

EXCAVATION OF A CAVE AT LOS CASTILLOS IN THE VALLEY OF THE  
RIO HUENQUE IN SOUTHERN PERU

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This excavation was undertaken at the instigation of Professor John Gregory Hawkes, Professor of Botany in Birmingham University, and sponsored jointly by him and by Professor César Vargas, Professor of Botany in the National University of Cuzco. Its aim was to find material in datable archaeological contexts which might throw light on the early history of potato cultivation. Some caves in the Huenque Valley were identified by Dr. Manuel Chávez Ballón as suitable for an investigation of this kind, in that he considered that they were sufficiently dry to afford favourable conditions for the preservation of organic material, and occupied at a sufficiently early date to provide older evidence for potato cultivation than had previously been found in the highlands of Peru. It was hoped that a trial excavation, on a limited scale, might lead to a more substantial effort later.

The excavation took place between December 18th and 29th, 1966, and was carried out by a party of three: the writer, Dr. Margaret Gelling, and Miss Alison Bell. It could not have been organised without generous and effective co-operation from members of the staff of the British Council in Lima; and we were also indebted, for the provision of transport, to Dr. J. Alberto Rivas, head of C.O.F.D.E.T., Tacna, and to Señor A. Romero, head of Corpuno, Puno. While we were in Peru we received valuable help and advice from Professor César Vargas. About two-thirds of the cost of the expedition were met by a grant from Birmingham University.

The Río Huenque rises on the eastern side of the Cordillera, not far from the present frontier between Peru and Bolivia, and for most of its course it flows in a generally northerly direction. Near Ilave it turns north-eastwards, and eventually flows into Lake Titicaca. Its course is followed for a considerable distance by the road from Ilave to Tacna (figs. 1 and 2). About 50 km. south of Ilave, at a height of about 4,000 m., the river runs through a relatively narrow valley, where the spectacular weathering of the rock into fantastic vertical shapes has given rise to the name Los Castillos. This valley is remarkable for the number of its caves, generally not very deep ones, which may occur singly, but are more usually found in horizontal series at the foot of outcrops of rock. The caves visited by Dr. Chávez Ballón were unusual in that they were more or less on a level with the valley floor. They lie on the opposite side of the river to the road, and as the Huenque was in flood when the party arrived in December 1966, they were temporarily inaccessible. About ten days later it was possible to visit them, and it appeared that the occupation deposit in them had been so churned up by animals' feet that they were not suitable for excavation.

The cave chosen for excavation was one of the largest and it was situated some way up the west slope of the valley (fig. 3). It was

6 m. wide at the mouth, and its southern arm extended nearly 18 m. (fig. 4). Its northern arm extended only about 14 m., but was somewhat wider, and had in addition a shelf some 4 m. deep 1.5 m. up on its northern wall. Its height was in general about 2 m., but only about 1.70 over most of the excavated area in the entrance.

In all about 19 sq. m. of occupation deposit were excavated, mainly in the mouth of the cave and in the outer part of the northern arm. In general the surface deposit was a fine light grey material, probably volcanic dust, seldom more than 10 cm. deep. It was sterile, except for very occasional traces of modern occupation (see section, fig. 5). Beneath this layer was a dark occupation deposit whose average depth was about 25 cm., and seldom more than 35 cm. All the small finds, with the exception of two projectile points (figs. 18 and 19) which were found in the south arm of the cave, occurred in this layer. The darkness of this layer was due to hearth material, which was abundant, and provided the sample for radiocarbon dating. No fixed hearths were found, but it seemed that fires had generally been lit close to the wall of rock dividing the two arms of the cave. Underlying the occupation deposit there was a sterile layer, normally greyish in colour, but occasionally yellowish in the part close to the dividing rock-wall. Underlying this again there was a very hard stony layer which was only dug into at one point (marked "deeper sounding" on fig. 4) where it was shown to continue hard and sterile to a depth of at least 1.40 m. Two small pits had been dug in the sterile layer on which the occupation deposit built up, one of which (Pit 2) is seen in section in fig. 5. Their filling could not be distinguished from the rest of the dark occupation deposit. Pit 2, as can be seen from the section, was partly cut through some brown material, darker above and lighter below, which itself seemed to be connected with a depression in the underlying hard stony layer. This brown material was sterile.

In the very mouth of the cave the occupation deposit was thin, being as little as 10 cm. deep, but after about 1 m. it reached its standard depth of about 25 cm. In the innermost part of the excavated area in the northern arm it had almost, but not entirely, petered out. Further in, the cave may have been used for sleeping quarters, but apparently not for any purpose which produced domestic debris.

The deposit in the southern arm was of a different nature. In the part nearest the entrance there was scarcely any deposit at all, and the rock was either projecting, or barely covered. A deeper deposit began about 5 m. from the entrance. On the surface there was again a shallow layer of fine light grey material, indistinguishable from that covering the northern arm, but underneath there was deposit, 25-30 cm. deep, which can best be described as midden. A high proportion of it consisted of decomposed skeletal remains, which were mainly, apart from teeth, of a powdery consistency, and impossible to lift. There were scarcely any traces of bone in the northern arm of the cave, where the presence of hearth material would have contributed to their better preservation, so it would appear that a distinction was observed between living quarters on one side, and midden on the other. It seemed that the midden extended

several metres further unto the north arm of the cave, but only the part of it which was established by excavation is marked on fig. 4. The teeth have been identified by Dr. Francis Charles Fraser, of the Mammalian Osteology Section of the British Museum, as definitely of genus Lama, but they are too fragmentary to permit identification of the species, or to give any age grouping.

In the excavated area on the north side of the cave there were some 70 sherds of pottery, excluding numerous insignificant fragments. The pottery is nearly all discoloured by the dark occupation deposit in which it was lying, and when the surface of a sherd is in a fragile condition, it is almost impossible to clean it sufficiently to be certain of the original colour. Some of the pots had been used for cooking, as is shown by some sherds which are encrusted on the outside with hearth material. All the ware is handmade, most of it is hard and well fired, and very often it includes a characteristic shining mica which can also be seen in the mud at the edge of the river Huenque. This inclusion is more apparent in some sherds than in others, and those sherds which today have a rather crumbling surface are all examples in which it is very much in evidence. Some, however, which have a high proportion of this inclusion, are as hard as any. The tempering, where visible, is a fine light-coloured sand, and two sherds appear to have been fibre-tempered. The commonest colour is a slightly reddish or orange buff. Three sherds show traces of a brick red slip, which on two of the three has been lightly burnished. The only suggestion of decoration is on the specimen shown in fig. 14. This decoration consists of an appliqué cordon decorated with irregular indentations. The cordon is not set horizontally. It ends on the sherd, and it was possibly a lug, but it is rather narrow for that purpose.

All but two of the stone artefacts were found in the same layer as the pottery. The exceptions, as noted above, were figs. 18 and 19. The specimens illustrated in figs. 18 through 29 are projectile points. Those in figs. 31 and 32 appear to be scrapers.

The occupation of the cave was perhaps seasonal rather than permanent, or, if permanent, not of very long duration. The absence of anything of the pestle and mortar type perhaps favours seasonal occupation. The people who dwelt in it were probably herdsmen, herding llamas and alpacas, perhaps not very different from those who are to be seen in the area today. There was nothing among the finds to suggest that they practised any form of agriculture, but it may be mentioned that two distinct sets of field-systems are to be seen in the vicinity today. One consists of irregular squarish fields bounded by rough stone walls, a very few of which have been rebuilt in recent times to serve as enclosures for animals. The other consists of much more regular series of oblong fields which run in rows up and down the side of the valley. They are separated by long bands which from a distance look like lynchets, but which in fact are low mounds of stone, presumably gathered from the surface of the intervening fields. Neither field-system is cultivated today, but their existence implies at least one, and probably two, periods in which the valley was occupied by agriculturalists.

The most characteristic artefact is perhaps the triangular point, very close parallels to which are to be found in Le Paige's Tambillo-Cebollar group from north Chile. Further material of this group, which includes points very similar to those we found, has been published, with a discussion, by Dr. Lawrence Barfield (1961). Some projectile points which he collected at Tambillo are virtually identical with some from Los Castillos. Further examples have been found, without a clear archaeological context, at Incatunuhiri, near Ichu, in the Puno region (Kidder, 1943, pp. 14-15).

A sample of hearth material from the occupation deposit in the north arm of the cave was submitted to the Radiocarbon Dating Laboratory, Birmingham University, and its age given as  $580 \pm 76$  years B.P., or  $1370 \pm 76$  years A.D. (Libby half-life). In view of unpublished information kindly communicated to me by Professor John H. Rowe this date must be regarded as unacceptably late, and the chronological position of this group of finds must remain undetermined until more is known about the archaeological sequence in the Titicaca Basin.

#### ACKNOWLEDGEMENTS

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1943 Some early sites in the northern Lake Titicaca Basin. *Papers of the Peabody Museum of American Archaeology and Ethnology*, Harvard University, vol. XXVII, no. 1. Cambridge.

## KEY TO ILLUSTRATIONS

## Plate XII

- Fig. 6. Part of bowl with heavy club rim. Orange buff ware, tempered with light-coloured sand.
- Fig. 7. Fragment of flaring rim. Buff ware with mica inclusions. Traces of brick red slip on the inside.
- Fig. 8. Rim of jar. Buff ware with mica inclusions.
- Fig. 9. Fragment of flaring rim. Orange ware with mica inclusions.
- Fig. 10. Fragment of flaring rim. Buff ware with mica inclusions.
- Fig. 11. Fragment of flaring rim. Pale buff ware with mica inclusions. Brick red slip on the inside, lightly burnished.
- Fig. 12. Fragment of almost vertical rim, slightly out-turned. Orange buff ware with dark grey centre to biscuit. Rather sparse mica inclusions.
- Fig. 13. Fragment from just below the rim of a jar. Probably fibre-tempered.
- Fig. 14. Fragment with appliqué cordon decorated with irregular indentations. The sherd now has a dark grey surface, but a small modern break shows the characteristic orange buff ware with mica inclusions.
- Fig. 15. Fragment of rim of a narrow-mouthed jar. Orange buff ware with mica inclusions.
- Fig. 16. Fragment of handle. Buff ware with mica inclusions.
- Fig. 17. Fragment of base. Pale buff ware, tempered with light-coloured sand.

## Plate XIII

Unless otherwise indicated all of these specimens come from the northern side of the cave. I am indebted to Professor Frederick William Shotton, Professor of Geology in Birmingham University, for the petrographic identifications of all the stone artefacts.

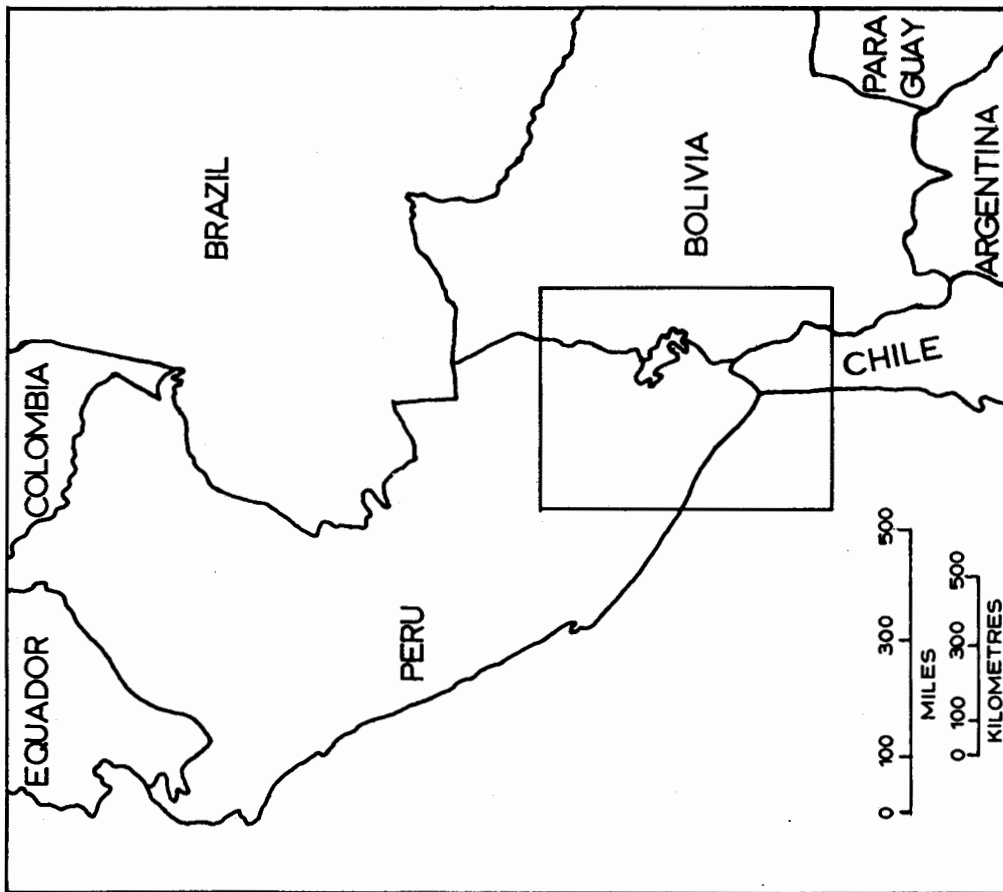
- Fig. 18. Projectile point of spherulitic rhyolite from the southern arm of the cave.
- Fig. 19. Projectile point fragment of brown rhyolite from the southern arm of the cave.
- Fig. 20. Projectile point of red spherulitic obsidian.
- Fig. 21. Projectile point fragment of grey obsidian.
- Fig. 22. Projectile point of red rhyolite (probably devitrified obsidian).
- Fig. 23. Projectile point of white chalcedony.
- Fig. 24. Projectile point fragment of pitchstone.

## Plate XIV

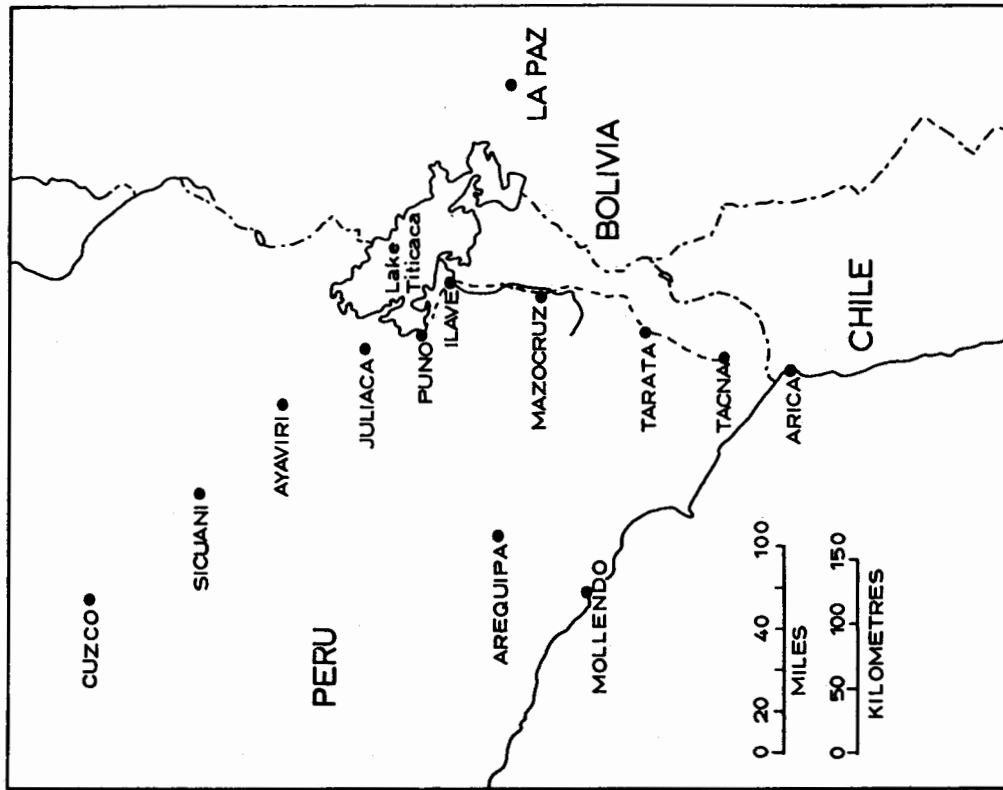
All specimens are from the northern side of the cave.

- Fig. 25. Projectile point fragment of black pitchstone.
- Fig. 26. Projectile point of obsidian.

- Fig. 27. Projectile point of chalcedony.
- Fig. 28. Projectile point of obsidian.
- Fig. 29. Projectile point fragment of brownish-grey obsidian.
- Fig. 30. Stone artefact of obsidian.
- Fig. 31. Probable scraper of amygdaloidal black pitchstone.
- Fig. 32. Probable scraper of white chalcedony.
- Fig. 33. Stone artefact of black pitchstone.

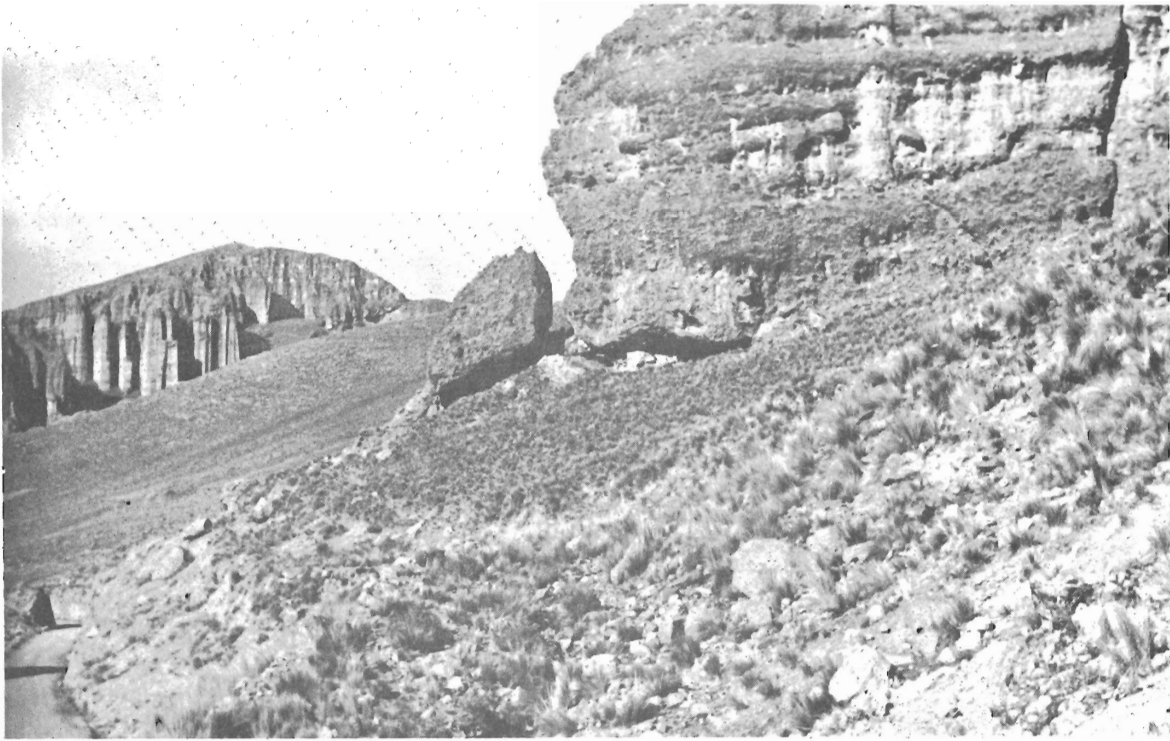


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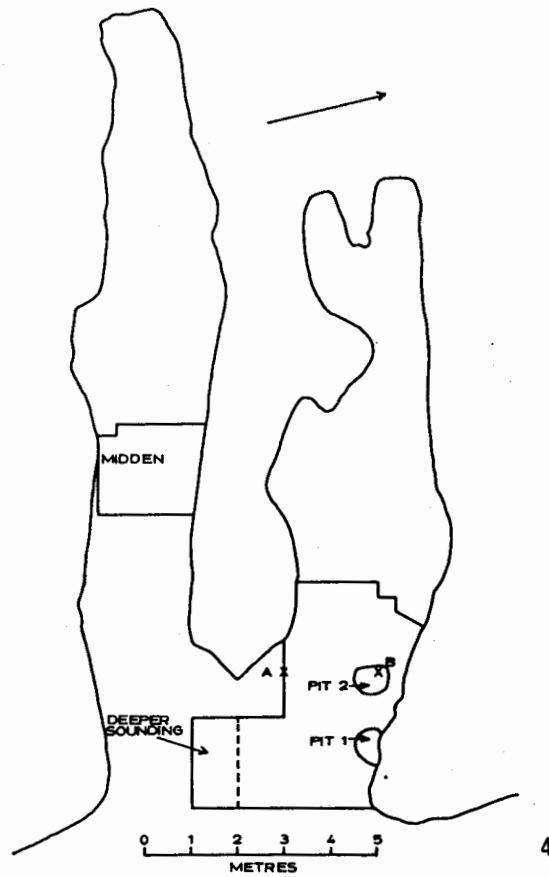
Plate IX. Fig. 1, location of area shown in fig. 2; fig. 2, area around the Río Huenque.



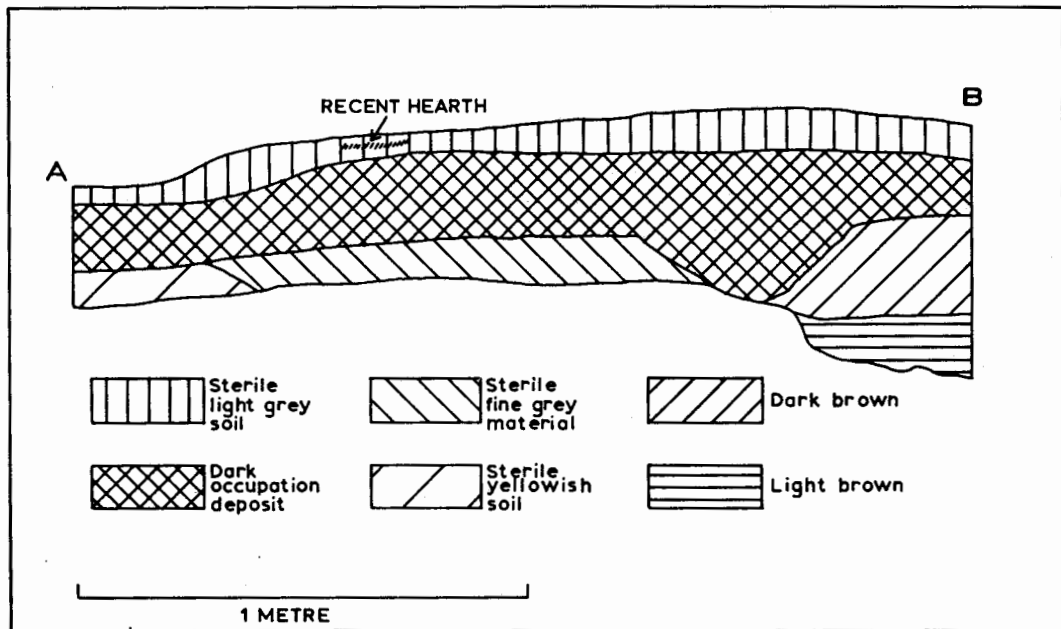
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Plate X. Fig. 3, mouth of the cave at Los Castillos seen from the north-east.





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Plate XI. Fig. 4, plan of the cave at Los Castillos indicating areas of excavation; fig. 5, section of excavation in the northern arm of the cave.

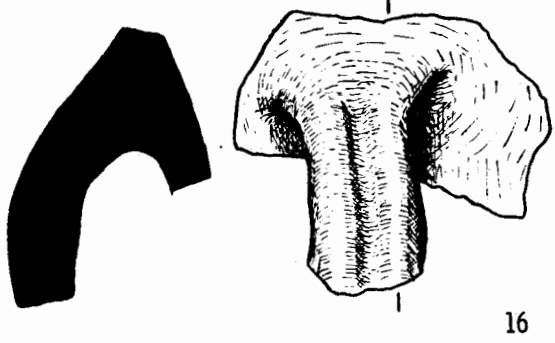
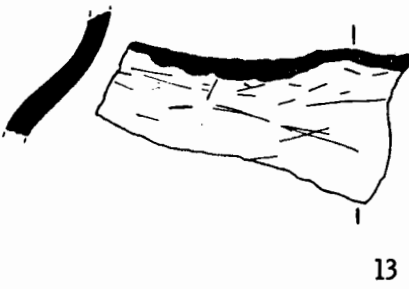
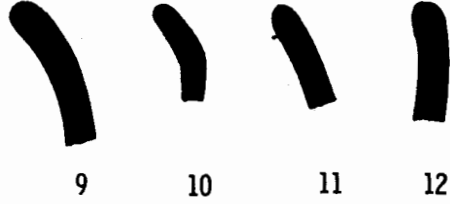
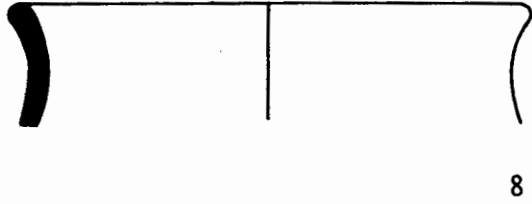
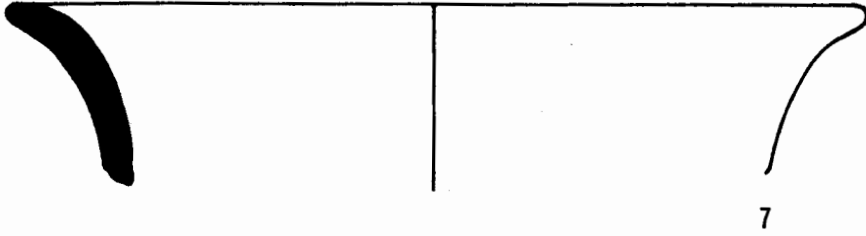
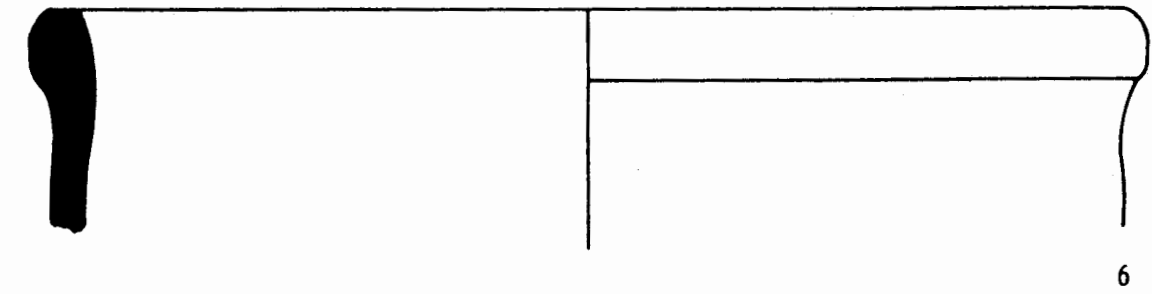


Plate XII. Pottery from northern side of the cave at Los Castillos. See Key to Illustrations.

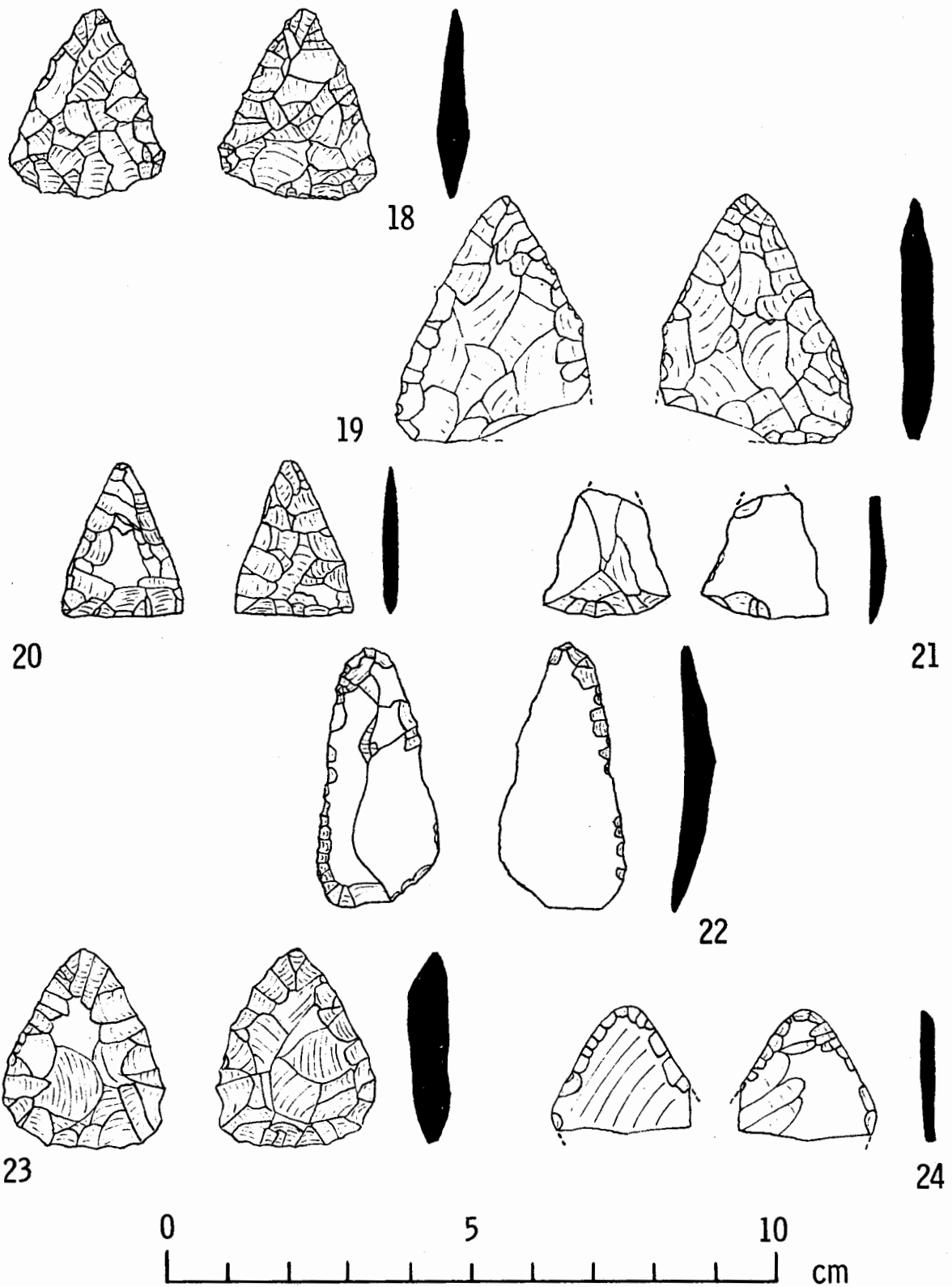


Plate XIII. Stone artefacts from the cave at Los Castillos. See Key to Illustrations.

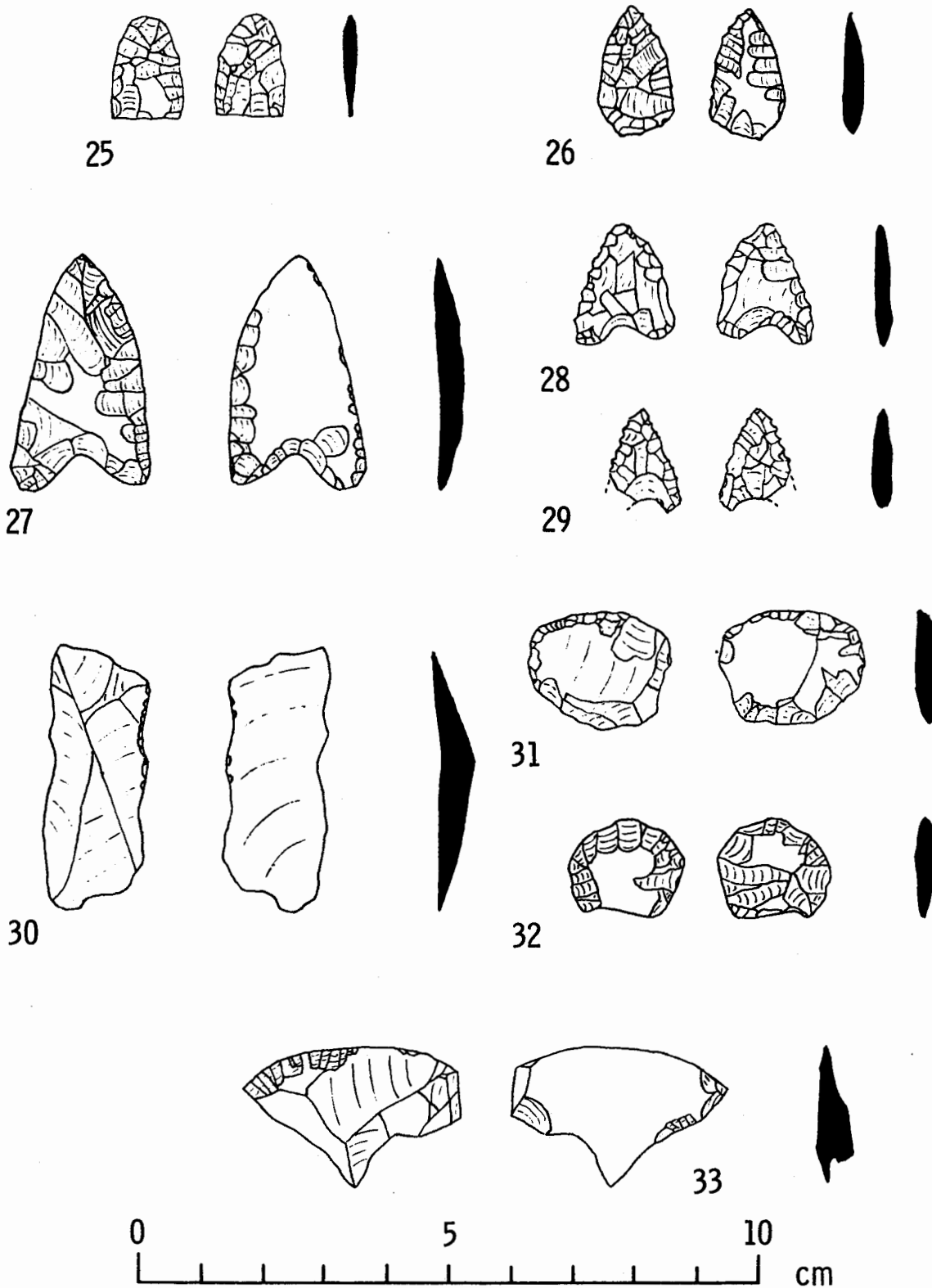


Plate XIV. Stone artefacts from the cave at Los Castillos. See Key to Illustrations.