

6. KWO LO WAN (LOWER)

THE SITE

The very rich Bronze Age site at Kwo Lo Wan is located on a low sand terrace occupying a narrow topographic niche between the beach and the lower hillslope (see Figures 5.2 and 6.5). The band of Bronze Age deposit averaged 5 to 6m width between the sloping DG of the hillside and the seaward edge of the sand bank which had Tang lime kilns cut into the deposit. Its length of 40m. is limited to the north by house construction and to the south by a large rubbish-filled gully. South of this gully a similar sandy deposit was found, but without Bronze Age material. The elevation of the Bronze Age layer at between +3.2 and +3.8 mPD is quite unusual.

The discovery of the site at Kwo Lo Wan lower was fortuitous and fortunate. Previous surface inspections had not revealed any archaeological materials in the area, in spite of the terracing in the 1950's, and the eroding sandbank just at the High Water Mark. Heavy vegetation and rubbish covered the sandbank scarp, when cleared later kiln debris was noted. The event that led to the testing of the area was a "final" surface search, focussing on scarp and exposures. A patch of fired red clay similar to FC1-3 at Kwo Lo Wan upper was found near the rubbish gully, and surface clearance around it revealed several Tang lime kiln firebars. A test pit just below the fired clay patch brought to light plentiful kiln debris, and the first piece of hard geometric pottery from Chek Lap Kok.



Figure 6.1 -- Excavation of Square KA.

EXCAVATIONS AT KWO LO WAN LOWER

Initially, three squares (KA, KB and KC) were excavated (see Figure 6.5), with interesting results. The first square yielded a badly collapsed lime kiln, and while this structure was being recorded a pair of black polished stone rings were unearthed, and nearby the most unexpected find -- a pair of bivalve moulds in a closed position, as if they had been previously bound. These artifacts were thought to have been burial offerings, and it was anticipated that other burial object clusters would be found.

Another burial (no. 2) soon followed, and it proved to be the richest on the site. This burial was accompanied by two pairs of moulds, a beautiful set of slotted rings, two complete pots, and a bronze projectile point. Neither it nor the preceding one had any visible grave pit, and the artifact cluster in each case was part of the general, thin and sparse Bronze Age activity layer. All eight of the burials eventually discovered (see the chart on page 162) conformed to this pattern; only burial 7 was found in a rough, perhaps natural pit in the DG. Burial 6 was unusual in that it contained an unfired, probably sun-dried clay pot which crumbled at the touch, and even with the liberal use of a consolidant proved difficult to recover. Beside the pot was a black stone slotted ring or bracelet, and inside the pot was another (see Figures 6.10 and 6.11).

The burials appear to have been very shallow, not deep enough to cut into the previous strata, which were sterile except for a few small potsherds intrusive from the Bronze Age layer. Some of the material in the activity layer seems almost certain to have come from shallow burials disturbed not long after they were made, for example KLW

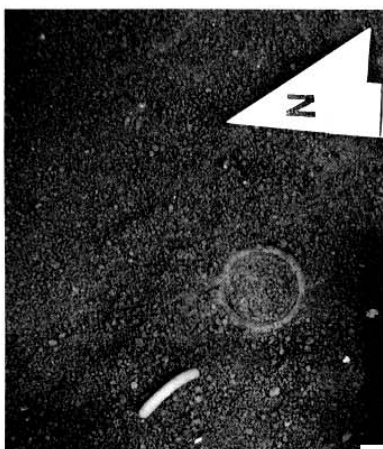
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Figure 6.2 -- Excavation of Squares KD and KC, facing south.



Figure 6.3 -- Recording burial 1 next to kiln 1.



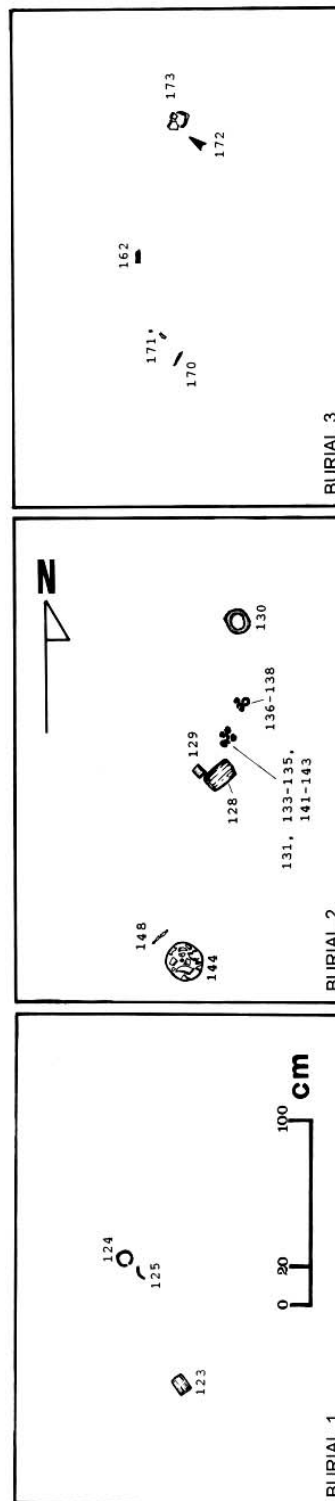
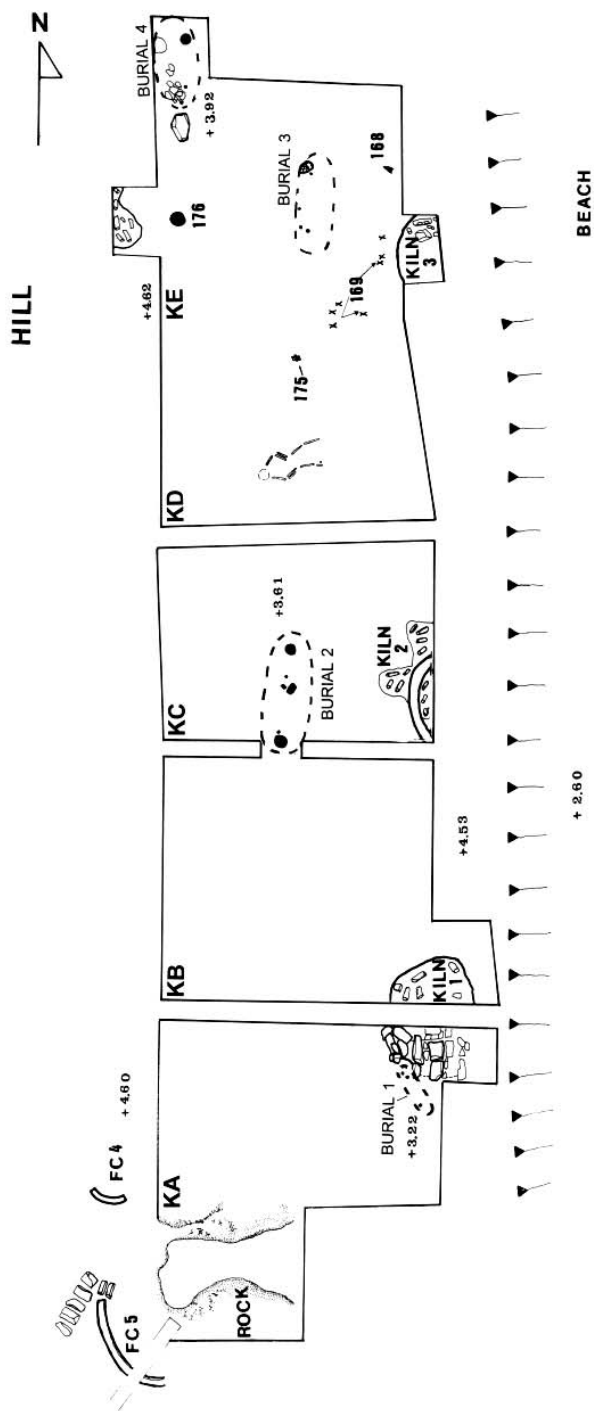
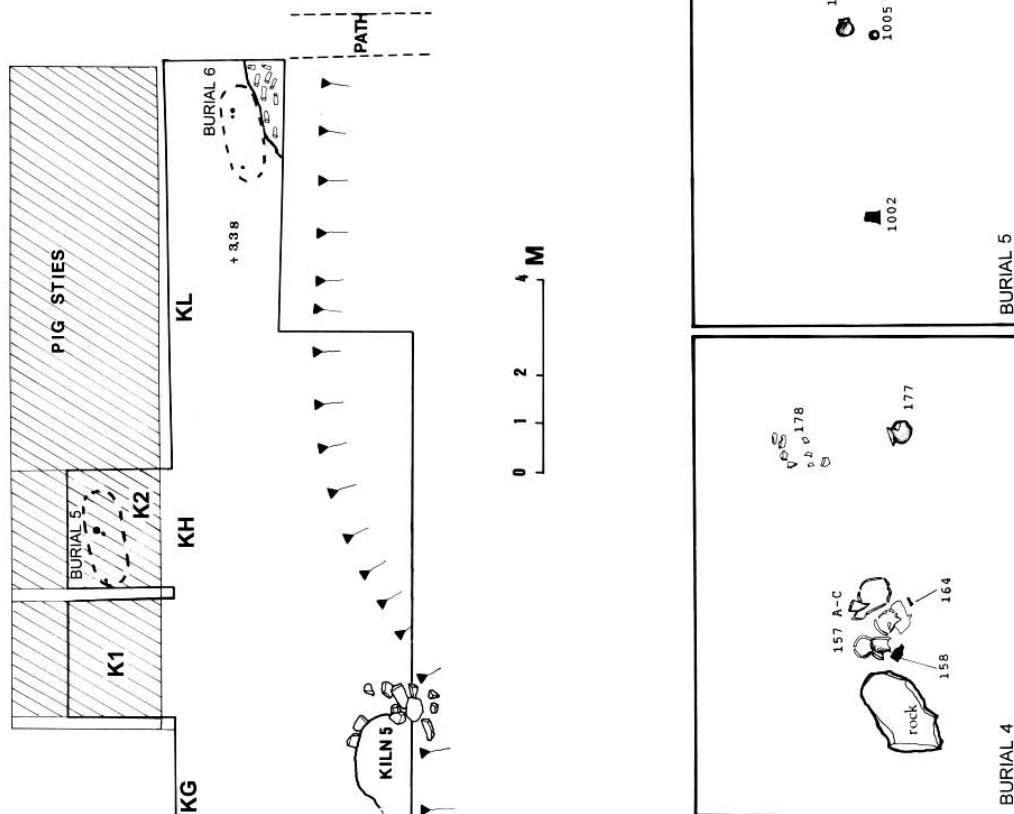


Figure 6.5 -- Excavation plan of Kwo Lo Wan lower with detail of each burial. (The gap between Squares KE and KG is one metre.)



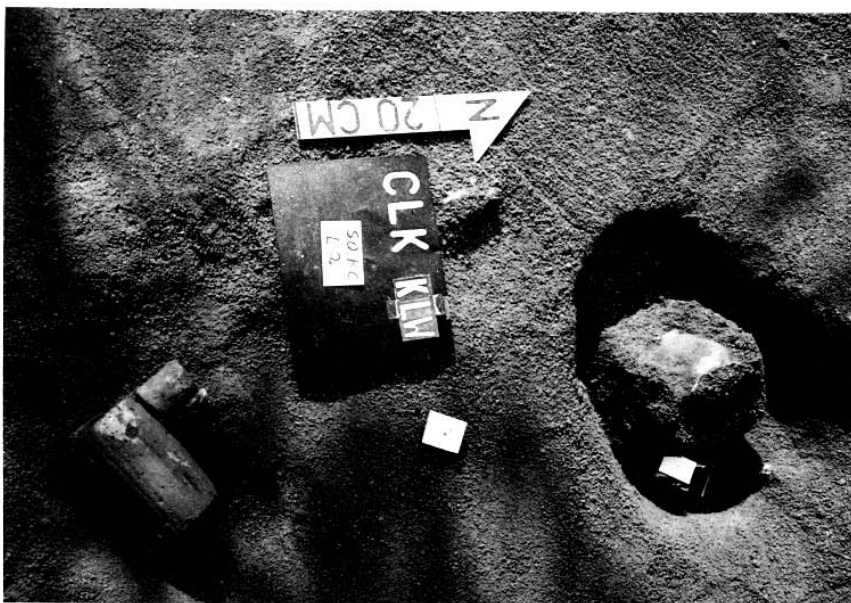


Figure 6.6 -- Burial 2 with KLV128, 129 and 130 in situ.

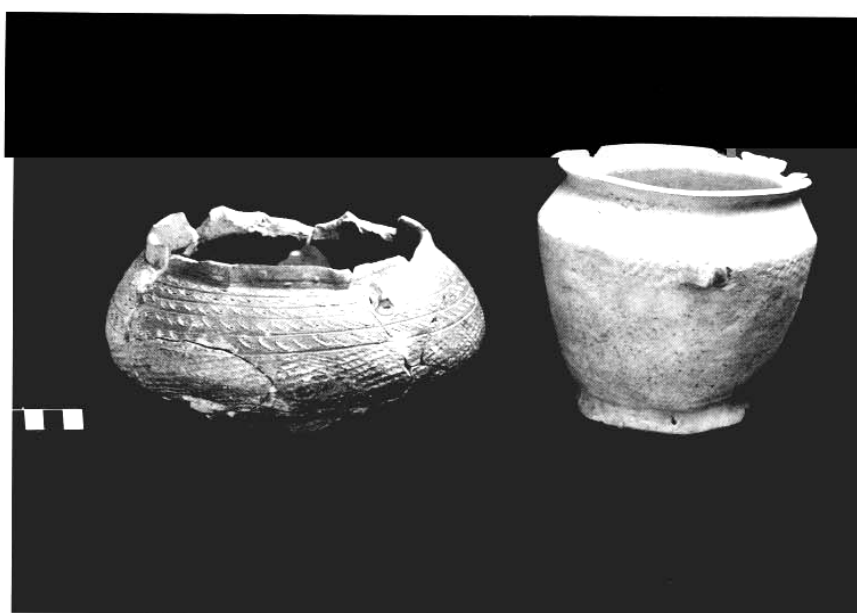


Figure 6.7 -- The two complete pots (KLV144, left, and 130) from burial 2.



Figure 6.8 -- The large axe mould (KLW128) with a plaster cast.



Figure 6.9 -- The axe moulds from burial 1 (KLW123) at left, and from burial 2.

BRONZE AGE BURIALS
KWO LO WAN LOWER

<i>Burial</i>	<i>Square</i>	<i>Catalogue No.</i>	<i>Catalogued Objects</i>	<i>Figures</i>
1	KA	KLW123 KLW124 KLW125	bi-valve mould slotted stone bracelet slotted stone bracelet	6.3, 6.9, 6.26 6.3, 6.32 6.3, 6.32
2	KC	KLW128 KLW129 KLW130 KLW131-138, KLW141-143 KLW144 KLW148	large bi-valve mould small bi-valve mould soft geometric pot cache of slotted rings hard geometric pot bronze point	6.6, 6.8, 6.26 6.6, 6.9, 6.26 6.6, 6.7, 6.20 6.28, 6.30 6.7, 6.19, 6.22 6.27, 6.36
3	KE	KLW162 KLW170 KLW171 KLW172 KLW173	bronze point polished stone point phalanged stone ring large pol. stone point coarse plain pot	6.27 6.33, 6.34 6.32, 6.34 6.33, 6.34 6.25
4	KE	KLW157A KLW157B KLW157C KLW158 KLW164 KLW177 KLW178	plain chalky vessel chalky foot-rim partial soft geom. pot adze adze coarse corded pot partial soft geom. pot	6.15, 6.16, 6.20 6.15, 6.16, 6.20 6.15 6.15, 6.35 6.15, 6.35 6.24 6.24
5	K-2	KLW1002 KLW1004 KLW1005	adze coarse spouted pot stone ball	6.13 6.13, 6.24 6.13
6	KM	KLW1020 KLW1027 KLW1028 KLW1029	glazed stem cup slotted stone ring unfired clay pot slotted stone ring	6.10, 6.11 6.10, 6.11, 6.32 6.10, 6.11, 6.24 6.10, 6.11, 6.32
7	KD	KLW175	cache of slotted rings	6.29, 6.31
8	KE	KLW176	soft geometric pot	6.14, 6.20
9(disturbed burial ?)	KE	KLW169 KLW168	double-f pot projectile point	6.18, 6.22 6.33, 6.34

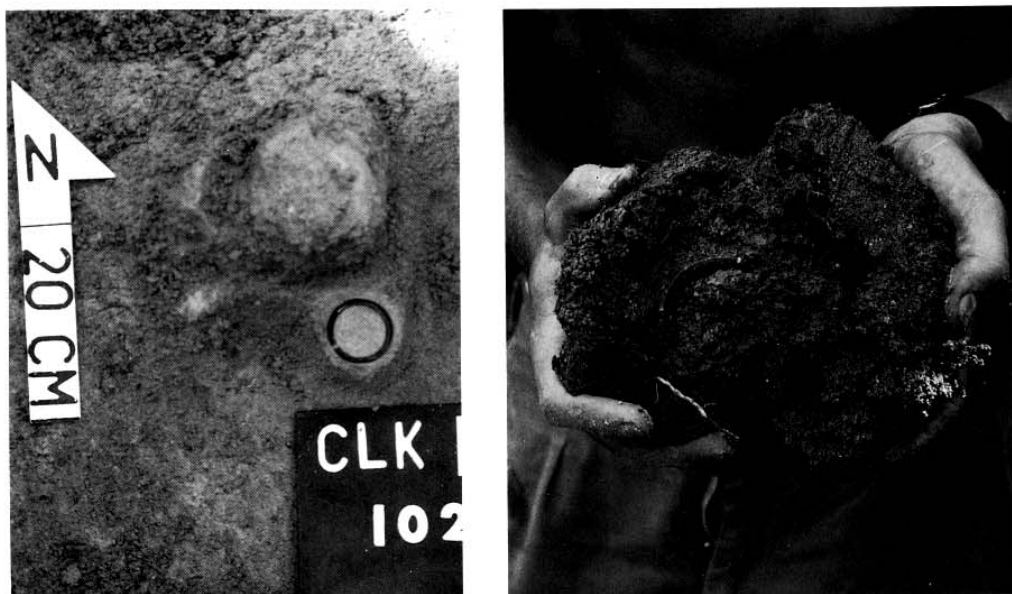


Figure 6.10 -- The stone ring and clay pot from burial 6 in situ (left), and another ring inside the pot.



Figure 6.11 -- The objects from burial 6.

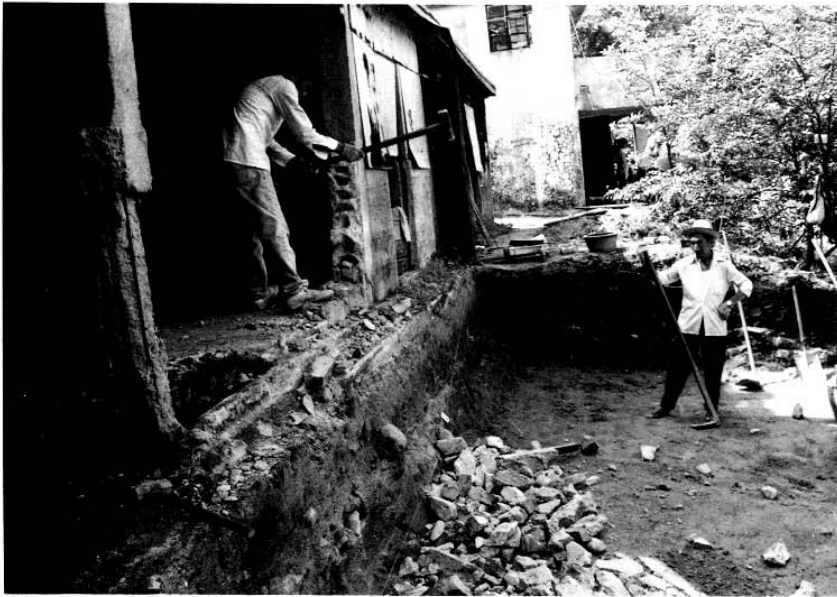


Figure 6.12 -- Demolishing the pigsties to open Squares K1 and K2.

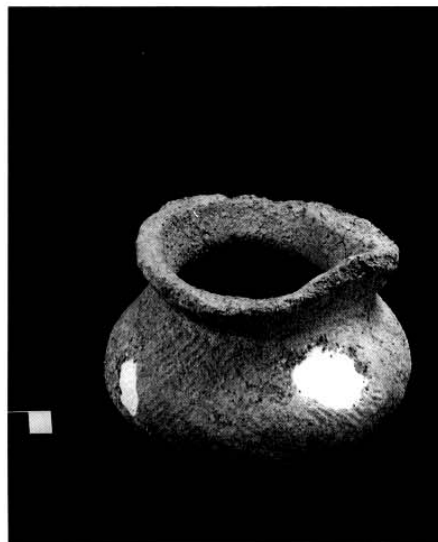


Figure 6.13 -- The objects of burial 5 in situ (left), and the coarse pot (KLW1004).

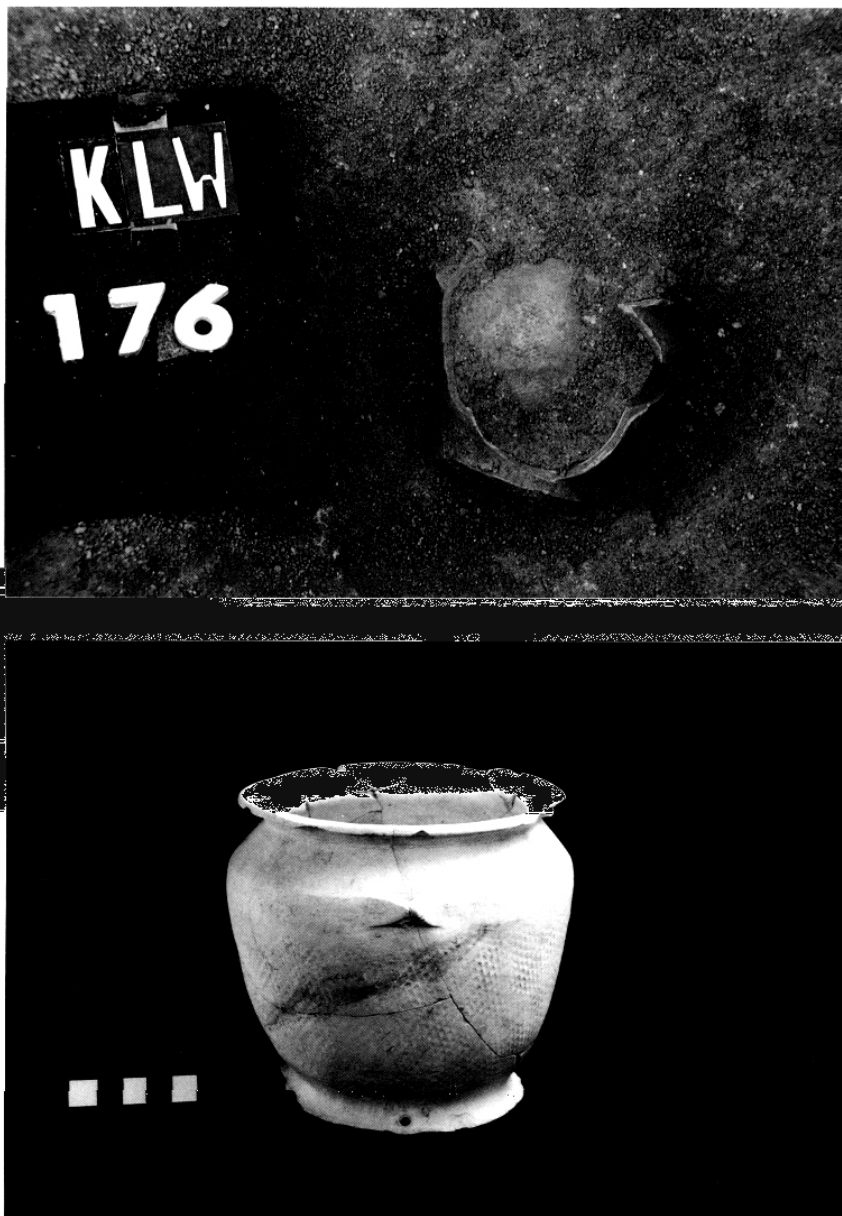


Figure 6.14 -- The soft geometric pot of burial 8 in situ (above) and in studio.

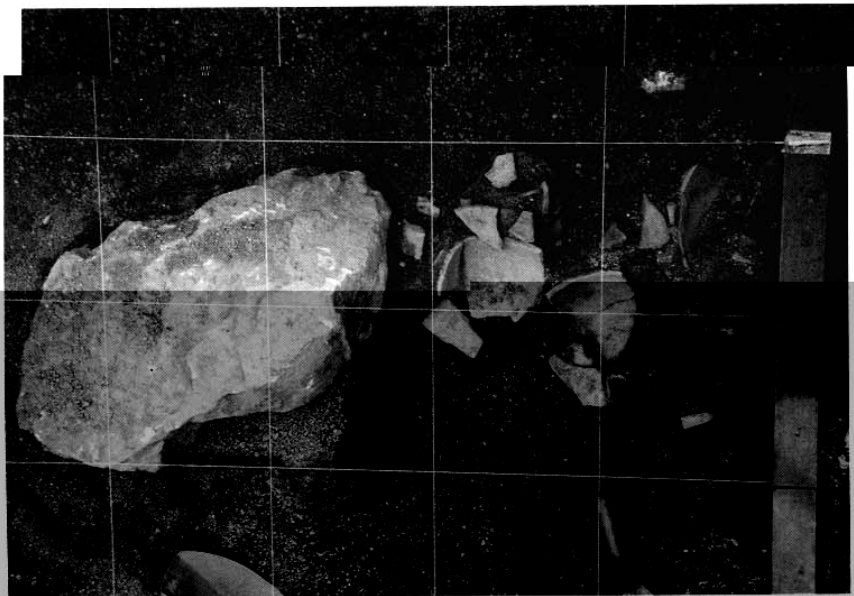


Figure 6.15 -- The cluster of pottery (KLW157A-C) and the two adzes (KLW158 and 164) of burial 4.



Figure 6.16 -- The chalky footrim (KLW157B) possibly recycled as a cup (left), and the plain chalky pot (KLW157A) from burial 4.



Figure 6.17 -- The activity layer in Square KE facing west. Burial 3 and 9 were among the rocks.

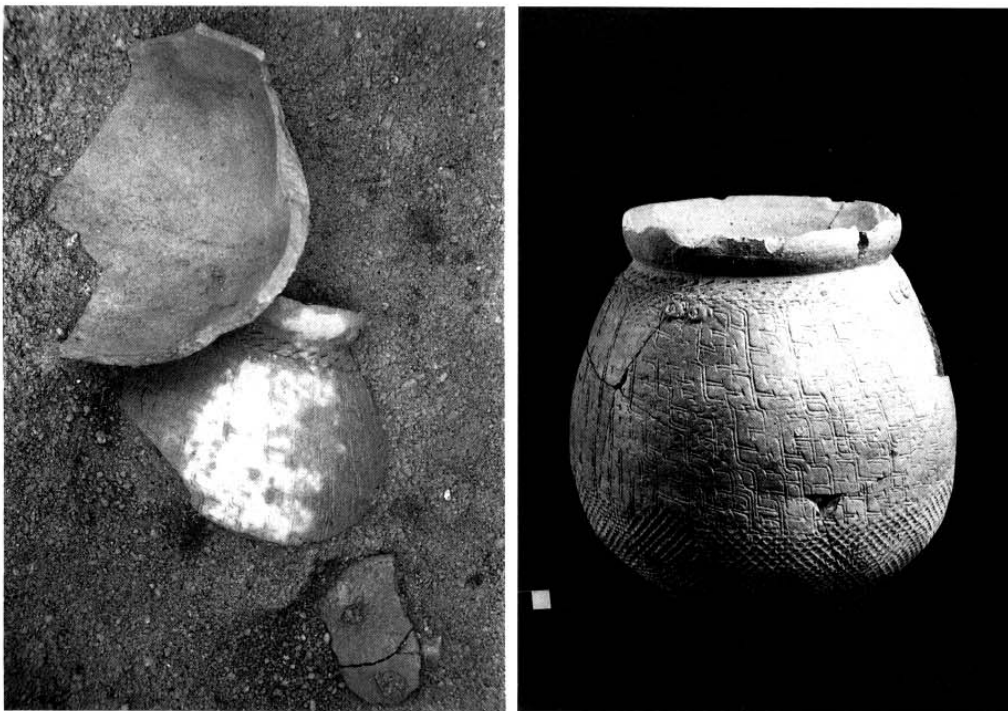


Figure 6.18 -- The double-f pot (KLW169) in situ and in studio.

168 and 169. The status of Burials 7,8 and 9 could be debated, since 7 and 8 consist of a single artifact or artifact-type, and 9 could possibly be explained as ordinary occupation debris. They might also represent ritual offerings not directly associated with a burial. But taking into account the obvious use of the site as a burial ground, it seems most likely that these complete artifacts also represent burials.

Four Tang lime kilns were discovered and partially excavated, and thick firebar deposits in two other areas suggest the presence of other kilns. None of the kilns discovered were well-preserved, and all had been sheared off with the terracing of the land. Each kiln had been cut into the Bronze Age deposit, and had early material up to within one metre of its wall. Kiln 1 was probably cut into burial 1 and some of the grave goods in that burial were probably lost.

Two groups of coins (the latest dating to the Sung period) were found in Square KM, and several pieces of Sung celadon were also found in the same square. The coins may represent a burial or a small cache. Finally, a 19th/early 20th century skeleton was uncovered in the middle of Square KD; its dating is based on a corroded brass or bronze alloy button.

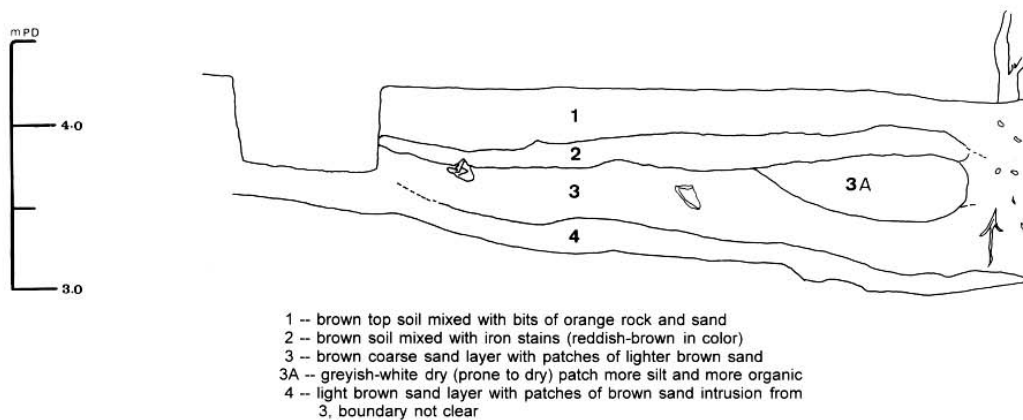
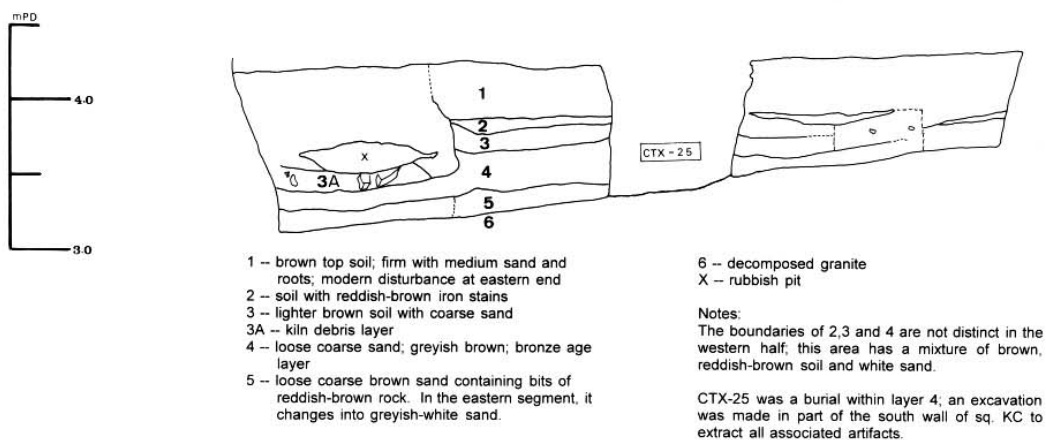
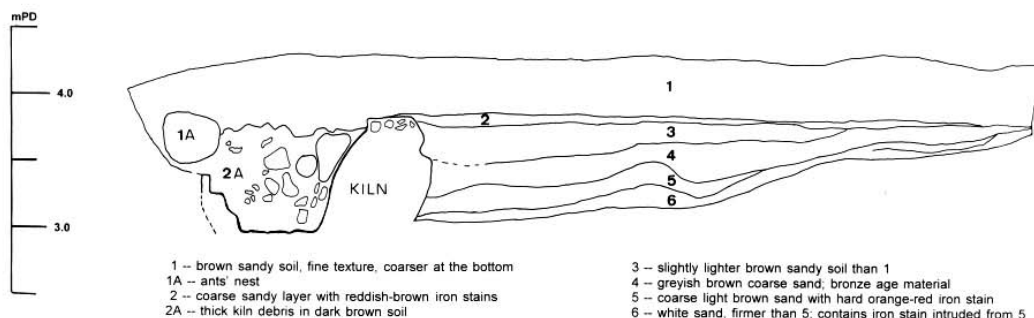
The stratigraphy observed at the site was relatively simple and clear; the Bronze Age material was in a brown or greyish brown coarse sand, sometimes with small pieces intrusive in the layer below. The Tang debris layer was probably disturbed by the terracing of the site, and either completely destroyed or sheared off. The fact that the kiln debris layer corresponds to the present top of kiln 1 suggests that the layer is not the original one, but a re-deposit of the kiln debris resulting from the terracing work. Regarding earlier activity on the site, it is abundantly clear that there is no cultural layer prior to the Bronze Age deposit. The sparse material from the layers beneath the main cultural deposit is identical to the material in the deposit, and no typical Late or Middle Neolithic pottery types were found on this site.

Figure 6.19 [opposite page] Stratigraphy profiles:

Above -- Profile of the south wall of Square KB.

Centre -- Profile of the south wall of Square KC. Note: CTX 25 was the cluster of sherds comprising the hard geometric pot (KLW144) in burial 2.

Below -- Profile of the north wall of Square KE.



Note: layers 1-3 indistinct at eastern end

DESCRIPTION OF MATERIAL FROM KWO LO WAN LOWER

The most dramatic finds were the grave goods, which included hard and soft geometric pottery, as well as coarse plain and corded ware. The hard geometric pots are all classical Bronze Age types, including the "double-f" style so well-known in Hong Kong and Guangdong, and stem cups with traces of glaze (KLW1020 and 165). The presence of soft geometric pots is surprising, given that on many Bronze Age sites there is no chalky pottery at all, except for a few mis-fired pieces of hard geometric. One should note however that none of the "soft geometric" pots or sherd clusters except for KLW157C and 178 are typical Late Neolithic types. The two exceptions have net-impressed bodies. From the activity layer only three sherds of soft geometric pottery were found. KLW157A, 130 and 176 are very unusual pots and have no equivalents in either Bronze Age or Late Neolithic assemblages from Hong Kong. 130 and 176 are almost identical, with faint traces of net impressions which have been smoothed out. The perforations in the footrim of each pot are directly under the small lug handles, and might suggest they are for tying up the pot, perhaps with a cover. The lug handles seem however to have supported the weight of the pot if strung up in the manner suggested.

The coarse ware from the activity layer is marked by coarse geometric ware with patterns and shapes common on local Bronze Age sites. There is a higher proportion of coarse plain ware than usually seen. The coarse ware is otherwise unremarkable except for one aspect: the sharply carinated shoulder seen in a few examples. None were

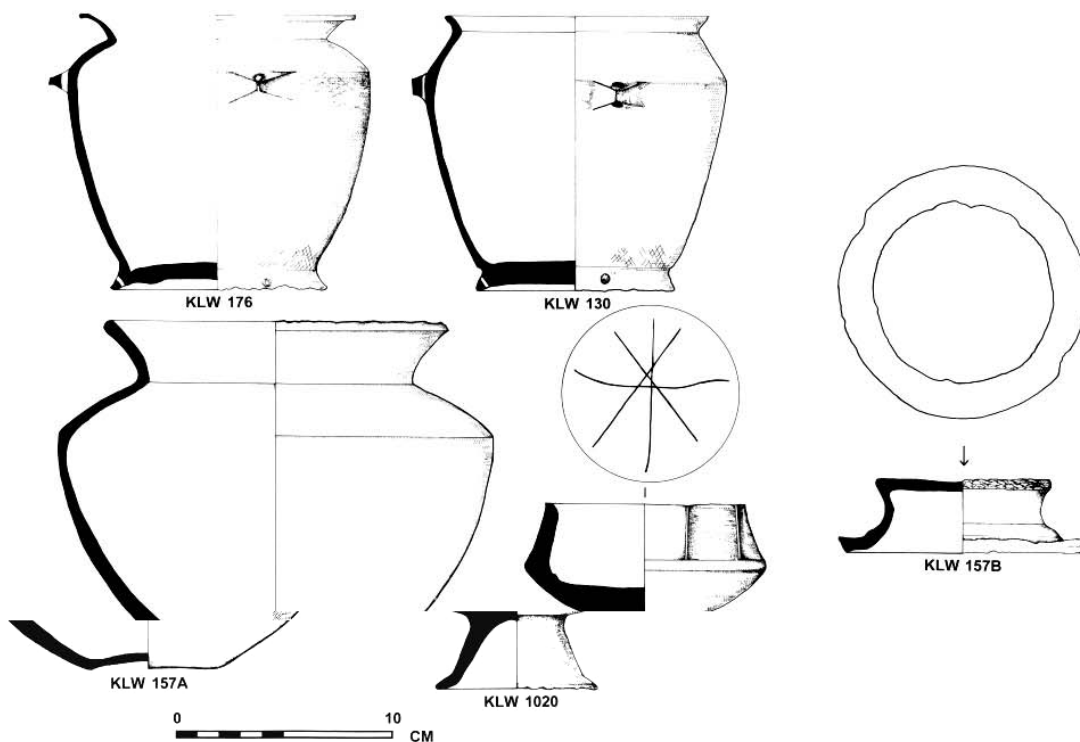


Figure 6.20 -- Chalky ware from the burials.

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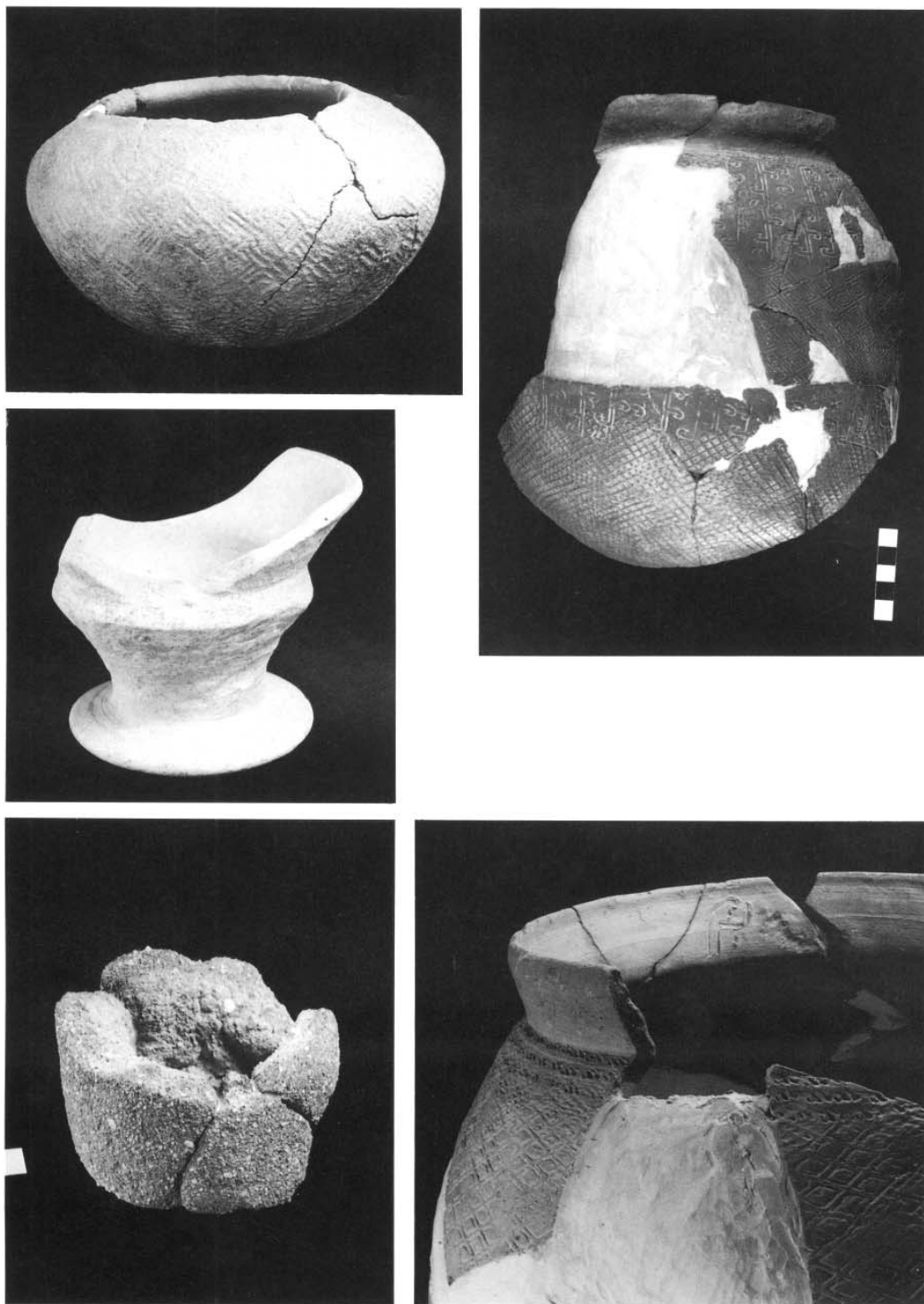


Figure 6.21 -- Coarse and hard geometric pottery from the activity layer; the "crucible" (KLW1001) is at lower right.

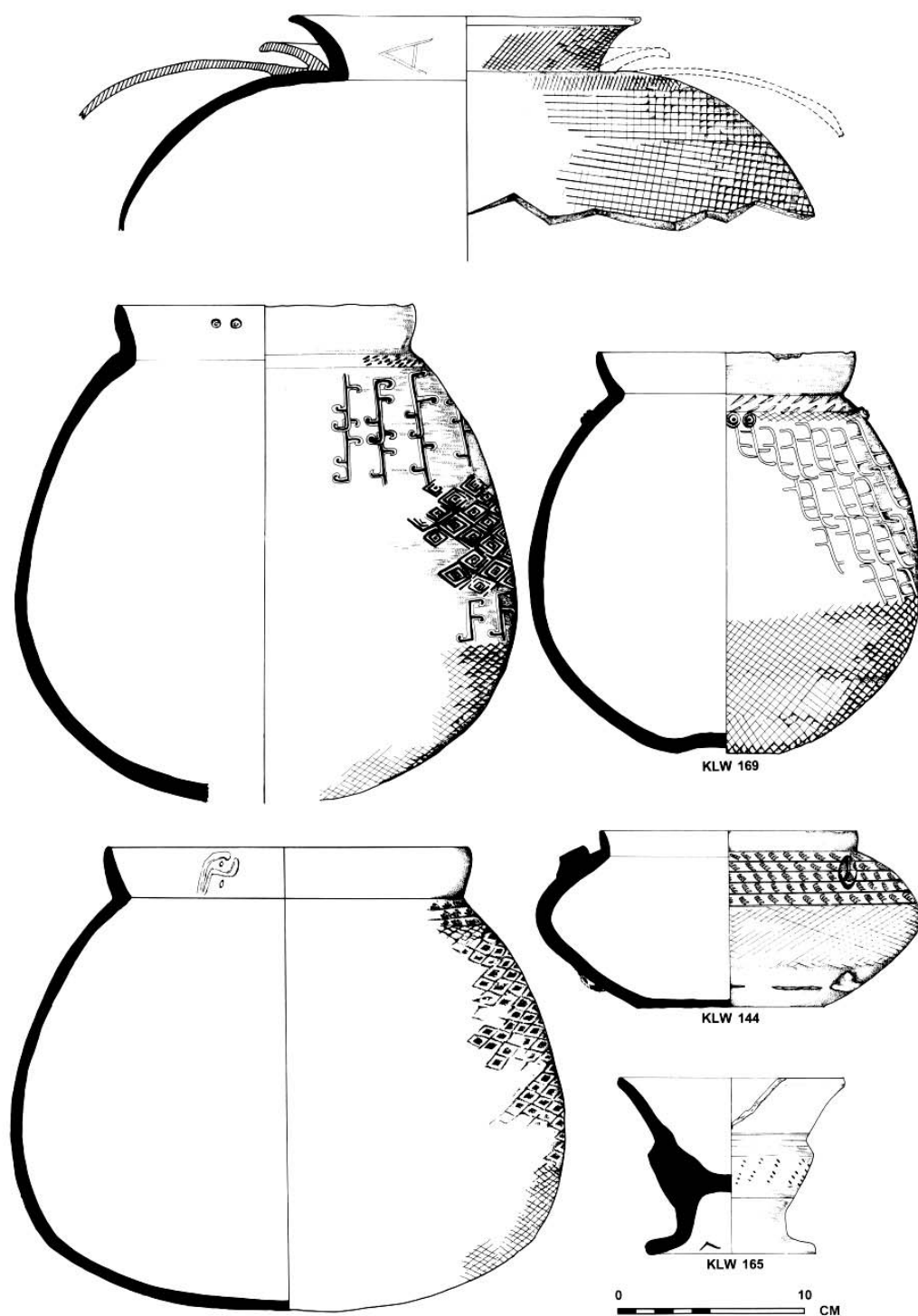


Figure 6.22 -- Hard geometric pottery from the site; the top piece is deformed from a kiln accident.

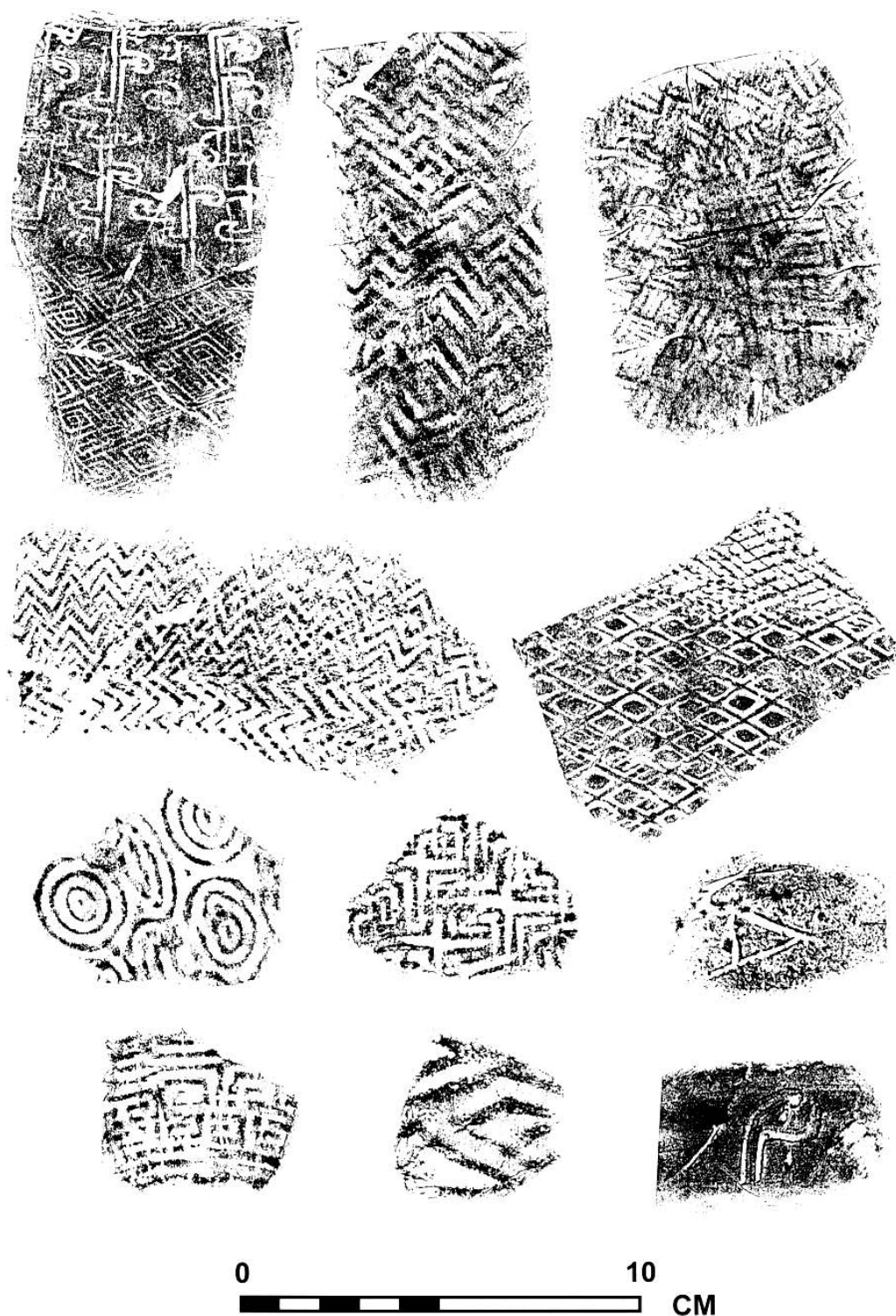


Figure 6.23 -- Patterns on coarse and hard geometric pottery; two at lower right are potter's marks on the inside of the rim.

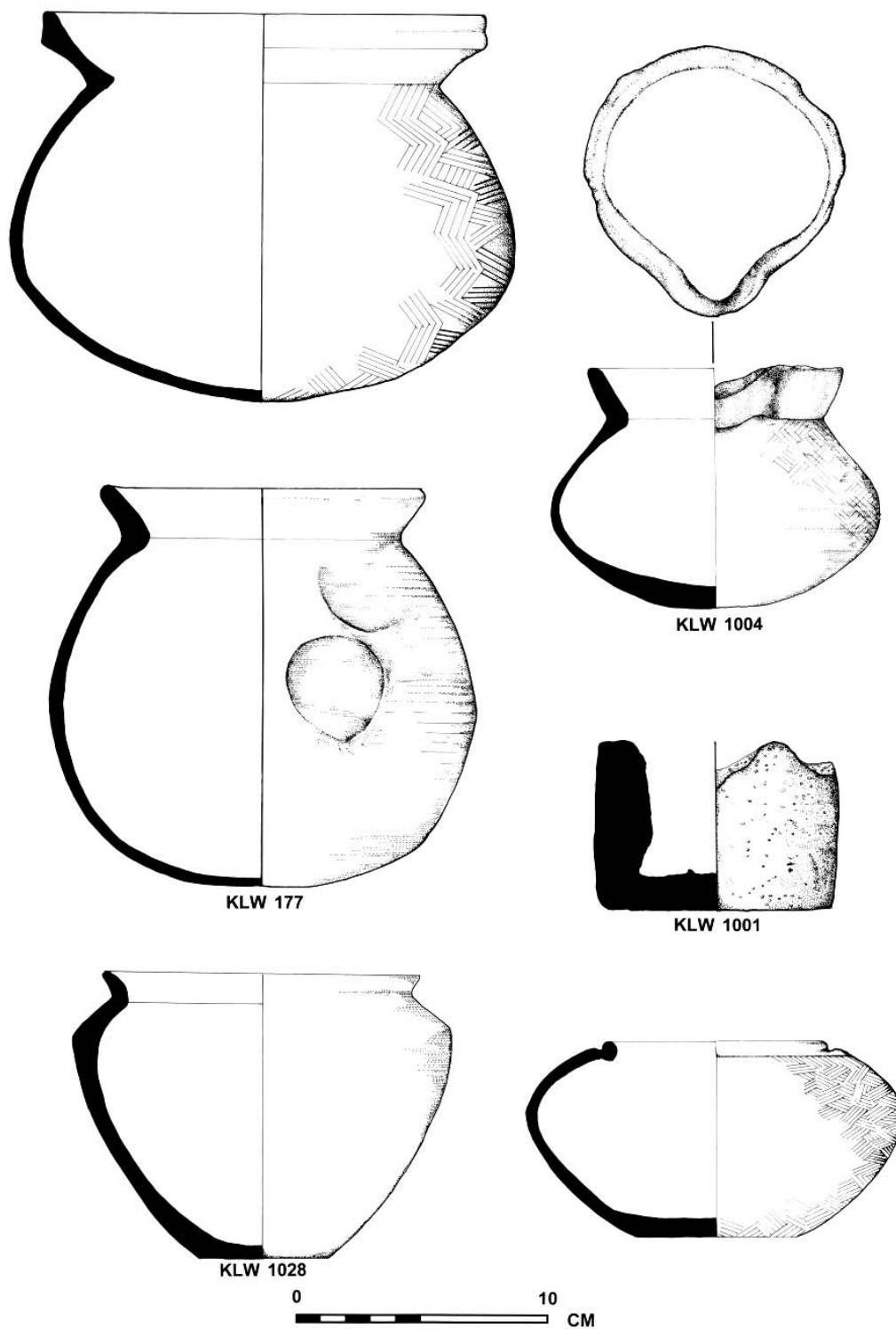


Figure 6.24 -- Coarse geometric and plain pottery from the site.

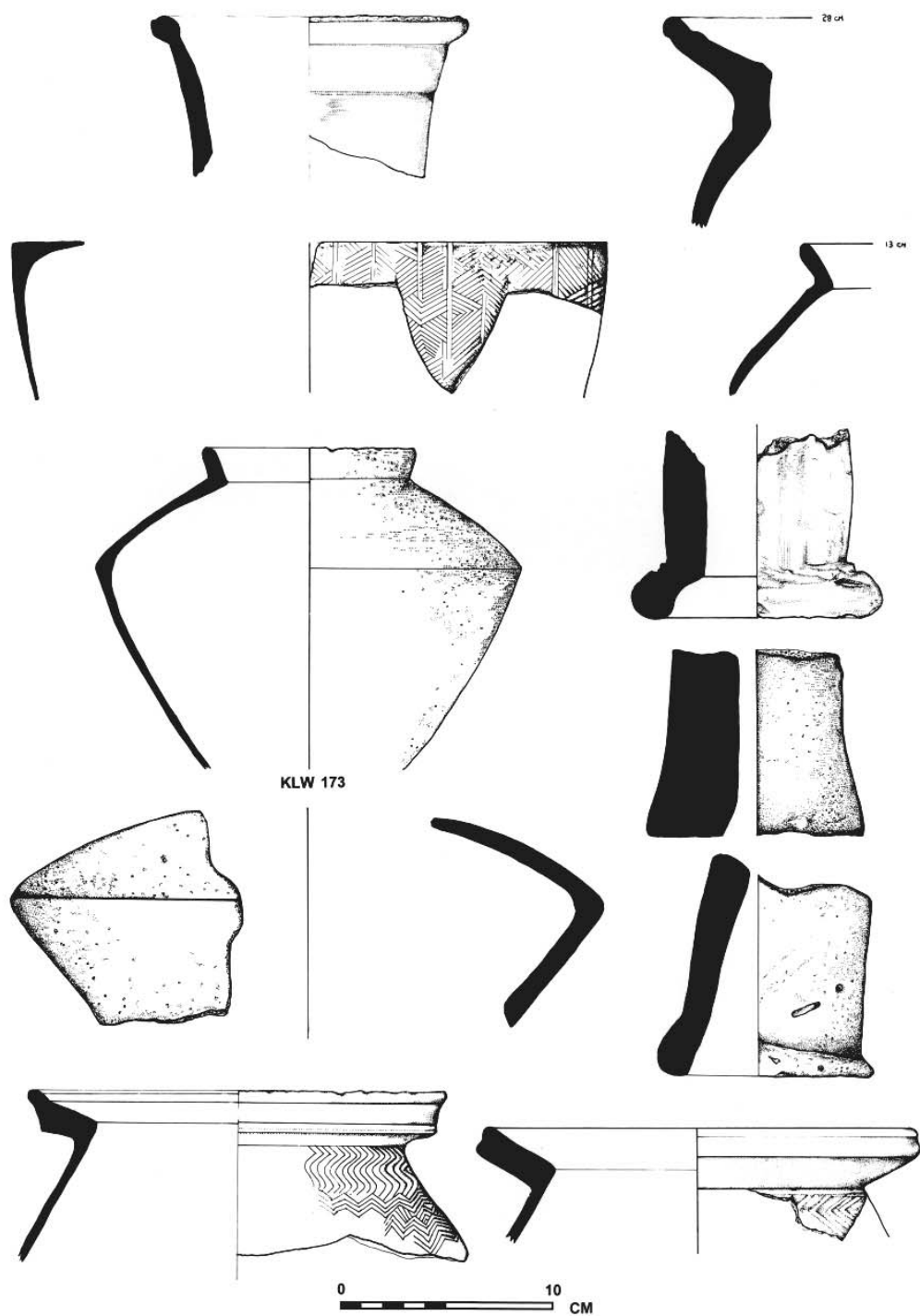


Figure 6.25 -- Coarse geometric and plain pottery and potstands from the site.

restorable completely to the neck or rim, but a reasonable guess can be made about their shape. This type also has not been seen in Late Neolithic assemblages. Conversely, no typical Late or Middle Neolithic rim types were found.

Two coarse pieces deserve special note: K LW1001 and 1004. Although no traces of metal were found inside either piece, they may have been used or intended for use in the casting process. K LW1001 may have been a crucible, and its very rough and ragged interior may have been gouged out after each use.

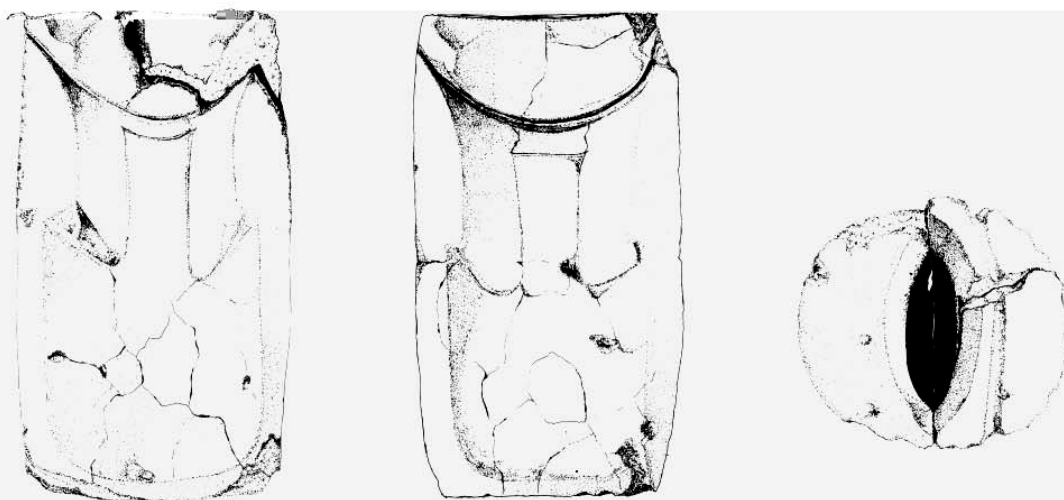
Bronze consisted of two artifacts: one a complete "assegai" point well known from the region; the other is a sophisticated projectile point or small dagger of an unusual style. Unfortunately it was very fragmentary and could not be fully reconstructed. Attached to one of the fragments was a piece of cloth (described in the following section), which suggests that the burial objects and perhaps the corpse as well were laid out on a cloth.

The three pairs of bivalve axe moulds are an extraordinary discovery, unique in the South China coastal region. Each pair must have been bound prior to being placed in the burial, and were no doubt intended for bronze casting in the after-life. The smaller and middle-sized pair would have produced axes similar to some specimens found in the region, whereas the large pair represent a new type of bronze artifact here. Each pair of moulds was in good condition, and could probably be used for casting bronze today. Exactly how they were bound up is not clear, nor is the purpose of the shallow grooves on the outside of two sets longitudinal to the mould. The pronounced groove on one of the large moulds probably served to strengthen the binding which would have been wrapped around the circular mould set. With simple string binding, a plaster cast was made from each pair with no leakage of the plaster.

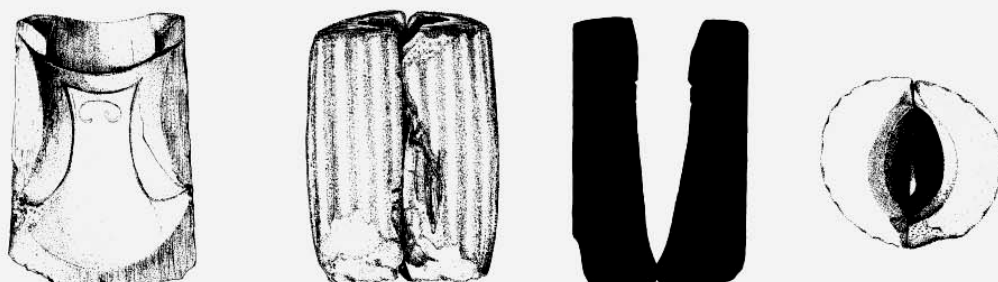
Among the stone artifacts, the ring sets are the most interesting (see Figures 6.28 to 6.32). The group K LW131-143 are all made of a beautiful agate or marble not found in Hong Kong. The first five descend in size from the largest, while the last five (including the small fragment) consist of two and three of the same size. The group K LW176 consist of two large black volcanic stone rings of the same size, three intermediate black stone rings of the same size, and three agate or marble rings of different sizes. The two pair of black stone rings or bracelets both have a slightly larger and smaller one; K LW1029 fits precisely inside 1027, and may have been made from the core drilled out when 1027 was made. Some stone ring working was done on the site, as witnessed by the rings cores found in the activity layer and a cache of six chipped stone discs (roughouts for rings) of various sizes. The phalanged ring K LW171 is a typical Bronze Age type known from other sites in Hong Kong.

The stone projectile points are of types common in both Late Neolithic and Bronze Age, and the adzes are largely similar to Middle and Late Neolithic types. The stepped and shouldered adze (see Figure 6.35) is the only one which is a truly Late Neolithic type. The rectangular adze K LW1002 is the only one that can be said to be a new Bronze Age style. Also found were grooved and concave polishing stones, pebble grinders, pitted pebbles, and notched pebbles -- all types common through the Neolithic. One very well-flaked pebble tool was also found.

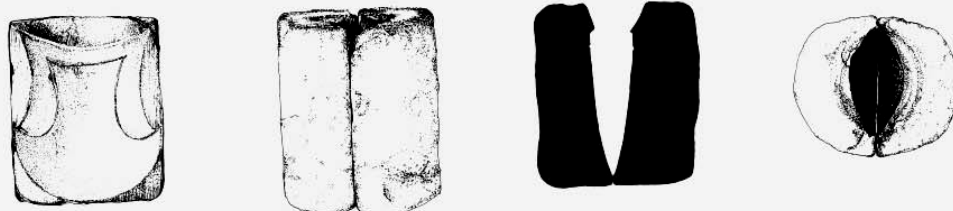
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KLW 128



KLW 123



KLW 129



Figure 6.26 -- The three pairs of sandstone bivalve moulds.

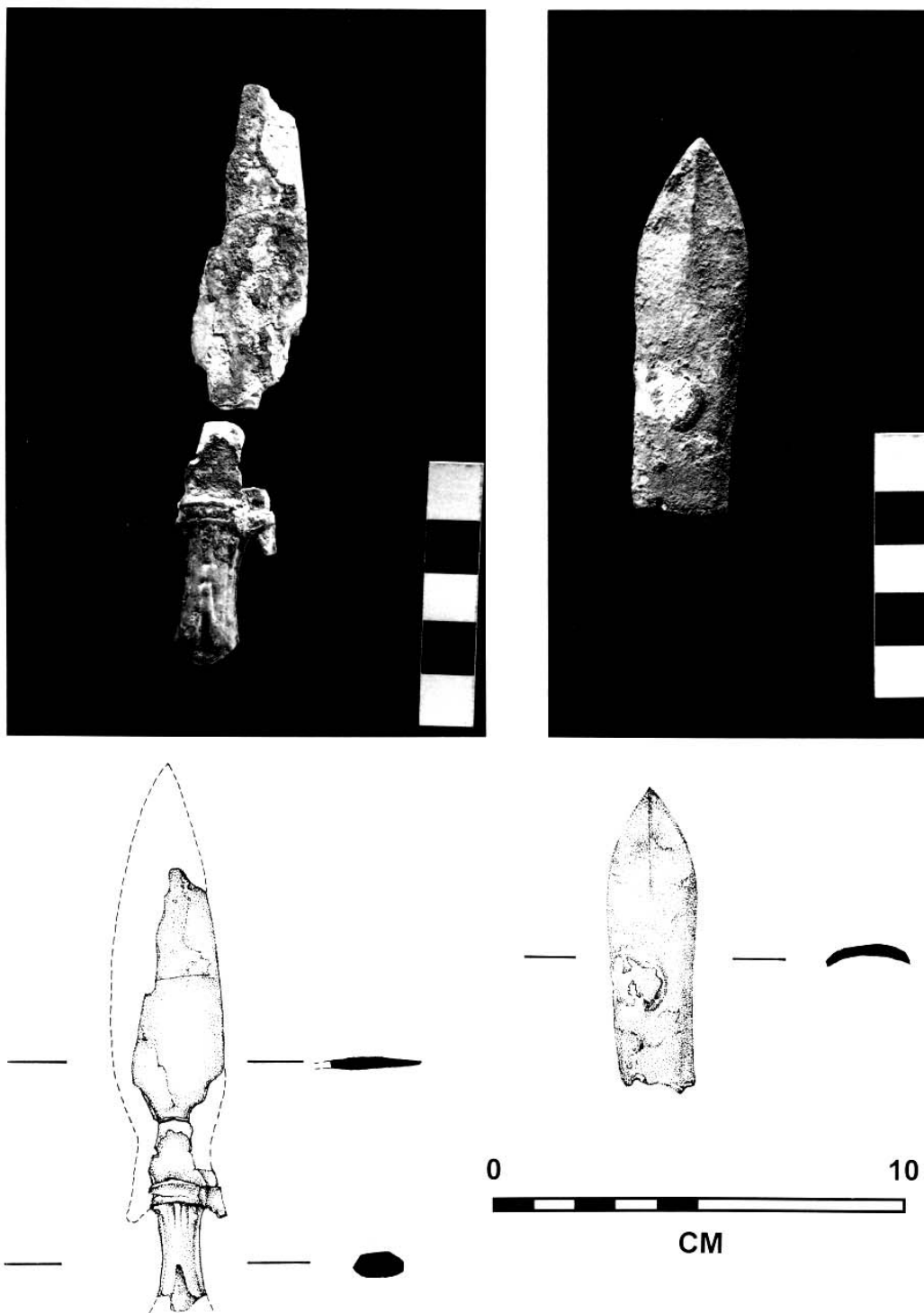


Figure 6.27 -- The bronze artifacts from the burials (KLW148 at left and KLW162 at right).

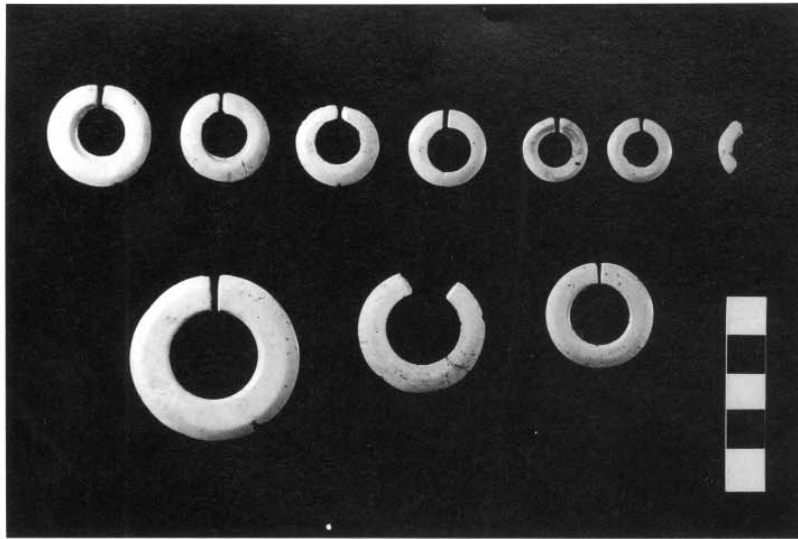


Figure 6.28 -- The cache of rings (KLW131, 133-35, 141-43) from burial 2.

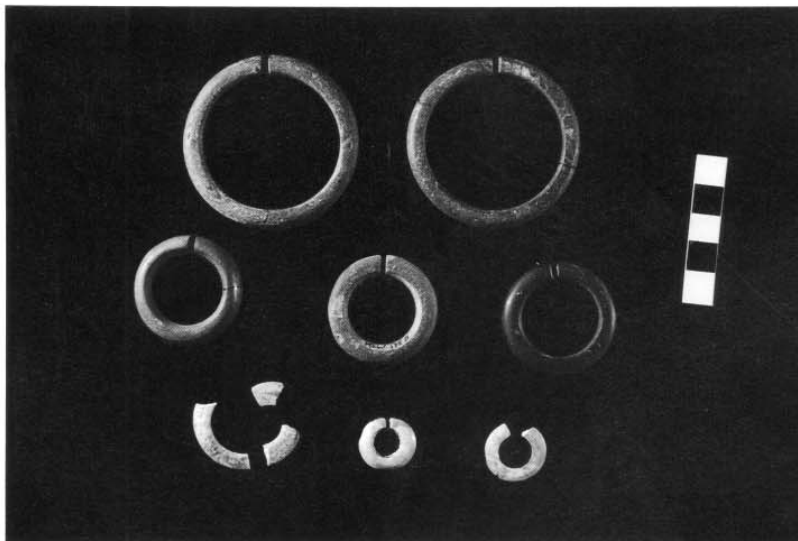


Figure 6.29 -- Cache of rings (KLW175) from burial 7.

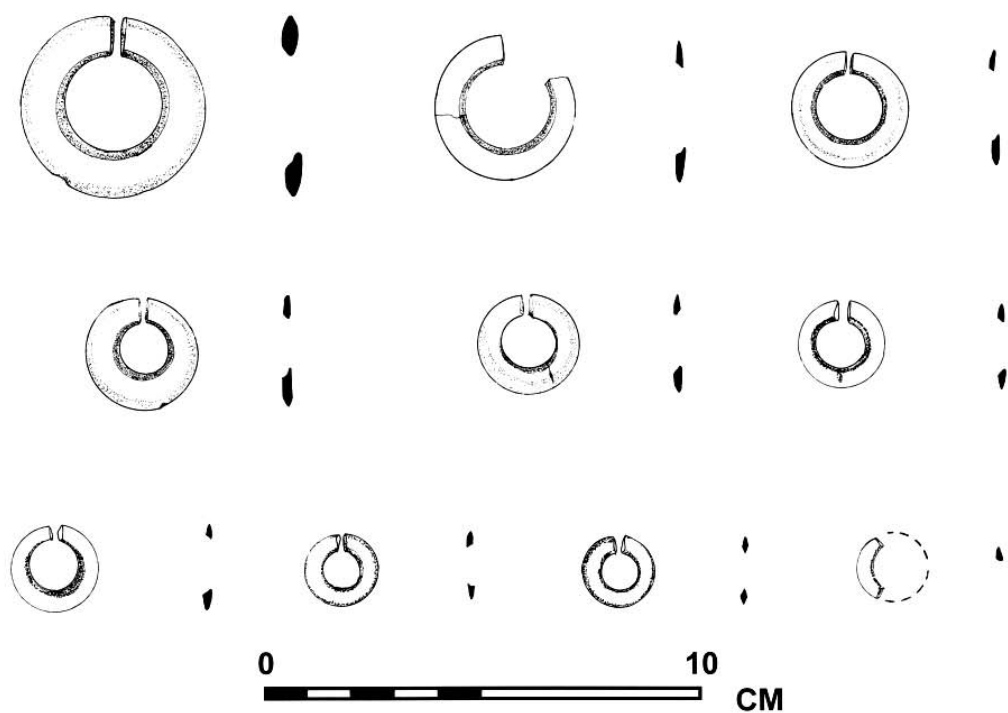


Figure 6.30 -- The cache of rings from burial 2.

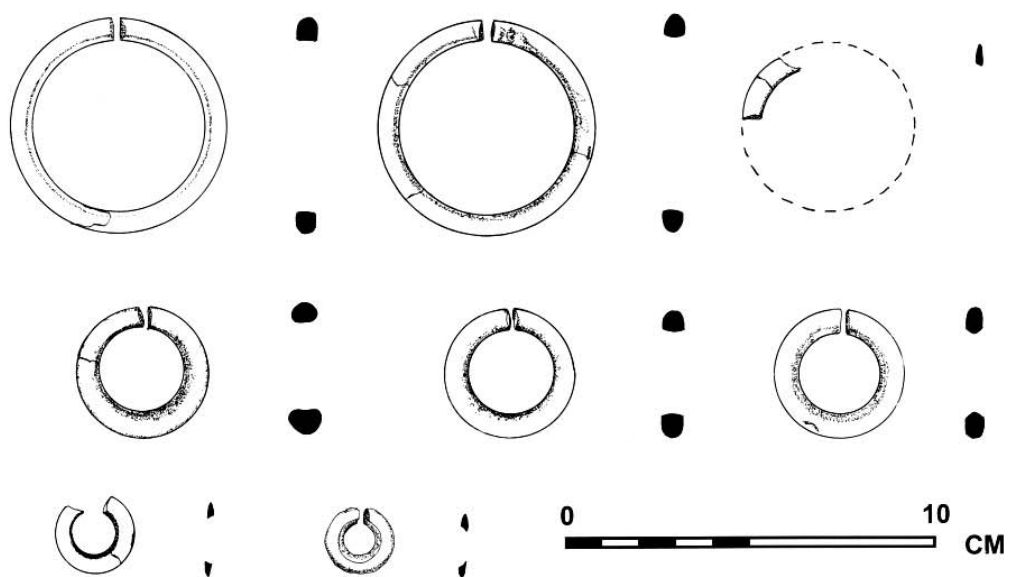


Figure 6.31 -- The cache of rings from burial 7.

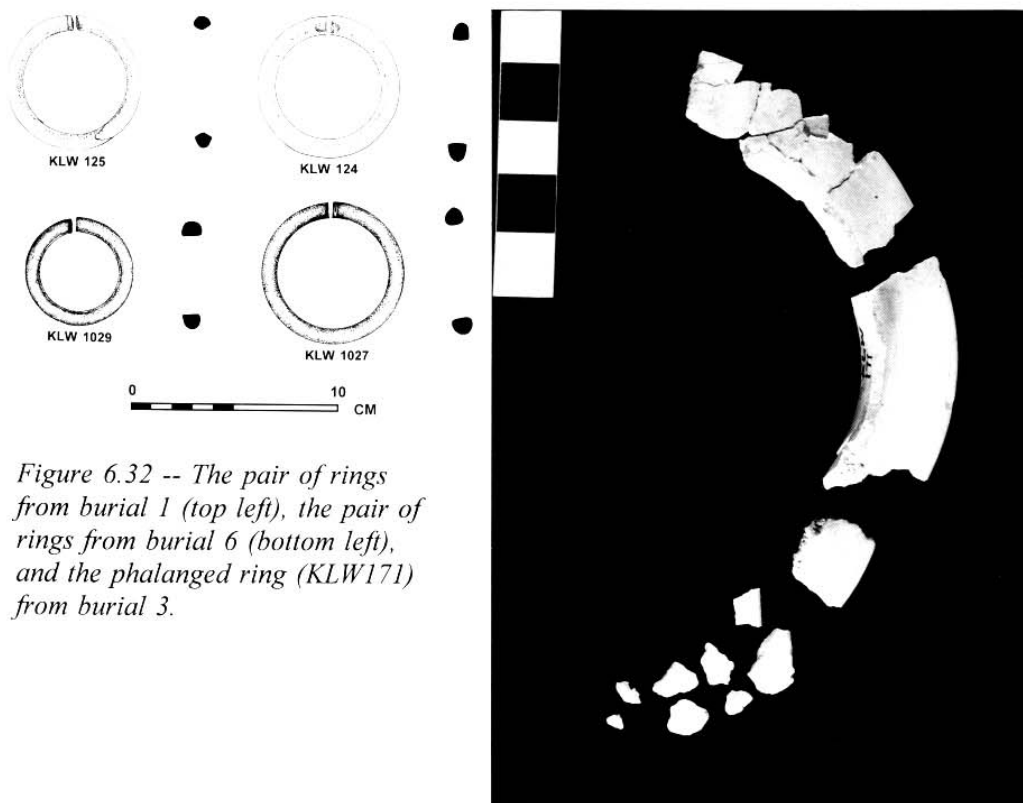


Figure 6.32 -- The pair of rings from burial 1 (top left), the pair of rings from burial 6 (bottom left), and the phalanged ring (KLW171) from burial 3.



Figure 6.33 -- Stone projectile points (left to right: KLW 168, 170, 172).

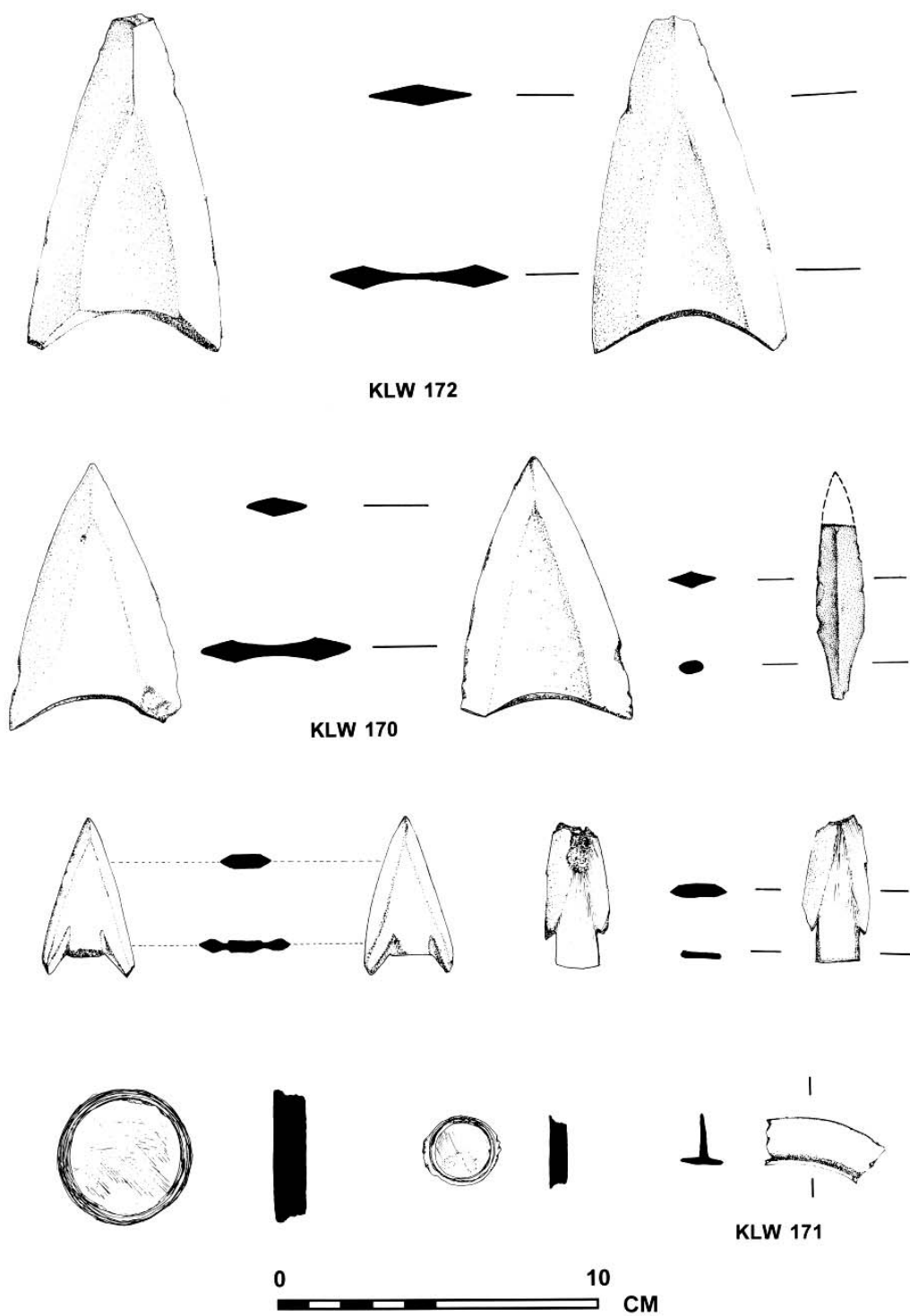


Figure 6.34 -- Stone projectile points, ring cores and the phalanged ring.

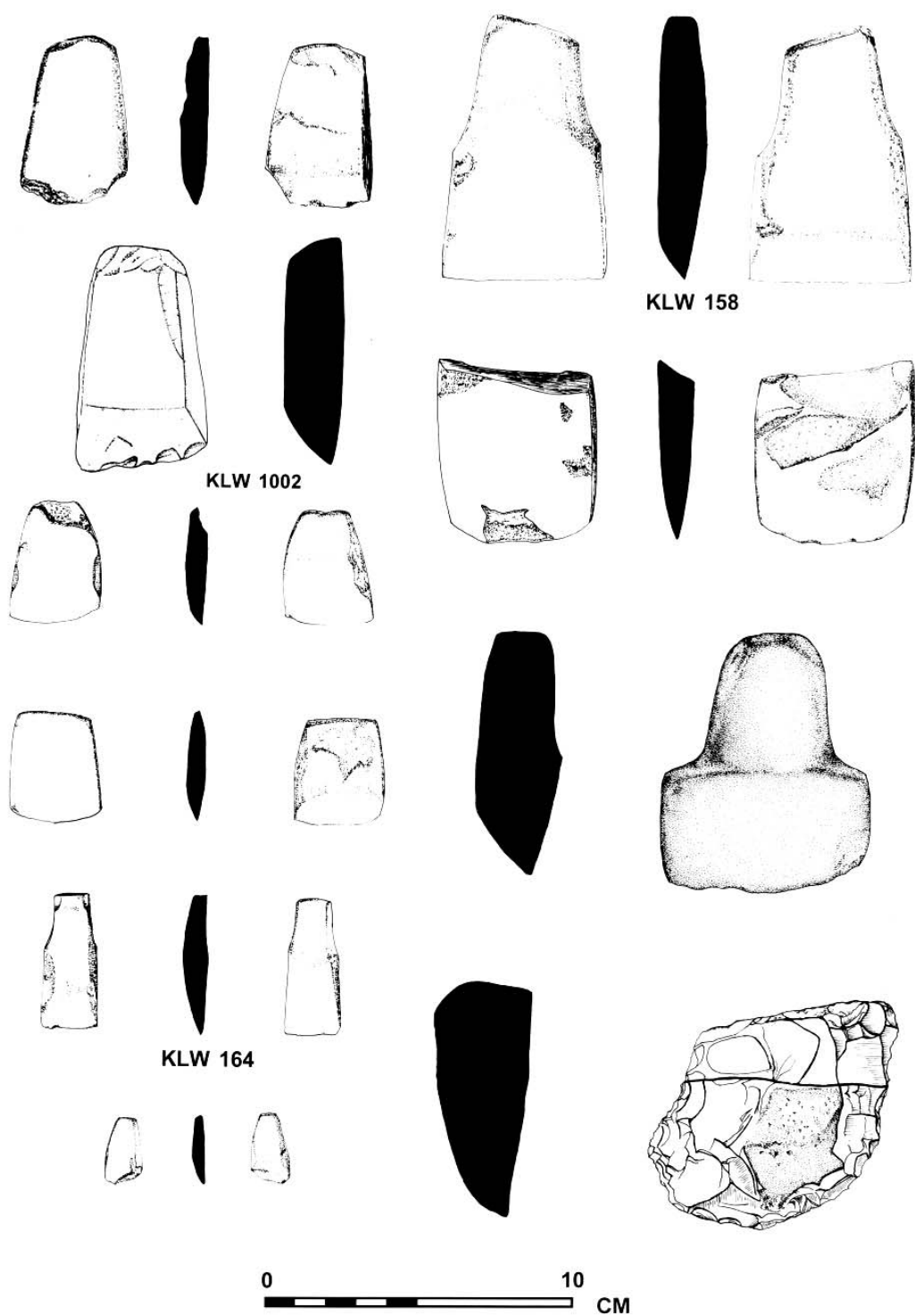


Figure 6.35 -- Stone adzes and a chipped pebble tool from the site.

The Tang and Sung sherds were all of common types. The first coin cache consisted of four Tang kai-yuan coins and one Sung Cheung-fu coin dating 1008-1016 A.D. The other cache had eight coins fused together, and upon separation one could not be read. Six were kai-yuan and one was Sung Tin-hei, dating 1017-1021 A.D. Both caches probably belong to the same event, dating shortly after 1021 A.D.

ANALYSIS OF MATERIAL FROM KWO LO WAN LOWER

Three samples of charcoal from the Bronze Age layer were sent for C-14 dating, with the following results:

Square KB, L4 -- 2840 \pm 60 (BETA-45149), calibrates to 1253-847 B.C.
Square KA, L4 -- 3020 \pm 70 (BETA-46868), calibrates to 1430-1040 B.C.
Square KE, L3 -- 3220 \pm 80 (BETA-60794), calibrates to 1677-1311 B.C.

These results are internally consistent, and indicate an occupation of the site around 1300-1000 B.C. While the charcoal was found in small concentrations not related to the burials, it seems likely from the nature of the deposit that the activity layer in which the charcoal occurs and the burials are contemporaneous.

The fragment of cloth was examined by Dr. David Clarke of the Government Forensic Laboratory. Cross sections of the fibers had a close similarity to hemp. The long section had some characteristics in common with jute, but the overall assessment was that the morphology was closer to hemp than jute. The piece was also examined by textile experts at the Hong Kong Polytechnic, and they noted that it has a two-to-one weave. It is not a simple or primitive textile, and compares favorably with some examples of Han cloth.



Figure 6.36 -- The fragment of cloth which was adhering to the bronze projectile point K LW148.

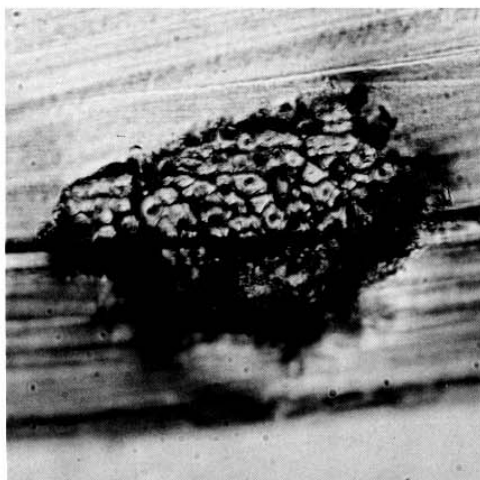
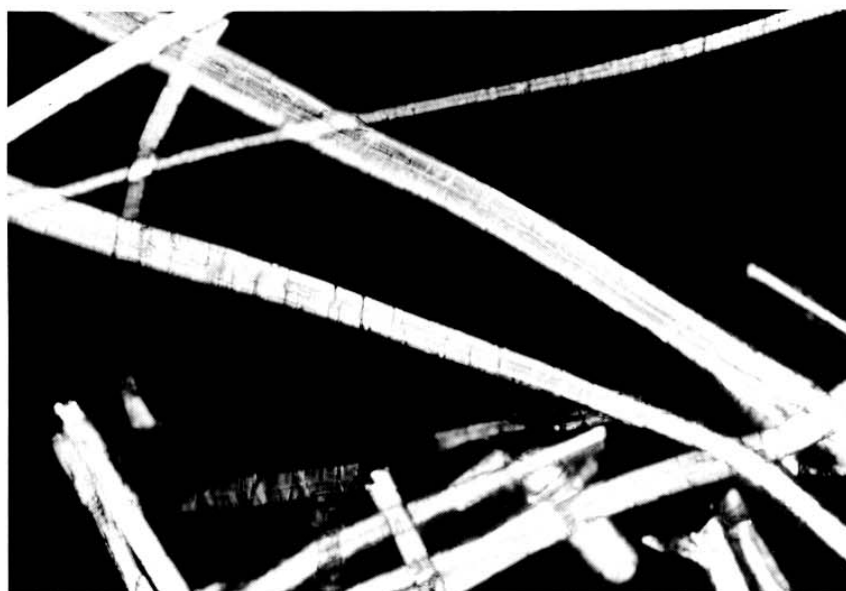


Figure 6.37 -- Cross-section at 400X of one of the fibres (at left) and some of the fibres at 200X (below).



DISCUSSION OF THE KWO LO WAN LOWER SITE

This site was discovered through a fortunate set of circumstances, it is in an unusual setting and it has only a narrow strip of deposit. Yet it has yielded some unique and very important data for Hong Kong archaeology.

Of greatest importance are the axe moulds. Clearly the people who used this site as a burial ground had an advanced knowledge of metallurgical technology, and (fortunately) believed that this technology might be needed by the deceased in the after-life. It is possible that the site was also used for casting activity, though there is little evidence for this apart from the possible interpretation of two coarse vessels as crucibles.

The dating of the Bronze Age occupation at 1300-1000 B.C. is significant, and leaves no room for doubt about the presence of a well-developed Bronze Age early in this region -- a notion sometimes disputed by a few traditionalist-minded archaeologists. The three C-14 dates come from the activity layer with hard geometric pottery and other ware types exactly the same as found in the burials. All evidence points to the conclusion that the burials are part of and contemporaneous with the activity layer; if any other interpretation were to be offered it would be that the burials were *earlier* than at least part of the activity layer, since the complete double-f vessel KLW169 was probably in a burial which was disturbed by subsequent activity on the site. If the burials were shallow, it is not difficult to imagine that subsequent activity on the site could have disturbed some of them, and resulted in the formation of a sparse deposit in the same loose sand in which the remaining burials survived intact.

There is no Late Neolithic deposit on the site, so it cannot be argued that the C-14 dates derive from charcoal from an earlier occupation. One might use the "old wood" argument to discount a single C-14 date that was earlier than expected, but the series of three internally consistent dates from this site seem to have no other explanation than the obvious one -- that they relate to charcoal from the Bronze Age activity layer and provide a reasonable estimation of its age.

It is clear, from the data provided by this site, that medium-fired geometric chalky pottery continued to be made in the Bronze Age, although with different shapes from the previous period. Perhaps this pottery served as a substitute for the hard geometric pottery for burial purposes, and the unfired clay vessel KLW1028 with polished ring inside would tend to support the notion that very simple pottery was sometimes used, for economy or other reasons. But judging from the enormous quantity of hard geometric potsherds found at other sites, it would not appear to have been in short supply.

The two pairs of black rings or bracelets are reminiscent of the many Late Neolithic burials at Yung Long, most of which contained two quartz rings. The sets of rings are similar to other caches of slotted rings, notably the 14 rings of graded sizes from another Bronze Age burial at Hai Dei Wan, which also had a "textile" -- straw matting adhering to a bronze axe (Williams 1980:47,49).