

## Subsistence Continuity in the Prehistory of South Coastal China

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### I. Introduction

During the course of over 50 years of archaeological work in Hong Kong, occasional archaeological finds of the last centuries of the 1st millennium BC have been recorded, but have reported in isolation and without the context of associated features or consideration of environmental data.<sup>(1)</sup> The recovery at Tung Wan Tsai of a considerable quantity of material plus environmental data from this period is therefore of considerable interest.

Most of the data for this period has previously come from the excavation of Han period tombs in Guangdong province and a single example in Hong Kong [Watt 1970; CPAM of Guangzhou 1981]. Although there has been acceptance, to a degree, of the idea of mobile, boat-based populations during the "Neolithic", with the arrival of "Han influence" we see a rapid turn-around in the interpretation of what is basically the same data. A rapid adoption of all things Han is posited, with the loss of local identity. It has been assumed that the presence of these tombs meant that Han influence in the area was over riding, if not complete, and that the life pictured by artefacts within the tombs was shared by all, Han and idigene alike [Watt 1970:8-9]. The life depicted is one of agricultural settlement, with farmhouses, wells, granaries and pigsties. If this way of life reached the coastal areas, none of its remains have come to light.

In this paper I would like to propose that it is an oversimplification to extrapolate this picture of agrarian life onto data from south Chinese coastal sites. I would propose that local data relates to a continuous tradition of mobile, maritime populations adapting subtly to changes and variations in the physical and political environment. Recourse to models of "cultural replacement" and "absorption of local populations" have not proved to be effective tools for interpreting the data. A different perspective based on a model of maritime adaptation is suggested, focusing on those variables which are potentially retrievable by archaeology: site selection and use patterns, and material culture remains [Engelhardt and Rogers 1993, 1994].

### II. Site Selection and Use Patterns

The site Tung Wan Tsai lies in the northeast corner of Ma Wan island, which itself lies off the northeast corner of the much larger island of Lantau (Fig. 1). Hong Kong and all its sites, including Tung Wan Tsai are situated at an important point at the junction of the South China coast and the Pearl River. The island in the area have a long and persistent record of use and habitation spanning the last 6000 years. The archaeological remains from Tung Wan Tsai inform us about a particularly interesting segment of this long prehistory — the transition from the "late Neolithic/Bronze Age" to the beginning of the Chinese presence during the Han period.

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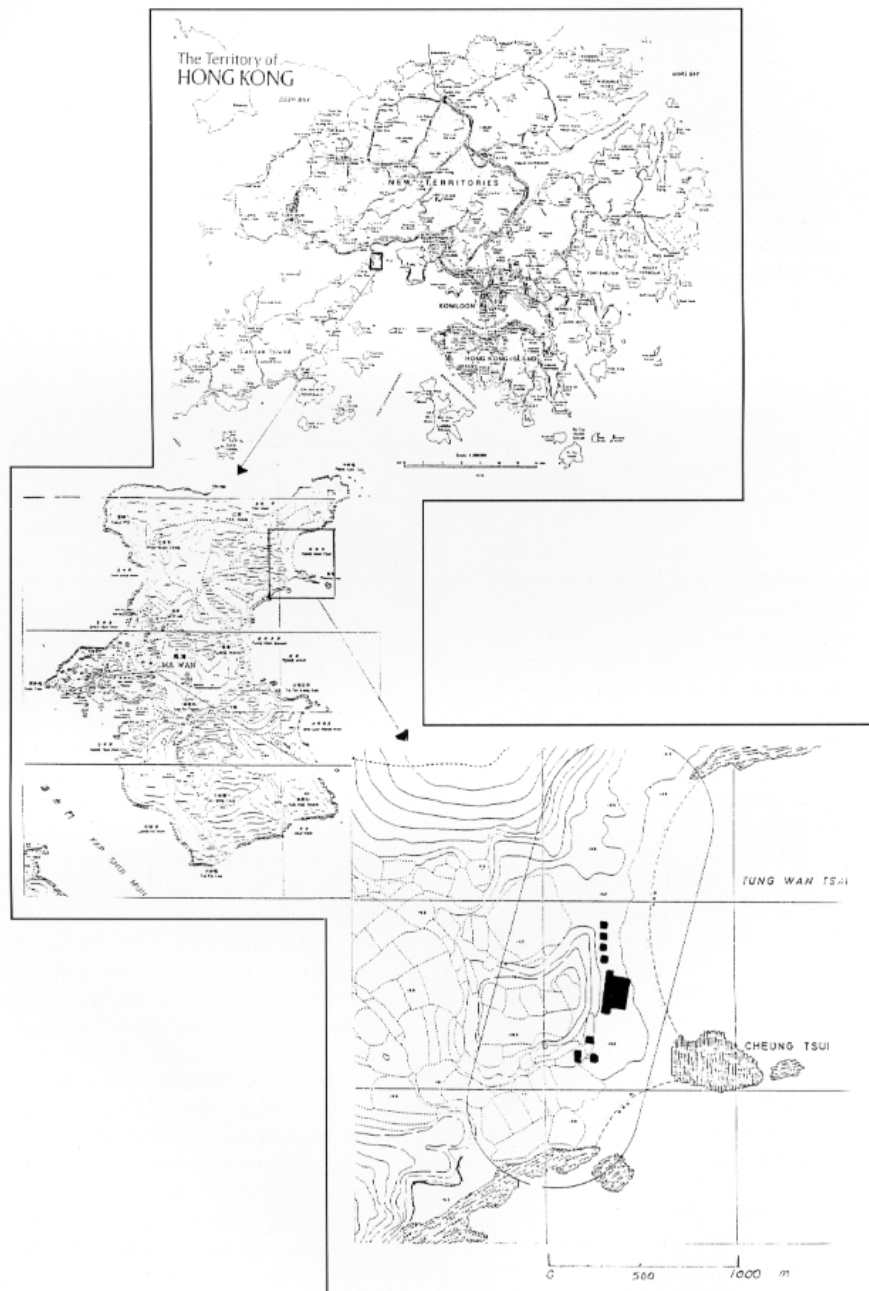


Fig. 1 Map of Tung Wan Tsai, Ma Wan, Hong Kong.  
香港馬灣東灣仔

Chinese historical sources refer to the area of the Pearl River delta as malarial swamp occupied by savage boat-dwelling barbarians [Wiens 1954: 124-141]. Prior to the Zhou dynasty the only Han Chinese who ventured into the area were political exiles and banished criminals. From the 3rd c. BC the Qin empire expanded into the area, and by early Han times Chinese pressure towards assimilation was pronounced.

The estuary of the Pearl river provides an ideal environment for a maritime way of life; rich seas, mudflats and mangrove swamps combined with a productive strand forest complex are scattered in a mosaic across innumerable island, coves and inlets. A maritime adapted pattern implies that archaeological remains will reflect the spatial patterning of people as they move about their environment to best exploit the various and often mobile resources in which they specialize [Engelhardt and Rogers 1994]. As a result, sites are used in a continuous but intermittent fashion in both a regular and erratic manner. This seemingly contradictory situation is the result of the varied patterns of econiche use. A site can be used simultaneously as a base camp for one group, while several other groups use parts of the site for temporary occupation. At the same time a family boat group may use the econiche for water and vegetable collection, staying on their boats and then moving on. It is important to note that such a pattern of site use, although repetitive, will not result in a continuous build-up of stratigraphic deposit. Sites are selected which offer access to as many of these econiches as possible.<sup>(2)</sup> As a result virtually every suitable environment is in fact an archaeological site. Sites in Hong Kong frequently exhibit a continuity of selection from the earliest period of local prehistory

well into the historic era.

### III. The Archaeology of Tung Wan Tsai

The deposit at Tung Wan Tsai lies on a raised beach built up along the foot of a small hillock which at the time of occupation would have been surrounded by low-lying mangrove mudflats (Fig. 2). The material recovered represents 2 stratigraphically distinct deposits (Fig. 3):

- (1) The sandbar itself contains scattered, isolated assemblages, the earliest of which dates to ca. 1500 BC consisting of shell, bone, shell tools, utilized and polished stone implements, bronze and coarse ware ceramics.
- (2) On top of the sandbar, extending from the foot of the hill to the shoreline, is a continuous deposit of compacted surface with post-holes and shell deposit, dated from coin and ceramic evidence to the period from the 8th c. BC to the 5th c. AD. The remains include coarse, geometric and early historic ceramics, utilized and polished stone implements, coins, iron and bone.

Although the distribution of deposit and the artefacts differ, there is a degree of consistency in the subsistence data from the two periods. The continued selection of the same site locus in itself exhibits a high degree of continuity. In both deposits there is a clear marine focus, with exploitation of shellfish and fish evidenced by quantities of shell and bone remains. The basic species range remains unchanged; hard shore species with gastropods (*L. coronata* and *Cerithidea* sp.) and bivalves (Rock oyster and *Asaphis* sp.) both represented. There is continuity also in the occurrence of artefacts in both deposits. Coarse ceramic types and




Fig. 2 View of the archaeological site eponiche, Tung Wan Tsai, Ma Wan, Hong Kong.  
東灣仔古代遺址

bronze and in particular utilized stone appear throughout.

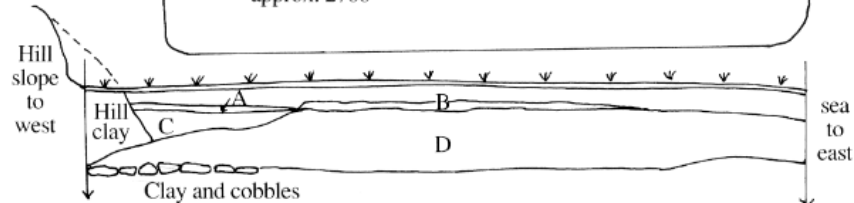
Given these continuous aspects of the deposits, it is possible also to itemize various important changes or evolutions within them. Most noticeable is the difference between the scattered nature of the shell deposits found in the earlier deposit as opposed to the larger, midden-scale deposit of the historic period. Although the species range stays the same, there are notable changes in emphasis: the late deposit contains a predominance of gastropods as opposed to the earlier emphasis on bivalves; oysters which were rare in the earlier deposit become the primary bivalve in the later deposit. There is a general trend towards an increased exploitation of mangrove species in the historic levels. The most interesting dichotomies however, in terms of the environmental data, are cultural aspects of


their use. In the prehistoric levels of the sand bar we find many examples of bivalves (*Meretrix meretrix*) modified along their edges for use as cutting-scraping tools. We also find extraction breakage of shells, both features notably absent in the processing of the historic shell.

At Tung Wan Tsai we have what appears to be a transition from prehistory to history, a record of combined continuity and gradual evolutionary change. Although selection of the site and subsistence patterns seem to be consistent, the site use and the nature of the artefacts represent functionally equal substitutions. At Tung Wan Tsai we have evidence for this continued but narrowing use. In the prehistoric levels a scattered presence is recorded throughout the sand bar and also on adjacent beaches to the north and south. By the historic period site selection is focused densely on only Tung Wan Tsai.

  
 Gastropods  
 +  
 Oysters  
 ↓  
 No shell working  
 +  
 No extraction breakage

A. Firmly compacted activity area of dark material with associated postholes, "drain" and pits; some ceramics, iron, bronze and coins, utilized and polished stone. Dating from approx.  
 B. Historic debris deposit or midden associated with activity surface A. Containing : ceramics, iron, bronze, coins, quantities of shell, bone, utilized and unaltered stone with burning and compaction.  
 C. Historic deposit with ceramics, utilized and polished stone, bronze, iron and coins; compacted accumulation from approx. 2700-



  
 Bivalves  
 +  
 Rarely oysters  
 ↓  
 Worked shell  
 Extraction breakage

D. Pre-historic sandbar containing numerous isolated deposits of shell, bone, shell tools, utilized and some polished stone, bronze and coarsewares with associated charring in widely varying proportions. Earliest dated deposit ca 3580 BP at base of the sandbar.

Fig. 3 Schematic rendering of the stratigraphical deposits, Tung Wan Tsai, Ma wan, Hong Kong.  
 東灣仔文化層遺物示意圖

It does not seem reasonable to interpret this narrowing of selection to a change to Han occupiers. Han presence would logically imply use of the site for either agriculture or as a military post. The artefact continuity, the lack of architectural remains and the continued, if not increased, exploitation of the marine environment make this an unacceptable reconstruction. The data does not support the interpretation of a Han population replacing the previous users of the site; nor does it support the notion that the earlier users underwent some radical transformation in their adaptive approach to the site.

Along with this trend toward focusing on a narrower range of site options, the nature of site use at Tung Wan Tsai shows changes, but only along certain lines. The basic strategy remains the same although the mode of production may alter. Attempts to apply a land-based agricultural and foraging model with predictions of villages and settlements are unsuccessful in making sense of what is found on coastal sites.

If one postulates instead that maritime adapted peoples continued to utilize Tung Wan Tsai under changing circumstances the continuities and variations are more explainable. In the early historic period the islands in the estuary began to feel the impact of gradual environmental changes further up the Pearl River. Deforestation for clearance of agricultural land resulted in an increased level of silt throughout the area [Huang 1984: 320-338]. Lagoon areas and tidal flats became marsh and mangrove swamp and islands close to shore became landlocked. With this decrease in the number of suitable ecotones, large stretches of the detritic chains along which mobile sea people moved were removed

from the network. Options for mobility were reduced and pressures to adopt a more settled routine increased. Mapping of site selection patterns through time could reveal interesting pictures of these networks and their modifications. The environmental pressure was augmented by the uncertainty of political unrest and conflict of the times. As the available niches grew smaller, they became more densely concentrated and further separated from one another, divided by sterile interstices which had fallen out of the network [Engelhardt and Rogers 1993].

This potential range from use as a minimal short-term encampment to longer-term base camp can be seen reflected in the cultural deposits at Tung Wan Tsai. The prehistoric sand-bar contained over 30 scattered assemblages, none larger than 2 or 3m in diameter. There were no structural remains associated with any of these activity areas; they were identifiable in some cases by a colour difference in the sand and slight compaction, in others by nothing more than the presence of a shell cluster or artefact-debris scatter (Fig. 4). This sporadic pattern of seemingly uncorrelated finds within a sandbar matrix is characteristic of Hong Kong raised beach sites.

In contrast, the deposit on top of the sand bar represents a very different term use of the site. The entire 450 sq m. excavated is occupied by an activity surface and associated mixed garbage deposition (Fig. 5). Irregular post-holes imply the presence of some form of structures related to the activities which created the thick and firmly packed surface running along the foot of the hillside. Overlapping the surface and extending some 10m towards the sea is a solid, shallow layer of secondary rubbish



Fig. 4 Cluster of utilized pebbles, isolated within the sandbar deposit, Tung Wan Tsai, Ma Wan, Hong Kong.  
東灣仔出土的石器



Fig. 5 Historic period debris deposit and activity surface being excavated and recorded, Tung Wan Tsai, Ma Wan, Hong Kong.  
東灣仔古代遺址的發掘情況

deposit. The artefacts retrieved from the surface were a very sparse version of those found in greater concentration in the midden.

#### IV. Material Culture Patterns

The third aspect of the site with potential archaeological visibility is material culture. The range of possibilities is filtered to suit a mobile lifestyle where numerous possessions would be a burden. The few items in the tool kit of maritime adapted groups are small, multi-purpose and easily transportable. Where possible, objects of easily acquired natural materials, worked or in a natural state, are used expediently and discarded. Items which by definition must be large or heavy are shared communally to limit the number required and often left on site, belonging to a locale rather than an individual. Our ethnoarchaeological studies have shown that no artefacts remain intact in the archaeological record or in direct association with their original activity areas, with the possible exception of stone.<sup>(3)</sup> Also the remains of material culture which do enter the archaeological record in the form of fragments in secondary deposition, lost items and purposefully cached site furniture, are only a partial sample of the material culture consumed by a group; and of them, the sample which survives in the record is smaller still.

Given these constraints on the maritime adapted tool kit it is to be assumed that a high degree of functional conservatism will be exhibited through time in the remains deposited on sites frequented by mobile boat peoples. That portion of the functional core of the tool kit which survives into the archaeological record will tend to be resistant to change. This is exemplified by the large body of minimally modified and

utilized stones found throughout the region.(Fig. 6)

On top of this continuous tradition of artefact selection and use there will be the inevitable effect of proximity to other "higher cultures". This proximity will result in the opportunistic acquisition of individual objects, a form of archaeological "noise," with high visibility but little potential to inform us about the basic subsistence activities of the peoples in question. These artefacts give assemblages a kind of "gloss" of other cultures, on top of the real material culture of the group. In Hong Kong terms an example of this phenomenon would be the appearance of very "Chinese" style polished stone ceremonial implements found in isolation or with otherwise conservative-looking pre-historic assemblages.

Curation and use-change of these "gloss" items create a form of material culture "drag" in the archaeological record. This means that an object is acquired and moved outside usual sphere; it is then used for a purpose other than for which it was originally intended, by different people and over an extended time span. Problems then arise when these artefacts are erroneously factored into the analysis of a site on the basis of their meaning in the context of their culture of origin. Although often more noticeable and noticed than the core tool kit of coastal maritime adapted peoples, in reality they offer limited insight into the context of their use and deposition.

One of the more interesting transformations we see in the material culture from pre-historic to historic times is the emphasis on first shell and then iron tools (Fig. 7). As the environment of the estuary degraded slowly during the late



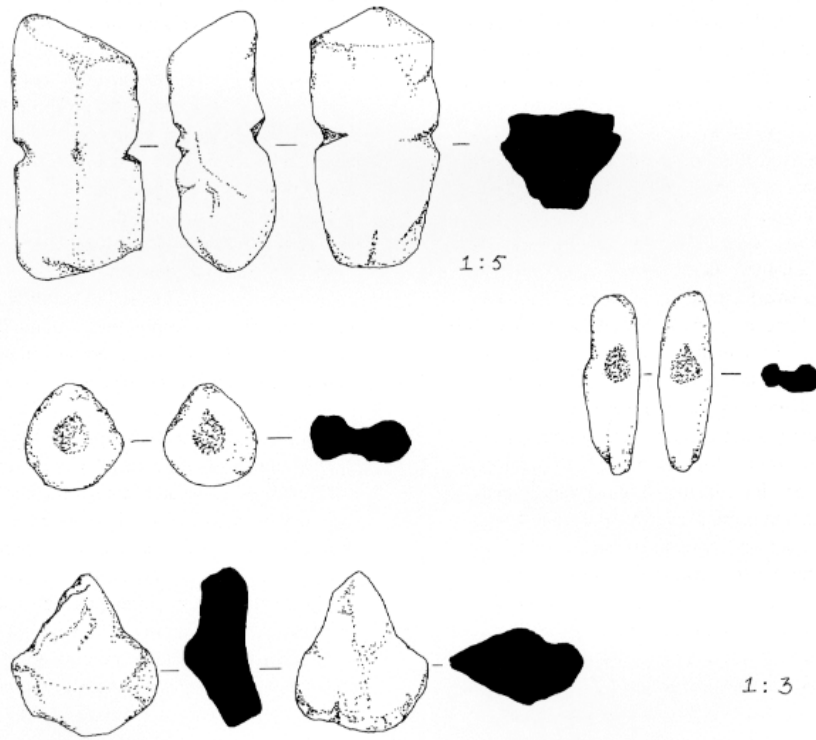


Fig. 6 Examples of utilized stones from both historic and prehistoric contexts, Tung Wan Tsai, Ma Wan, Hong Kong.  
東灣仔出土的石器

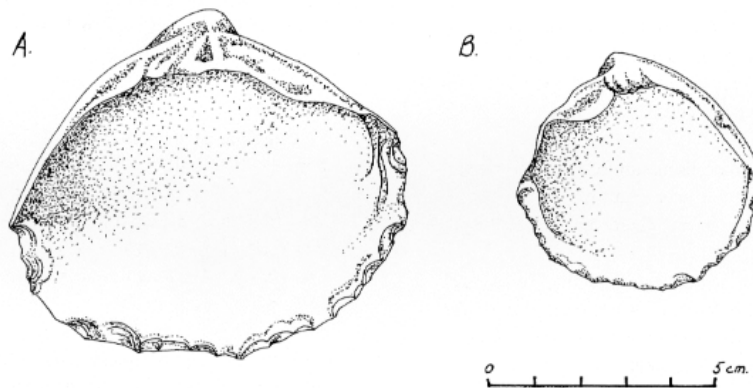


Fig. 7 Worked meretrix meretrix and Venerid shells from the prehistoric sandbar deposits, Tung Wan Tsai, Ma Wan, Hong Kong.  
東灣仔史前文化層出土的貝殼工具

prehistoric period, difficulties in finding bivalves suitable for working into tools would have increased. The meretrix shells utilized in the early deposit still appear in later levels, but they are less frequent, much smaller and unsuitable for working. Instead, iron implements seem to have filled the gap.

This iron would have acquired through exchange of sea-products which, as they became harder and harder to find in a degrading environment, would have increased in value as potential trade items. It would become more reasonable for the maritime adapted populations at Tung Wan Tsai to devote more time to the acquisition of these molluscs as they moved beyond basic subsistence and closer to involvement in the larger world of trade and economic systems. This change in direction from collection solely for subsistence to collection for subsistence and economic value is reflected in the intensive processing of shellfish represented by the midden deposit at Tung Wan Tsai.

#### V. Summary

All of the above interpretation is arguably based on data from only one small site; however Tung Wan Tsai is in no way exceptional. The pattern is repeated over and over throughout the area. Tung Wan Tsai does however serve to emphasize the point that coastal regions such as south China are by definition on the periphery of developments in agrarian, central China and will best be interpreted by application of a model of maritime adaptation.

If Han settlement came at the same time as early political interest in this area, in the form of landscapes and structures, we should find remains archaeologically, but we do not. All we find is extraneous items of "gloss" within the same maritime adapted milieu; a milieu which is functionally and in every other sense equivalent to that found in the earlier deposits.

### Notes

- (1) For listings and discussion of such sites see volumes of the *Journal of the Hong Kong Archaeological Society* and Peacock and Nixon, 1985.
- (2) Further discussion of maritime hunter-gatherer economic exploitation can be found in Engelhardt and Rogers 1994.
- (3) The author is co-principal investigator with Richard A. Engelhardt of the Phuket Project, an ethnoarchaeological research project conducted on island sites off the west coast of South Thailand.

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## 華南沿岸史前生活形態

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【摘要】

一直以來，很多考古學家都將公元前後多個世紀的華南沿岸文化與以農為本的漢文化扯上關係，而忽略了其本身的特性與發展。本文作者認為當時活動於華南沿岸的先民，有其獨特的社會與經濟型態以適應濱海生活，並以東灣仔遺址為例，從這類濱海居民對棲息地的選擇和使用規律，與遺存特性這三方面進一步探究此論斷的可靠性。

東灣仔位於香港馬灣島東北角，遺存所屬年代介乎新石器時代晚期/青銅時代至西漢初期，即由史前過渡到有史時期。由於環珠江口有無數的海灣、島嶼、泥沼與沙堤，水產豐富，吸引了一批隨海洋資源流徙的先民，周而復始地在沿岸各遺址留下了間斷而有規律的棲息證據。東灣仔遺址的文化層有二：下文化層所在之沙丘有分散的遺存群如貝殼、骨類、貝器、夾砂陶器、磨製石器及銅器等，最早屬公元前1500年；上文化層年代介乎公元前800年至公元500年，除了貝類遺存和史前陶器外，

尚發現磨製石器、錢幣及鐵器等。二者皆明顯帶濱海文化的特徵，有大量貝殼及魚骨殘存，但前者以雙殼貝類為多，後者則以復足軟體動物為多。此外，下文化層出土的貝殼，部份邊沿經磨礪作割切及刮削器用，且有弄碎以抽取貝肉的痕跡；上文化層則無類似發現。遺存顯示東灣仔不斷被選作棲息地，經濟型態亦大致不變，但功能重複而狹窄。由於未見農耕遺蹟，估計漢文化未及此地。隨著上游伐木墾地導致珠江下游沖積增多，珠江口小生態環境漸起變化，濱海居民在各個地點居停的時間亦漸而拉長，見諸上下兩層文化堆積的不同分佈情況。

由於這些濱海居民經常流徙，所用器具多是體積小、輕便及多用途，且數量不豐，多屬公有財產。發展下來，器具型制變化不大。遺存中常發現個別較先進器物，但多是外來，與遺址原來文化無關。