

## Problematical Pleistocene Artifact Assemblage from Northwestern Spain

**Abstract.** *Interdisciplinary study of a Paleolithic site at Budiño, Louro Valley (province of Pontevedra), Spain, shows the presence of various tool-making techniques and types of tools in a single undisturbed site complex found in situ within Middle Würm colluvial deposits.*

A large number of surface collections of lithic artifacts have been made from the lower Miño Valley, along the Portuguese-Spanish border, since 1920. On the basis of typology and patina of individual tools, several stages of Acheulian were claimed to exist here, together with industries of Middle Paleolithic (Camposanquian) and Epi-Paleolithic (Asturian) affinities (1). During the summer of 1963, a geologically stratified site, the first of its kind in Galicia, was excavated by Aguirre at Budiño (2), in the Louro Valley, a northern tributary of the Miño. The artifactual materials came from the lower of two colluvial mantles that overlie an alluvial terrace about 10 m above the Louro floodplain, near the 20.0-km post of the highway Vigo-Túy. Sixteen trenches with a total area of 191 m<sup>2</sup> were excavated and yielded 651 artifacts and 56 larger stones with possible or certain evidence of human workmanship.

The quartz and quartzite artifacts commonly occur in undisturbed, concentrated flaking sites, and in at least

one cut there were two vertically distinct levels. At one locality, some 100 artifacts—many in mint condition—were found on a surface of less than 1.5 m<sup>2</sup>, lying amid some 80 quartz pebbles and associated with a quartz boulder obviously used as an anvil. The acidic soil environment has preserved no trace of bone. In another area there are concentrations of charcoal, carbonized vegetable matter, and a little ash, which suggest a number of hearths. A remarkable variety of tool-making techniques and types of tools were found in undisturbed associations, with both archaic and apparently more evolved forms represented. The inventory includes choppers and chopping-tools, trihedral picks, so-called Camposanquian picks, Clactonian flakes and notches, proto-bifaces, evolved bifaces, denticulates, and several other flake tools (3). Yet there is no question that these are occupation sites of a single cultural complex, probably recording repeated temporary occupation of a moderately restricted area by prehistoric groups.

One radiocarbon determination from the basal part of the lower colluvium (charcoal) yielded an age of 26,700 (+ 3600, - 2500) years before the present (Isotopes, Inc. code number 2174); another a little higher up in the stratigraphic sequence (fine charcoal and carbonized vegetable matter) gave 18,000 ± 300 B.P. (I-2175) (4). Both samples were intensively pretreated, but it is unlikely that a hiatus of 8 millennia marks the occupational record. However, three further C<sup>14</sup> determinations from late Pleistocene colluvia on the nearby Atlantic coast indicate that the lower colluvium at Budiño postdates a warmer interval ("Paudorf" or Farmdale), being deposited during the early part of a cold interval with accelerated geomorphic activity (Main or Middle Würm-Wisconsin). All of the late Pleistocene colluvia of the Louro and Miño valleys rest disconformably on the "Low Terrace," while on the adjacent coast they sweep over marine abrasional platforms at + 10 to 12 m, + 6 to 7 m, and + 2.5 m. Three depositional units

can be recognized from criteria based on stratigraphic and radiocarbon studies: the Mougás beds (Early Würm, older than 40,000 years), the Sanjián beds (Middle Würm, about 28,000 to 16,000 B.P.), and the LaGuardia beds (Late Würm). Each typically ranges upward from a colluvium of detrital organic matter, probably derived from the matted A-horizons of subalpine paleosols, to colluvial sheets and alluvial fans or cones. As congelifraction and periglacial bedding are not apparent, these coarse mineral deposits are attributed to accelerated runoff, sheetwash, and creep.

The Budiño site is contemporary with the Sanjián beds. This is much younger than would normally be postulated on morphological grounds for the archeological materials that have been called Camposanquian (or Languedocian). Similarly the age that has been determined is much older than should be expected from an Asturian assemblage, if the "Asturian" were indeed immediately pre-Neolithic. This suggests the possibility that the terms Camposanquian and Asturian refer to a temporally and formally heterogeneous agglomeration of artifact collections, rather than to single, definable industrial complexes (5). It would seem advisable at this point to restrict the use of the term "Camposancos" to designate certain tool types.

Budiño represents an assemblage that is chronologically defined and stratigraphically correlated, characterized by a complex technology and typology. Generally speaking, the types of tools look archaic, but there are more refined forms present within each category. The appearance of the industry can be attributed in part to the nature of the raw materials employed (quartz and quartzite), but certainly the element of cultural choice is also involved.

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### References and Notes

1. See F. Bouza-Brey and J. M. Alvarez-Blasquez, *Trabalhos de Antropologia e Etnologia* (Porto) 14 (Fasc. 1-2), 3 (1952); J. M. Alvarez-Blasquez and F. Bouza-Brey, *Cuadernos de Estudios Gallegos* (Madrid) 13, 201 (1949). A similar approach was taken in the classification of the Portuguese Paleolithic, which is remarkably similar to that of northwestern Spain, by H. Breuil and G. Zbyszewski [*Comun. Serv. Geol. Port.* 26, 1 (1945)].
2. For a preliminary report on the archeology see E. de Aguirre, *Excavaciones Arqueológicas en España* 10, No. 31 (1964).

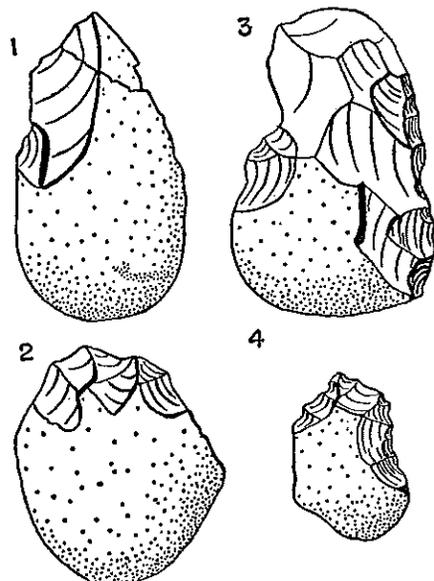


Fig. 1. Quartzite artifacts from Budiño. (1) Chopping tool (one-fourth size), (2) chopping tool (half size), (3) proto-biface (one-fourth size), and (4) denticulate (half size). [Drawn from photographs through the courtesy of Leslie G. Freeman]

3. ———, *ibid.*, plates 5–12.
4. The geomorphology and stratigraphy of the Budiño site are described in K. W. Butzer, *Eiszeitalter Gegenw.*, in press.
5. For further critical and partly controversial opinions on the Asturian of northern Spain, see M. Crusafont-Pairó, *Speleon* (Oviedo) 14, 77 (1958); F. Jordá-Cerdá, (*Actos V. Congreso Arqueológico Nacional* (Zaragoza, 1959), pp. 63–66; and ———, *Memorias, Servicio de Investigaciones Arqueológicas* (Diputación Provincial de Asturias, Oviedo, 1958), vol. 3, pp. 1–97.
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