

A DATED CRUCIFORM ARTIFACT?

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Abstract:

Excavations at a site on the outskirts of San Blas, on the south-central coast of Nayarit, Mexico (1967-8) yielded an obsidian cruciform artifact in stratigraphic context, associated with artifacts of the locally defined San Blas complex. Radiocarbon analysis of marine shell samples collected above, below, and two meters to the north of the obsidian cruciform, has produced raw determinations of 2675 ± 80 , 2640 ± 85 , and 2605 ± 80 radiocarbon years respectively. This is one of the rare instances in which a cruciform has been found in fairly reliable dated context, adding to present understandings of cruciform date as well as distribution, potentially important for problems of West Mexico-American Southwest prehispanic contacts.

Article:

In 1945 Emil Haury published an article titled "The Problem of Contacts Between the Southwestern United States and Mexico" in which he presented "stone crosses" as one parallel in material culture existing between the two areas, placing their introduction to "north Mexican and southern Arizona peoples" at about A. D. 1000 (Haury 1945: 64). Several times since publication of Haury's article, various authors have addressed themselves to the functional interpretation and temporal placement of such cruciform artifacts. Vernon Brook (1966) and E. T. Hemmings (1967) are apparently the latest to comment, and each includes a detailed bibliography of relevant publications.

One important problem regarding cruciform artifacts has been the lack of associations which would reliably affix even a general date to their production and use — obviously for understanding the direction of influence between the Southwest and Mexico. In an article published in 1954, Agnes Howard noted that "so far as can be determined there is no way of fixing the age of the cruciform artifacts since they have not been found in relatable strata" (1954: 174). Vernon Brook, attempting to provide some of the necessary temporal data, suggests that "the cruciforms were first used in the local (El Paso area) preceramic period and continued in use until A. D. 1450" (1966: 574). Although Brook is apparently incorrect in stating that both of Haury's Ventana Cave specimens came from the pre-ceramic levels (one seems to have been associated with ceramics in level three of the midden in the upper cave), data do appear to give some support to the association of cruciforms with non-ceramic archaeological complexes in the El Paso area, whatever date that might indicate. Hemmings (1967) places his type 1 cruciforms from the Southwest and northwestern Mexico in the time range of A. D. 800 to A. D. 1400, but although noting finds in non-ceramic context does not venture to assign a date to such occurrences. In brief, it appears that data are still lacking for assigning any sort of concise reliable date to the appearance of cruciforms in the Southwest, although their use until as late as the fifteenth century seems certain.

The situation has not been much better in Mexico. Association of cruciforms with datable artifacts in the Durango-Zacatecas area has not been good. Generally, the occurrences indicative of an early temporal placement are from dubious context, and the only fairly reliable association has been with rather late materials of the Chalchihuites culture. However, in central Mexico at Cuicuilco there are data to suggest an association of cruciform artifacts with a Preclassic occupation (Haury 1945; Hughes 1956). From the scanty information presented by Hughes it would appear that the association is with a Late Cuicuilco deposit, indicating a date of perhaps 300 B.C. or 200 B. C. In West Mexico, Long has recently reported finding a cruciform chalcedony

pendant among the items attributable to shaft-and-chamber tomb three at El Arenal in the highlands of Jalisco (Long 1966: 278). Long and Taylor (1966), on the basis of five radiocarbon determinations, suggest a date of about the first century before Christ for the San Sebastian phase of shaft-tomb complex development, but indicate that the shaft-tomb complex may extend to as late as A. D. 400 or 600, the picture complicated by possible re-use of some tombs over a considerable period of time (L,ong 1966).

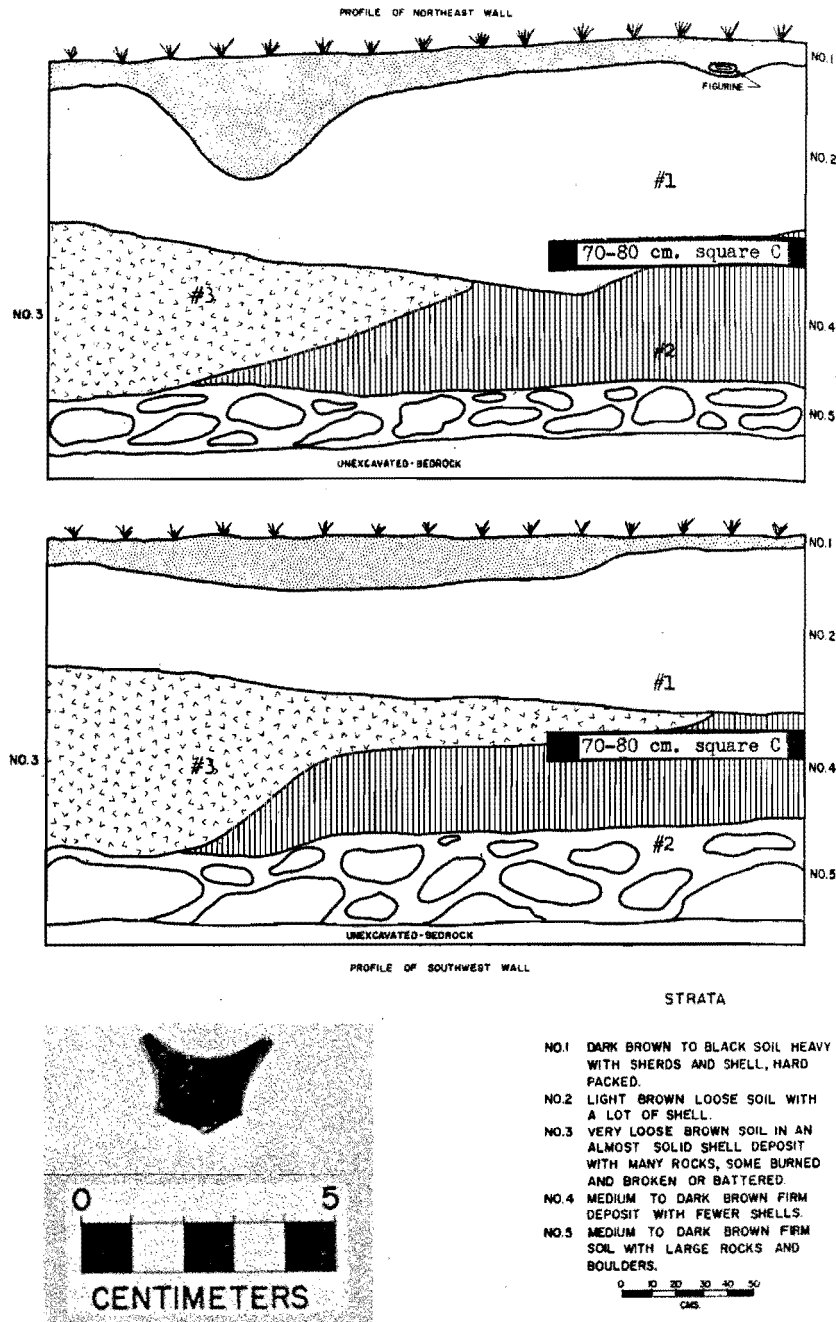


Figure 1. Obsidian cruciform artifact from SB-17, trench 3, square C, 70 to 80 centimeter level, and stratigraphic detail.

What is intended in the remaining space is to present one instance in which a cruciform artifact has been found in fairly reliable dated context on the western coast of Mexico. The cruciform is made of dark green obsidian, and originally had four symmetrically placed points, two of which have been broken off (Figure 1). The object appears to have been finished by grinding; the edges are flat and highly polished whereas the faces are roughened, producing an effect similar to that of fine "frosted" glass. The cruciform was found at a depth of 70-80 centimeters in square C of trench 3 at the San Blas 17 site (Figure 2) — located about 2 kilometers back from the coastline on the outskirts of San Blas, Nayarit. Capping the principal strata at the trench was a thin (5

to 30 centimeters) stratum of dark soil and cultural debris in which many Early Ixtlán (shaft-tomb) complex ceramics were found mixed with San Blas complex sherds. Below the cap-layer was a deposit, extending to bedrock at a depth of 150 centimeters, which is attributed to the local San Blas complex. This complex, described in detail elsewhere (Mountjoy 1970a, 1970b) is one of five distinct archaeological complexes which have been isolated in the San Blas area. It is preceded locally by the non-ceramic shellmound Matanchen complex and followed by the Early Ixtlán (shaft-tomb) complex.

Three radiocarbon dates from samples of marine shell are available for the deposit at trench 3. Two samples were taken from square C, one from the 50 to 60 centimeter level and the other from the 110 centimeter level. These therefore conveniently bracket the location of the obsidian cruciform (Figure 2). The first sample (U.C.L.A. 1451a) yielded a determination of 2675 ± 80 radiocarbon years (725 B. C.), and the second sample (U.C.L.A. 1451b) a determination of 2649 ± 85 radiocarbon years (690 B. C.). A third sample, from a depth of 80 to 100 centimeters in square A (Figure 2), gave a reading of 2605 ± 80 (655 B. C.). These are the uncorrected determinations, which do not take into account any error for upwelling. It is the opinion of R. E. Taylor that the correction for upwelling would, according to present knowledge, reduce the determinations by no more than 240 years (485 B. C., 450 B. C., and 415 B. C.), and it is probable that the true date lies closer to the older dates than to the younger ones (personal communication, 1970).

Although the cruciform was not subjected to obsidian hydration analysis, a number of hydration measurements were obtained from other obsidian objects (flakes) found in the deposit. On the whole, the hydration measurements are somewhat erratic for the entire trench 3 obsidian sample tested. However, those flakes analyzed which were found most closely associated with the obsidian cruciform tend to indicate an early date. The hydration from obsidian flakes found in square C from a depth of 50 to 150 centimeters are 3.3, 7.5, and 6.8 microns. The only two obsidian flakes tested from the 70 to 80 centimeter level came from the adjacent two-meter square (square B). They were found to have hydrations of 7.6 and 7.7 microns. If the 3.3 micron measurement is discounted as erroneous, rather than intrusive, the other samples average 7.4 microns of hydration, which, at the Morett, Colima rate of 260 years per micron — the rate proposed by Meighan, Foote, and Aiello (1968) — would indicate a date of approximately 26 B. C. It seems reasonable to expect that the actual date for the obsidian cruciform lies somewhere between the radiocarbon and hydration determinations, and, without detailed discussion of cultural context and the problems inherent in the obsidian hydration method itself, it is my opinion that the data from ceramic typology and stone assemblage best support the earlier dates.

There is always, of course, the possibility that the obsidian cruciform was intrusive from above, but, given all available information, this seems improbable.

It is not yet possible to unequivocally state that cruciform artifacts are earlier in either the Southwest or Mexico. It does seem, however, that recent information from San Blas indicates a probable occurrence of such artifacts on the south-central coast of Nayarit as early as the first few centuries before Christ — possibly as early as 600 B. C. The presence of the cruciform obsidian artifact in association with the San Blas complex may have some further significance. The San Blas complex appears related to a Formative-based cultural expansion which extended from southern coastal Mexico far up to the west coast of Mexico, dependent of the intensive exploitation of resources from the sea, estuary, and associated land-based microenvironments. This development appears to have brought the use of pottery into some areas of coastal West Mexico, and it is precisely in this early coastal expansion which we should be intently searching for evidence of contact which might have influenced the early development of Hohokam in, the Southwest.

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