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#### ADDITIONAL EVIDENCE OF WHEELED TOYS IN MEXICO

Two recent articles<sup>1</sup> have pointed out the use of wheeled toys in pre-Spanish times in Mexico. Evidence points to ceramic wheeled toys having been used in several localities in that country. Ekholm found them at Panuco, Vera Cruz; Staub collected one just south of Panuco; Drucker describes several from Tres Zapotes, Vera Cruz; Charnay dug up some at Tenenepango, southeast of Mexico City;

<sup>1</sup> Alfonso Caso *et al.*, "Conocieron la rueda los indígenas mesoamericanos?" *Cuadernos Americanos*, Vol. 25, No. 1, Mexico, D. F., 1946; Gordon F. Ekholm, "Wheeled Toys in Mexico," *AMERICAN ANTIQUITY*, Vol. 11, No. 4, 1946.

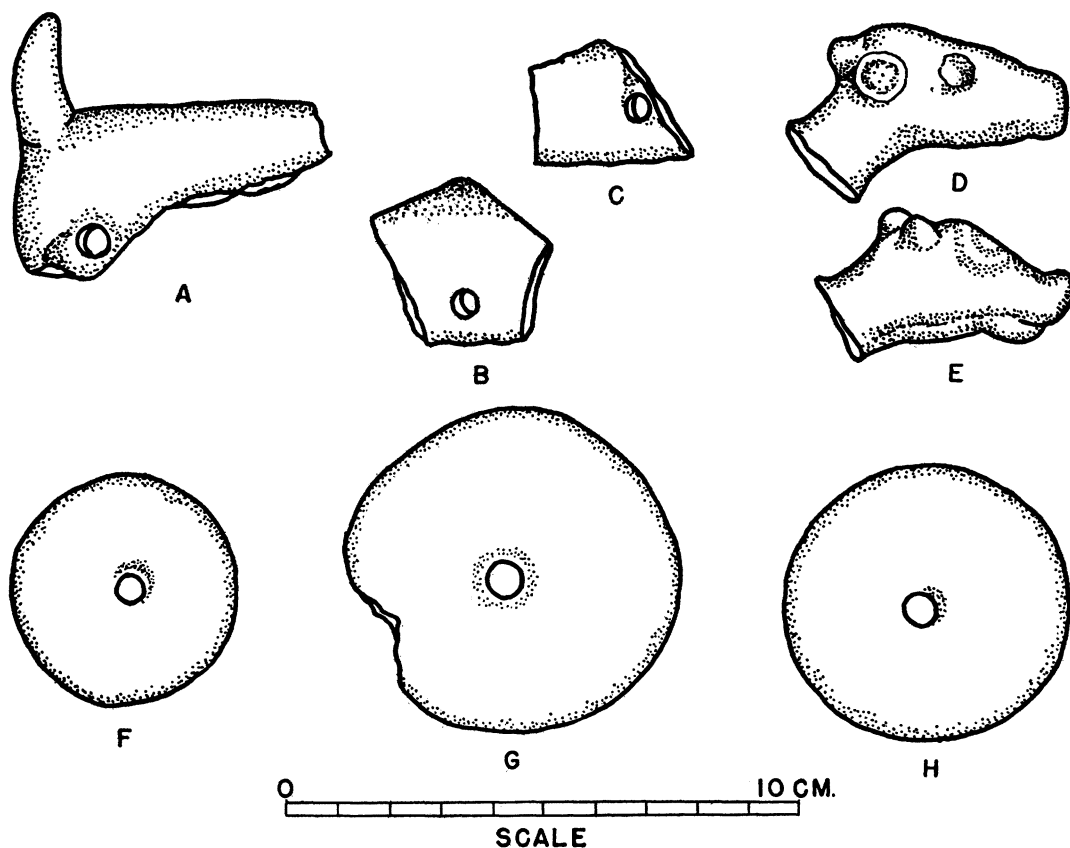


FIG. 53. Pieces of possible wheeled toys from Cojumatlán, Michoacán, Mexico:  
A-C, body fragments; D and E, beads; F-H, wheels.

and one was obtained by Saville in the "valley of Oaxaca." According to Caso, copper animals with legs perforated as for an axle probably came from Panama. Lothrop identifies copper animals with holes in their feet as similar to types from Coclé.

Just prior to the war, in 1941, the University of New Mexico excavated a site at Cojumatlán, Michoacán, on the southeastern shore of Lake Chapala. The material recovered from that site is now being studied preparatory to presenting a report on the excavation.

In going over the sherd material from two trenches that were dug at the site, a number of pieces of pottery were noted that may have been parts of wheeled toys. Unfortunately no whole specimens were recovered. Several pieces of hollow animal effigy bodies were found. Three of these have holes through them. The best specimen (Fig. 53, A) represents the hind quarters of a dog-like animal. It has no legs but has a hole through the lower part of the body through which an axle could have been placed.

Five dog heads of clay were collected (Fig. 53, D, E). These are the correct size to have been used on the bodies just described. Ceramically, several heads and body sherds were made of the same material.

Nine circular discs, or wheels, were found in the excavations (Fig. 53, F-H). These are not worked sherds but were definitely made in a wheel shape. They have a hole in the center, made while the clay was still damp. These discs are entirely different from the spindle whorls common to Cojumatlán.

If these fragments can be pieced together, one may picture a small legless clay dog resting on four wheels attached to axles extending through the front and hind quarters of the body. Typologically, this toy differs from those already reported. The principal differences are that it has neither legs nor tubular shafts through which the wooden axle could extend.

If this evidence is sufficient to indicate the presence of wheeled toys at Cojumatlán, it will add considerably to an already fairly extensive distribution of the trait. The dating of the Cojumatlán site must wait until a more complete study of the items of material culture and comparisons of material from other areas has been completed. A detailed report on the excavation will be forthcoming soon.

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#### REPLY TO BENNETT

In a recent issue of this journal,<sup>1</sup> John Bennett has discussed at considerable length two markedly divergent trends which he sees developing in archaeological work in the eastern United States. One of these he labels "empiricism"; the other, "experimentalism." The "empiricists," it appears, include those who insist on *proof*, who confuse "fact" with "artifact," and whose sins of omission and commission are inherent in their methodology. The "experimentalists," on the other hand, ask only *verification*, not *proof*; "facts" are subordinated to "problems"; traits and

archaeological facts are manipulated "in the light of hypotheses"; and their errors result from misuse by inept disciples of a basically sounder methodology. Since most archaeologists, according to Bennett, use both approaches, the validity of categorizing archaeologists as either "empiricists" or "experimentalists" may be called in question, I suspect that Bennett's distinctions are largely the figments of a dialectician's imagination—a convenient creation necessary to the development of his arguments. Certain it is that in characterizing my position as representative of the so-called empiricists, Bennett's paraphrase rather obviously misrepresents my "more or less orthodox formulation of this point of view."

Of more concern than the dubious separation of archaeologists into "empiricists" and "experimentalists" are several pronouncements by Bennett regarding chronology and ethnohistorical reconstructions. In these matters his views and mine evidently diverge widely; and since his remarks seem intended as justification for a sort of speculative archaeology I regard as unscientific and uncritical, a few comments are in order.

In the first place as regards chronology I have no quarrel with the observation that the mere expression of a date in terms of numerical year-symbols does not verify it, or make it any more probable than a "carefully-developed ethnohistorical or comparative-archaeological 'guess-date.'" At the same time, I cannot see that absence of a demonstrated absolute (tree-ring or other) chronology compels us to accept "as reliable and, to a degree, verifiable" an alternative chronology based on inferences from undisclosed evidence. Such an alternative chronology may or may not be reliable, depending entire on the evidence supporting it. I see no reason whatever for accepting it as "to a degree, verifiable" merely because there is nothing better, or because someone says there *is* research behind it. If there is proof, or in "experimentalist" parlance, verification, for the dates proposed, that verification should be set forth no less than the date-symbols themselves. As for the "comparative methods" and the "carefully built-up and critically handled inferential materials" on which the "experimentalists" rely, according to Bennett, his demonstration of their applicability to site dating raises more doubts than hope in my mind:

"Thus by comparative methods we can 'date' a Middle Mississippi site as 'early 15th century,' and give this arbitrary date-symbols, say 1600-1650." [Quotation from Bennett; italics mine.]

In the matter of ethnohistorical reconstruction, the "experimentalist" viewpoint seems to me particularly open to suspicion. The nebulous "empiricist" with whom Bennett tilts may or may not be the stickler for *all* facts that Bennett makes him appear. But as I see it, he would certainly be less vulnerable than the "experimentalist" who assumes that in any particular case the facts supporting an ethnohistorical identification "cannot ever" be obtained. "Cannot ever" is a long long time, and the "experimentalist" who takes this view as justification for speculation on his particular problem may justly be asked to say why he is so sure that verifiable facts will never be forthcoming. What looks impossible today may be perfectly apparent with

<sup>1</sup> AMERICAN ANTIQUITY, Vol. 11, No. 3, p. 198, January, 1946.