: "It is well known that trade was extensive in late pre-Columbian times."⁹¹ What is the actual evidence, however, that might suggest the existence of such trade?

Kidder II suggests that "the similarity of Mexican metal forms, especially of axes, and of thin non-functional copper axes used as money, and common in Oaxaca, to Ecuadorean and originally Peruvian types, is a strong indication of direct contact. These axe forms are lacking in lower Central America."⁹² No references for these assertions are given, but Verneau and Rivet describe axe money from the island of Puna and Mansbi resembling, if not identical with, that of Mexico.⁹³ The same authors found shells in Ecuadorean tombs which they identify as being species common on the western coast of Central America as far south as Panama, but absent locally. They assert that such shell came by sea from Central America to the Ecuador coast, thence being traded inland to the Andean tribes.⁹⁴ This assertion they bolster by two references to the Spanish chroniclers,⁹⁵ both of which upon examination by the present writer turned out to be merely further accounts of the famous raft encountered by Ruiz. They prove only that the coastal people had shells of some sort - but not necessarily these Central American types - and that they traded them with the Andean peoples, which is nothing startling. Assuming the identifications of shell species as non-local are correct, we still do not know by what means they reached Ecuador. But it should be noted that they need not have come from farther away than Panama.

Rivet is positive that the idea of bronze came directly from the coast of Peru to Mexico by sea.⁹⁶ It is too much to expect that the Mexicans invented it separately, he feels, and furthermore the identity of Mexican and Peruvian metallurgy is extraordinary. Bronze is lacking in between these two centers; it was unknown even in such a region of metallurgical skill as Colombia. Land transmission is thus precluded. Since no antecedent stages

have been found, metallurgy in Mexico must have been introduced full-blown, and since metal of any kind is absent in Teotihuacan, or in Monte Alban until Period IV, the introduction must have been a fairly late one. He speaks matter-of-factly of the existence of sea trade which made this possible, but when one finally runs his evidence to earth through a succession of sources, one is face to face once again with that much-overworked raft of Ruiz off Ecuador. Still, a scholar as sober and highly critical as Dixon concurs in the conclusion that the idea of bronze was introduced by direct sea trade from Peru to Mexico.⁹⁷ Nordenskiöld has arrived independently at the same results: "Peruvian metallurgy appears to have directly influenced that of Mexico, and to have done so through coastwise commercial intercourse. By this means it may be supposed that the Mexican Indians learned the use of bronze. As bronze presumably became known on the coast of Peru only in Incaic times, it must also have become known in Mexico at a very late period. This points to communication having existed between Peru and Mexico shortly before the discovery of America."⁹⁸ Some evidence has already been adduced suggesting such contact, and other writers have noted similar phenomena. Saville, for instance, found that the practice of inlaying the teeth with small discs for ornamental purposes, common in Mexico (including Oaxaca), was known elsewhere only in Esmeraldas. Although in the latter case gold was employed instead of the turquoise, jadeite, or hematite typical of Mexico, the technique is identical, and Saville is convinced that the idea came directly from Middle America. Jijón y Caamaño describes a "Thin Orange" vase from Imbabura which he is positive was manufactured in Meso-America.¹⁰⁰ Harcourt concludes his recent monograph on Esmeraldas with the assertion that the Central American resemblances are so numerous that actual migrations must have taken place, and not just commercial intercourse.¹⁰¹ In his review of this work, Kroeber calls these resemblances "considerable and convincing"; but they are not, he feels, with the Mexican-Mayan area, as Harcourt implies, but with lower Central America and possibly even Colombia. In fact, coastal Ecuador would seem to be part of the Circum-Caribbean world.¹⁰² This greatly weakens the claims for sea trade based on presence of Mexican traits in Ecuador, which more probably would have filtered through the intervening cultural continuum. Nordenskiöld, too, has noted that ceramic resemblances with Central America are most marked on the coast of Ecuador.¹⁰³ And Linné speaks of the strong influence that the coastland of Ecuador received from Central America, while no trace of this can be discovered along the Panama coasts. He concludes that intercourse was by water and a non-stop affair, deterred by the grim coasts in this area.¹⁰⁴ At the other end, Lehmann, concluding an archaeological survey of the western coast of Mexico near the Rio Balsas, believes certain stylistic characteristics of the area to be distinctly South American and suggests maritime relations between the two continents.¹⁰⁵

The "Teotihuacan" figurines reported from Buenos Aires by Outes¹⁰⁶ may be disregarded; the distance involved, and the lack of connecting links or parallels, are too improbable to support such a generalized resemblance.

Nordenskiöld stated flatly that "there has not been discovered in South America a single object of indisputable Mexican or Central American manufacture."¹⁰⁷ Linné, it is true, brings up the question of the pottery stamps of Mexico and Ecuador, which are "so extremely close that it cannot be explained in any other way than by direct importation. This applies especially to the plane stamps, among which many specimens from the two regions are almost identical. Transit must have taken place by water...", but along the Atlantic side of the Isthmus, he concludes, since no stamps were found on the Pacific shore.¹⁰⁸ There is nothing here, however, to establish the direction of the importation, so Nordenskiöld's dictum may still stand.

Middle America, on the contrary, has yielded a number of specimens of probable or undoubted South American origin. Some of these we have already mentioned in connection with Panama; we will now take up those that appear to have wandered much farther.

In a tomb at Zacualpa, Lothrop discovered a gold disk which, he feels, "there is strong reason to believe" came from Peru.¹⁰⁹ Convex disks of this type, it appears, are not known either in Central America or Colombia, but occur in southern Ecuador and Peru. The design and patination, he claims, are also characteristic of objects from this region. On stylistic grounds, Lothrop believes that the disk was produced in northern Peru in Late Chavin times; this he dates during the ninth century A.D., a statement untenable now that Chavin is dated by Carbon 14 to the eighth century B.C. The Zacualpa tomb is dated 930 A.D. (Goodman-Thompson correlation), which fitted nicely with his hypothesis at the time, although we must remember that all the previous evidence for such direct commercial contacts pointed to a time not much prior to the conquest.

Among the treasures of Monte Alban is a gold crown with a gold feather to be inserted in it. Crowns are common in South America, but have not been reported north of Coclé. The gold feather, however, is the only specimen of its kind north of Ecuador; such objects were made in Peru from Nazca B and Early Chimu times on. The design on this one (rows of dots) is typical of Late Chimu. "Its presence in Oaxaca," says Lothrop, "can only be explained as the result of trade."¹¹⁰ A curious copper object, also found at Monte Alban, is unduplicated in Mexico at present although "several have been found in Peru, so that offhand one would say here that the Monte Alban specimen must be an importation... In Peru these objects occur on the north coast and date from the Late Chimu period."¹¹¹

Noted also from Zacualpa is a half-effigy, double whistling jar of local manufacture but "almost certainly" of Chimu inspiration and

imitation - either directly copied from a Chimu model or by a man who had visited regions where such jars existed.¹¹² Joyce pictures a vase from Oaxaca with a design "absolutely identical with one of the patterns most commonly found on the polychrome tapestries of the Trujillo district of Peru."¹¹³

What deductions have been made on the basis of these finds? Lothrop writes: "At the end of the fifteenth century both the Inca and Aztec governments were at the apogee of their political power and territorial expansion, with the result that unusual facilities for inter-continental trade had come into existence."¹¹⁴ "Concerning this there is a surprising amount of information available [sic!] because the Spanish explorers, ever in search of wealthier lands to conquer, closely questioned the Indians about their journeyings. In the early sixteenth century it was possible for a native merchant to travel within the Inca realm from central Chile to southern Colombia, and to enjoy complete safety for his person and his goods. [There follows a description of the Aztec trade to Panama which we have already discussed.] There is a theoretical possibility that an Araucanian Indian of Chile sold merchandise in Colombia to a Cueva of Panama, who, returning home and journeying 200 miles westward to Costa Rica, sold it to an Aztec who in turn sold it in Tenochtitlan. No such direct exchange probably ever took place, and the possibility existed only with the consolidation of trade routes under Aztec and Inca dynasties at the apogee of their power. Nevertheless we can easily picture a more leisurely working of the same mechanism in earlier times with slower and yet no less far-reaching interchange of commodities."¹¹⁵ Elsewhere he adds: "In the case of the Zacualpa and Oaxaca finds, it appears that individual travellers may have accomplished the entire journey to or from Peru, because complex pottery traits, the whistling effigy double jar, and the interlocking fish pattern, have been copied in the local clays and pigments of the north. These are features unlikely to have been invented twice, but which once seen, might easily have been imitated."¹¹⁶ And in conclusion: "It need not surprise us that such trade took place. In North America it is well known that objects such as sea shells passed in trade over immense distances. On the contrary, it is surprising that more objects of foreign manufacture have not been discovered in the extensive excavations carried out in Latin America during recent years."¹¹⁷

Kroeber, however, injects a needed note of caution: "I cannot, however, but feel that the evidence of trade needs buttressing both by analysis and in quantity. Some of the resemblances seem subjectively precarious. Others, like the interlocking fish pattern, rest on minimal specimen material which appears not to have been duplicated and might represent an error, as of locality attribution. The strongest evidence as yet is of long distance trade in natural materials such as shell species; but we know from instances elsewhere, such as dentalia on the Northwest Coast and shells in the Southwest, that trade in materials may extend much farther than traceable influence of customs or styles... The suddenness with which Maya influences to the south cut off must also be considered. This would not of course prevent coastwise influences

from South America reaching Oaxaca; but it is a complication in a picture which might otherwise be considered too simply."¹¹⁸

CONCLUSIONS

The foregoing discussion could be summarized as follows: Excluding circum-Caribbean trade (which is of a local nature, confined to one area of fairly homogeneous cultural pattern, and hence not of too great significance, and which did not connect North and South America at all for that matter), we find two probable routes by which trade, and hence cultural influences, may have passed from North to South America. One was overland through Central America, down the Atlantic coast of Panama, and through Colombia to the Inca Empire. The other was by sea direct from Oaxaca to Ecuador. In general, we can say that this trade seems very late in time, rather one-sided in that the South Americans seem to have gotten nothing in exchange, unless it was invariably perishable commodities, and incredibly scant and sporadic. It would seem that there was simply amazingly little trade going on in aboriginal times. When we consider the vast collections of cultural material recovered in the past sixty years from this general area, the number of trade pieces or trade-influenced pieces is insignificant; the same could be said of the instances of trade recorded in the extensive historical literature. There could never have been real commerce, as we visualize it, between the continents. Hence trade could not have been a very significant factor in New World culture history, the contacts being restricted in time, in frequency, and in content. The objects involved were of types which would far outtravel any accompanying cultural ideas. One is also forced to conclude that the whole subject has been rather misrepresented in the literature. The loose generalizations bandied about are apt to give the reader a very erroneous and exaggerated notion of the extent and importance of trade, which could result in widespread misconceptions among persons theorizing about New World culture history.

FOOTNOTES

1. The writer is indebted to Professor Robert F. Heizer for advice during the initial preparation of this paper, and to Professor John Howland Rowe for much helpful criticism during its revision for publication.
2. Rouse, 1948b, p. 530.
3. Loven, 1935, pp. 68, 463-466.
4. Loven, 1935, pp. 85, 151.
5. Loven, 1935, pp. 414-420.
6. Loven, 1935, pp. 469-471.
7. Loven, 1935, pp. 476-477; Harrington, 1924, p. 184.
8. Loven, 1935, pp. 32, 51, 664.
9. Loven, 1935, p. 62 (citing Martyr and Gomara).
10. Loven, 1935, p. 62 (citing Navarrete and Oviedo).
11. Loven, 1935, p. 63 (citing Fontaneda).
12. Willey, 1949, p. 570.
13. Goggin and Rouse, 1948, p. 324.
14. Saville, 1916, p. 13.
15. Cushing, 1896, pp. 363, 408.
16. Rouse, 1949, p. 134.
17. Willey, 1949, p. 570; Rouse, 1949, p. 134; Stirling, 1936, pp. 355-357.
18. Fewkes, 1922, p. 242 (source not indicated).
19. Loven, 1935, p. 59.
20. Gower, 1927, pp. 5, 7.
21. Loven, 1935, p. 59.
22. Loven, 1935, p. 60.

23. Rouse, 1948a, p. 501 (citing Maurice Ries, "Summary Report: Tulane University-Cuban Navy Expedition to Cabo San Antonio, Cuba." 1936. MS in Tulane University, Middle American Research Institute, New Orleans).
24. Rouse, 1948a, p. 501.
25. Mason, 1938, p. 312.
26. Berlin, 1940, pp. 159-160.
27. Joyce, 1916, p. 257.
28. Loven, 1935, p. 58 (quoting Navarrete). Berlin, 1940, pp. 154-155, is highly critical.
29. Diaz del Castillo, Bernal, 1844, vol. 1, p. 22.
30. Loven, 1935, p. 487.
31. Loven, 1935, pp. 32, 35; Rouse, 1948b, p. 546.
32. Loven, 1935, pp. 31-32.
33. Many references to this trade are scattered through the articles dealing with the region in question in the Handbook of South American Indians, vol. 4, e.g., pp. 335, 385, 406, 452, 471, 485.
34. Las Casas, quoted in Strong, 1935, p. 11.
35. Tozzer, 1941, p. 94.
36. Oviedo, quoted in Tozzer, 1941, p. 95.
37. Torquemada, quoted in Tozzer, 1941, p. 94.
38. Roys, 1939, p. 61.
39. Strong, 1935, p. 17.
40. Lothrop, 1940, p. 428. (The dates assigned to the Mexican period are apparently according to the Goodman-Martinez-Thompson correlation although Lothrop does not specifically indicate.)
41. Tozzer, 1941, p. 94.
42. Blom, 1935, pp. 425-432.
43. Tozzer, 1941, p. 94.

44. Tozzer, 1941, pp. 5, 93.
45. Bancroft, 1875-86, vol. 2, p. 388 (citing Herrera and Díaz del Castillo).
46. Roys, 1939, p. 61.
47. Roys, 1939, p. 61; Tozzer, 1941, p. 95; Blom, 1935, pp. 426-428.
48. Bancroft, 1875-86, vol. 2, pp. 379, 386.
49. Lothrop, 1926, p. 10.
50. Morley, 1946, p. 99.
51. Linné, 1929, p. 77.
52. Lothrop, 1936, pp. 74-75.
53. Clavigero, 1787, p. 390.
54. Bancroft, 1875-86, vol. 2, p. 379.
55. Lothrop, 1948, p. 158, 164.
56. Lothrop, 1948, p. 164.
57. Johnson, 1948, p. 201.
58. Lothrop, 1948, p. 167.
59. Arsandaux and Rivet, 1921, p. 274.
60. Shepard, 1948, pp. 103-104, 143-147.
61. Kidder, Jennings and Shook, 1946, pp. 197-198.
62. Butler, 1940, p. 267.
63. Kidder, 1945, pp. 74-75.
64. Morley, 1946, p. 427.
65. Morley, 1946, pp. 325, 431.
66. Nordenskiöld, 1931, p. 60.
67. Morley, 1946, p. 434.
68. Lothrop, 1940, p. 428.

69. Mason, 1938, p. 312.
70. Kidder II, 1940, p. 458.
71. Lothrop, 1932, *passim*.
72. It should be pointed out that this dugout requires Ecuadorean timber for its manufacture, suitable material not being available in Peru. While importation of such timber for the purpose is known to have occurred in post-conquest times, its aboriginal status is open to question. The type may perhaps best be regarded as indigenous to the Colombia-Ecuador coast.
73. For the most reliable treatment of this incident, see Murphy, 1941, pp. 17-18. The raft is described as of 30 tons burden, with a crew of 20 and a cargo of textiles. Murphy includes a photograph of a modern raft of this type.
74. Means, 1931, p. 341.
75. Lothrop, 1932, p. 237.
76. Murphy, 1939. Professor J. H. Rowe suggests (private communication) that any voyages which may have taken place between lower Central America and the Ecuador area probably went out of sight of land, where the winds and currents are more favorable, as the Spaniards eventually discovered.
77. Linné, 1929, p. 212.
78. Lothrop, 1937-42, Part 2, p. 258.
79. Linné, 1929, p. 139. Andagoya's testimony on this matter, however, is highly suspect. See Murphy, 1941, pp. 10-11.
80. Kidder II, 1940, pp. 457-458.
81. Lothrop, 1937-42, Part 2, p. 252.
82. Lothrop, 1936, p. 74. The statements in question can be found in Las Casas, "Historia de las Indias," Book 3, chapters XLI and XLIX. Unfortunately, owing to the manner in which Las Casas wrote this work, we cannot be positive that the reports are based on testimony of eye witnesses, or that they may not have arisen at a later date and reflect subsequent knowledge of Peru. At any rate, the point is not crucial. If even a few trade objects occasionally made their way from the Inca realm to the Isthmus, such vague rumors of the land of their origin would have been likely to accompany them. We should require really concrete and widespread knowledge of Peru as

proof of regular trade relations; and such knowledge, if it had indeed existed, would undoubtedly have lured the Spaniards directly southward; instead they first wasted several years in unrewarding conquests to the north and west.

83. Lothrop, 1937-42, Part 2, p. 221
84. Lothrop, 1937-42, Part 1, p. 204; Part 2, p. 252
85. Lothrop, 1937-42, Part 2, p. 256
86. Lothrop, 1948, p. 164
87. Lothrop, 1940, p. 426; 1937-42, Part 1, p. 187
88. Lothrop, 1940, p. 426
89. Lothrop, 1940, p. 427
90. Mason, 1938, p. 312
91. Kidder II, 1940, p. 457
92. Kidder II, 1940, p. 458
93. Verneau and Rivet, 1912-22, p. 274
94. Verneau and Rivet, 1912-1922, p. 257-258
95. Oviedo, 1851-55, vol. 4, p. 122; Relacion..., 1844, vol. 5, p. 197
96. Rivet and Arsandaux, 1946, pp. 179-183
97. Dixon, 1928, p. 151
98. Nordenskiöld, 1931, p. 59. Willey, 1947, suggests a possible technological relationship between metal casting and ceramic molds, with the inference that the latter may have reached Meso-America from Peru in company with metallurgy.
99. Saville, 1913. See also Dembo and Imbelloni, 1938, p. 174
100. Jijón y Caamaño, 1948, pp. 226-227
101. Harcourt, 1947, p. 148. The resemblances are summarized on pp. 142-147. This work is supplemented by Reichlen, 1947, and Harcourt, 1948.
102. Kroeber, 1948, p. 140
103. Nordenskiöld, 1931, p. 63

104. Linné, 1929, p. 211.
105. Lehmann, 1948, p. 439
106. Outes, 1908, passim
107. Nordenskiöld, 1931, p. 56. "Il ne pourrait plus soutenir aujourd'hui une telle assertion," is Harcourt's comment (1947, p. 148), on concluding his Esmeraldas report.
108. Linné, 1929, p. 43
109. Lothrop, 1936, pp. 62-71
110. Lothrop, 1936, p. 72
111. Lothrop, 1936, p. 72
112. Lothrop, 1936, p. 89
113. Joyce, 1920, p. 192
114. Lothrop, 1940, p. 426
115. Lothrop, 1936, pp. 74-75
116. Lothrop, 1940, p. 426
117. Lothrop, 1936, p. 75
118. Kroeber, 1940, p. 479

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