

Sabrina R. Rampersad

Tell el-Masha‘la: A Predynastic/Early Dynastic Site in the Eastern Nile Delta

Archaeological investigation was conducted at Tell el-Masha‘la (Fig. 1) in the eastern Delta by a University of Toronto team, under my direction, from 2002 to 2004. The first season (2002) consisted of a pilot project of three weeks in length, while the second and third seasons (2003 and 2004) were each of six weeks duration. It is now understood that this denuded and flattened tell, which once bore evidence of later historic occupation, is now represented largely by a settlement sequence of Predynastic and Early Dynastic age. A limited area of this deposit has yielded a small number of burials within the early habitation areas. There is no evidence of burials having been amalgamated into a cemetery proper. The artifact assemblage, its distribution, and its extensive depth, attest to a relatively homogeneous population living on the site for a lengthy span of time during the Predynastic/Early Dynastic period. The ceramic corpus consists largely of Rough Ware made of chaff tempered Nile silt, with domestic types dominating the assemblage. The lithic material, although abundant, is surprisingly undiversified, consisting primarily of flint bladelets. Blades and microblades have also been found at the site, but these industries are not as well represented as the bladelet industry. A ground stone tool assemblage consisting of meager numbers of grinding implements and hammerstones has also emerged from the site.

The Nature of the Settlement Remains

Most of the Predynastic/Early Dynastic deposit at Tell el Masha‘la lies at a depth of 2.0 m to 2.5 m below the surface of the tell, well beneath an overlying cap of largely sterile sand. Only within the top ten centimeters of the surface is any later cultural material to be found, this representing part of a severely eroded occupation, likely Roman in date, and not distributed evenly across all areas of

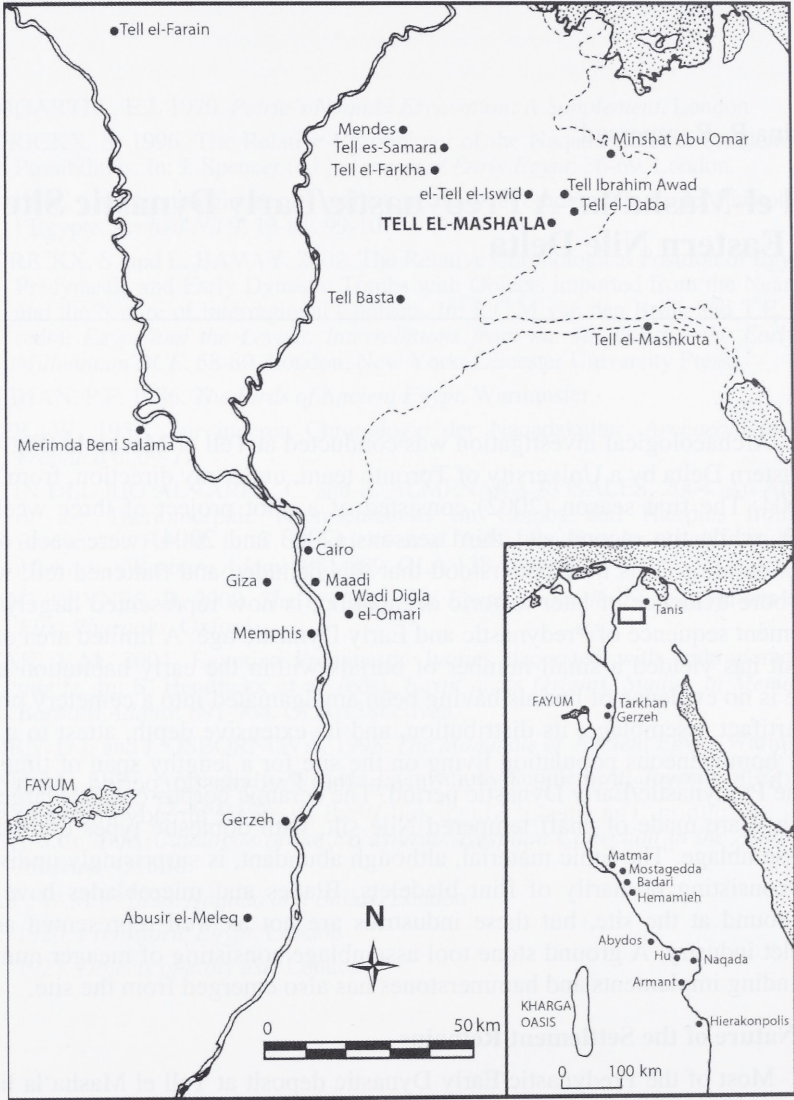


Fig. 1. Map showing the location of Tell el-Masha'la and surrounding area.

the tell. There is no evidence whatsoever of any cultural continuity between this Roman occupation and any previous or subsequent historic period. A small corpus of ceramic material has been recovered of the Roman occupation, which has not yet been studied in detail and which will not be discussed here.

As for the exact nature of the Predynastic/Early Dynastic settlement and its areal layout, this is not an easy matter to define. There is disappointingly little evidence for the organization of living spaces across this site, such as houses (or other types of structures), postholes, storage pits, or activity areas. This is surprising given the considerable depth of the deposit and the uniformity of its distribution across the entire existing tell. The basal depth of the cultural sequence has not been reached through excavation, but up to two meters of cultural deposit has been removed in some trenches, often until the rising water table forced the abandonment of further efforts. Even at this depth, there is still no indication of an end to the thickness of the deposit, and only further excavation below the water table, or auger drilling will provide the much needed information regarding the thickness of this occupational sequence. What is more remarkable perhaps is the extreme homogeneity of this cultural deposit. Despite its thickness, there is little change in soil matrix, little variation in its cultural constitution, and therefore not enough variation in its stratigraphic make-up that would indicate either a multi-phase occupation or a major change in the population that once occupied this site. It appears likely that this cultural sequence, capped and sealed so securely beneath its sandy layer, was formed by a group of ancient settlers who likely lived in this location relatively unchanged for a long, albeit finite period of time. The thickness and homogeneity of this settlement deposit provides new support for the likelihood of stable and peaceful populations living throughout the Delta during the Predynastic period, with little cultural evolution. The sites of Maadi and Wadi Digla are already known to show such a lengthy single-phase occupation (see Rizkana & Seeher 1989: 38-39).

Furthermore, the overall condition of the material remains at Tell el-Masha'la reflects, in character, a high degree of fragmentation within the habitation deposit. The categories of finds scattered within the deposit include: chipped flint tools, a limited amount of debitage, ground stone tool fragments, charcoal, various species of animal bone, an abundance of potsherds, fish remains, and fragments of shell. There is a notable scarcity of whole objects of any kind (with the sole exception of bladelets, discussed below), and this extends to include whole vessels, which are very sparsely represented in the archaeological record despite the occurrence of substantial amounts of broken sherds across the site. The consistent blackness of the matrix in which most of the cultural material is found stands in sharp contrast to the overlying light yellow and largely sterile sands, and also testifies to the once active population that formed the site. The

types and distribution of the aforementioned cultural debris suggest that a number of varied domestic activities must have taken place in predynastic times, although in what precise contexts these may have occurred (inside houses, open air activity areas, etc.) are obscure given the general lack of defined living and work spaces. It can be assumed, for instance, that bladelets were manufactured on or near the site, from the presence of both cores and finished tools, but there are no activity areas to show where this process might have taken place. There is also no clear association between bladelets and their cores. Some butchered animal bone has been recovered, but again there is little evidence of the process of butchering itself.

Small Fortified Pits

Rare evidence of cultural process may be seen in the occurrence of small fortified pits (Fig. 2) distributed throughout the settlement area, which seem to represent a specific type of organized domestic activity. Other than the limited occurrence of burial pits or graves, they are amongst the few indisputable features to emerge from the site. Twelve of these small pits have been found at various locations across the site, specifically, along the western boundary, in the central part of the tell, and at the southeastern corner. It will be noted by their wide distribution that the pits do not seem to be restricted to one area of the tell, perhaps reinforcing the assessment of this settlement as a spatially homogeneous unit. All pits are small and circular with a diameter range of 22.5 cm to 35 cm at their surfaces, but they narrow with depth, so that in section they resemble deep bowls with rounded bases. Their mean surface diameter is 29.6 cm. Their depths range from 13 cm to 44 cm, with a mean of 25.7 cm. Some pits occur singly, while others appear in small clusters (see Fig. 2), but in no instance do the clusters resemble posthole patterning, as they are not in any linear, circular, or other geometric formation. It will be seen by the evidence collected from inside and around these pits that they were likely cooking pits, or more precisely, locations where food may have been prepared, cooked, and perhaps consumed.

There appears to be three different versions of the same basic pit type: (1) those with clay-lined interiors (Fig. 2.2, 2.3, and 2.5), where a thin layer of clay covers all or nearly all of the inside surface, (2) pottery-lined interiors without clay (Fig. 2.1 and 2.6), where layers of potsherds are very tightly compacted against the base and walls of the pit, and (3) a combination of a clay lining in the top portion of the pit, and potsherds lining the lower pit, including the base (Fig. 2.4). In the clay-lined pit (Type 1) the lining appears as a thin clay ring in plan, usually measuring about one centimeter thick at the top, but reaching two or three centimeters in thickness toward the bottom in most cases. In one rare instance (not shown) the lining measured five centimeters thick in a small portion of the base only. In the pits employing sherd linings (Types 2 and 3), the extent

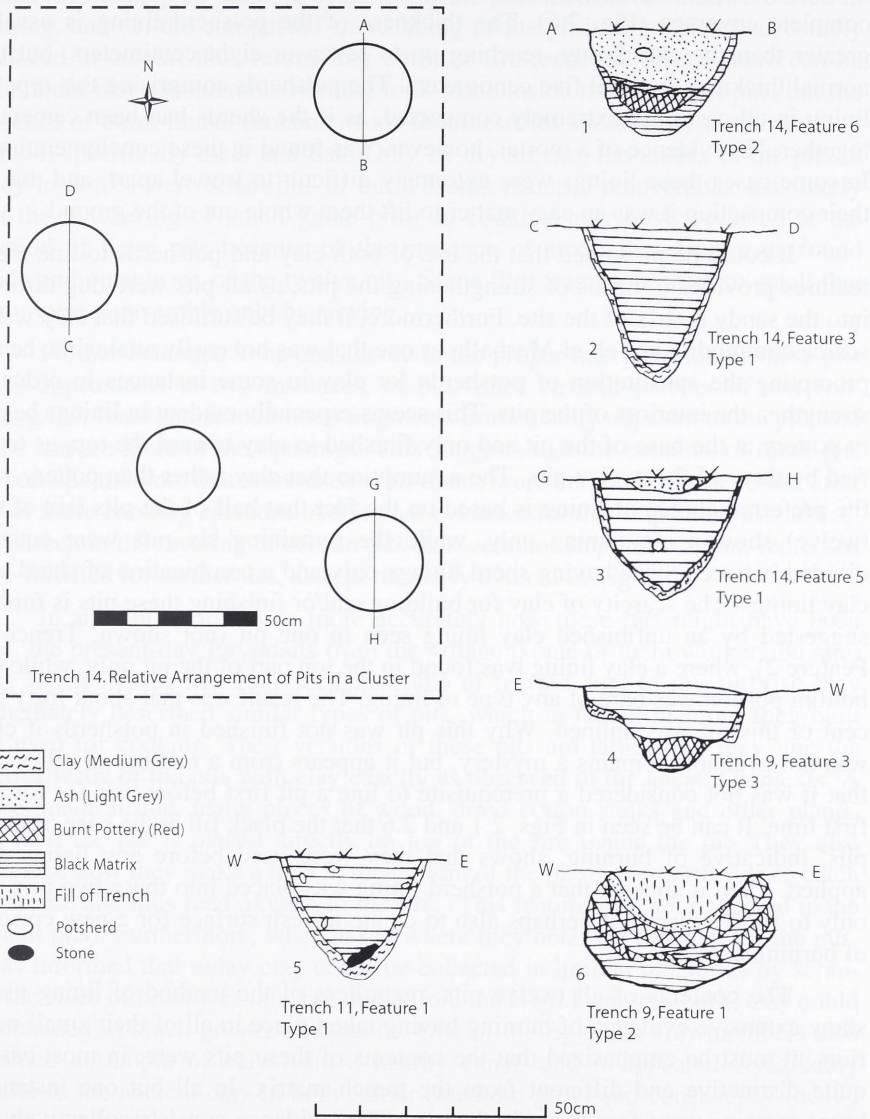


Fig. 2. Small fortified pits.

to which the pit is lined varies from partial coverage (Fig. 2.1 and 2.4), to more complete coverage (Fig. 2.6). The thickness of the potsherd lining is usually greater than the clay lining, reaching up to seven or eight centimeters, but the normal thickness is about five centimeters. The potsherds comprising this type of lining in all cases are extremely compacted, as if the sherds had been cemented together. No evidence of a mortar, however, was found in these conglomeration. In some cases these linings were extremely difficult to trowel apart, and due to their compaction it was an easy matter to lift them whole out of the ground.

It could be presumed that the use of both clay and potsherds to line these features provided a means of strengthening the pits, as all pits were dug directly into the sandy matrix of the site. Furthermore, it may be surmised that clay was a scarce commodity at Tell el-Masha'la or one that was not easily attainable, hence prompting the substitution of potsherds for clay in some instances in order to strengthen the interiors of the pits. This seems especially evident in linings begun in pottery at the base of the pit and only finished in clay toward the top, as testified by three of the twelve pits. The assumption that clay rather than pottery was the preferred choice of lining is based on the fact that half of the pits (six of the twelve) show a clay lining only, while the remaining six pits were equally divided between those having sherd linings only and a combination of sherd and clay linings. The scarcity of clay for building and/or finishing these pits is further suggested by an unfinished clay lining seen in one pit (not shown; Trench 9, Feature 2), where a clay lining was found in the top part of the pit only, while the bottom portion was bare of any type of lining. The result was that about forty per cent of this pit was unlined. Why this pit was not finished in potsherds if clay was not available remains a mystery, but it appears from a number of other pits that it was not considered a prerequisite to line a pit first before using it for the first time. It can be seen in Figs. 2.1 and 2.6 that the black fill at the base of these pits, indicative of burning, shows that they were used before any lining was applied. Then it appears that a potsherd lining was placed into these two pits not only to fortify them but perhaps also to create a fresh surface for a new episode of burning/cooking.

The contents of all twelve pits, regardless of the method of lining used, show extensive evidence of burning having taken place in all of their small interiors. It must be emphasized that the contents of these pits were, in most cases, quite distinctive and different from the trench matrix. In all but one instance, burnt remains were found inside the pits. This evidence consists collectively of ash and charcoal within the interior matrices of the pits, a darker matrix inside the pits rather than outside, burnt animal bone, fish remains, animal teeth fragments inside the pits, and burnt pottery, also in their interiors. The burnt pottery may be characterized as two types: (1) small, fragmentary, and blackened pot-

sherds inside the pits, possible evidence of the pots themselves that were used in cooking, and (2) the compacted sherd lining of the pit itself, which was usually brick-red in colour, thus resembling burnt or fire-reddened brick. There can be little doubt that considerable burning took place inside these ancient pits, but the presence of burnt faunal remains inside them testifies specifically to the cooking of food, specifically meat and fish. Only by dry sieving the matrix of the pits in many instances were small bits of burnt faunal material recoverable. It is likely that the butchering of small game prior to cooking may have occurred at the location of these pits because of the presence of small flint fragments found inside and outside six of the twelve pits. Some flint fragments were so small that many were recoverable only by sieving.

Further evidence to be considered in the proper interpretation of these pits is the appearance, in two instances, of blackened circular patches of soil containing fish bone and animal bone fragments immediately adjacent to the pits and at the surface level of the openings. This suggests that the contents of these pits (or perhaps the pots that were used with them) were emptied out for re-use after one or more cooking episodes. Additional evidence for this sequential use and re-use is seen in the layering of certain pits that were not emptied out, but, redressed or re-fortified for further use, as is particularly evident in Fig. 2.6.

In attempting to assess more accurately how these pits might have been used, the present-day Egyptians from the village (some of them workers on site) were asked if they had ever seen this type of feature, and to my surprise they immediately described similar types of pits, which in recent memory they built and used for cooking. Their versions of these pits are larger, but they line the interior walls of the pits with clay exactly as observed in the ancient contexts. A fire is made inside, using pieces of wood, dried cotton stalks and other plants, and then the pot is placed directly on top of the fire inside the pit. They also described how they make a hole at the bottom of the pit on the north side to catch the breeze and thus feed oxygen to the fire. (This feature was not observed in the ancient pits). Furthermore, when asked where they obtained the clay for the pits, I was informed that today clay could be collected in limited quantities by scraping the sides of nearby canals, but that before the High Dam was built, clay could be obtained in much greater abundance. One of the Egyptian crewmembers also obtained a sample of clay from a nearby canal, and it appeared remarkably similar to the ancient clay in both colour (medium grey) and consistency (heavy and fine grained).

Were it not for this strong ethnographic parallel and the immediate familiarity of these features to the modern inhabitants of the site, one might be tempted to seek alternative or varied uses for the predynastic pits, but since the ethnographic account 'fits' the archaeological evidence suggesting cooking features,

there seems little reason to question the function of these pits any further. The small size of the ancient pits should be taken as an indication that small cooking vessels were used in the predynastic pit fires, and also, the limited size of both pits and cooking vessels might suggest that cooking was done on a small scale as would suit one or two individuals or perhaps a small family group. Depending on what was cooked, the small pits in limited numbers may indicate, further, that large quantities of certain types of food (meat or fish, for example) were not readily available for cooking and consumption at any one time.

Adding to the probability that the pits were cooking installations is the fact that some of the whole vessels at Tell el-Masha'la have been found to have blackened bottoms on the exterior, as if they had been placed directly on top of a fire. Numerous blackened potsherds have also been found across the site, which likely attests to the use of pots in small pit fires. As for the source of the clay for these pits in predynastic times, little may be said at present, except that clay was likely as limited or as inaccessible a resource in ancient times as it is today. It has been said of the clay used in similar pits at el-Tell el-Iswid (also a fine grey clay) that it was 'apparently specially selected' (van den Brink 1989: 59). At Buto, where a large number of these pits have been found, the same fine grey clay has been noted, both inside some of the pits and in an apparent stockpile in one area of the site (see von der Way 1997: 64, Fig. 19).

It should be noted that in addition to el-Tell el-Iswid and Buto, two other sites in the Delta contain similar features in Predynastic/Early Dynastic deposits: Maadi (Rizkana & Seeher 1989: 59-61; Menghin & Amer 1932: 20), and Merimde Beni Salama (Junker 1930: 208, Pl. III; Junker 1933: 54, Fig. 3). The Type 1 and Type 3 pits as described above are represented at Merimde Beni Salama (cf. Junker 1933: Fig. 3), and the Merimde pits are compatible in size and shape with the Tell el-Masha'la pits. At Maadi, similar features have been termed 'mud holes' (Rizkana & Seeher 1989: 59), and these too, are undoubtedly consistent in size, shape, and construction with the Tell el-Masha'la fortified pits, even to the varying use of clay and potsherds for lining these pits. The function of the Maadi pits, however, has not been determined with certainty, and a number of functions have been proposed, ranging from postholes to stationary mortars, in the case of the sherd-lined pits. Only one of these features, it seems, has been assessed as a cooking pit on the basis of '...having been burnt red and filled with ashes' (Rizkana & Seeher 1989: 60). In fairness to the proposed theories of postholes and mortars, they have been considered for the Tell el-Masha'la pits but rejected. As noted above, there is no patterning of the pits at Tell el-Masha'la to indicate posthole use, as is the case at Buto (von der Way 1997: 68, Fig. 28), where the building of huts with these small pits is strongly indicated by the patterning of the holes. As noted, there are also a far greater

number of pits at Buto (about 150) than at any other site, as would be expected in the construction of huts. At Tell el-Masha'la, the bowl shape of the pits do not suit their use for postholes, as one would expect more vertically descending pits if this were the case. Furthermore, at Tell el-Masha'la there is no evidence of wood of the required diameter that would fit these holes (or indeed of any wood-based constructions).

As for the mortar theory, this might be applied to one or two of the Tell el-Masha'la pits, were it not for the universal evidence for burning in all of the pits, be they clay-lined or sherd-lined. Furthermore, as we have seen, all pits but one at Tell el-Masha'la contained burnt organic and inorganic materials in and/or around them, but even the single empty pit showed the telltale red burnt lining. It seems, however, that at Maadi, the stationary mortar theory for the sherd-lined pits is partially convincing and should not be discarded, based on the facts that (1) separate hearth features, quite different from the 'mud-holes' were found, which were evidently used for burning/cooking, and (2) in one instance a sandstone grinder was found inside one of the sherd-lined pits (Menghin & Amer 1932: 20), indicating that some grinding might have taken place inside the pit in question. At Tell el-Masha'la separate hearth features have not been found, thus supporting the evidence that small fortified pits were used exclusively for cooking and burning. Furthermore, grinding implements were not found in association with any pit at Tell el-Masha'la, giving no reason to suggest their use as mortars. Taking into consideration all of these varied indications of functions for these small pits, it seems logical to assume that they had no single universal use across contemporary sites in the Delta. In fact, the combined evidence from the four sites suggest that the pits may have served different functions in different regions, and perhaps, at least in the case of some of the Maadi pits, varying functions during the lifetime of any given pit.

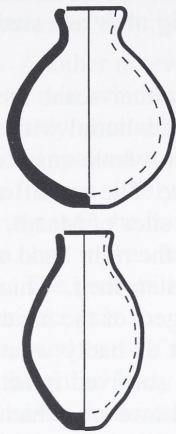
Human Burial

In three seasons, only seven Predynastic/Early Dynastic interments were uncovered within the Tell el-Masha'la settlement, thus attesting to the sparse nature of the burial remains. As already noted (Rampersad 2003: 185), burials at this site are restricted to its western borders, and all were found consistently at depths of 2.0 m to 2.5 m below the surface of the tell. The appearance of the burials is typical of predynastic remains throughout Egypt at this time, although there are a few noteworthy characteristics of the Tell el-Masha'la interments. All bodies were in a contracted position and lying on their left sides (examples, Figs. 3 and 4). There was little degree of consistency in the extent of bodily contraction; some were more tightly contracted than others, and in two cases, the remains were so badly displaced that it was difficult to judge the original degree of contraction. The preferred orientation for the body, in five of the seven exam-

ples, was for the placement of the head at the north, feet at the south, and eyes 'looking' toward the east. In two of the seven burials the bodies were slightly skewed from this preferred direction (e.g. Fig. 3), with the head and feet to the northwest and southeast respectively. It is important to note that most inhumations lacked evidence of a grave pit. Only two discernible grave pits were found: one was an oval feature measuring 1.10 m x 0.62 m, with a depth of 0.30 m, while the other was a rectangular grave with rounded corners, measuring 1.96 m x 1.02 m, with a depth of 0.76 m. Both of these pits, found in the 2003 field season, contained interments. These pits were very noticeable as blackened fill within the lighter coloured sand, and there was no evidence whatsoever of these features having been fortified or embellished in any manner after having been formed. The logical conclusion is that the pits were hollowed out of the sand, and the bodies placed directly into them.

During the excavation of all burials, the bone was found to be extremely fragile due to a very poor state of preservation. The left side of most individuals, i.e., the side upon which the bodies were placed initially, was largely disintegrated into the sand. The right sides of most individuals were fragmentary, often resulting in less than half of the total burial remaining for study. In the 2004 field season, preliminary osteological analyses conducted on the bodies *in situ*, and subsequent to lifting, showed advanced stages of weathering in most bones, to the extent that the interiors of long bones in particular, had disappeared, and were replaced entirely by sand. Cracking and splintering of bones was an almost universal feature of most of the burials. Root marks were also commonly observed on bone cortices. Of the teeth that were available for examination, some were found to have cavities ranging from pin-sized (in the case of one possibly young individual), to slightly larger abscesses. It was not uncommon to find teeth with completely worn cusps or enamel, leaving the dentine exposed in some cases. Other than varying degrees of tooth damage, no evidence was found otherwise for pathologies or trauma in any individual.

Ageing and sexing of the bodies was attempted during the 2004 season, with limited results, due to the fragmentary nature of the remains and the lack of enough diagnostic bone (pelvis, skull) and teeth. Ageing and sexing was attempted in two stages, first while the bodies were still in the ground, and then again subsequent to lifting. After lifting, the problem of studying the bones was compounded by the fact that the remains had fragmented further during the process of lifting. This was especially detrimental in the analysis of skull suture fusion, for example. In four of the seven cases, however, individuals have been identified tentatively as female, one of these being the body shown in Fig. 4. The gender of the other three individuals remains indeterminable. As for age, one in-



(Vessels not to scale;
See Fig. 5.6 and 5.5)

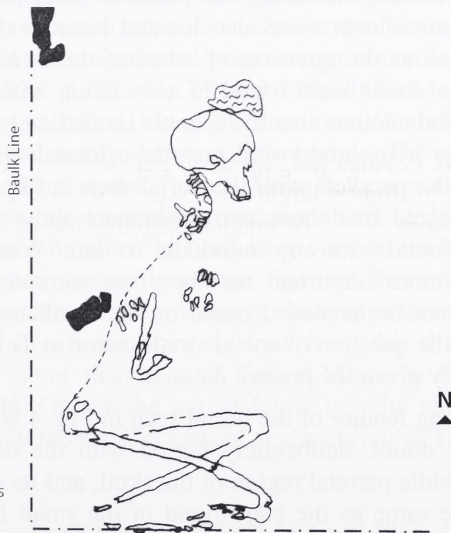
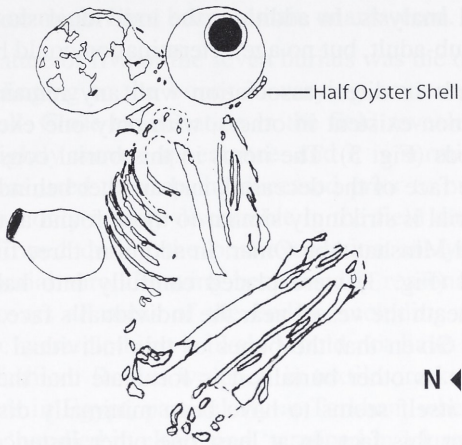


Fig. 3 - top; Fig. 4. - bottom. Burial with clay mask on skull, possible Sub-adult female; trench 18, feature 1.

dividual (not shown) was estimated to be between 15-35 years old on the basis of the dental analysis. In addition, the individual shown in Fig. 4 is assessed as a possible sub-adult, but no age determination could be made.

Finds in direct association with any remains were either scant in some cases, or non-existent in others, with only one exception of a burial with intact grave goods (Fig. 3). The items in this burial consist of two whole vessels, one before the face of the deceased, and another behind the spine. The overall aspect of this burial is strikingly similar to those found at the three sites of Maadi, Wadi Digla, and Minshat Abu Omar. In addition, three fingers of the right hand of this individual (Fig. 3) were placed carefully into half an oyster shell, which lay partly beneath the vessel near the individual's face. The fingers of the hand were upturned. Given that the bones of this individual were just as badly weathered and fragile as other burials, it is fortunate that the vessels survived intact. The interment itself seems to have been minimally displaced, however, which may account for this fact. In at least one other instance (Fig. 4), a strong argument may be made for the likelihood that vessels were placed close to the body, but in this burial the pots were subsequently crushed and displaced. In this loosely contracted interment a large sherd can be seen behind the spine in a manner reminiscent of one of the whole vessels in Fig. 3. In addition, sherds were found underneath the cranium, indicating the possible placement of a second vessel near the face. Many sherds were also located beneath the pelvic and thoracic regions, giving rise to the question of whether there might have been a third vessel. Two oyster shells were found in association with this body, one 0.5 m east of the skull, and another near the scapula immediately west of the body. It is assumed that these items underwent post-depositional displacement, as did the entire burial, but the parallels with the burial seen in Fig. 3 seem to be clear. It should be emphasized that these two interments show the largest number of grave inclusions found with any individual to date. Whether or not these two individuals were more important members the community, remains an open question, and cannot be answered based on the small number of burials found thus far. In short, the question of social stratification at Tell el-Masha'la can only be posed tentatively given the present data.

An interesting feature of the burial seen in Fig. 4 is the solid lump of clay that was, without doubt, deliberately buried with the deceased. It was found adhering to the middle parietal region of the skull, and its constitution and colour appear exactly the same as the clay found in the small fortified pits discussed above. Another burial showed this feature, that being the interment in the aforementioned oval grave pit (not shown), in which a similar large chunk of clay was placed immediately below the lower mandible of the individual. The puzzling

questions of why clay was placed in these burials, and what its significance (if any) near the vicinity of the face might have been, remain unanswered.

Another noteworthy feature of five of the seven burials was the occurrence of very thin white patches clinging to the bones in varying amounts over the entire body, including the skull. Close examination in the field revealed that the patches appeared to have a tightly woven appearance, and it is surmised that a type of fabric, likely linen, was used to wrap the deceased prior to burial. This covering over the bone was not only readily discernible in the field during excavation, but it was later confirmed during the post-excavation analyses of the bones. The probability of a burial shroud having been used is reasonable based on the fact that the fabric covers all areas of the bodies, including the skulls, fingers, and toes. If the fabric were clothing it likely would not have been used over the entire body in this fashion. Bodies wrapped in textile are known from Predynastic contexts elsewhere in Egypt, particularly at Tarkhan, where at least two bodies were described as 'bundled in cloth' and 'wrapped in a large quantity of cloth' (Petrie et al. 1913: 9, 10, and Pl. XXVII, 902). In these cases, however, linen is not specified. In addition, a single predynastic grave at Maadi has yielded a coarse linen shroud over the body, and the individual was subsequently wrapped in both skin and matting before burial (Rizkana & Seeher 1990: 19, Grave MA 37, Pl. II). Furthermore, at Minshat Abu Omar, several graves show possible or probable evidence for textile in the form of staining in the ground surface of the grave, but not in the actual preservation of textile (for examples see Kroeper & Wildung 1994: 4, 38, 43, 73, and 149; 2000: 64). At Minshat Abu Omar, also, linen is not specified, but as at Maadi and Wadi Digla, matting and skins were used more commonly than textile in burials. The questionable possibility of the use of matting in the Tell el-Masha'la graves occurs in only one instance, where red staining was evident underneath the deceased. The equally likely possibility of pigment (ochre?) having been used on the body should not be ruled out, as is suggested especially by the fact that the red staining was not uniformly distributed underneath the deceased, but only beneath the head, chest and pelvic regions. A significant point to draw from this discussion is that in burial samples much larger than that of Tell el-Masha'la (i.e., Maadi, Wadi Digla, and Minshat Abu Omar), the use of fabric is quite rare, whereas its use seems overrepresented in the small corpus of seven burials at Tell el-Masha'la.

The Ceramics

As noted previously (Rampersad 2003: 182 and Figs. 4, 5), the dominant types and subtypes in the ceramic assemblage at Tell el-Masha'la consist of domestic chaff-tempered Rough Ware, largely in the form of bowls and jars, as follows: (1) shallow elliptical bowls, (2) open mouthed deep bowls, (3) closed mouthed deep bowls, (4) necked jars with varying rim types and globular bodies,

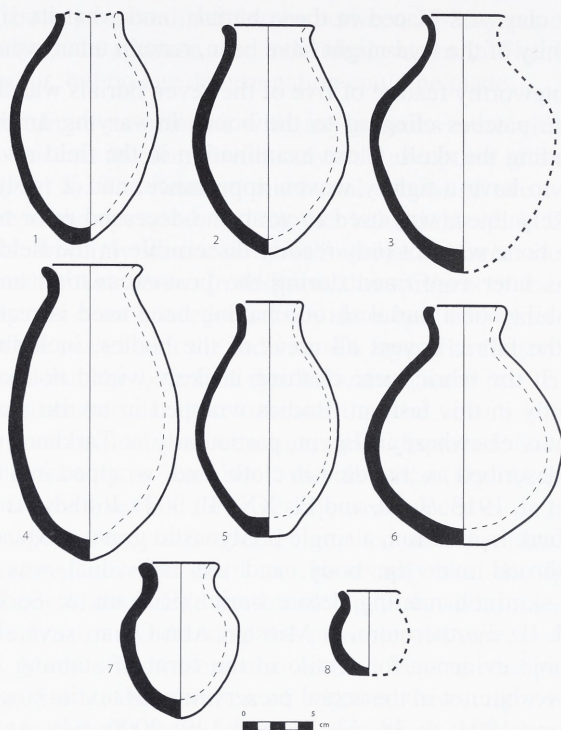


Fig. 5. Whole ceramic vessels.

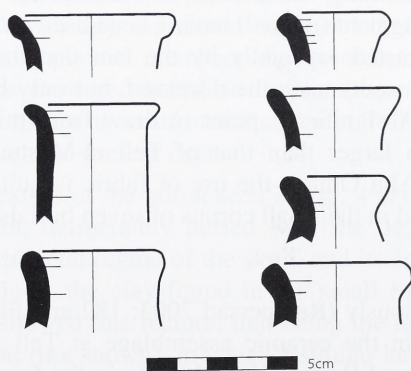


Fig. 6. Miniatur vessels.

(5) globular jars with short necks or without necks, (6) large thick-walled vessels, and (7) wide pan-like vessels with thick walls. An analysis of fabric types on the entire corpus was begun in the 2004 field season and is ongoing. Of about one thousand sherds examined thus far, the following general categorization of fabrics has been observed in accordance with the Vienna System (Arnold et. al. 1993: 168-182): Nile B2, 78%; Nile C, 12.6%; Nile A, 4.0%; Nile B1, 3.0%; Nile E, 2.0%; possible Nile D, 0.1%, and Marls, as yet unspecified by fabric type, 0.3%. Not surprisingly, the chaff tempered fabrics, Nile B2 and Nile C together comprise over 90% of the assemblage. It should be emphasized that these percentages represent about one-third of the entire assemblage only, and that a sub grouping of the main categories of silt wares has yet to be conducted for this site. These results are based on a field inspection of the sherds, using a magnification of 10X from a hand-held lens.

Much of the site's indigenous Rough Ware is characterized by red to dark red-brown burnishing (Munsell 2.5YR 4/8, 5YR 3/3 and 2.5YR 3/4), and is thus representative of the Naqada II Delta tradition. The meager collection of eight whole vessels from the site (Fig. 5) is typical of the coarse wares common throughout the settlement. All the vessels shown in Fig. 5 are chaff tempered. Note that two are half vessels only (Figs. 5.3, 5.8). As already seen, two pots (Figs. 5.5 and 5.6) came from a burial context (cf. Fig. 3), while the remaining six were found within the habitation debris. Both vessels from the burial were found to have fabric types of Nile B2, while the remaining six await classification. The more globular of the two vessels (Fig. 5.6) from the burial bore a trace of brown slip and burnish on the exterior at the neck. Two vessels from the settlement area (Figs. 5.3 and 5.7) bear a similar application of burnishing at the neck, which extends onto the shoulder of the vessel in Fig. 5.3. The pot in Fig. 5.7 is especially conspicuous for its blackened base, with a large area of burning extending from the base to the middle of one side of the vessel, as if it had been placed directly on or over a fire. Note, in addition, the asymmetrical appearance of the vessel shown in Fig. 5.1, due to the fact that the base is off-center. The rim of this vessel is slightly eroded.

Miniature vessels (Fig. 6), which hitherto comprised a very small proportion of the corpus, are now represented more abundantly, although they still constitute a small category. Consistent with the majority of the assemblage, most are of Nile B2 temper. A new and chronologically significant form is a fine and thin ware (Fig. 7) that bears a heavy red slip on interior and exterior surfaces, and is also burnished both inside and out. The cores of this ware, however, are dark grey to black in colour, often with significant amounts of mica inclusions. It can be seen from the three sherds depicted here that carination occurs at the shoulder of the vessels. Of the thin ware sherds analysed for fabric type thus far, most

have been found to be predominantly Nile A. In the general absence of stratigraphic differentiation within the settlement, this ware is important in providing some evidence for continuity in the occupation from the Late Predynastic to the Early Dynastic period, as elsewhere in the Delta (Tell el-Farkha, for example), it is known in, and dated from Naqada IIIa-c1 contexts and later (see Jucha 2003: 265). Forms almost identical to the three examples shown here have been documented at Buto (cf. Köhler 1998: 126, Pl. 31).

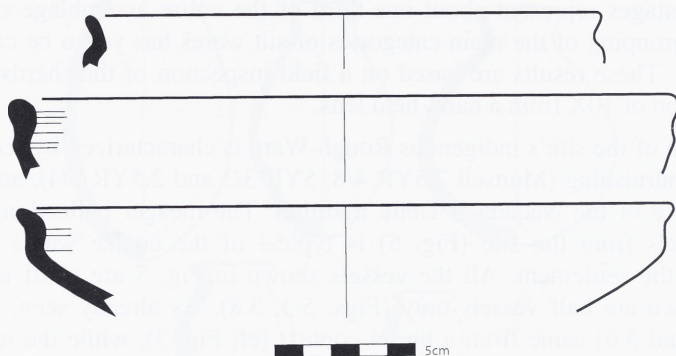


Fig. 7. Fine Red Ware (NileA).

Tell el-Masha'la has further yielded a small selection of sherds bearing incised, impressed, and punctate motifs, which occur one to three centimeters below the rim in most observed cases. Incised and impressed motifs were made into the wet clay, and are restricted generally to a single impressed horizontal line (Fig. 8.1), finger impressions around the rim of the vessel (Figs. 8.2 and 8.3), or impressed dots, also around the rim (Fig. 8.4). Frequently, finger impressions or dots were combined with a single impressed line, with the latter placed just above the impressed motifs, as seen in Figs. 8.2 and 8.4. In addition, sherds have been found with holes pierced completely through the vessel wall just below the rim (Fig. 8.5). It is assumed that these holes were made not for decoration but for the practical purpose of suspending the vessels (over a fire?), however, this assumption is not supported by any direct evidence.

Although it was hoped that Tell el-Masha'la would yield a good collection of potmarks, this has proven not to be the case. Only the following two examples have been uncovered: (1) a quadrangular marking formed of four single lines, all of which extend outward beyond their intersecting corner points (Fig. 8.6), and (2) a pair of lines arranged perpendicularly to each other and having the appear-

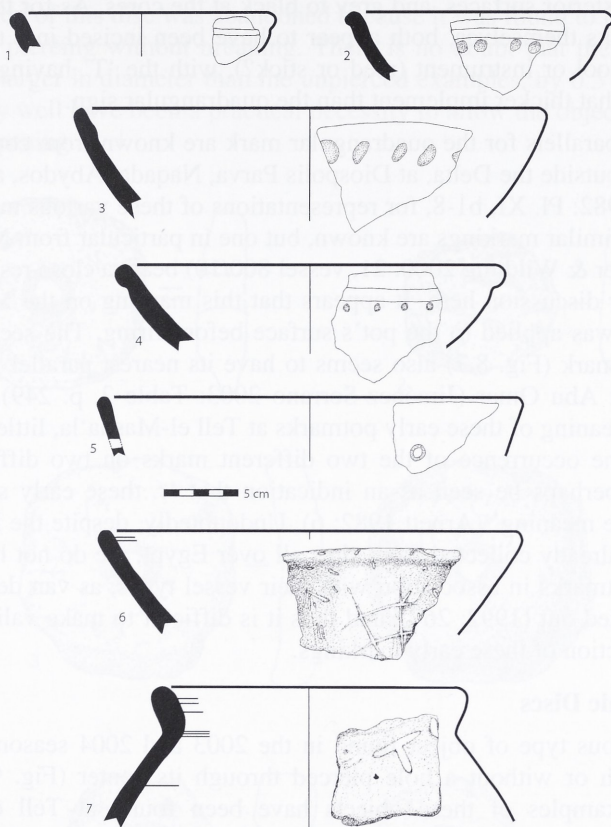


Fig. 8. Decorated rim sherds and potmarked sherds.

ance of a capital 'T' (Fig. 8.7). It is interesting to note that each marking occurs on a different vessel type at Tell el-Masha'la, the first having been made on a simple bowl, and the second on a jar. In the case of the jar bearing the 'T' marking, the rim of the sherd was broken above the potmark, however, the adjoining rim fragment was found, allowing for the accurate reconstruction of the pot's profile as shown in Fig. 8.7. As for the fabrics of these two vessels, neither represents the predominant Nile B2 type seen in the remainder of the domestic ware corpus. The sherd with the quadrangular marking is of the Nile C type, while the sherd bearing the 'T' marking is of Nile E. The sections of both sherds show a poor degree of firing, with colours ranging from brown to orange-brown at the

interior and exterior surfaces, and grey to black at the cores. As for the rendering of the potmarks themselves, both appear to have been incised into the wet clay with a blunt tool or instrument (reed or stick?), with the 'T' having been made with a somewhat thicker implement than the quadrangular sign.

Close parallels for the quadrangular mark are known from contemporaneous contexts outside the Delta, at Diospolis Parva, Naqada, Abydos, and Tarkhan (see Arnett 1982: Pl. XI, b1-8, for representations of these various marks). In the Delta, a few similar markings are known, but one in particular from Minshat Abu Omar (Kroeper & Wildung 2000: 21, vessel 800/10) bears a close resemblance to the one under discussion here. It appears that this marking on the Minshat Abu Omar vessel was applied to the pot's surface before firing. The second Tell el-Masha'la potmark (Fig. 8.7) also seems to have its nearest parallel with a mark from Minshat Abu Omar (Jiménez-Serrano 2003: Table 2, p. 249). As for the function or meaning of these early potmarks at Tell el-Masha'la, little can be said at present. The occurrence of the two different marks on two different vessel types might perhaps be seen as an indication that '...these early symbols had more than one meaning' (Arnett 1982: 6). Undoubtedly, despite the large corpus of potmarks already collected from sites all over Egypt, we do not have enough records of potmarks in association with their vessel types, as van den Brink has recently pointed out (1992: 267), and thus it is difficult to make valid assertions about the function of these early markings.

Small Ceramic Discs

A curious type of object found in the 2003 and 2004 seasons is the flat clay disc with or without a hole pierced through its center (Fig. 9). To date, thirty-nine examples of these objects have been found at Tell el-Masha'la, ranging in size from 2.2 cm to 4.5 cm in diameter. The average diameter is 3.1 cm, while the average thickness is 1.1 cm. Only six discs of the thirty-nine have openings pierced through the center of the object. All discs are made of the same coarse red ware that is typical of Tell el-Masha'la pottery, and it is likely that they were fashioned out of discarded potsherds. In many instances, the curvature of the vessel from which the disc originated is seen on one flat side of the discs, and is especially noticeable in the larger examples (see the profile of Fig. 9.3). The outer circumferences of these objects are worn and smoothed, indicating that they were deliberately shaped, although it is difficult to ascertain from a visual examination alone what tool was used in this task. Close inspection of the pierced discs shows that the holes were made by boring through both sides of the object, or more specifically, the opening was begun on one side, drilled most of the way through, and then finished from the other side. A good example of this method of workmanship can be seen in an unfinished disc (Fig. 9.4), which shows that piercings were begun on both sides but not completed. It is likely that

the production of this disc was abandoned because it was found to be too small to withstand a piercing without breaking. There is no doubt that the pierced discs are slightly larger in diameter than the unpierced examples, by 0.5 cm to 1.5 cm, and this may well have been a practical necessity to allow the object to withstand having an opening.

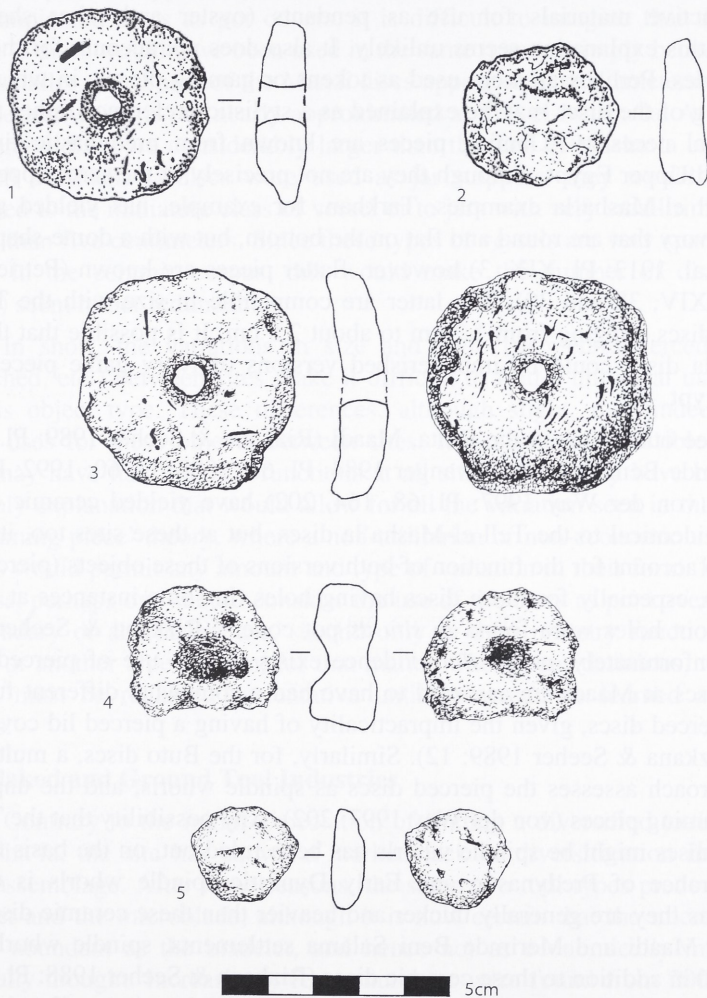


Fig. 9. Small ceramic discs.

The function of these objects at Tell el-Masha'la is still open to debate, as no material was found in direct association with any disc to indicate a particular use. Like most of the other cultural material, they have been found scattered amidst the settlement debris, mixed with broken sherds, faunal and other remains. Initially it was surmised that the discs with holes might have been strung and worn on the body (as ornamentation?), but given the availability of more attractive materials for use as pendants (oyster and other shell, for example), this explanation seems unlikely. It also does not account for the discs without holes. Perhaps all were used as tokens or gaming pieces, in which case the piercing of the discs may be explained as a stylistic preference rather than as a functional necessity. Gaming pieces are known from predynastic times in Middle and Upper Egypt, although they are not precisely of the same appearance as the Tell el-Masha'la examples. Tarkhan, for example, has yielded gaming pieces of ivory that are round and flat on the bottom, but with a dome-shaped top (Petrie et. al. 1913: Pl. XIX, 3) however, flatter pieces are known (Petrie et. al. 1913: Pl. XIV, 38 and 39). The latter are compatible in size with the Tell el-Masha'la discs, ranging from 1.2 cm to about 2.5 cm. It is possible that the Tell el-Masha'la discs could be impoverished versions of ivory game pieces from Middle Egypt.

Three other sites in the Delta, Maadi (Rizkana & Seeher 1989: Pl. 2, 12-13), Merimde Beni Salama (Eiwanger 1984: Pl. 63; 1988: Pl. 60; 1992: Pl. 94), and Buto (von der Way 1997: Pl. 68, 164, 202) have yielded ceramic objects similar or identical to the Tell el-Masha'la discs, but at these sites too, it seems difficult to account for the function of both versions of these objects (pierced and unpierced), especially for those discs having holes. In some instances at Maadi, discs without holes were found *in situ* as pot covers (Rizkana & Seeher 1989: 12), but unfortunately, no *in situ* evidence exists for the use of pierced discs. Pierced discs at Maadi are assumed to have had a somewhat different function from unpierced discs, given the impracticality of having a pierced lid covering a vessel (Rizkana & Seeher 1989: 12). Similarly, for the Buto discs, a multi-functional approach assesses the pierced discs as spindle whorls, and the unpierced discs as gaming pieces (von der Way 1997: 202). Any possibility that the Tell el-Masha'la discs might be spindle whorls has been ruled out, on the basis that (1) the appearance of Predynastic and Early Dynastic spindle whorls is usually different, as they are generally thicker and heavier than these ceramic discs, and (2) in the Maadi and Merimde Beni Salama settlements, spindle whorls have been found in addition to these ceramic discs (Rizkana & Seeher 1988: Pl. 94-96, 52-53; 1989: 12; Eiwanger 1984: 54). Other proposed functions offered for the Maadi discs include net sinkers, and buttons for tying down nets or skins. Although these uses would account for the holes, none is supported by direct evidence at Maadi. This function cannot be considered for the Tell el-Masha'la

examples because of the virtual absence of nets, skins, or other materials that might have required securing. It should be noted that one of the Maadi examples bears two holes through the centre, resembling a modern button, while another has two small notches in the outer circumference. None of these features have any parallels in the Tell el-Masha'la discs.

Despite the apparently incontestable evidence from Maadi for the use of some unpierced discs as pot covers, it is difficult to imagine that the Tell el-Masha'la discs would have been used in the same manner simply because of their much smaller size. Some of the Maadi discs appear to have diameters of over ten centimeters, which is not nearly approximated at Tell el-Masha'la. At Buto also, the pierced discs are considerably larger than the Tell el-Masha'la examples. If the Tell el-Masha'la discs were used as jar stoppers, they would have been restricted to the miniature class of vessel or to jars with very small rim diameters of less than five centimeters. Since these types of vessels are very sparsely represented in the ceramic corpus, this would make the number of discs (as pot covers) seem rather redundant.

In short, the variations in size and style (pierced/unpierced, notched/unnotched, etc.) between sites make it difficult to find a universal use (or uses) for this object type. These differences, although slight, may indeed indicate varied uses for these objects between sites. It is also quite possible that these discs may have had multiple functions at all sites where they have been found. The only explanation that would allow for all the variation seen in these discs is the 'gaming piece' theory, where a non-utilitarian or non-economic use for such objects would permit any amount and type of variation in their form. If this were the case, perhaps one should consider the use of the discs as pot covers at Maadi a secondary or alternative use, second only to their primary function as game pieces or another type of item, for that matter. These considerations, while interesting, must be regarded as tentative until more can be learned about these objects.

The Flaked and Ground Tool Industries

Contrary to the initial expectation of finding a diversified tool kit at Tell el-Masha'la, the site has shown a marked lack of diversification in its flaked lithic assemblage. After three seasons, the same two tool types predominate: the bladelet and the microblade, although it is now certain that the microblade was not as abundant as the bladelet, and hence not as economically important as originally thought. Increasingly fewer numbers were found from 2002 to 2004. The number of whole bladelet tools (Fig. 10) has by now exceeded one hundred, with a much larger sample of broken bladelets having been recovered. All are made from pebble flint, and are remarkably consistent in size and shape, being

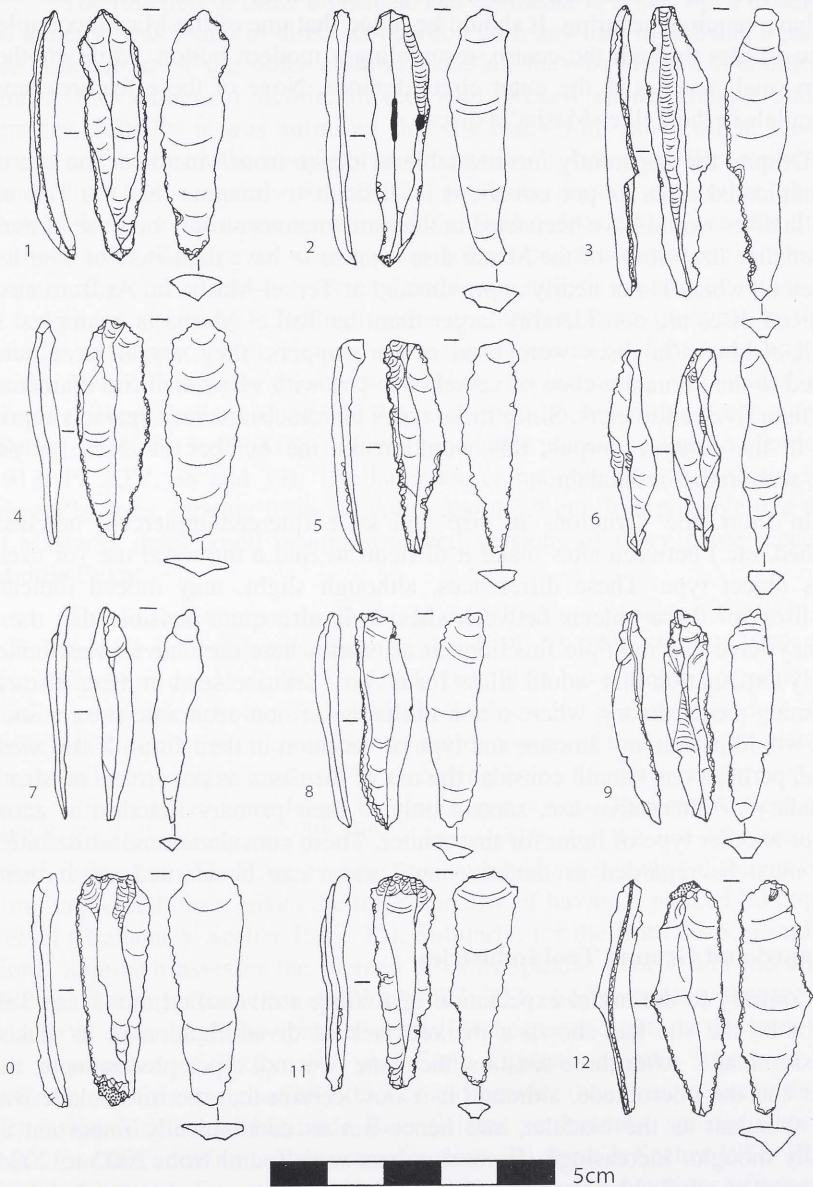


Fig. 10. Flint bladelettes (drawings by Margaret Maitland).

between 3 cm and 5 cm in length and about one centimeter wide at the center of the blade.

The economic function of the bladelet on this site is still not precisely known, but in other Egyptian contexts (see Baumgartel 1960: 42) they are thought to be small knife blades that might have been hafted into wooden handles for use as cutting tools, perhaps in a hunting context. Other uses for the bladelet especially for fishing, snaring, and the processing of food must also be considered for this site. Their use in the exploitation of a very limited resource base is proposed here as a reasonable explanation for the predominance of this single tool type at Tell el-Masha'la. In order to determine confidently what this resource base may have been, two studies are now necessary:

(1) a use-wear analysis of the tools, and (2) a faunal analysis of the remains of all species collected thus far. It can be stated with certainty that the faunal assemblage is characterized by a variety of mammalian species, whose remains, while abundant, are very fragmentary. Sheep and/or goat are definitely present, and pig may possibly be represented, and thus it is likely that domesticated animals were kept and slaughtered for consumption. As has been noted, many of the faunal remains are burnt, undoubtedly evidence of animals, as well as fish, having been cooked prior to consumption.

Turning now to the evidence for the manufacture of bladelets and microblades, it is disappointing to note that the archaeological record is not very forthcoming. Several good examples of bladelet cores (Fig. 11. 1-5) were discovered for the first time in the 2003 field season, attesting to a local production for some of the bladelets. Still problematic, however, is the low number of cores found in relation to the high number of bladelets, a situation that creates more questions than it solves. Does it signify, for example that only some bladelets were manufactured on site, while others were manufactured off site, or perhaps imported? Or is the archaeological record simply not representative in terms of numbers of cores once present on the living site? Furthermore, no activity or work areas have yet been uncovered to show where the bladelets might have been produced, and although a small number of flakes have been recovered, the site is strangely lacking in debitage and activity areas for flint or chert knapping.

Evidence for the ancient ground stone industry at Tell el-Masha'la has increased moderately throughout the three field seasons, especially in terms of the diversification of tool types known. Grinding implements, however, are not abundant at this site. In addition to hammerstones (Figs. 11.6 and 11.7), we now have upper grinding stones (Figs. 12.1 and 12.2) and lower parts of grinding kits (Fig. 12.3), although no whole examples of either upper or lower grinding stones have been found. The predominant stone type used for all ground stone implements was sandstone, but some quartz or quartzite examples have been found.



Fig. 11. Flint cores and hammerstones.

It is assumed that the upper and lower grinding tools were used for the processing of grain or perhaps the processing of pigments, although neither grain nor pigment has been recovered from the site. If grain was cultivated or processed at this site, it is surmised that it was not a significant economic factor, due to the rather low frequency of grinding implements and the complete absence of agricultural tools such as sickles. It can now be stated with certainty that Tell el-Masha'la likely was not an agriculturally based community in Late Predynastic/Early Dynastic times.

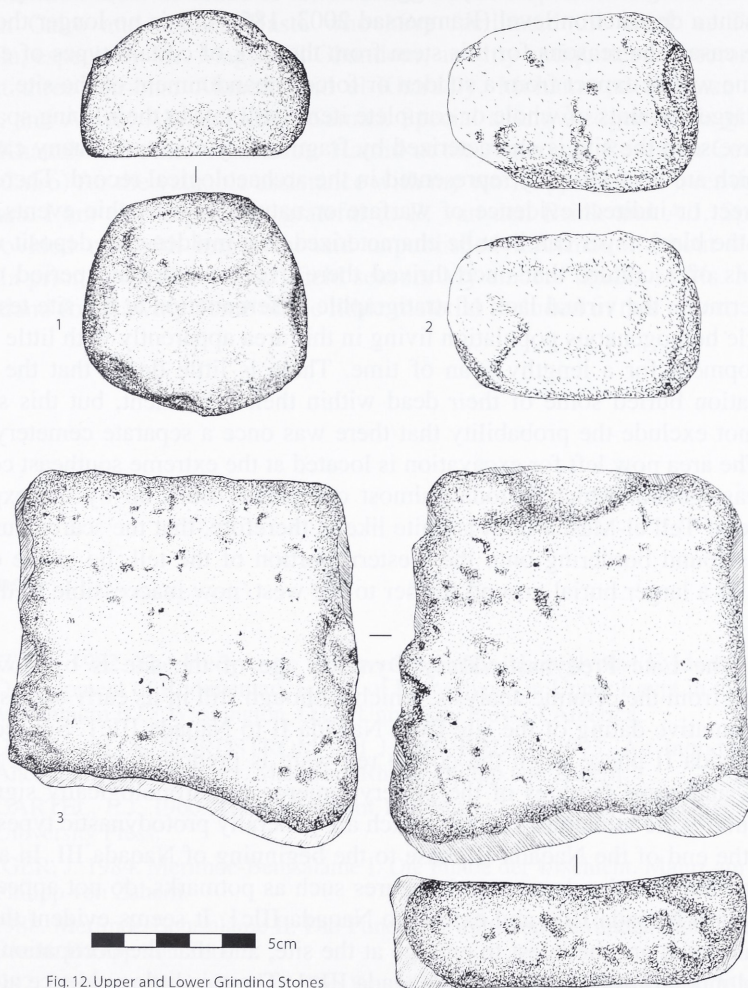


Fig. 12. Upper and Lower Grinding Stones

Fig. 12. Upper and Lower grinding stones.

Conclusion

Many characteristics of the Tell el-Masha'la culture indicate its affinity with the Buto/Maadi complex, not only in terms of the bladelet tools, but also

with regard to the ceramics and the nature of the settlement, insofar as it is understood. Although it was initially suggested that the black settlement layer might represent a destruction level (Rampersad 2003: 185), this is no longer thought to be the case. The reasons for this stem from the lack of certain types of evidence that one would expect from a sudden or forced abandonment of the site, particularly large amounts of whole or complete items still left in their living spaces. As we have seen the site is characterized by fragmentary evidence, many categories of which are very sparsely represented in the archaeological record. There is also no direct or indirect evidence of warfare or natural catastrophic events, and as such, the black layer can best be characterized as a midden-like deposit with the remains of a culture that once thrived there over an extended period of time. Furthermore, the virtual lack of stratigraphic differentiation at the site testifies to a single homogeneous population living in this area apparently with little cultural development for a lengthy span of time. There is little doubt that the ancient population buried some of their dead within their settlement, but this situation does not exclude the probability that there was once a separate cemetery on the tell. The area now left for excavation is located at the extreme southeast corner of this vast *gezira*, which is today almost completely built up by the expanding village of Tell el-Masha'la. It is quite likely, therefore, that the scarce number of burials found bordering onto the western portion of the tell, lie at the extreme edges of a larger burial ground further to the west, now inaccessible to the excavator.

The Late Predynastic/Early Dynastic age of the site is by now better attested from the ceramic analysis, which, although still in its early stages, allows for a tentative dating of the site from Naqada II to Naqada IIIc1. Subsequent to the Naqada II phase when the coarse red ware is predominant, certain ceramic forms, and some features of the pottery, emerge as chronologically significant, particularly the miniature vessels, which are generally protodynastic types, dating from the end of the Naqada II phase to the beginning of Naqada III. In addition, the fine burnished red ware, and features such as potmarks, do not appear in the Delta until Naqada IIIa, and extend to Naqada IIIc1. It seems evident that these ceramic traits are the latest to emerge at the site, and that the occupation did not extend much further in time than Naqada IIIc1. There is little evidence at present to support an age for the site as late as Naqada IIIa2 if, for example, we consider the complete lack of cylindrical wavy-handled marl jars, which are characteristic of this period at other sites in the Delta (e.g. Tell el-Farkha, Tell Ibrahim Awad, and Buto). Furthermore, by the very low frequency of Naqada III ware types, and sherds bearing the Naqada III traits, it may be surmised that the Naqada III phase at Tell el-Masha'la was of short duration, relative to the Naqada II period.

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