

Middle and Late Neolithic at "Yung Long South"

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The Site

Archaeological remains were first discovered at Yung Long in 1974 by members of the Hong Kong Archaeological Society, during a general survey of the Black Point and Lung Kwu Tan area, west of Castle Peak. Several coarse and soft geometric sherds were found, as well as fragments of polished stone tools. During the Government-commissioned archaeological survey of Hong Kong in 1982-85, two small test pits were excavated in the central part of the site, and it was claimed (rather rashly) that remains of Late Neolithic pottery kilns had been found [Peacock and Nixon 1988:25-36]. Minor damage to the site by a contractor led to an excavation in 1986 organized by the same archaeologist who had conducted the survey. Although grand claims were made concerning the importance of the site as a pottery kiln complex, the excavation failed to provide any conclusive evidence on the function of the firing areas and fired clay remains claimed to have been parts of small pottery kilns and kiln furniture.

In early 1992 it was announced that the site was required by China Light and Power Co. for a massive new power station. In spite of the very limited testing and excavation previously carried out on the site, it was deemed to be of major importance. A large-scale rescue operation was planned, and carried out by two independent teams from the Hong Kong

Archaeological Society and the Antiquities and Monuments Office. As this operation unfolded it became increasingly apparent that the site was one of considerable significance, even greater than previously believed, and a further phase of excavation was conducted.

As part of the overall archaeological salvage programme for the site, the Hong Kong Archaeological Society was commissioned to investigate the southern areas. These consisted of a sand bar behind the present beach, a low-lying valley and the lower hillslopes. The area had not been previously tested, but it was believed that cultural deposits would be found there, especially since the sand bar was at the same level as the "main site" to the north and was linked to it. The sand bar extends out across the valley floor as an elevated sand body. It joins the main sand body where the latter merges with the lower hill slope. Both north and southern parts of the site were found to have virtually identical cultural deposits, though the depth of deposit in the sand body of "Yung Long North" is generally greater.

It is probable that the sand bar once stood as a prominent feature well above the surrounding low-lying lagoonal or valley floor. Today, however, deposits of apparently recent sands, gravels and clays have built up behind the sand bar to the same elevation. C14 dating of the organic sediments in the clay gave an age of ca. 630

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years. The site was probably subject to serious environmental stress when it was settled and cleared for cultivation a few hundred years ago. Prior to that time, the sand body appears to have been relatively stable, with its formative phase in the Neolithic. There is no Bronze Age deposit and no significant historical deposits, although a small quantity of artefacts from the Tang and Song eras were found.

The evolution of the site can be glimpsed, and hypothesized. From about 4000 BC, a few sand banks/dunes built up to a point above the destructive force of waves and stream flooding, became stabilized and preserved a small area of Middle Neolithic deposits. During the Late Neolithic, sand deposition continued to take place and the sand bar/terrace above the wave zone expanded considerably, providing a large and attractive site which was used intensively by the occupants. Thereafter, as far as archaeology can discern, there was very little human activity, apart from a probably brief interlude of lime production in the Tang era.

The Excavation

An initial series of test pits showed no significant deposits on the lower part of the sand bar near the beach, and only a sparse Late Neolithic deposit in one square near a farmhouse. A larger excavation of this area however revealed that there was a considerable cultural deposit, including the fragmentary remains of many fired clay "ovens" or firing areas; the same features were noted in abundance on the "main site".

The excavation also revealed several burials with accompanying goods. Further excavation on the other side of the house revealed several more burials. Finally, in the

final phase of excavation another group of burials was located close to where the sand bar meets the main sand body. A total of twenty probable burials was recorded. These Late Neolithic burials provided many examples of the pottery of that period, as well as very well polished stone rings. Only a few burials had other types of artefacts (adzes, bracelet, pendant). In a few cases, the burial pit could be clearly discerned; in other cases, what seemed to be clear grave cuts of nearly 2 m length by 60 cm width yielded no artefacts at all. No human remains, animal bones or shells were found, probably having been completely decayed by the acidic soil.

In certain areas, a Middle Neolithic layer was discovered beneath the Late Neolithic deposit. This older layer was characterized by fine chalky pottery and a few pieces of painted pottery. Several examples of stone tools were also found, but the most interesting discovery was of two fragments of a bark cloth beater. The Late Neolithic layer yielded dozens of spindle whorls but none were found in the earlier layer.

After the excavation was concluded, the farmhouse was demolished, and a backhoe was engaged to clear the rubble and excavate down to the Late Neolithic burial level. By luck, a piece of flat, well-polished stone was noticed as the machine was working. Hand excavation revealed a number of fine polished stone artefacts as well as large blocks of stone which had been cut and prepared for polishing. This was a small workshop area where polished stone artefacts of high quality were manufactured. A similar workshop area was found in the northern part of the site and yielded large polished stone rings and axes.

Stratigraphy and Dating

The stratigraphy of the site was relatively simple and allowed the two Neolithic phases of occupation to be identified and studied in isolation. The Late Neolithic cultural layer was generally marked by black or greyish brown sand and extensive occurrence of the fired clay oven remains. Firing areas and ovens were frequent and some were still partly intact with upright clay pillars (formerly called "potstands"), clay grills and parts of intact floors/walls. These seemed to have been related to ordinary domestic activities and no evidence whatever was found to support the notion that the site was used for firing pottery.

The earlier cultural layer was separated from the Late Neolithic layer by a zone of light brown, sterile sand. It was much sparser in the number of artefacts (a total of several hundred sherds as opposed to tens of thousands from the later layer), and much less obvious as a stratigraphic unit. In some areas, the sand was darker brown, in others only the appearance of potsherds marked the top of the lower cultural deposit. Fortunately, in most areas where it was found, the lower layer was distinct from and undisturbed by the upper layer. Only a handful of painted potsherds was recovered, but from these and the other pottery present it was quite clear that this lower layer belonged to the painted pottery phase of the Middle Neolithic, since the typical chalky incised white ware of the later phase was absent.

The excavations yielded a number of charcoal samples, and C14 dating of twelve samples from the Hong Kong Archaeological Society's excavation gave very consistent results, indicating that the

site was inhabited first at around 4100-3600 BC (the Middle Neolithic layer; six samples) and again around 2600-2400 BC (the Late Neolithic layer; six samples). Three samples from the 1986 excavation gave similar results. These dates, coupled with the information which the site provides about the specific cultural phases represented, make the Yung Long site one of the most important in Hong Kong.

The earliest known occupation of the Hong Kong area is now shown to be the painted pottery phase, which was previously called the "Chung Hom Wan phase" [Meacham 1986:107]. The dates and data from Yung Long South indicate very clearly that this phase is distinct from and earlier than the better known "Sham Wan Phase" with fine chalky incised ware, represented by the recently excavated sites of Fu Tei and Kwo Lo Wan (upper) on Chek Lap Kok. This division of the Middle Neolithic period is now very well established. The weighted average of six C14 dates from the Middle Neolithic layer at Yung Long South is 3980-3701 BC but a broader time span of 4100-3600 BC could be suggested from the dates for the early period of occupation of the site. This period represents not only the first known occupation of the Hong Kong area but the appearance of the first fully fledged Neolithic culture in Guangdong province.

Perhaps the most unexpected aspect of the new dates is the very early position of what may be termed the "Yung Long Phase" of the Late Neolithic. The site yielded a very well-fired geometric pottery, just slightly lower fired than Bronze Age stoneware, and Yung Long was at first believed to be a borderline Late Neolithic/Bronze Age site. The dates clearly refute this notion, and show that the Yung Long phase dates to the

early part of the geometric pottery period. The weighted average of the Late Neolithic dates from Yung Long is 2579-2459 BC, probably representing an occupation of the site at around 2600-2400 BC. From other "soft geometric" sites in Hong Kong, 5 charcoal samples gave a weighted average of 2130-1770 BC and 13 shell samples gave a weighted average of 1910-1740 BC. Certainly these sites are later than the Yung Long phase, and they are characterized by a great variety of more elaborate geometric patterns. However, an almost identical ceramic assemblage at the site of Houshawan on Qiao island in Zhuhai, Guangdong [Zhuhai City Museum *et al* 1991: 9-16] was estimated at 4000-3500 years. This estimate was based on one T-L date of 3898 BP \pm 390 on pottery from the site and on two C14 dates from a site said to be similar. However, it is now clear from the highly consistent series of dates from Yung Long that this dating is too early by about 600-900 years.

The Two Neolithic Assemblages

The site is important not only for the dating, stone workshops, burials and oven features, but especially because each phase of the Neolithic present on the site had not been previously seen in isolation. Yung Long has therefore added two new phases to the prehistoric chronology of Hong Kong. The Middle Neolithic was well-known from the Archaeological Society's work at Sham Wan in the 1970's [Meacham 1978], and painted pottery was known from a number of sites. But the two phases of the Middle Neolithic had not been isolated previously. Only one small excavation (at Tai Wan, Lamma) yielded a painted pottery assemblage, distinct from the later ShamWan-type material, in the lower part of the deposit, but this division was not

recognized at the time [Peters and Bard 1982]. A small number of painted sherds was found in the lower part of a Middle Neolithic layer at Sham Wan Tsuen, Chek Lap Kok [Meacham 1994: 236-239] strongly suggesting that they predated the white chalky incised pottery of ShamWan type found in the upper part of that stratum. This deposit had so little material, and was confined to such a limited area, that it provided insufficient data to give even a rudimentary idea of the pottery and stone types present in this painted pottery phase. Only at Yung Long has a relatively substantial deposit been located containing only painted and other chalky and coarse ware types; the deposit is totally lacking in the typical and very common pottery types of the Sham Wan phase -- notably, the many typical incised patterns on chalky ware, the wavy super-incising on coarse corded ware, and the scalloped incising on the inside of coarse rims.

The painted pottery is a characteristic fine paste ware, with red paint over buff reddish orange body. Unfortunately, only a few small sherds were found, but they were certainly diagnostic. The firing of these sherds was of a fairly high standard, as they are quite firm, did not crumble to the touch and did not require chemical consolidation before being lifted. In contrast, most of the fine paste sherds from this layer were extremely friable. A large number were either only sun dried, or fired at very low temperatures, as washing or even excavation by trowel reduced them to mere muddy spots of colour in the hand or the soil. Only one sherd of incised ware had some similarity to the incised chalky ware from Sham Wan; others were much more intricately incised. But virtually all of the chalky ware found was not of "Sham Wan"

type; several new incised styles were noted, and also a plain, eggshell thin, well-fired type.

Additionally, coarse corded ware was found, in much greater abundance than chalky, with significant parts of three large vessels. Two, at least, were very finely potted, with thin rims and waists. Fine incising over cording was present, but it consists of parallel large arcs, not the wavy combing which characterizes the Sham Wan phase. An interesting continuity to all phases of the Neolithic is provided, however, by the presence of the so-called "potstands" (probably oven supports), which are found in both Middle and Late Neolithic layers.

The stone inventory is fairly well represented. The fragments of a bark cloth beater have been mentioned already. The two complete adzes recovered are of the simple quadrangular type, and quite small (3-4 cm long). Part of a shouldered adze was also found. Fragments of a polished stone ring and a quartz ring core confirm a well-developed industry for stone ornaments. Several pebble hammers and grinders were recovered, indicating that at least minimal domestic work was being carried out, probably in food preparation. Some small, quite refined, concave polishing stones were found, no larger than a human hand. Finally, a number of the common chipped pebble tools were found, indicating another continuity with the later material.

The Late Neolithic assemblage is marked by the same twin pottery traditions, namely a well-fired fine paste ware and a heavier coarse ware. The burials have provided many complete examples of the pottery from this phase. Most of the fine

ware has basketry type decoration, and very low, non-functional footrims. Some of the vessels are ribbed or have sharp carinations at the shoulder; there is not much variety in either shape or decoration. Some of the fine ware is remarkably high-fired, approaching stoneware in quality. Testing of three of the hardest pieces revealed that two were fired above 1100°C while the third was fired at around 1080°C. Clearly the kiln technology had already advanced to the point that high temperatures could be reached and stonewares could be made. This information together with the dating is perhaps the most important new evidence from the Yung Long site, since previously the Late Neolithic "soft geometric" phase had been distinguished from the Bronze Age by its softer fine-paste pottery, generally of the consistency of chalk.

The Late Neolithic coarse wares are cord-marked, in common with all Neolithic phases in Hong Kong, but the Yung Long phase has the distinctive feature of incised decoration on the rim and neck. Sherds of this type were rarely seen previously, but are abundant at Yung Long. It is obvious now that they are markers of this phase. Similar incised coarseware at the Houshawan site in Zhuhai was found associated with the same types of fine wares as at Yung Long. Coarse corded pots with square rims, or four spouts, were also noted at Yung Long.

The common polished stone artefacts in the Late Neolithic phase at Yung Long were the leaf-shaped projectile point, the slotted rings, and quadrangular, stepped and shouldered adzes. Pebble grinders were almost equally distributed between the two layers (5 in the upper, 6 in the lower), but only one was grooved, in contrast to most sites where the grooved sandstone polisher

is common. Ceramic spindle whorls were also common in the upper layer: 30 complete or near complete specimens were found. Notched pebbles were found only in the later phase.

The continuities in the material culture of the Neolithic phases represented at Yung Long South strongly suggest that there was a general population stability in the area from the time it was first inhabited by Neolithic people. For the region as a whole this continuity may be traced further, down to the end of the Bronze Age, where a major break seems to occur. Unfortunately, as is the case for most Hong Kong sites, little direct evidence was obtained regarding subsistence. No food remains were unearthed, apart from two carbonized seeds of *Choerospondias axillaris*, the Hog Plum, which has edible flesh though insipid.

Conclusion

The Yung Long site has provided important evidence on the Neolithic in the Hong Kong region. I have used the term "Neolithic" throughout in the traditional sense of the period when pottery and polished stone tools were abundant. There is virtually no data to address the question of subsistence base and especially the existence of agriculture during the period. My opinion is that both early and late occupants of Yung Long were part of an economic system extending along the coastal areas and major river basins in southeast China which did have agriculture, probably rice. Whether or not the occupants of Yung Long practised agriculture themselves, I believe they must have been aware of it and were trading with people who lived in settled villages, engaged in cultivation and had specialists (probably specialist clans or villages by the Late

Neolithic) for certain industries such as pottery. It does not make any sense to me to deny, a la Higham, the "neolithic" status of this economic/cultural system or to label the people as "affluent coastal foragers" with the implication that they were simply well-to-do hunter-gatherers.

This paper is a very brief summary of the important discoveries from the southern half of the Yung Long site. It should nonetheless be sufficient to demonstrate clearly that the site is of major importance and deserves a full monograph report, with all data from all excavations in one volume compared and cross-indexed. It is appropriate thus to conclude with an appeal to the Antiquities and Monuments Office, which conducted the more extensive excavations on the northern part of Yung Long, to devote full resources to the production of this monograph as a matter of some priority, while the original team is still together and memories are still fresh.

Acknowledgements

The Hong Kong Government and The China Light and Power Co. Ltd made funds available for the salvage excavation of the Yung Long site. Dr. L.K. Leung of the Hong Kong Polytechnic University conducted measurements of firing temperature of the pottery samples. Dr. Richard Corlett of the University of Hong Kong identified plant remains from the site. Mr. Robert Esser and Mrs. Sumiko Esser of the Hong Kong Archaeological Society assisted in the study and drawing of the Yung Long pottery.

**Location of Test
Pits and Major
Excavation at
Yung Long
South**

contours in
metres

spot levels in
metres above
Principal Datum
(lowest low tide)

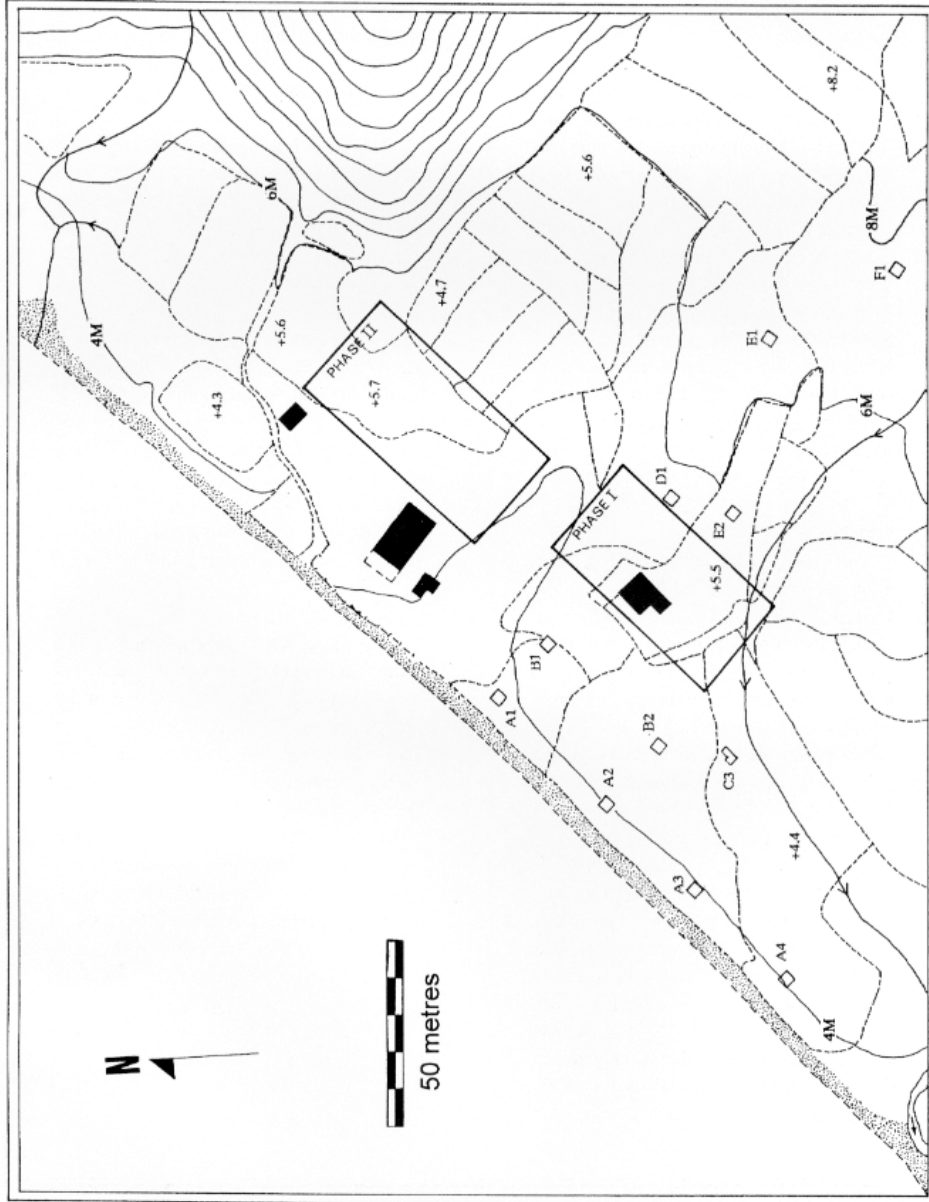


Fig. 1 Location of Test Pits and Major Excavation at Yung Long South
湧浪南遺址探方及主要發掘點位置圖



Fig. 2a Yung Long South: Excavation

View of the Phase II excavation after the completion of the initial test pits. (Facing south; photo taken from a point near the spot level +5.6, just north of the Phase II area).

湧浪南遺址第二期發掘情況



Fig. 2b Yung Long South: Excavation
Excavating fragments of a large coarse vessel in the Late Neolithic layer
湧浪南遺址新石器時代晚期文化層發掘情況

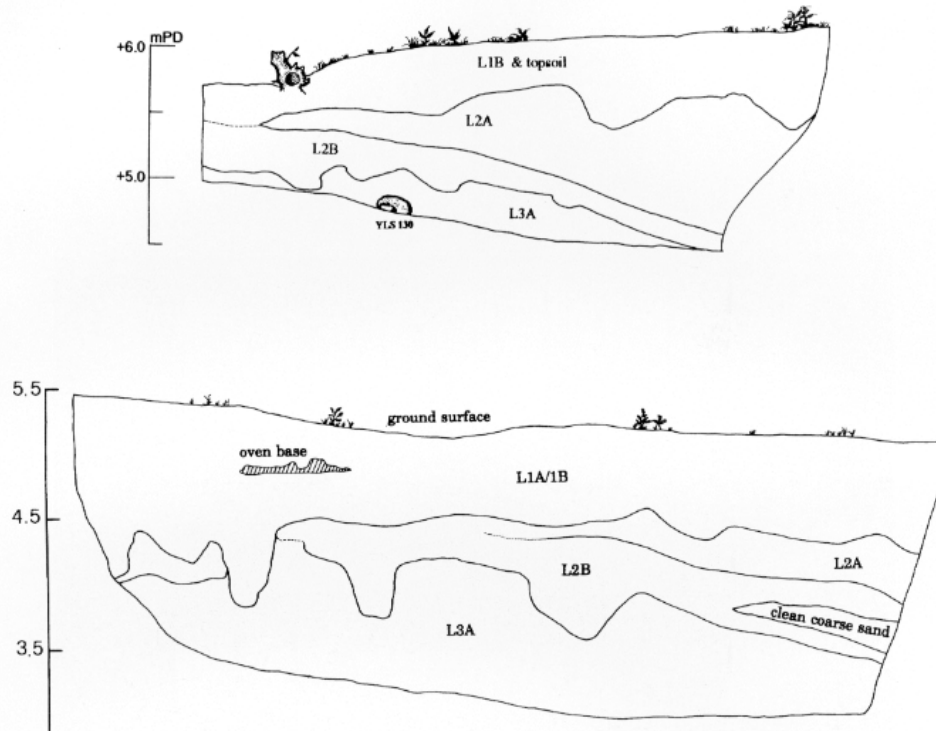


Fig. 3 Stratigraphy Profiles from Yung Long South
 湧浪南遺址地層示意圖

Profiles from Phase I (above) and Phase II, from trenches on the eastern side of each area, showing the slope of the Middle Neolithic deposit toward the valley, probably then a lagoon or tidal mudflat.

- L1A -- dark brown to greyish brown sandy soil, gradually merging with Layer 1B
- L1B -- greyish brown to greyish black sand with Late Neolithic cultural deposit
- L2A -- clean yellow sterile sand
- L2B -- yellow to yellowish brown sand with Middle Neolithic cultural deposit
- L3A -- clean yellow sand; virtually sterile

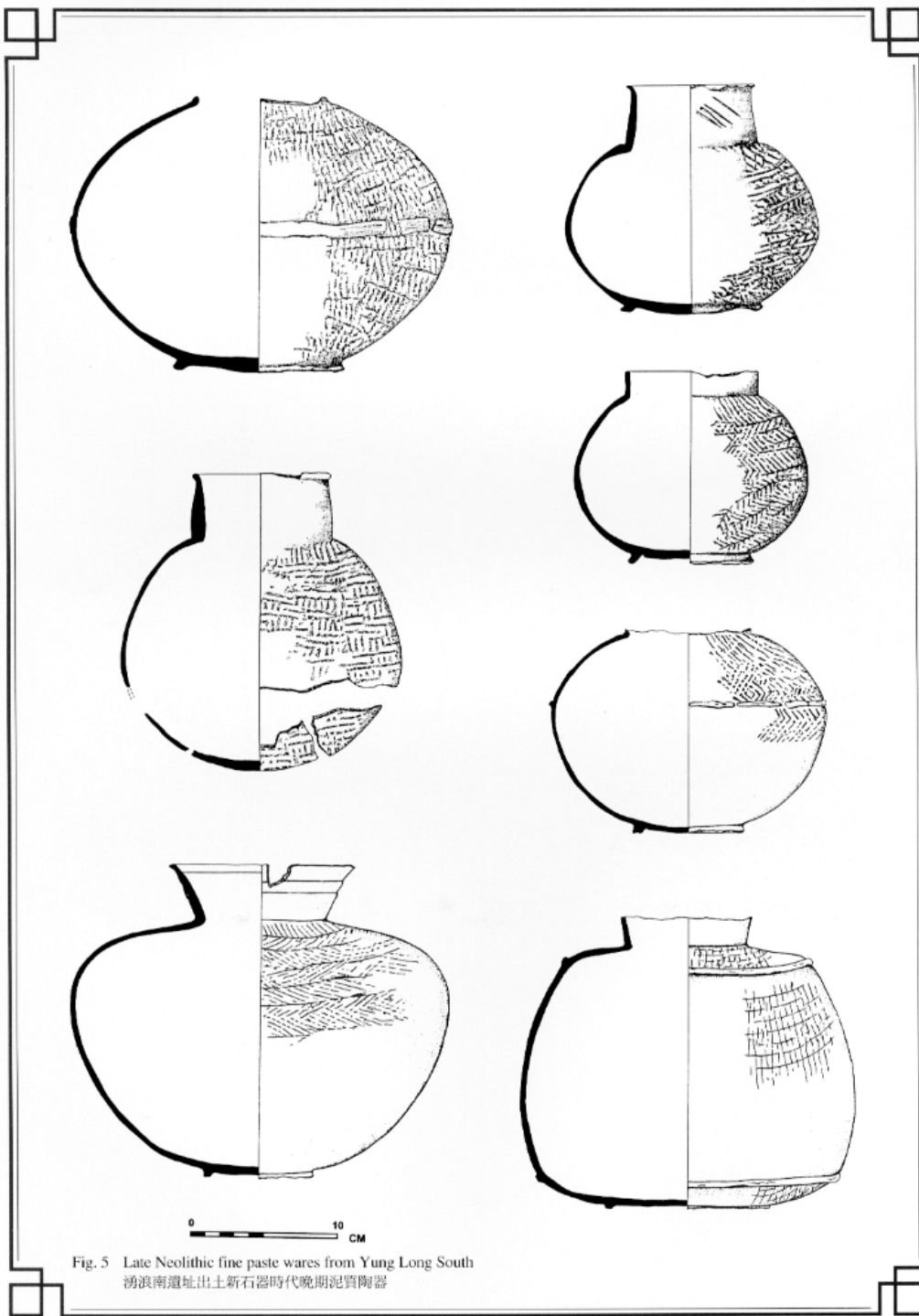
L2A merges with and fades into L1B in the Phase I profile and into L2A in the Phase II profile. In the latter, the L2B deposit is also split by a wedge of clean sterile sand.



Fig. 4a Yung Long South: Late Neolithic Burials
A complete fine paste pot and a barely visible burial cut at the bottom of the Late Neolithic layer.
湧浪南遺址新石器時代晚期墓葬發掘情況



Fig. 4b Yung Long South: Late Neolithic Burials
Excavating a "typical" Late Neolithic burial at Yung Long: one pot and two stone rings.
湧浪南遺址新石器時代晚期墓葬發掘情況



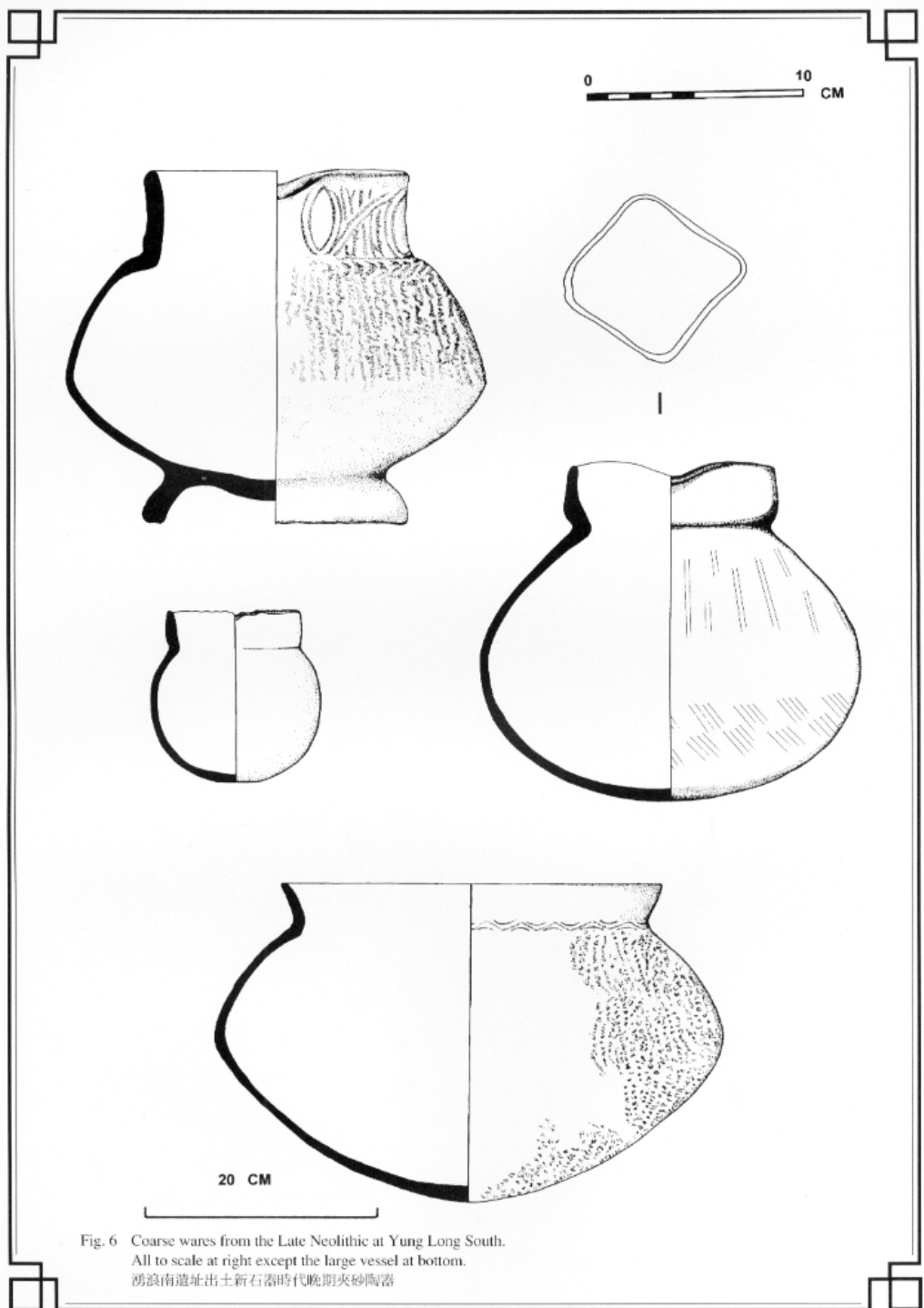


Fig. 6 Coarse wares from the Late Neolithic at Yung Long South.
 All to scale at right except the large vessel at bottom.
 湧浪南遺址出土新石器時代晚期夾砂陶器

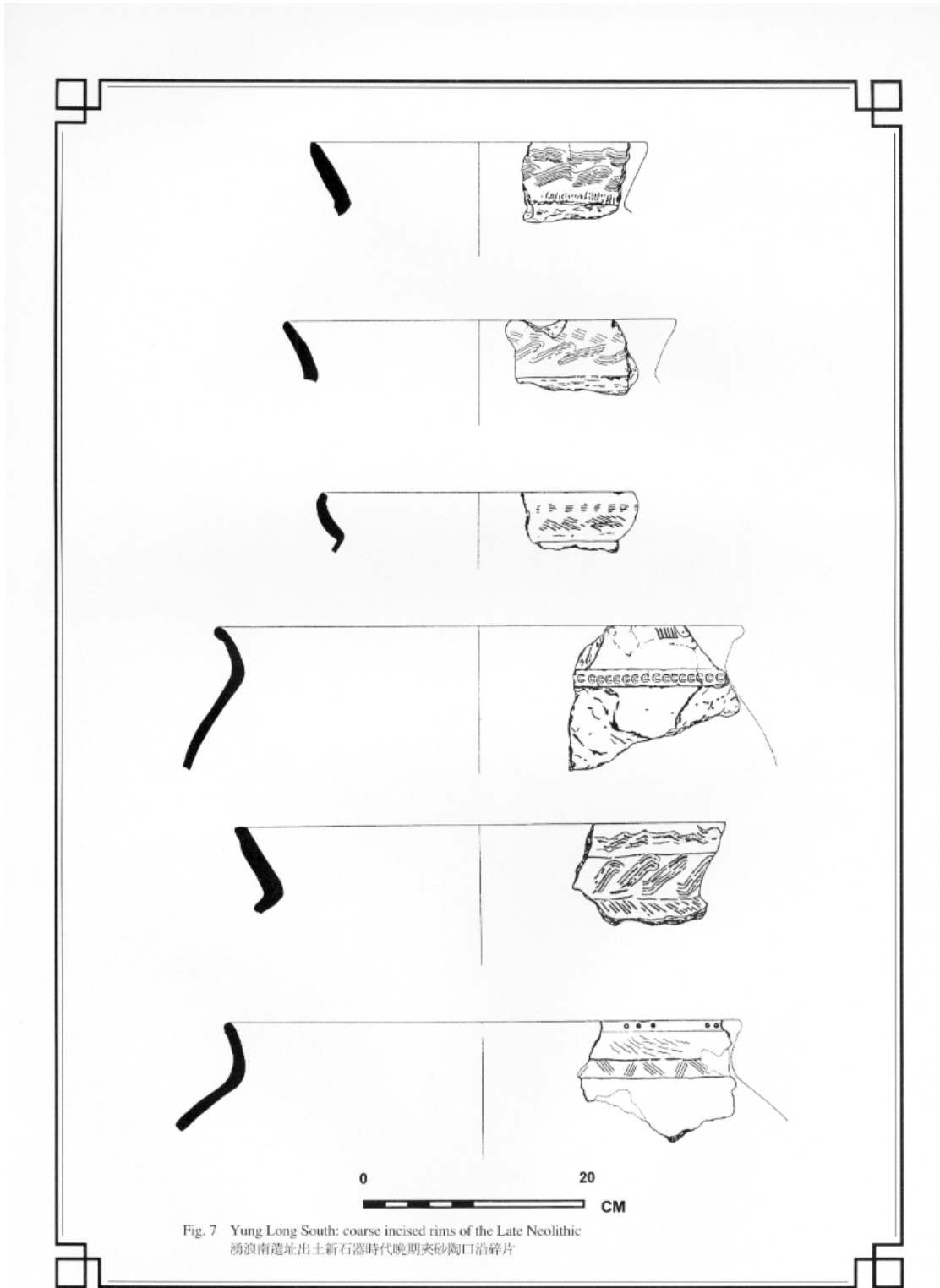


Fig. 7 Yung Long South: coarse incised rims of the Late Neolithic
 湧浪南遺址出土新石器時代晚期夾砂陶口沿碎片

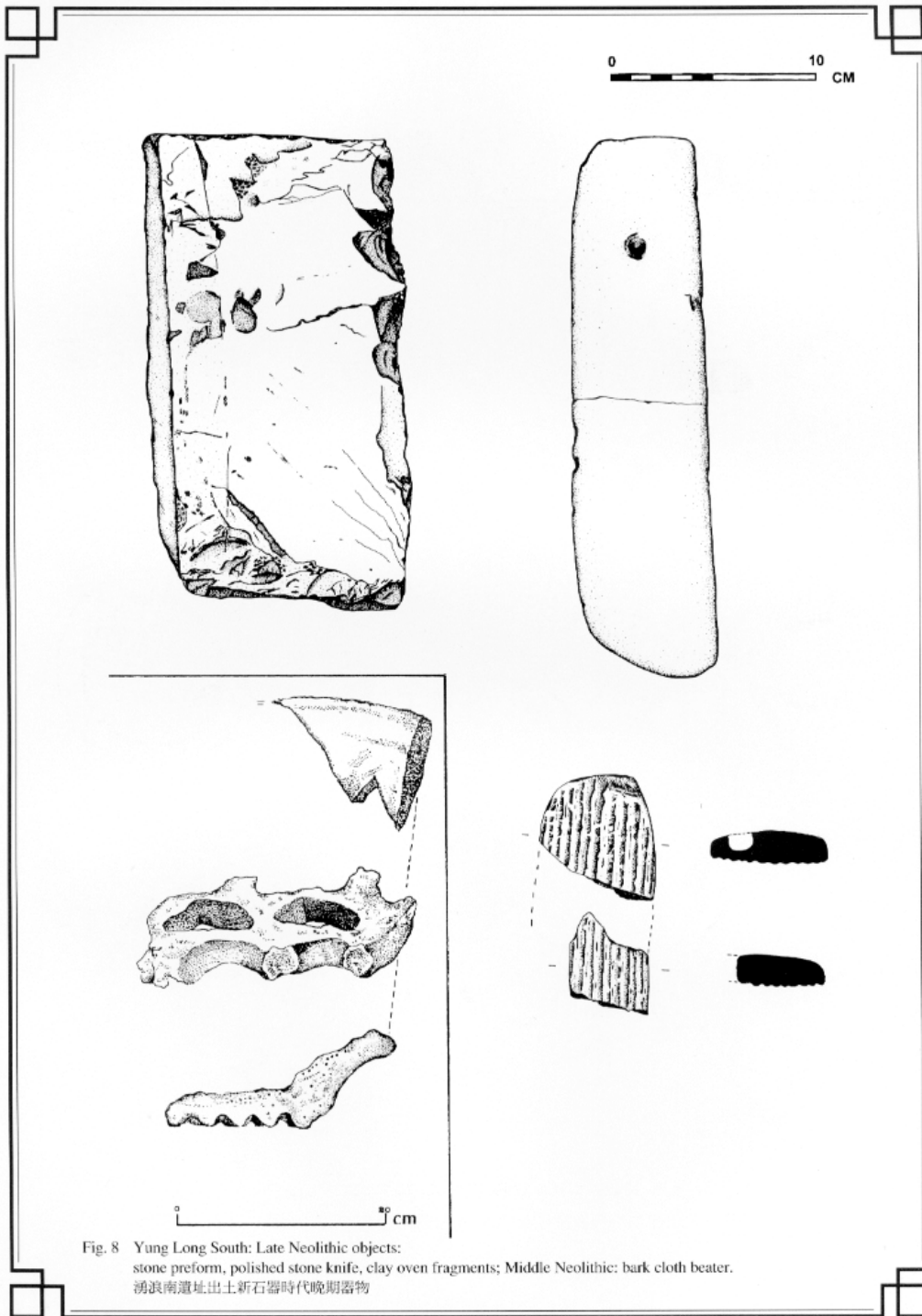


Fig. 8 Yung Long South: Late Neolithic objects: stone preform, polished stone knife, clay oven fragments; Middle Neolithic: bark cloth beater.
 湖浪南遺址出土新石器時代晚期器物

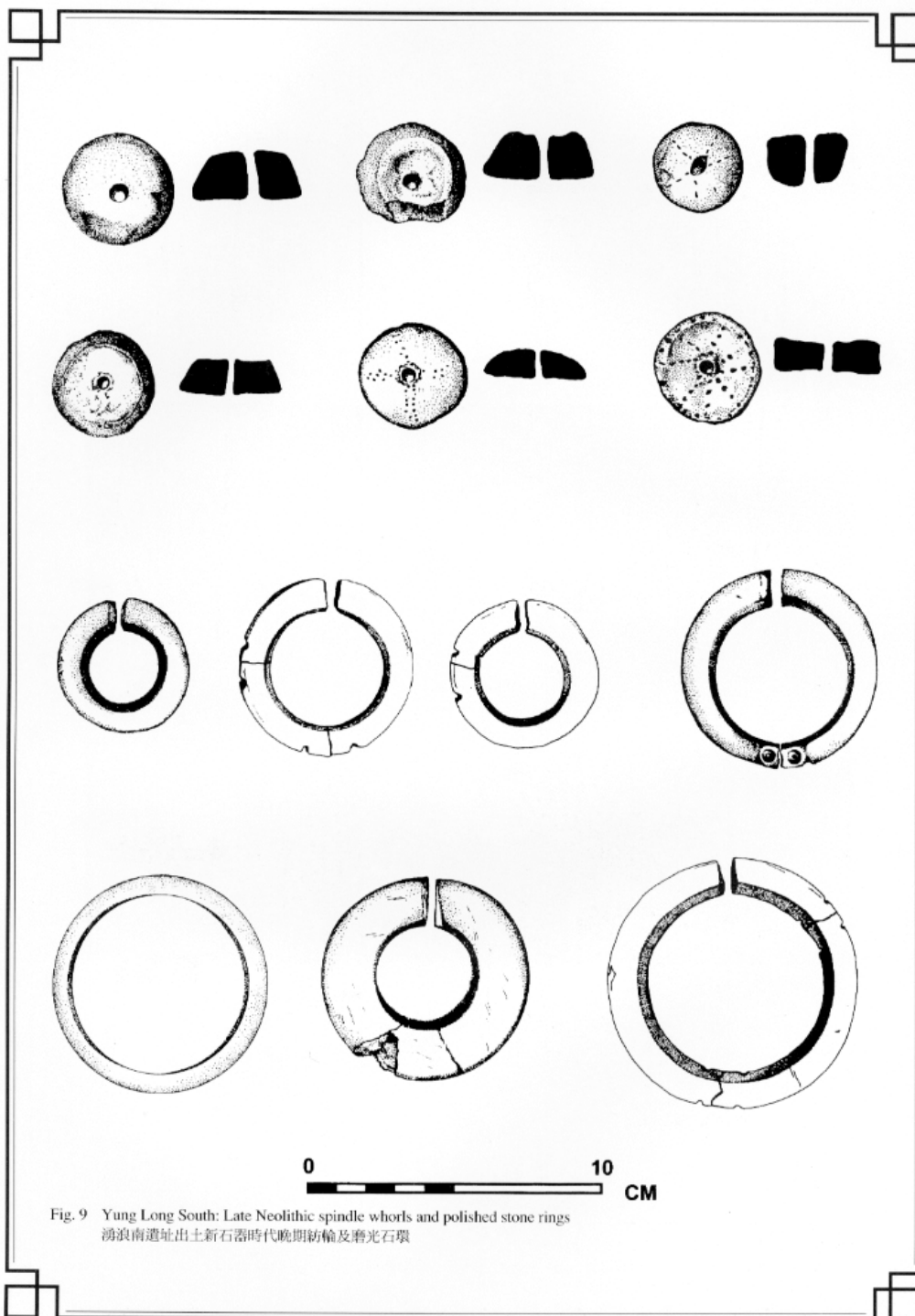


Fig. 9 Yung Long South: Late Neolithic spindle whorls and polished stone rings
 湧浪南遺址出土新石器時代晚期紡輪及磨光石環

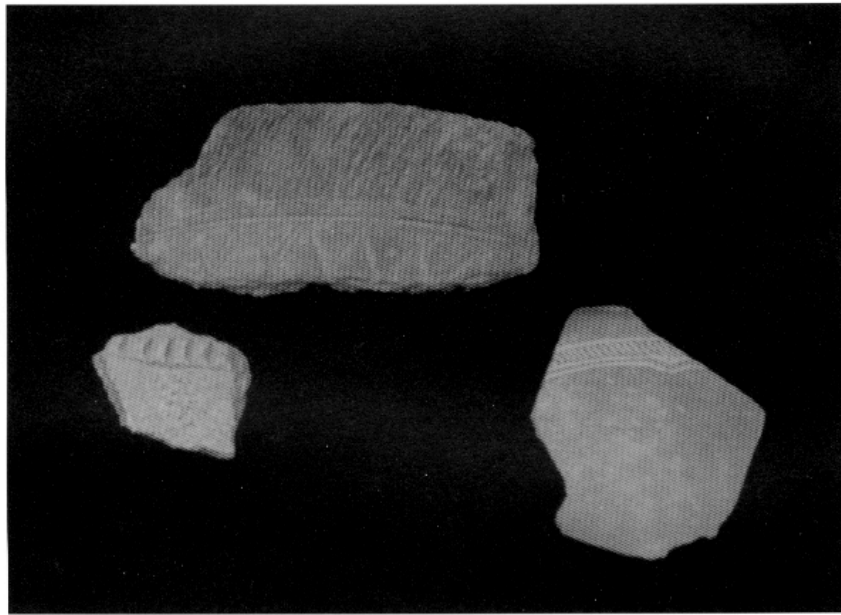


Fig. 10a Yung Long South: Middle Neolithic pottery
Fine paste potsherds with intricate incised patterns, and at lower right, raised carved decoration.
湧浪南遺址出土新石器時代中期泥質陶器碎片

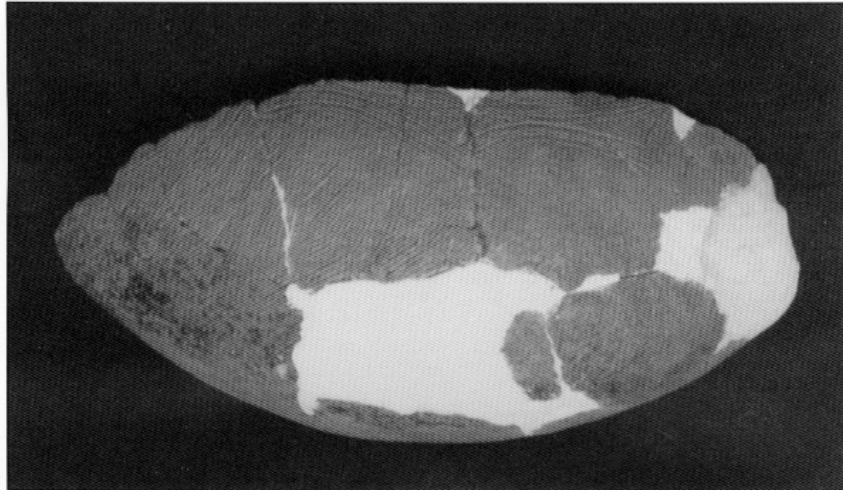


Fig. 10b Yung Long South: Middle Neolithic pottery
Large coarse sherd with fine cording and super-incised parallel arcs.
湧浪南遺址出土新石器時代中期夾砂陶器碎片

Table: Radiocarbon Dates from Yung Long South

Beta Number	Provenance	Sample Type	Laboratory Result	Calibrated Result
60316	clay deposit against sand bar	800g clay	630±80	1250-1430 AD
54624	Late Neolithic	17g char	4030±070	2873-2403 BC
54625	Late Neolithic	9g char	4170±080	2920-2501
60312	Late Neolithic	15g char	3970±90	2867-2205
62190	Late Neolithic	15g char	3900±80	2590-2145
62218	Late Neolithic	12g char	3810±70	2470-2039
62219	Late Neolithic	10g char	3980±60	2856-2340
54626	Middle Neolithic	14g char	5230±100	4340-3789
54627	Middle Neolithic	8g char	5450±150	4665-3980
60313	Middle Neolithic	9g char	4700±120	3775-3100
60315	Middle Neolithic	3.5g char	5490±220	4838-3816
62188	Middle Neolithic	10g char	4880±170	4034-3199
62189	Middle Neolithic	9g char	4710±130	3780-3047
Harwell Number				
8565	Late Neolithic	charcoal	4180±80	2920-2505
8564	Late Neolithic	charcoal	3990±60	2858-2349
8562	reported as Late Neolithic but probably Middle Neolithic	charcoal	4520±130	3623-2900

Notes :

The samples with Beta numbers were excavated by the Hong Kong Archaeological Society in 1992-3; those with Harwell numbers were excavated by B. Peacock in 1986.

Calibrated Result is in years BC except where indicated AD, and is based on the calibration program 1987 (Rev. 2.0) published by the Quaternary Isotope Lab of the University of Washington.

Dating was done by Beta Analytic Inc. of Coral Gables, Florida, USA and Harwell Laboratories of Oxford, England.

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湧浪南的新石器中期及晚期文化

秦維廉

【摘要】

1992年，由於中華電力公司準備在青山西面的湧浪興建發電廠，香港古物古蹟辦事處與香港考古學會分別在湧浪北及湧浪南進行了一連串搶救文物的挖掘工作。早於七十及八十年代，湧浪遺址曾經多次調查，有考古學者聲稱找到新石器時代晚期的陶器遺存，但證據似乎未見充份。經過1992-93年間的大規模挖掘，仍找不到窯址的痕跡，只發現數以百計的家用小型紅燒土灶、一些石器作坊及墓葬遺存等。陪葬物主要是陶器及磨製石塊。

湧浪南遺址的文化層有二，分屬新石器時代中期及晚期。15件出土物的碳十四測定結果都相當一致，顯示出遺址於公元前4100-3600年間及公元前2600-2400年間先後有人類聚居。將遺址的文化特徵與這兩個時期配合後，得出了非常珍貴的考古數據，使湧浪成為香港最重要考古遺址之一。

遺址所代表的年代，及出土的石器、紅燒土灶和墓葬遺存等固然是很有價值的發現，而

最重要的是所屬的這兩段新石器時代遺物從未在獨立的遺址出現。故此，湧浪為香港的史前文化發展序列增添了兩個階段。湧浪南有相當豐富的泥質及夾砂陶遺存，是另一新石器時代中期文化—「深灣F層」所無的。從年代來看，湧浪南的新石器時代中期文化應該比深灣F層還要早。

由於湧浪出土物中有一種幾何印紋陶，燒工極精，火候只比青銅時代的炆器稍低(約1100°C)，故此研究人員曾猜想其年代為介乎新石器時代晚期與青銅時代之間，但碳十四測定卻證明是早期的新石器時代晚期文化遺物。

湧浪南遺址極具考古價值，值得深入作專題探討，並將所有資料及數據結集成書，作日後研究參考之用。趁現時考古隊仍未解散，且記憶猶新，希望香港古物古蹟辦事處能把握時機，集中資源，令有關專集盡快面世。