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THE SOCIAL CONTEXT OF TRASH DISPOSAL IN AN EARLY DYNASTIC EGYPTIAN TOWN

MICHAEL A. HOFFMAN

ABSTRACT

The study of trash, although long in the forefront of actual archaeological research, has seldom been conducted in such a way as to emphasize the social and cultural context of the rules governing trash disposal. Evidence from the Early Dynastic town site of Hierakonpolis in Upper Egypt is used to support the contention that a knowledge of human patterns of trash disposal can be a valuable tool in the study of the composition and functioning of "urban" centers, as well as of general use in interpreting archaeological remains.

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IT IS NOW over a century since the French social philosopher Fustel de Coulanges published his monumental work on *The Ancient City* in 1864, and the "problem of the city" continues as a major and recurrent theme in the fields of inquiry dealing with the human condition. Like so many "problems," the study of those phenomena we choose to designate "cities" has been thoroughly muddled by semantic difficulties. Indeed, de Coulanges himself noted the great shades of difference attached to the Greek and Latin words polis, civitas, and urbs by the very people who coined them. Nevertheless, being creatures of language, many of us (the author is no exception) continue to employ such terms as "town" and "city" when dealing with cross-cultural phenomena. Although we will never completely evade the use of culture-bound words, it has long been recognized that we must find some common analytical denominators that will enable us to investigate and compare relatively dense and relatively stratified aggregates of human populations around the world. Of late, the questions that we in anthropology are asking about "ancient urban systems" focus on the nature of interrelationships between relatively dense population aggregates within a given environmental setting and the prehistoric and historic development of stratified, state-level societies. The archaeological questions are gradually shifting from a concern with what particular settlement form does or does not constitute a "proper city," to what types of activities and relationships characterize those complex socio-economic systems which produced early state-level societies.

Although archaeologists have dealt with the physical remains of large population centers for over a century, it is only recently that we have come to realize the broader implications of such studies and the need to adopt a multi-disciplinary approach. Often the focal point of our research has been the elite sectors of ancient centers, or we have sampled a given site so incompletely and randomly that reconstruction of social and economic systems and cultural ecology has been treated as a fashionable afterthought when it has been treated at all. It is the intention of this study to offer an example of what can be done by paying attention to the small details of the archaeological record in order to reconstruct a particular socio-cultural subsystem—in this case, trash disposal at the site of Hierakonpolis in Upper Egypt. Since Hierakonpolis occupied an apparently vital spot in the history of the evolution of the ancient Egyptian state (one of the earliest state type political systems in the world), the minutiae and organization of life within the center take on added importance. Finally, the Egyptian political system has acquired special theoretical significance within culture history and the social sciences, since it is often regarded as a prime example of a state level organization which developed independently of "the city" (Wilson 1960). To Western scientists with our culturally and linguistically inherited concepts of the importance of large population centers in the development of complex societies, it should be of special relevance to investigate the degree to which traditional hypotheses are validated or negated by the data.

As previously mentioned, this paper will focus on the inferences that can be drawn from the trash disposal system of an ancient Egyptian population center. I have already noted the importance of reconstructing what we might call "situated activity systems" within such centers as an aid to understanding the range and complexity of social life at a particular time and place. In addition to this information, a knowledge of the behavior associated with trash disposal gives the archaeologist an important methodological tool by permitting him to understand the various factors that conditioned the disposal and distribution of the remains he unearths. For instance, it is a commonly known but seldomly stated fact that the amount and nature of the debris found in a temple differs substantially from that found in the hovels of the poor. This is because refuse and the way it is treated reflect different human activities, values, and social categories. Whereas a temple or palace might be kept relatively clean during occupancy, a peasant dwelling might accumulate great amounts of leavings in and around its premises. Moreover, since the broken artifacts found in refuse often reflect the wealth, status, and occupation of their original owners, the particular contents of different trash zones may vary markedly even at the same point in time. For this reason, when excavating the remains of an ancient site once characterized by social complexity, functional differences must be taken into account before one can seriate or analyze differences between artifact assemblages or reconstruct the broader social and cultural context of the settlement (Hole and Heizer 1969:69-71).

BACKGROUND OF RESEARCH

Before launching into a discussion of the site of Hierakonpolis and the social context of trash disposal there, it is necessary to review briefly the state of settlement archaeology in Egypt. Although we are frequently told that Egyptian archaeology has focused on tombs and temples, a fair amount of information on ancient towns and villages has actually been accumulated over the past 80 yr. While it is clearly beyond the scope of this article to review in comprehensive and detailed manner the history of settlement archaeology in Egypt, Table I should give the reader an idea of the approximate number, type, and temporal distribution of tested and excavated settlements from the Predynastic period through the New Kingdom. A glance at the table will reveal some of the sampling biases characteristic of different periods of Egyptian prehistory and history. First, in regard to the Predynastic, most of the sites are small and have only been partially excavated, and are often poorly published. Moreover, many sites are little more than surface localities which were originally recorded only because they happened to be adjacent to great Predynastic cemeteries. During the Archaic and Old Kingdom periods, that is, from Dynasties One through Six, only Hierakonpolis appears as a relatively large and socially and economically diversified population center, although others doubtlessly existed at such spots as Memphis and Abydos. The Giza complex near the tomb of Khentkawes and several similar though less well known complexes nearby are small portions of specialized housing units connected with the construction and maintenance of royal mortuary edifices (compare Kemp 1972). The circular enclosure walls of El Kab, although often dated to this period (Clarke 1921, 1922; Badawi 1966:16) could just as well be of New Kingdom date judging from the size of the bricks employed in their construction. For the Middle Kingdom, the only good settlement we have is the pyramid town of El Lahun (Kahun) (Petrie 1890, 1891, 1923). The other sites, all located in Nubia, are forts, and as such represent a highly specialized settlement type. The amount of information increases somewhat in the New Kingdom, with the large but short-lived capital of Ahkhetaton (Tell el Amarna), the town of the royal necropolis workers at Deir el Medina, and the fortified temple-palace at Medinet Habu. Amarna includes a great range of functionally-specialized zones, but was so quickly abandoned that there was little time for extensive growth, remodeling, and the shifting about of various quarters that normally occurred and still occurs in Egyptian towns. The town at Deir el Medina was completely dependent on the royal projects carried out in the Valley of the Kings. However, its life spanned some 400 yr and due to the highly preserved state of its architecture, the presence of a good deal of documentary evidence relating to its inhabitants and the existence of its cemetery on a mountainside overlooking the town, we know much about its civic life and development.

Table 1. Archaeologically documented settlement sites in Egypt from the Predynastic period through the New Kingdom.

Cultural Period	Absolute Date	Site	Type of Site	Remarks
Predynastic	about 5000–3100 B.C.	Fayum A & B	villages	
		Merimde	village	
		Tasa	village ?	
		Badari	village	
		Hemmamieh	small hamlet	
		Naqada	villages	
		Ballas	town ?	
		El 'Omari	village	
		Hierakonpolis	several hamlets & town	
		Abydos	small village	
Archaic & Old Kingdom	about 3100–2250 B.C.	Mahasna	village	
		Maadi	village	
Middle Kingdom	about 2134–1786 (1650) B.C.	Hierakonpolis	large town	
		Giza Necropolis	workmen's village	
		El Kab?	?	circular walls are probably New Kingdom
		El Lahun (Kahun)	workmen's village	
		Semna	fort	
		Kumma	fort	
		Uronarti	fort	
		Askut	fort	
		Buhen	fort	
		Kuban	fort	
Ikkur	fort			
New Kingdom	about 1567–1087 B.C.	Deir el Medina	workmen's town	housed royal craftsmen who worked in the Valley of the Kings
		Amarna	town/city	royal capital with various functionally specialized quarters and elite estates
		Medinet Habu	fortified temple/palace & non-elite village	
		Sesebi	fort	

Finally, the temple-palace and fortified enclosure of Medinet Habu contains a number of ordinary dwellings of various periods, in addition to impressive elite structures.

Our study of the settlement sites of ancient Egypt has been hampered in the past by uneven sampling of sites, by only partial reporting and slow publication of excavation results, and by great variation in the quality of excavation techniques over the last 80 yr (Hoffman 1968, 1970:1-11). Moreover, although the results of some Egyptological inquiries into problems of settlement pattern analysis, such as John Wilson's 1955 classic on Buto and Hierakonpolis, are known to a few North American anthropological archaeologists, Egypt is often viewed disdainfully from the conceptual bottomlands of Mesopotamia or the giddy heights of the Hilly Flanks, and little if any attention is paid the more obscure published material on the topic (for example, Winkler 1938, 1939; Rizkana 1952; Murray 1939; Kaiser 1958, 1961; de Bono 1945; Brunton 1932, 1937; Brunton and Caton-Thompson 1928; Butzer 1959; Vermeersch 1969a, 1969b). A reversal of this trend in our own discipline began with the work of Karl Butzer in the late 1950's and early 1960's, and has very slowly acquired impetus with the recent appearance of anthropologically oriented articles by Kemp (1972) and O'Connor (1972), and fieldwork carried out by Fairservis (Fairservis and others 1973), McHugh (1972), and this author (Hoffman 1970, 1973a, 1973b).

With these considerations in mind, I will discuss briefly some of the characteristics of refuse accumulation and variation within the ancient Egyptian settlement of Hierakonpolis. Hierakonpolis, the "Falcon City," is the name given by the Greeks to the Early Dynastic settlement of *Nekhen*, the traditional capital of the legendary Menes, the first monarch to unify Egypt under Pharaonic rule. The site is located near and partially under the modern village of Muisaat on the western bank of the Nile in Upper Egypt about 25 km north of Edfu (see Fig. 1). The Hierakonpolis region lies within the broader context of southern Egypt, with its narrow stretches of alluvial soil sandwiched in between the high hills of the Eastern Desert and the eroded knobs and gravelly flats of the Western Desert. Although it may seem paradoxical, the first people to recognize the antiquarian potentialities of Hierakonpolis were the ancient Egyptians themselves, who constructed a series of temples on the site and deposited in the storerooms relics of the town's dim past. Modern scholarly interest in the history and prehistory of the Hierakonpolis region spans three-quarters of a century and includes work by Quibell (1900), Quibell and Green (1902), Garstang (1907), Brunton (1932), Lansing (1935), Wilson (1955), Kaiser (1958), and Butzer (1959, 1960). This particular study grows out of the research conducted at Hierakonpolis in 1969 by the American Museum of Natural History Expedition under the direction of Walter A. Fairservis (Fairservis 1973), and is meant to serve as an introduction to a set of problems with which archaeologists frequently deal but seldom discuss explicitly—the significance of how people dispose of their trash. Finally, it is hoped that the large size and early date (around 3100-2200 B.C.) of the Early Dynastic settlement at Hierakonpolis will encourage fresh comparison with similar "early urban centers" in other areas of the Near East. Since any reopening of the question of "urbanism" in ancient Egypt (see Wilson 1955, 1960) will require a specific knowledge of the spatial arrangement of social activities in particular settlements, this study is offered as a preliminary step toward comprehensive comparative research. The following discussion does not pretend to be a complete catalogue, but rather a guide to what has been revealed to date and an introduction to a methodological problem.

THE SOCIAL CONTEXT OF TRASH DISPOSAL

Before presenting an outline of ancient trash disposal rules at Hierakonpolis, some explanation of the method of presentation and classificatory categories is necessary. I have found it most convenient to present the information concerning the social context of trash disposal patterns in outline form, much as a series of geometric rules, in order to reflect more easily and directly the types of decisions that were made by the ancient inhabitants when they disposed of their trash.

The basic categories to which trash disposal patterns are related ("elite," "non-elite," and "industrial") are social and economic. Although such distinctions as elite and non-elite would be

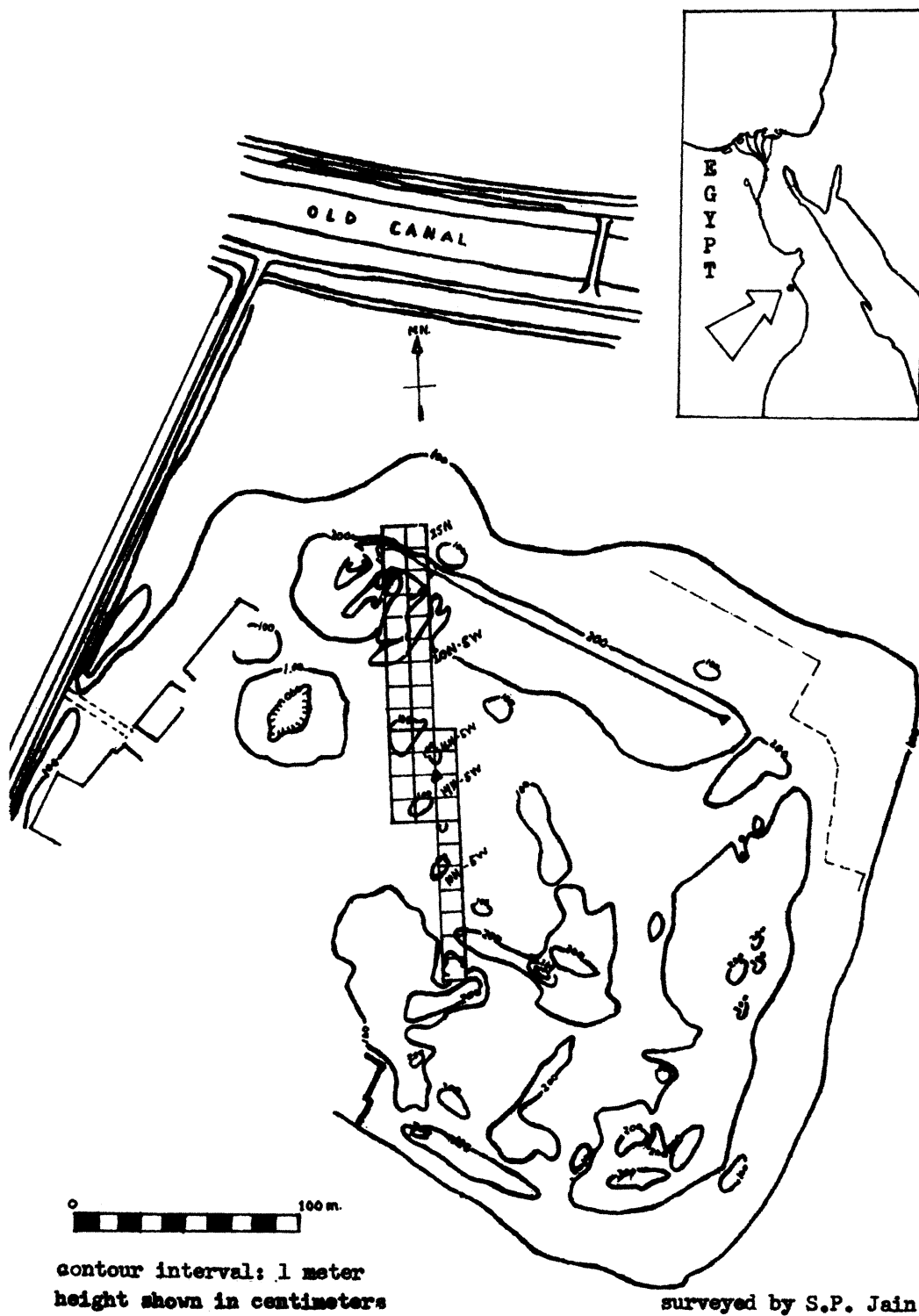


Fig. 1. Plan of the Early Dynastic walled settlement of Hierakonpolis.

quite unsatisfactory in classifying the archaeological remains of egalitarian societies or societies in which social differentiation was exceedingly complex, significant social differences in Early Dynastic Egypt were probably fairly clear-cut and directly related to power and the storage-redistributive economy. The pharaoh and a small administrative group held a divinely-sanctioned political power. This power allowed, and because of its redistributive requirements encouraged, the small group of decisionmakers to habitually amass surplus in the form of food and luxury and ceremonial items—goods which assured the preservation of high social position by their burial with their deceased owners. The group of “haves” stood in sharp contrast in their life styles to the “have-nots”—those who did not participate in the decision making processes and share the immense wealth which flowed into the royal coffers. The existence of a prosperous “middle class” of craft specialists seems likely at this time, although their putative “prosperity” was probably not much greater than that of a well-off peasant and their access to power practically non-existent. At any rate, if such a group did exist at Early Dynastic Hierakonpolis, no traces of it have yet come to light. The division “elite/non-elite” therefore is a pragmatic one based on the archaeological remains themselves supplemented by textual accounts. The terms provide convenient social referents for the archaeological remains, but cannot be thought of as representing the complete range of occupation group patterns of trash disposal until a much larger area of Hierakonpolis has been sampled. The third main category, “industrial trash,” points to certain special economic activities rather than class-related living habits. It is hoped eventually that more extensive excavations will enable us to say more about the organization of specific production activities by revealing complete complexes of buildings and specialized debris.

In reference to the subdivisions employed in discussing trash disposal rules, the terms “elite,” “non-elite,” and “industrial” have been appended to the word “structures,” emphasizing the spatial/architectural referent of our social categories. The various subdivisions used with reference to elite and non-elite structures are similar and based on occupational continuity or discontinuity and distinctions apparently made by the ancient inhabitants between organic and inorganic trash.

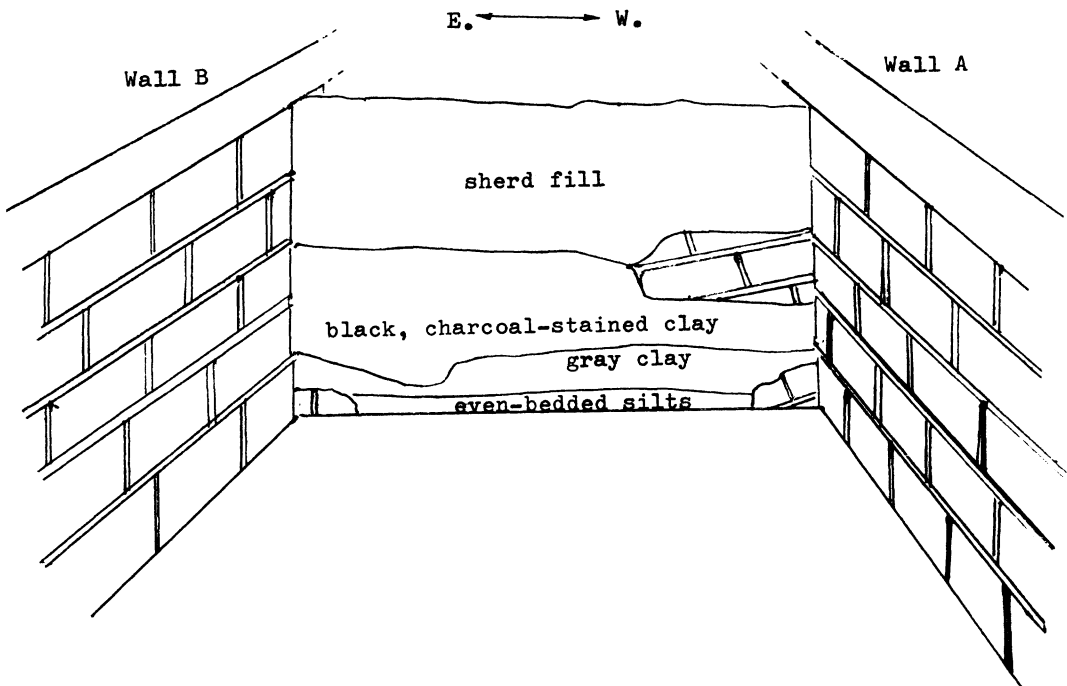


Fig. 2. Profile in south balk of Square 19N7W in Street 1.

As stated before, because of the different nature of the trash and the difficulty of detecting abandonment or continuing use given the present condition of the evidence, industrial trash disposal patterns are discussed relative to the specialized economic activity that they represent. The following outline presents the trash disposal patterns in Early Dynastic Hierakonpolis as known from the present evidence:

I. In Non-Elite Structures

A. Given continuing occupation

1. Trash is dealt with in 2 different ways depending on whether or not it is:
 - a. Inorganic trash (mostly larger and heavier potsherds, small bits of metal, broken grinding stones, and so on) is removed from the living quarters and dumped in nearby depressions in order to level off the ground. One result of this practice is

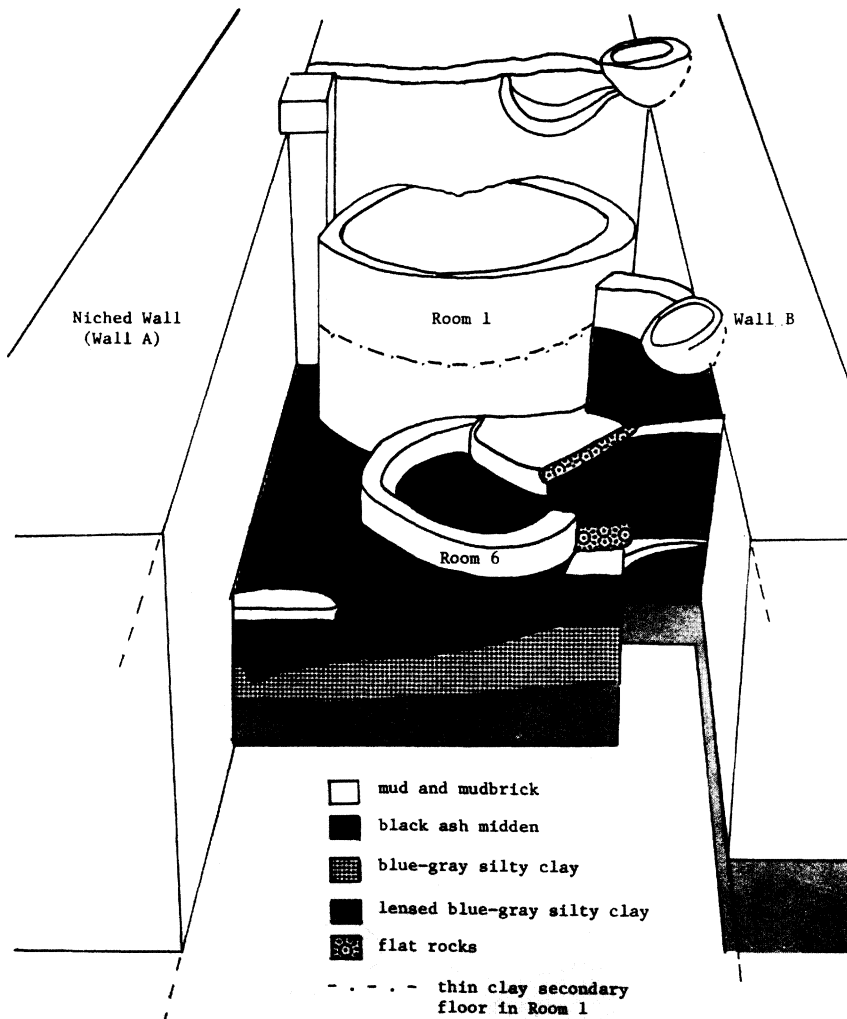


Fig. 3. Cultural stratigraphy of squatters' debris in Square 16N7W.

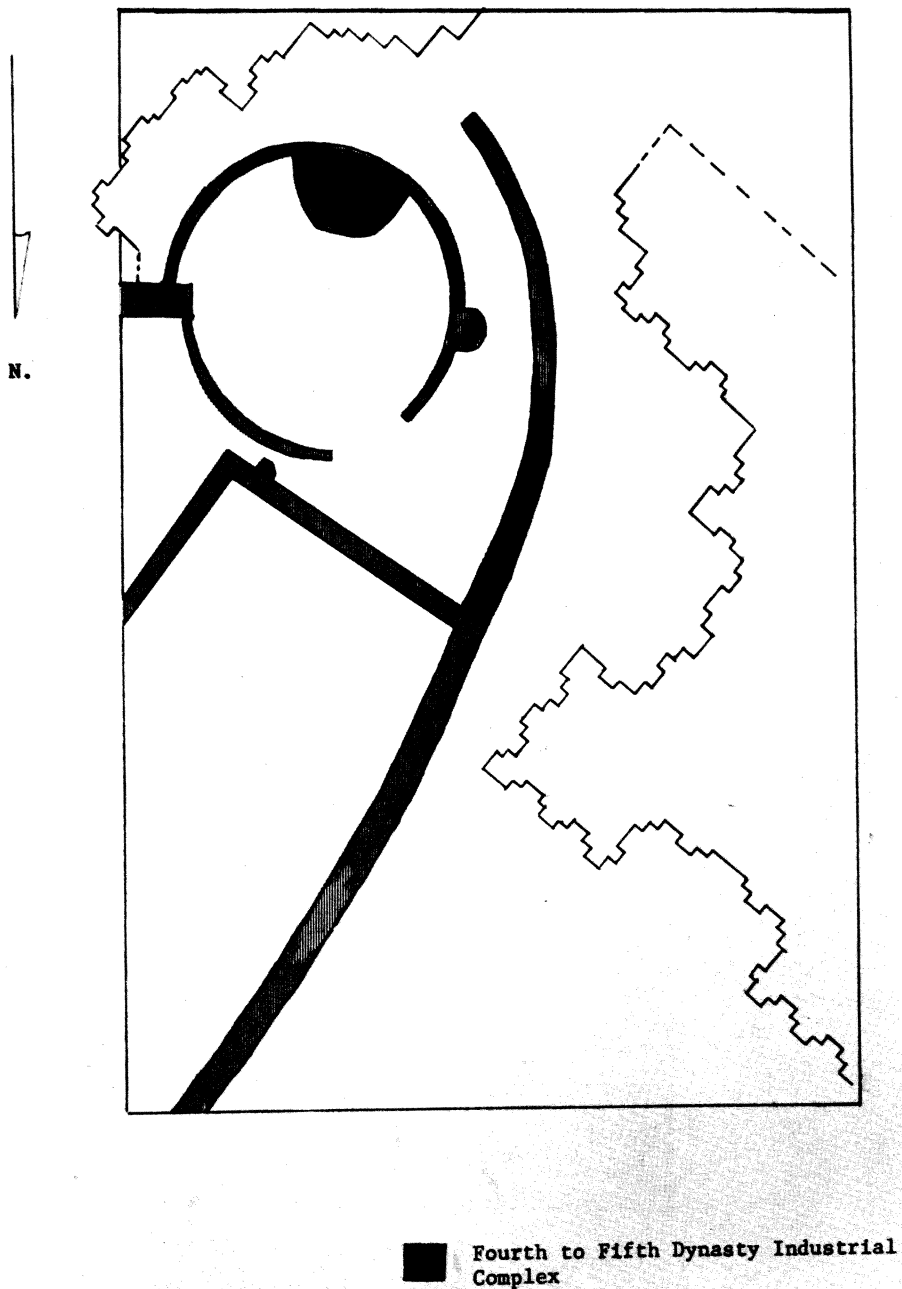


Fig. 4. The niched gateway and industrial complex at Hierakonpolis.

that depressions between older walls will often be filled-in with inorganic trash (see Fig. 2) *providing that:*

- (1) The old walls are not large and substantial enough to be re-used for squatters' jury-built dwellings (see Fig. 3), or

- (2) There is not a deliberately enforced and traditionally sanctioned attempt to preclude non-elite re-use of abandoned elite structures. A striking example of this situation occurred in the deliberate avoidance of a very early (First Dynasty?) niched facade by a later (Fourth to Fifth Dynasty) industrial complex (Fig. 4). In this case, the niched structure was probably a former royal palace or compound during the initial phase of the consolidation of the Egyptian state. Moreover, we know that Hierakonpolis was traditionally regarded by the ancient Egyptians as their first national capital and that the attribute of niching was employed by Pharaohs of the early dynasties as a prominent element in tomb architecture. Therefore, one can probably attribute to royal order the peculiar situation that sees an industrial complex characterized by solid construction and planned square or rectangular structures (that is, central planning) curve at one point in order to avoid cutting into the long-abandoned niched facade even though its positioning effectively blocks a major gateway in that facade (Fig. 4). It is perhaps informative to note that this prohibition had no effect on dissuading the re-use of the niched structure by late Old Kingdom (Fifth to Sixth Dynasty?) squatters (Fig. 3).
- b. Organic trash (bone, ash, vegetable material, and so on), which now exists largely as a black or dark gray midden, was often levelled-off on the house floor and

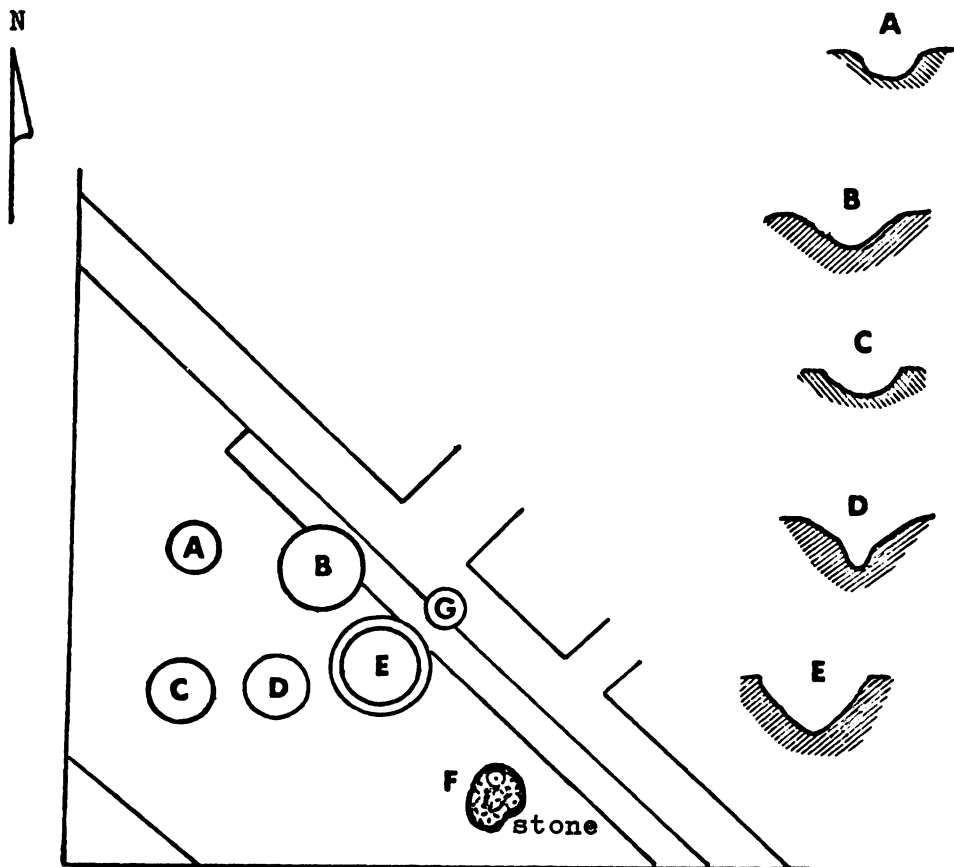


Fig. 5. Cluster of pot basins in Square 15N6W.

capped with a new course of mud or mudbrick. As many as 4 to 5 floors representing nearly a meter of accumulation were noted in 2 separate houses. Possibly this marked an attempt to raise the floor level to that of the surrounding streets as commonly occurred in many Near Eastern tells. Organic trash that was not left on the floor was treated much like inorganic trash and used to fill-in depressions (notably in areas adjacent to circular storage bins—see Fig. 3). There appears to have been no aversion to dumping large amounts of organic trash near one's dwelling, not to mention under one's floor!

B. Given abandonment

1. Trash of *inorganic as well as organic* variety will be left on the floor and appears in the archaeological remains as soil discolorations, clusters of milling stones, groups of broken or even whole pots or pot basins (see Fig. 5). In such instances, the distribution of vessel types may be an important clue to the function of different rooms within a house or even of different sections of a room, especially when checked against the excellent ethnohistoric information provided by Egyptian house models (see Winlock 1955).

II. In Elite Structures

A. Given continuing occupancy

1. There is a deliberate attempt to dispose of all trash, both organic and inorganic, outside the elite living and/or ceremonial areas so that these structures are comparatively clean. The little trash that is found in elite structures falls into 2 categories:
 - a. Broken, exotic status-indicative objects (such as fragments of ivory) and
 - b. Building elements from earlier structures that are re-used later on or incorporated into a later building. This was a common practice employed in temple construction throughout Egyptian history, and usually involved large pieces of hewn stone.
2. Storage areas are often appended to elite residential and ceremonial structures. These are characterized by regular, grid-like planning, small rooms, and, frequently, by the presence of a large storage vessel sunk into the floor. Although one suspects that such vessels were used to store food (or drink), the lack of organic remains makes a direct assessment of their specific functions difficult. To date, the only trash found in these storage areas has been limited to status-indicative or ceremonial objects (such as broken alabaster vases). We know from Old Kingdom papyri that objects of antiquarian or cultic value were often kept in such areas, and if such objects were broken they would still be kept and occasionally mended. For this reason, one might take issue with the appellation "trash" being applied to such material. At any rate, it should be noted that the British findings at Hierakonpolis (Quibell 1900; Quibell and Green 1902) included both objects of art and cultic "antiquities" from the store rooms of the Old Kingdom temple.

B. Given abandonment

1. Although complete abandonment of a temple area is quite rare given the tendency for a religious spot to retain its sacred aura indefinitely, partial abandonment of these structures often results in their re-use by non-elite squatters. The same re-use occurs in elite residences that are abandoned, providing there is not an attempt by the authorities to keep the spot unoccupied, as in the case of the niched structure (Fig. 4). Even in such cases, however, the eventual triumph of the persistent squatter was almost inevitable (Fig. 3).
2. Insufficient data exist for abandoned storage areas.

III. In Industrial Structures

- A. Those remains classified as "industrial" can be classified archaeologically by the presence of a specialized refuse, which reflects the main by-product of the manufacturing activity or the by-products of allied techniques employed in the manufacturing activity. In

addition to the archaeological material, excellent wall paintings and reliefs and 3 dimensional models of workshop activities are available from contemporary Old Kingdom and slightly later Middle Kingdom times and provide an ethnographic check on the archaeological interpretations of the remains. Three specific "industrial" (or "craft") activities could be distinguished at Hierakonpolis, although the architectural remains suggest additional as yet undefined specialized activity areas:

1. The presence of several large and rather elaborately constructed hearths surrounded by great amounts of ash and occasionally containing bits of slag suggest smelting. In this regard, it is important to note that the oldest example of large-scale copper statuary in Egypt, the Sixth Dynasty Pepi group, was recovered by the British excavations at Hierakonpolis in the Old Kingdom temple.

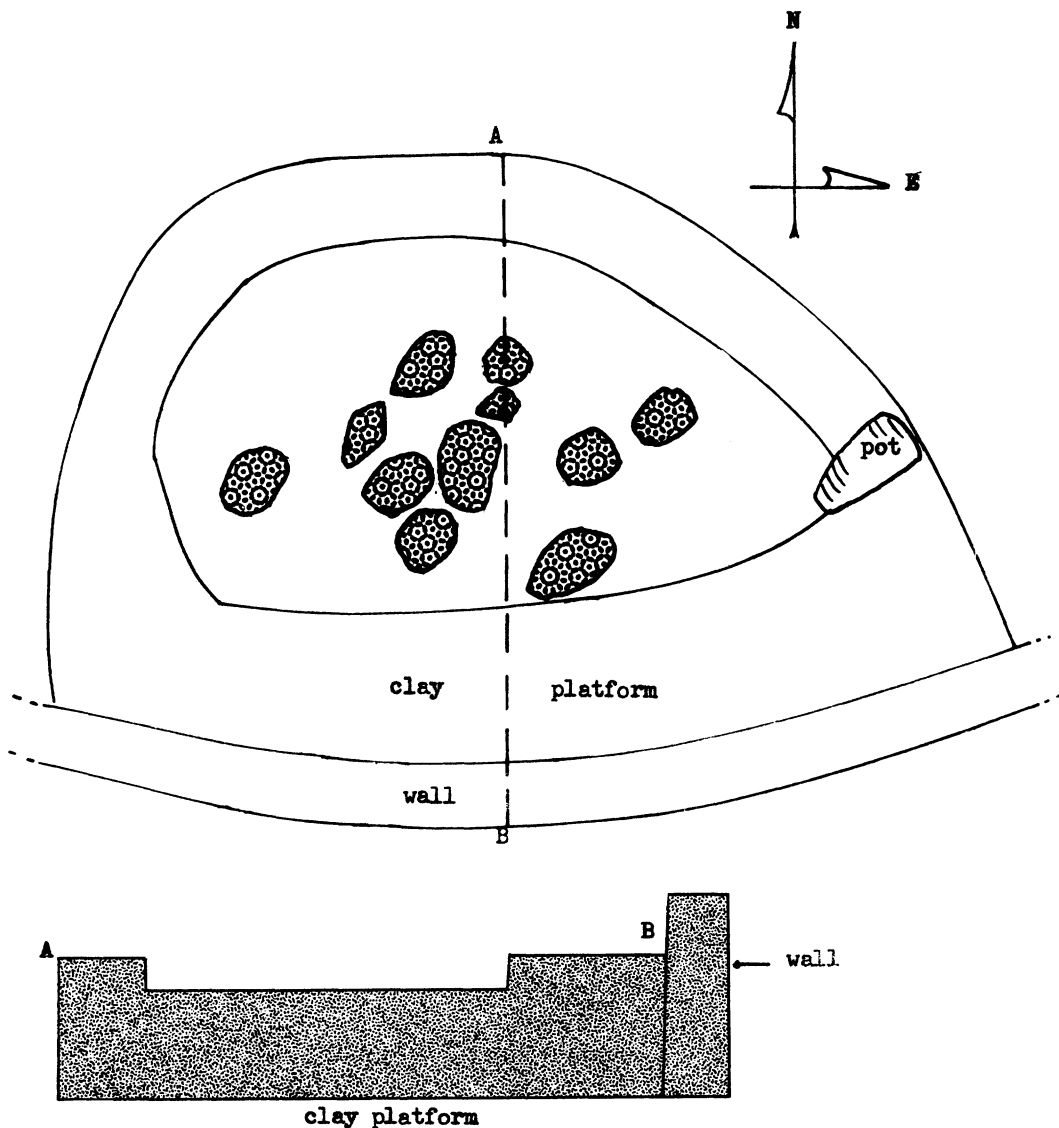


Fig. 6. Rock concentration in clay platform in Square 17N6W.

2. A specialized activity area of a different sort was indicated by a concentration of very fine retouch flakes of flint found inside a storage pot. The pot itself was sunk into a highly unusual, well-laid floor of colored sand. The flakes seem to be resharpening chips from the edge of the large flint butchering knives that were used by royal workmen and stored in large quantities in Early Dynastic tombs. Many of these knives, often bearing signs of a distinctive type of retouch resharpening along the cutting edge, were found during the 1969 campaign. A large concentration of cow bones and a nearly complete *Bos* skeleton found near this knife resharpening area may indicate the presence of a slaughterhouse on this spot.
3. A third type of industrial activity was confined to a large circular room (a part of the complex that intruded the niched gateway) (Fig. 4). The room contained 2 mud platforms upon which rested several large, cobble-sized stones (Fig. 6). Aside from a large, flat stone with a ground circular depression and a few small, whole pots, the room was free of the decayed organic living debris that characterized non-elite dwellings. Consideration of the special planning and size of the room, the lack of living debris and a comparison of the cobbles and ground stone with scenes in Old Kingdom reliefs (Emery 1961) suggests that we are dealing with the remains of a stone vase cutter's workshop.

ASPECTS OF FUNCTIONAL DIFFERENTIATION WITHIN HIERAKONPOLIS

As stated earlier, any attempt to understand and compare those large population aggregates we call "towns" or "cities" requires a knowledge of the type, range and distribution of human activities that went on within them. The variety of archaeological remains already unearthed at Hierakonpolis permits some preliminary observations on the range and spatial distribution of activities engaged in by the ancient inhabitants of *Nekhen* and the social and economic differences that prevailed among them. Fig. 7 displays the distribution of different activities within the walls of Hierakonpolis. The various activity zones portrayed are based upon the data provided by trash disposal patterns, architectural and occupational features, and stratigraphy. Given the limited nature of the excavations, the data are naturally incomplete and probably will be modified significantly by future work. Nevertheless, there is sufficient evidence available to indicate the presence, nature, and distribution of different activity zones for the period 3100 B.C. to 2200 B.C. (from the Protodynastic age through the end of the Old Kingdom) and the probable persistence of one zone (the sacred quarter) into Ptolemaic times.

The evidence suggests the presence of 4 and perhaps 5 specialized activity zones within the Early Dynastic walls of Hierakonpolis: (1) a sacred quarter, (2) an industrial quarter, (3) a possible administrative quarter, (4) several non-elite residential quarters, and finally (5) a defensive system represented by the circuit walls themselves. The sacred quarter was located at the southern end of the settlement and consisted of temple structures and distinctive refuse. This area was first excavated by Quibell and Green (1902), who suggested that the earliest shrine on the spot dated to the Protodynastic period (around 3100 B.C.). Our findings seem to corroborate this observation, several rather unique structures of Protodynastic vintage coming to light in the 1969 campaign (Hoffman 1970:66-68). The recovery of votive plaques of apparently Ptolemaic date hints that the sacred aura of the spot survived for a long time—a not unusual or surprising event if one considers the Greek, Roman, Christian, and Islamic re-use of the ancient temple of Luxor. The industrial quarter occupied an area immediately north of the sacred quarter. There is some indication from the specialized debris that a broad range of production activities was carried out within this locale much in the manner of the household or "manorial" system of production attested from somewhat later times on royal and aristocratic estates. The industrial activities known include metallurgy, the production of stone vases and the resharpening of specialized butchering knives, possibly indicating the presence of a beef slaughterhouse. The industrial quarter, unlike its sacred counterpart, did not persist for a very long time, occupancy being apparently confined to the Fourth through Sixth Dynasties. The industrial zone, which seems to have been encroached upon

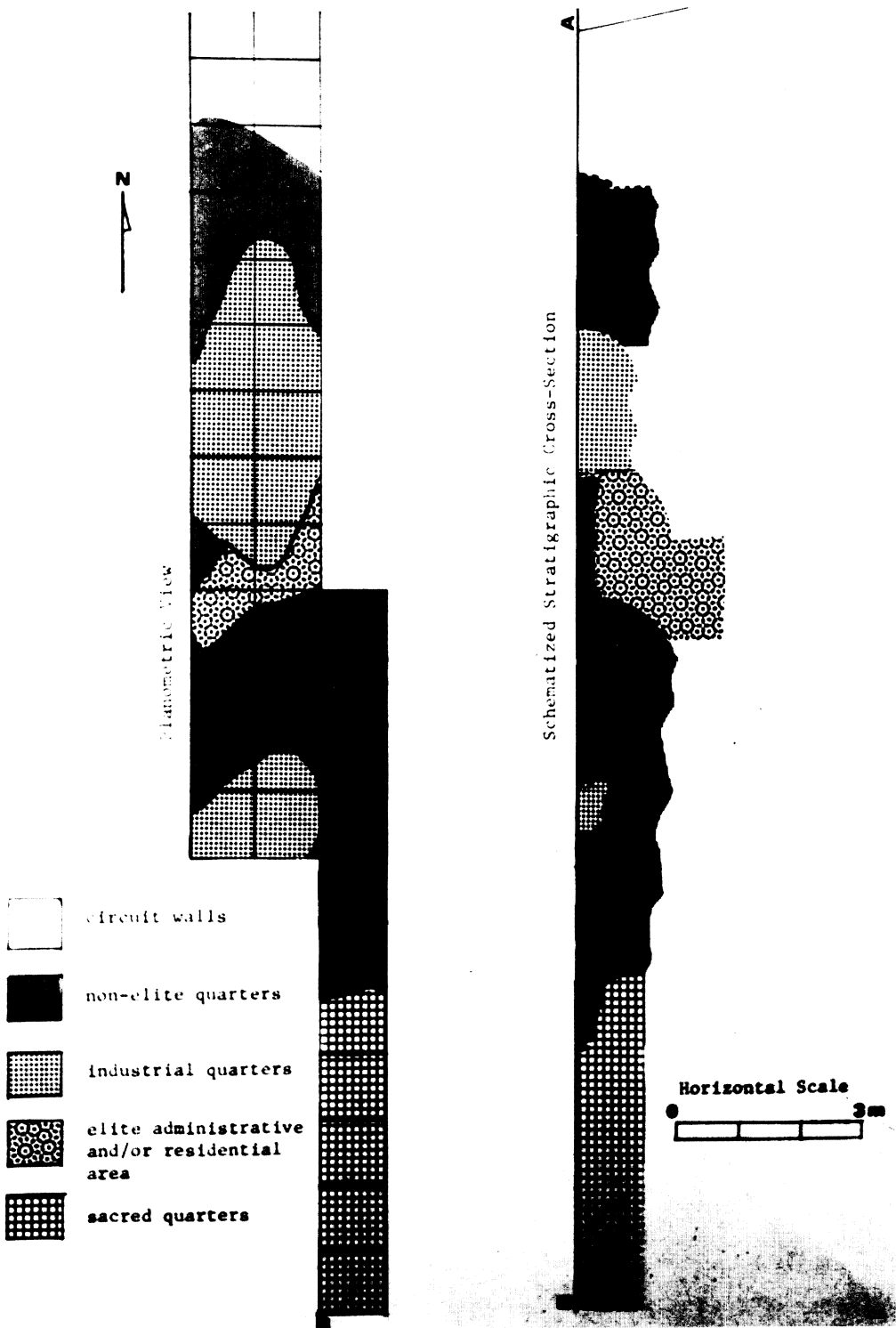


Fig. 7. The distribution of activity zones in the excavated area at Hierakonpolis.

by non-elite residents at the end of the Old Kingdom, itself intruded upon an earlier quarter of Archaic times. The Archaic quarter, tentatively identified as an administrative site, is poorly known and no definite debris can be stratigraphically assigned to it with confidence. It is marked by a large niched wall and gateway (Fig. 4) and may, on ethnohistoric comparison with Archaic tomb complexes, have been the residence of the administrative authority for the town and perhaps even an early Pharaonic palace.

The non-elite residential quarters were concentrated in the central and northern portion of the area sampled, but the British findings of similar structures in the eastern section of the settlement indicate that they were widespread. Unfortunately, insufficient chronological data and horizontal exposures exist at this time to reconstruct the always intricate pattern of non-elite residential growth and shiftings. The areas revealed by the 1969 tests seem to be of Third to Sixth Dynasty vintage. There is some evidence for a gradual encroachment by the non-elite citizens of Hierakonpolis on the niched wall by Fifth to Sixth Dynasty times; however, the area excavated is too small to trace with precision the oscillations and extent of the non-elite quarters through time. Until this is done, we cannot begin to estimate the size of the population housed within the Early Dynastic walls (an area amounting to approximately 7.5 ha). Although the author would suspect an agglomeration of several thousand persons, no logical inferences can be drawn until such time as a large enough area of the settlement is uncovered and occupational stratigraphy, both horizontal and vertical, is revealed and functional-spatial variation understood. What is clear at present, however, is that there were such substantial differences in the treatment of architectural space and patterns of trash disposal that no formula based upon the area enclosed by the circuit walls alone can yield a reliable population estimate (see Adams 1965; Wright 1969). The extensive and massive wall around Hierakonpolis (see Fig. 1) almost certainly was defensive in character and reflects deliberate, centralized planning. The finding of a well-built, buttressed structure on top of the northern end of the area excavated suggests sentries' quarters or perhaps a special building for regulating the flow of goods and people into the settlement. The apparently Early Dynastic date of the walls indicates that they were built under Pharaonic directive. In later periods, such circuit walls usually surrounded important centers and were associated with times of trouble. Characteristically, they contained a good deal of empty space inside their perimeters, although what effect their construction and planning had upon the distribution of the already-existing population of Hierakonpolis is not known at present. It does seem that relatively soon after their construction they were encroached upon, at least in spots, by non-elite squatters.

It can be said in summary that to date we have learned a great deal about the tremendous range of activities that once took place within the walls of ancient Nekhen by paying attention to such prosaic details as trash disposal patterns. We now have sufficient information on the characteristics of Old Kingdom, Archaic, and Protodynastic occupation to orient future fieldwork toward the isolation and solution of outstanding problems. Such information is especially vital considering Hierakonpolis' important role in the initial formation of the Egyptian state and considering that, to date, it is the earliest Dynastic settlement excavated. When one realizes that the occupational history of the settlement is complemented and augmented by findings at adjacent Predynastic localities (Hoffman 1970; Fairservis and others 1973), it seems that we may have for the first time the proper archaeological information to evaluate the social, economic, and demographic factors that shaped the beginnings of Egyptian civilization.

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Useful comparative information and comments concerning archaeological trash disposal patterns in different areas of the world have been provided by Dr. Jim G. Shaffer, Department of Anthropology, Case Western Reserve University, on Bronze Age Central Asian materials, and by Dr. David Webster, Department of Anthropology, Pennsylvania State University, on Central American Pre-Classic, Classic, and Post Classic data.

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