



FIG. 3 [BULLARD]. Plan and elevation of platform structure.

The outcrop, whose appearance surely accounts for the location of the site, is 4 m. high and composed of two great boulders resting one on the other. Geologically, they are called residual boulders and were formed by spheroidal weathering. Half of the upper boulder has split off and fallen, leaving the other half perched upon the lower boulder as upon a pedestal. Its flat, broken surface faces due south toward the platform, looking not unlike the top of a huge stela. The little altar construction at the outcrop's base is 1.6 m. square and 50 cm. high.

The main platform structure is 55 m. south of the outcrop. It has a total height of 3.5 m., and in ground plan appears to have been square, about 8 m. on a side. Only the north wall, buttressed by the stairway, remains standing at the present time. It is composed of rather irregular granite slabs laid in rough courses. The exposed edges of the slabs were trimmed flat and there is some use of spalls for chinking, but no attempt was made to fit the stones with care. At a height of 2.7 m. from ground level is the remnant of a terrace or offset 60 cm. wide. The stairway had five steps and, seemingly, did not reach to the top of the platform. The platform interior is a loose fill of unshaped rocks.

No excavation into the interior of the ruin was attempted, and diligent search netted only a fragment of an obsidian-flake blade and a small unidentifiable potsherd. Soil erosion has removed any accumulation of trash which might have existed at the site. Thus the exact period of construction is uncertain, although the site layout and type of platform structure suggest ancient Maya ceremonial practice.



FIG. 4 [BULLARD]. Platform structure. Man at left stands at foot of stairway.

THOMPSON, J. E. S.

1938 Reconnaissance and Excavation in British Honduras. *Carnegie Institution of Washington, Year Book No. 37, Annual Report of the Division of Historical Research*, pp. 16-7. Washington.

PEABODY MUSEUM

HARVARD UNIVERSITY

Cambridge, Massachusetts

November, 1962

## OLMEC AND CHAVIN: REPLY TO MICHAEL D. COE

EDWARD P. LANNING

### ABSTRACT

Starting with a similarity between an Olmec design and a specimen from Kotosh, Coe concludes that all New World civilizations derive from Olmec. This study, like others which would derive Peruvian civilization from Mesoamerican origins, is methodologically weak because it treats traits out of their archaeological context and because it assumes diffusion without considering alternative explanations of similarities.

IN A RECENT NOTE (Coe 1962), Michael D. Coe has illustrated a pottery bottle excavated at Kotosh by the Second University of Tokyo Expedition to the Andes. This bottle bears an incised and punctate design of a maize cob which Coe states to be "clearly out of place in the Andes" and to which he attributes an Olmec origin. He states that radiocarbon dates indicate the approximate contemporaneity of the Chavín and Olmec cults, but maintains that the presence of an Olmec-derived design on the pre-Chavín Kotosh bottle proves the temporal priority of Olmec over Chavín. From this argument he concludes that "the chances are very good that all New World civilizations, including Chavín," are of Olmec origin.

I wish to challenge Coe's reasoning, not simply because I disagree with it, but because it serves to point up

some fundamental weaknesses in the whole speculative field of Andean-Mesoamerican relationships.

To begin with, the maize representation is not out of place in Andean art, but is rather the earliest known of many maize representations on ancient Peruvian ceramics. Its casual similarity to the Olmec maize head-dresses illustrated by Coe is due to two factors: the choice of subject matter (maize), and the fact that the husk is shown as peeled back to expose the cob. In fact, the Kotosh specimen is a reasonably realistic representation of a maize cob, stylized in its conformity to a modular-width canon and further stylized in order to show the two characteristics — husk and cob — which identify it as maize. The similarities to the Olmec representations, slight as they are, demonstrate certain facts:

(1) Both Kotosh and Olmec artists knew and presumably ate maize.

(2) Both Kotosh and Olmec artists followed the practice, nearly universal in ancient American art, of simultaneously showing two or more identifying characteristics of the object being represented.

They emphatically do not demonstrate Olmec influence on Kotosh or Chavín art.

Secondly, the statement that Chavín and Olmec radiocarbon dates coincide in time ignores the fact that there are no published radiocarbon dates associated with any Chavinoid style. The only published dates which have been attributed to Chavín or Chavinoid styles are associated either with demonstrably pre-Chavín pottery (Middle Guafíape in Virú) or with pottery which has never been described or illustrated (earliest Cupisnique in Chicama, "Chavinoid" at Las Haldas.)

Furthermore, the fact that the Kotosh bottle is pre-Chavín at Kotosh does not mean that it is pre-Chavín in Peru as a whole. Kotosh is a marginal site at which the Chavín cult appeared as a rapidly diffusing complex, as it did on the central and south coast of Peru. Kotosh IV, which immediately precedes Chavín at that site, was almost certainly contemporary with a fully developed Chavín style elsewhere in northern Peru, regardless of the fact that we have not yet identified the precise center of Chavín integration and dispersal.

If we were to grant the diffusion of the maize design, the radiocarbon-based contemporaneity of Chavín and Olmec, and the absolute pre-Chavín date of the Kotosh bottle, we would have an argument, not for Olmec influence on Kotosh or Chavín, but for Kotosh influence on Olmec. Once the fact of diffusion is established (in this case, granted for the sake of argument), the direction of diffusion is determined according to the point of earliest occurrence of the diffused trait.

If we were to make a further concession, accepting diffusion of the maize design from Olmec to Kotosh, we would still be faced with the enormous conclusion that all American civilizations had "a single point of origin on the Gulf Coast plain of southern Mexico." I have never before seen civilization equated with a corncob, nor "all New World civilizations" with a single design on a pottery bottle.

There are undeniable similarities between the art styles associated with the Olmec and Chavín cults and,

less specifically, there are technical and artistic similarities between early art styles in general in the Mesoamerican and Andean areas. These similarities have been listed and discussed repeatedly in the literature. To date, they have generally been considered as evidence of Mesoamerican influence in the Andes, if not of Mesoamerican origins for Andean civilization. Yet the very nature of the comparative studies which have been made invalidates such conclusions. Almost all of them have incorporated one or both of two fundamental methodological weaknesses:

(1) *The equation of similarity with diffusion.* The archaeologists who have discussed Mesoamerican-Andean similarities in print have assumed, but have not demonstrated, that diffusion was the cause of these similarities. None has examined all of the alternatives:

(a) Movement of individuals or groups of persons (traders, preachers, soldiers, migrating populations) over long distances.

(b) Village-by-village diffusion in one or both directions, or outward from the area between Mesoamerica and the Andes, or into the Andean-Mesoamerican areas from somewhere beyond their frontiers (for example, the tropical forest of South America).

(c) Parallelism based on similar technologies or mythologies or both. This may be the reason for similarities between Olmec and Chavín feline representations.

(d) Convergence from quite different cultural and stylistic backgrounds — that is, coincidence.

(2) *Comparison of traits taken out of their temporal, geographic, and cultural context.* Seldom has the basic rule of comparison-in-context been so flagrantly violated as in those studies which have treated the whole of Peru through more than 1000 years of its prehistory as if it were a single cultural unit. These studies have selected a very early trait from Guafíape in the north, a much later one from Paracas in the south, two or three non-contemporary traits from Ancón in the center, and perhaps an undated one from the north Highlands, and have compared them with one or more Mesoamerican cultures or styles as if the assembled Peruvian traits represented a stylistic or cultural unit with real existence. Coe avoids this pitfall, but he gives consideration to context only in the case of Olmec, not of Kotosh.

The advocates of Mexican priority should beware of the present state of Andean archaeology. The past few years have seen an immense amount of research on pre-ceramic and early ceramic cultures, the results of which are only now beginning to appear in print. Many of the recent studies have a bearing on the question of Andean-Mesoamerican comparisons, and they tend to upset older concepts more often than to support them. For example, negative painting of pottery, which has variously been accorded a Mesoamerican, Ecuadorean, and north Peruvian origin, makes its earliest appearance in Peru on the south coast, where it appears in a demonstrably pre-Chavín context, and is as old — on the evidence of radiocarbon dates — as any known Peruvian pottery. Again, Peruvian ceremonial patterns have been extended back in time to a point where it is difficult to grant them Mesoamerican inspiration. Several preceramic temples are now known on the central and north-central coast of Peru. One of the largest temples in the country, that

at Las Haldas, now appears to date well back into pre-ceramic times. A recent radiocarbon date of  $1630 \pm 130$  B.C. is derived from the construction materials of an early building stage, underlying the floor of a patio of the final stage and separated from it by a thick refuse fill (Kigoshi and others 1962, G-607). The central date of 1630 B.C. is some 400 years earlier than the estimated introduction of pottery to the region.

The possibility of wide-ranging connections between Mesoamerica and Peru on an early time level is a fascinating one, and deserves a careful study which, by giving full attention to all of the existing evidence, will lead to valid conclusions about the existence and nature of such connections. Recent research in both areas and in southern Central America and northern South America has brought us much closer to the day when such a study can be made in the full light of well-known local sequences and carefully coordinated regional chronologies. What is needed now is a comparison, not of isolated traits, nor even of single cultural units, but of whole chronological sequences which have been cross-dated on the basis of the best evidence available. Each of the known similarities between early cultures in the two areas — and in the intervening area — should be studied in its full stylistic and temporal context wherever it occurs, without advance assumptions about its origin(s) and diffusion. Diffusion should be proved or disproved on the basis of comparative dating, kind and degree of similarity of traits-in-context, and presence or absence of antecedents. Direction and route of diffusion should be inferred from the pattern of first occurrence of the trait in each region or locality, and above all from concrete evidence which establishes the locus of its earliest occurrence. When such a study is made, perhaps we will all be surprised by the results.

COE, MICHAEL D.

1962 An Olmec Design on an Early Peruvian Vessel. *American Antiquity*, Vol. 27, No. 4, pp. 579-80. Salt Lake City.

KIGOSHI, KUNIHKE AND OTHERS

1962 Gakushuin Natural Radiocarbon Measurements I. *Radiocarbon*, Vol. 4, pp. 84-94. The American Journal of Science, New Haven.

Lima, Peru

December, 1962

## OLMEC AND CHAVIN: REJOINER TO LANNING\*

MICHAEL D. COE

### ABSTRACT

The maize design on a bottle from Kotosh is unusual for its time and place in its choice of subject matter and mode of depiction, and a previous statement that the motif might be of Olmec origin is defended. Lanning's

\*I wish to thank Edward P. Lanning for his kindness in forwarding his reply to me in ample time to prepare a rejoinder. I am also indebted to Irving Rouse for reading a preliminary draft of this rejoinder and suggesting revisions, although I take full responsibility for it in its final form.

attack on past arguments for early diffusion from Mesoamerica to Peru is countered by questioning (a) the role of the Intermediate area and lowland South America as alternative sources for the observed similarities, (b) the nature of unpublished data, (c) the age of the architectural complex at Las Haldas, (d) the likelihood of establishing final "proofs" or full chronological contexts, and (e) the reasoning of the "wait-until-all-the-facts-are-in" school. It is proposed that hypotheses are not assumptions but concepts subject to change which are ever attempting to explain large bodies of data. Such a hypothesis is that which originates New World civilization on the Gulf Coast of Mexico, and a revision of this hypothesis is made which accounts for the Chavín civilization as the result of a fusion of intrusive Olmec art and religion with an older, native-Peruvian tradition based on fabric construction and the worship of the condor and serpent.

IT WOULD HAVE BEEN most surprising if my somewhat rashly titled note on the Kotosh bottle had been allowed to pass without comment. The paper was meant to provoke useful dialogues on an important subject. It is therefore a pleasure to have the well-organized reply of an archaeologist with firsthand knowledge of Andean prehistory. Since Edward Lanning has differentiated between (a) the problem posed by the Kotosh bottle and (b) the more general problem of diffusion from Mesoamerica to the Andean area (or vice versa), I will follow suit in this rebuttal.

Lanning indicates that maize representations are not "out of place" in Andean archaeology. This does not represent the intention of my words. I meant to imply that *this* way of showing maize is unusual. I should also have added that, on this early time level, it is very definitely "out of place." If it is granted that both the Kotosh and Olmec artists "knew and presumably ate maize," does this mean that the artists of a particular culture normally choose their foodstuffs as subject matter? Very large quantities of hamburgers are consumed in contemporary America, but these do not seem to be represented with any frequency in our art galleries. Maize cultivation was widely distributed in the pre-Columbian New World, but the choice of maize or other domesticate as an artistic motif is really quite rare, even in ancient Mesoamerica; the Andean area is, in fact, aberrant in this respect. Furthermore, *how* this maize, or any other subject selected out of the external world by the artist, is depicted varies greatly. There is no "natural" way to depict anything: even a photograph is a technologically, culturally, and individually directed selection of certain external features. If one wished to represent maize on the surface of a pot, what features might one select from the total plant? In a fairly complete maize "language," the viewer, another member of the artist's own culture, should be able to recognize roots, stalk (with internodes), leaves, ears, husks, silks, kernels (either straight or irregular rows), and tassel. Some cultures, such as Navaho (in their sand-paintings), show most of these features, others only a few.