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Comments to the lithic industry of the Buto-Maadi culture in Lower Egypt

New investigation of the Predynastic cultures of Lower Egypt – for a long time only known from short preliminary reports of old excavations – now allow a better understanding of the period in this region. The excavations at Merimde-Benisalame (Eiwanger 1984; 1988) and Tell el-Fara'in (von der Way 1986; 1987; 1988; 1989), the historical Buto, as well as re-examination of old excavation finds from el-Omari (Debono and Mortensen 1990), Heliopolis (Debono and Mortensen 1988) and Maadi (Rizkana and Seeher 1984; 1985; 1987; 1988) have changed the situation. Today the prehistory of Lower Egypt is better known than that of Upper Egypt. In addition to pottery, normally used in "classical" comparative studies, now in Lower Egypt exists the possibility for comparisons in lithics. The investigations of Upper Egyptian lithic samples, especially the reassessment of old material are restricted by the absence of good stratigraphic sequences (McHugh 1982: 85; Holmes 1988)).

The continuing excavation at Tell el-Fara'in (Buto) present, after Merimde, a chronologically extended stratigraphic sequence of different cultural layers: starting with the period of Maadi (layer I) the stratigraphy at Buto continues into the Early Dynastic Period (layer V) without any visible hiatus (von der Way 1989). Now we are able to recognize that the Maadi culture is not a local phenomenon, but distributed over the whole Delta with some additional smaller sites south of Cairo (Habachi and Kaiser 1985; Kaiser 1985; Mortensen 1985; Junker 1912: 2). The stratigraphic sequence of Buto offers a better view into that culture. The new term Buto-Maadi culture considers the different geographic locations of both sites as well as the existence of layer II at Buto. This layer seems not to be represented at Maadi, an absence which can be explained by its more vulnerable geographic situation in the Cairo region, presumably in view of the expanding Nagada culture (Kaiser 1985).

As with pottery, the lithic material can be used to characterize the Buto-Maadi culture. The basic feature of the blade industry as a direct opposite to the

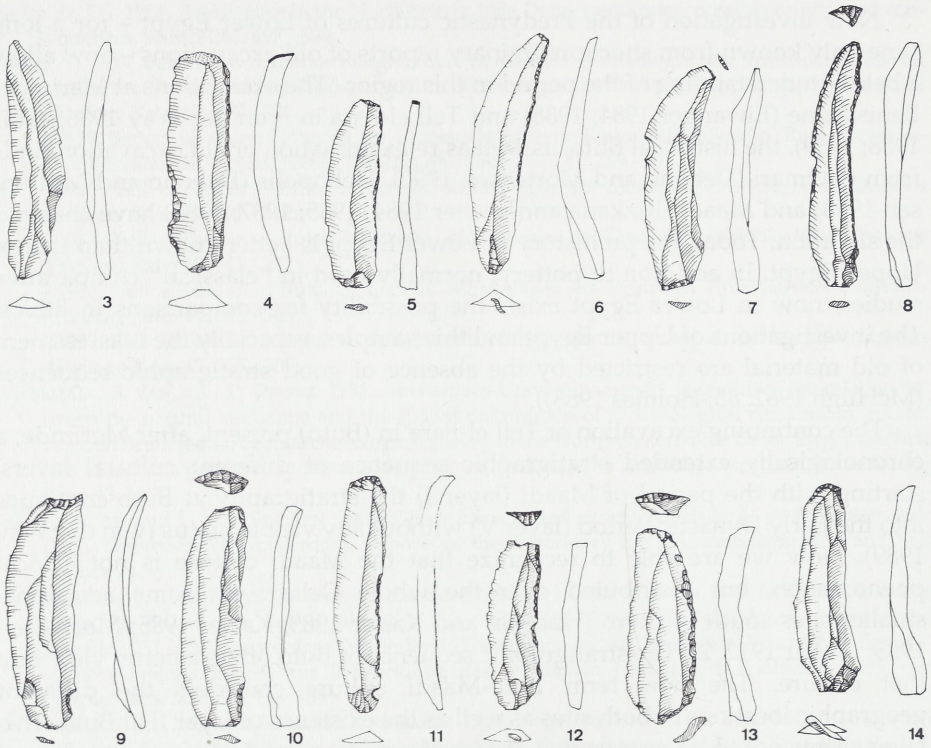
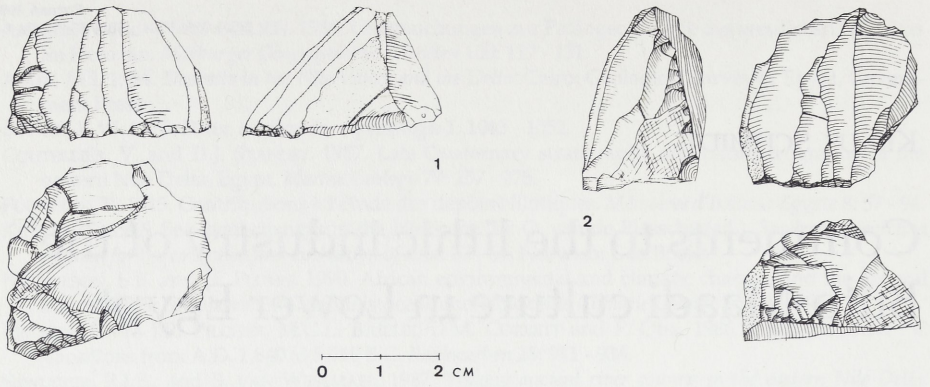


Fig. 1. Buto. Layer I/II. Lithic industry.

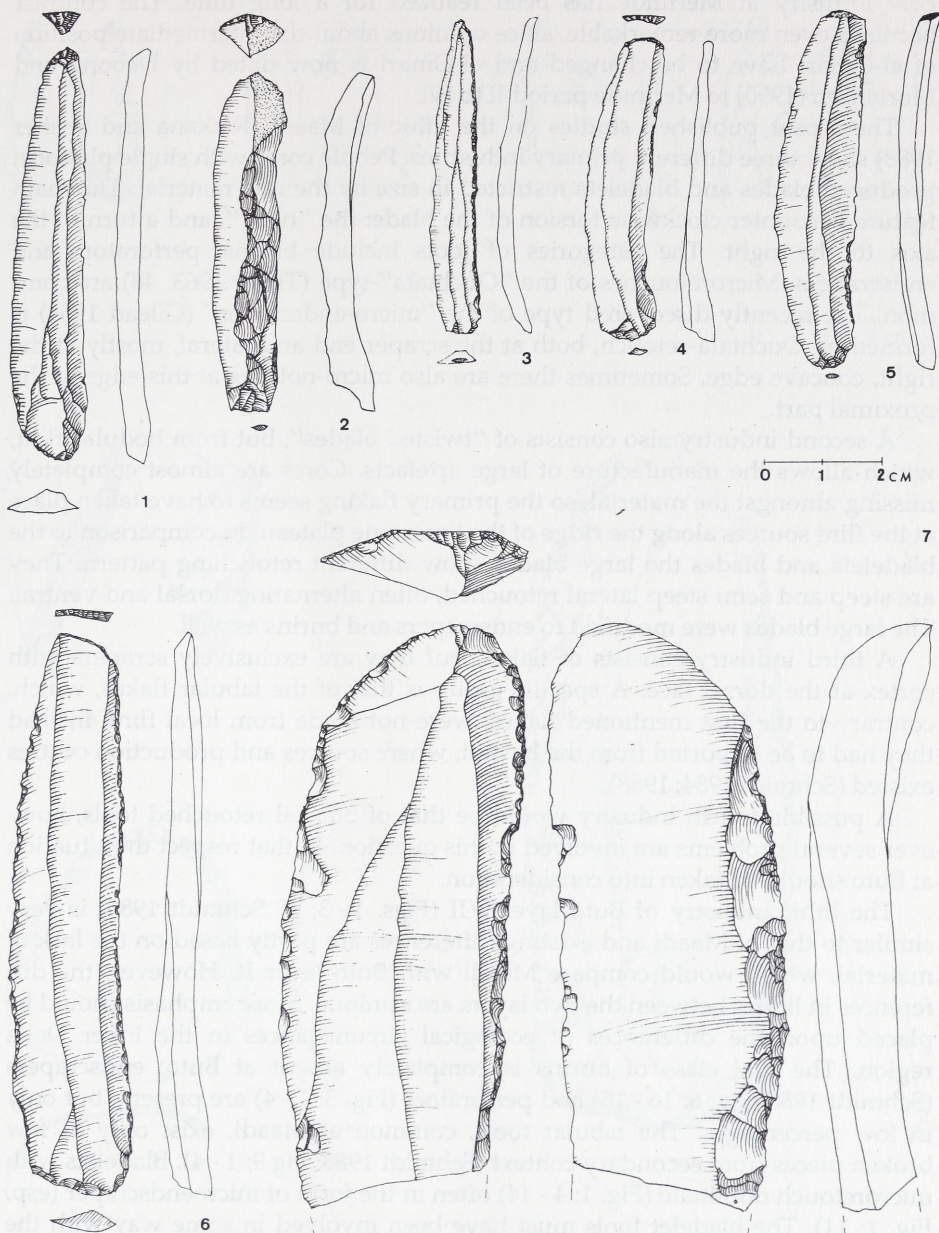


Fig. 2. Buto. Layer I/II. Lithic industry.

core industry at Merimde has been realized for a long time. The contrast becomes even more remarkable, since opinions about the intermediate position of el-Omari have to be changed and el-Omari is now dated by Debono and Mortensen (1990) to Merimde period II to IV.

The recent published studies on the lithic of Maadi (Rizkana and Seeher 1988) show three different primary industries. Pebble cores with single platform produced blades and bladelets restricted in size by the raw material. The main feature is counter clockwise torsion of the blade: the "twist", and a turn of the axis to the right. The categories of tools include burins, perforators and endscrapers. Microretouches of the "Ouchtata"-type (Tixier 1963: 48) are common. The recently discovered type of the "micro-endscraper" (Gilead 1984) is formed by Ouchtata-retouch, both at the scraper end and lateral, mostly at the right, concave edge. Sometimes there are also micro-notches at this edge at the proximal part.

A second industry also consists of "twisted blades", but from nodular flint, which allows the manufacture of large artefacts. Cores are almost completely missing amongst the material, so the primary flaking seems to have taken place at the flint sources along the ridge of the limestone plateau. In comparison to the bladelets and blades the large blades show different retouching pattern. They are steep and semi steep lateral retouched, often alternating dorsal and ventral. The large blades were modified to endscrapers and burins as well.

A third industry consists of flakes, but they are exclusively scrapers with cortex at the dorsal face. A specific group is that of the tabular flakes, which, contrary to the first mentioned flakes, were not made from local flint. Instead they had to be imported from the Levant, where sources and production centres existed (Schmidt 1984; 1988).

A possible fourth industry would be that of bifacial retouched tools, however several problems are involved in this question. In that respect the situation at Buto should be taken into consideration.

The lithic industry of Buto layer I/II (Figs. 1 - 3; cf. Schmidt 1986) is very similar to that of Maadi and existing differences are partly based on the lack of material, which would compare Maadi with Buto layer II. However, the differences in lithics between the two layers are minimal. More emphasis should be placed upon the differences of ecological circumstances in the inner Delta region. The tool class of burins is completely absent at Buto; endscrapers (Schmidt 1986: Fig. 6: 16 - 18) and perforators (Fig. 3: 1 - 4) are present, but only in low percentages. The tabular tools, common at Maadi, exist only as few broken pieces from secondary context (Schmidt 1988: Fig 9: 1 - 4). Bladelets with microretouch dominate (Fig. 1: 4 - 14) often in the form of microendscraper (esp. Fig. 1: 11). The bladelet tools must have been involved in some way with the exploitation of the aquatic resources, which one would expect as an important role in the economic life at Buto (Boessneck and von den Driesch 1988).

Further the complete lack of tools with sickle sheen at Buto has to be mentioned. This tool category is also rare at Maadi. Only four pieces of twisted blades show gloss. There are a few "Canaan blades", imported from the

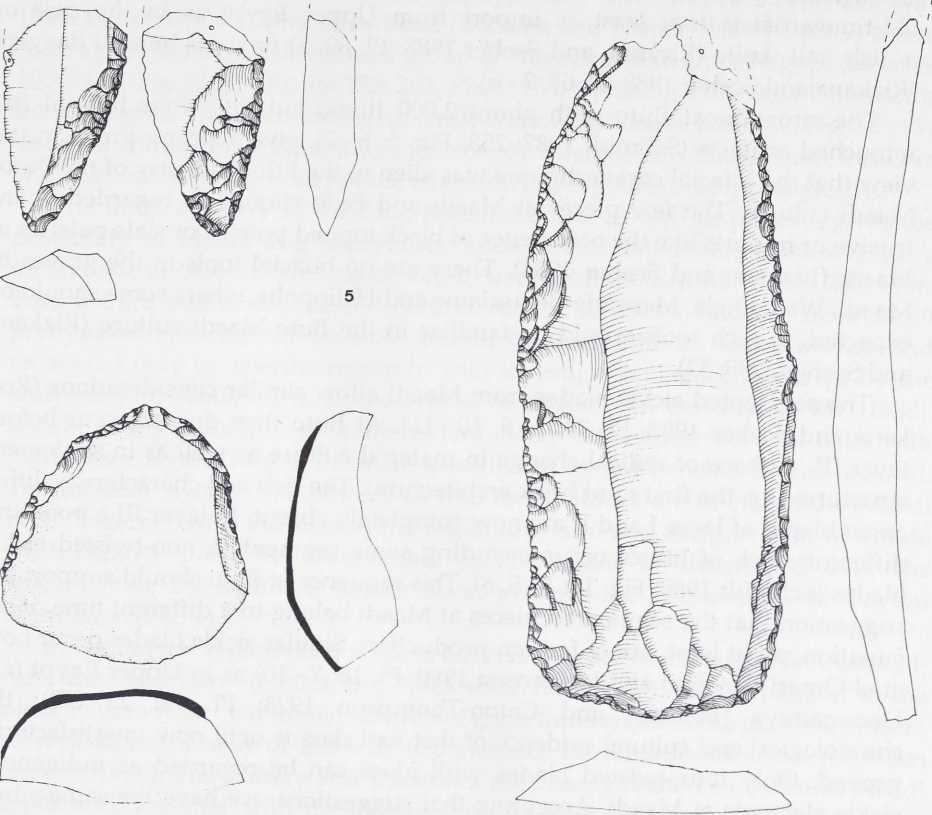
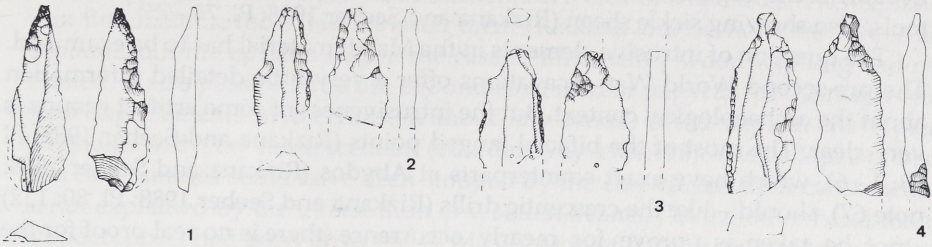


Fig. 3. Buto. Layer I/II. Lithic industry.

Levant, some segmented, non-twisted blades and finally some bifacial core tools, also showing sickle sheen (Rizkana and Seeher 1988: Pl. 73 - 75).

The question of intrusive elements in the Maadi material has to be examined. The pre-second World War excavations offer a very little detailed information about the archaeological context. But the intrusiveness of some artifact groups is very clear. The most of the bifacial tanged points (Rizkana and Seeher 1988: Pl. 68: 1 - 6), which have exact counterparts at Abydos (Rizkana and Seeher 1988: note 67), should – like the crescentic drills (Rizkana and Seeher 1988: Pl. 80: 1, 2) – not be taken as a prove for nearly occurrence (there is no real proof for the occurrence of crescentic drills before the dynastic time [Schmidt 1985: 285]) but may be dated to a later occupation of that site, not recognized during excavations. On the other hand the core sickles (Rizkana and Seeher 1988: Pl. 73: 1 - 6, 8), the core burin (Rizkana and Seeher 1988: Pl. 73: 7) and the winged arrowheads (Rizkana and Seeher 1988: Pl. 68: 7 - 11) should be regarded as old-time artifacts or at least, as import from Upper Egypt, as in the case of a fish tail knife (Rizkana and Seeher 1988: Pl. 69: 1) or some bifacial daggers (Rizkana and Seeher 1988: Pl. 69: 2 - 6).

The situation at Buto with about 2,000 flints, but only four bifacial flat retouched artifacts (Schmidt 1987: 253, Fig. 5: 6 - 7), give a strong prove to the view that the bifacial core technique was alien to the lithic industry of the Buto-Maadi culture. The few pieces at Maadi and Buto should be regarded as intrusive or imports like the occurrence of black topped pottery or slate palettes at Maadi (Rizkana and Seeher 1984). There are no bifacial tools in the graves of Maadi, Wadi Digla, Merimde-Benisalame and Heliopolis, where some should be expected, if such tools would be familiar in the Buto-Maadi culture (Rizkana and Seeher 1988: 32).

The segmented sickle blades from Maadi allow similar considerations (Rizkana and Seeher 1988: Pl. 74: 1 - 8, 10 - 11). At Buto they do not occur before layer III, a phase of radical change in material culture as well as in settlement structures (e.g. the first mud brick architecture). The rich and characteristic lithic assemblages of layer I and II are now completely absent. In layer III a poor and different stock of lithics occur including some segmented, non-twisted sickle blades (Schmidt 1989: Fig. 14: 1 - 5, 8). This sequence at Buto should support the suggestion that the segmented pieces at Maadi belong to a different time of occupation, or, at least, are of foreign production. Similar sickle blades occur both at el-Omari (Debono and Mortensen 1990: Pl. 18: 7 - 10) as in Upper Egypt (e.g. Hemmamiya [Brunton and Caton-Thompson 1928: Pl. 78: 22 - 27]); the chronological and cultural evidence of that tool class is until now unsatisfactorily proved. Only four twisted blades with gloss can be regarded as indigenous sickle elements at Maadi. Accepting that suggestions, we have the same situation at Maadi with the absence of sickle elements in the lithic industry. This can be explained by special harvesting techniques. But the cutting of reed, which also produced strong gloss (Anderson-Gerfaud 1982), should be expected in sites like Maadi and Buto, which are placed nearby the river; we know nothing of the gloss, which would be produced by cutting papyrus.

As curious as the lack of sickle elements is a lack of stone axes. The explanation that metallic tools had replaced them (Rizkana and Seeher 1988: 74), is acceptable, but the opinion that in the case of Buto heavy wood working had not existed, is also possible. The use of bundles of reed or papyrus for the major constructing elements of the huts, without any wood, could explain the typical postholes with clay reinforcement (von der Way 1986:198). The collapse of bent and tied bundles could have been stopped by the clay circles; their construction is not explained by the intersection of wooden beams. On the other hand many wooden posts had been observed at Maadi. One of it "was so regularly and so sharply cut that the implement used could only have been a good metal axe" (Menghin and Amer 1932: 48).

A last class of tools, that of projectile points, remains. At Buto it is again missing. At Maadi there are the already mentioned Abydos-like points, some winged points of the Merimde-Fayum type and three trapezes (von der Way 1986: Pl. 68: 13 - 15). One arrowhead (Rizkana and Seeher 1988: Pl. 68: 9) seems to be a part of a small, developed group of Nagada I/II in Upper Egypt (Needler 1984: 115, Fig. 20: 20; Pl. 38: 153; 262, Pl 38: 154; Garstang 1902: 36, Pl. 3: middle left and right). Trapezes exist *e.g.* in Uruk-Warka (Eichmann 1986: 111, Fig. 16 - 18). They all should be regarded as intrusive or foreign. The Buto-Maadi industry was without any projectile points, which can be explained morphologically.

The lithic industry of the Buto-Maadi culture, as well as pottery, gives the possibility of identifying predynastic sites. A few kilometers west of Buto a second site of that culture was detected first by lithics (Schmidt 1985: 285; 1986: 204); a third site is now added (Wunderlich *et al.* 1989). A dense network of predynastic sites becomes visible, buried by thick alluvial sedimentation and recovered only by specific research. That investigation has been started by the University of Amsterdam in the region of Faqus (van den Brink 1987; 1988). Beside many younger sites there had been discovered several tells with predynastic layers. Two of them are investigated by test trenches (el Tell el-Iswid, Tell Ibrahim Awad). The pottery as well as the lithics are of clear Buto-Maadi type. Together with the sites in the region of Cairo and the graves at Merimde (Afifi Badawi 1980) the Buto-Maadi culture could be distributed over the whole Delta; the southern border is, at present, the entrance of the Fayum depression (Fig. 4).

In the Fayum region itself there is a recently described second Neolithic culture, the "Moerien" (Ginter and Kozłowski 1983; 1986). In comparison to the older Fayum A or "Fayumien" there are great differences in the material culture as well as in the way of life with a preference for aquatic resources (von den Driesch 1986). The pottery and the lithics are closely related to the Buto-Maadi types and, together with the existence of the sites nearby the entrance of the Fayum and long known "predynastic" site south of Qasr Qarun (Caton-Thompson and Gardner 1934: 69) and the preference of aquatic resources, we should add the "Moerien" to the Buto-Maadi culture.

The origin of that culture, in our context seen from the view of the lithic industry, is not yet clear. The elimination of el Omari as a connection with

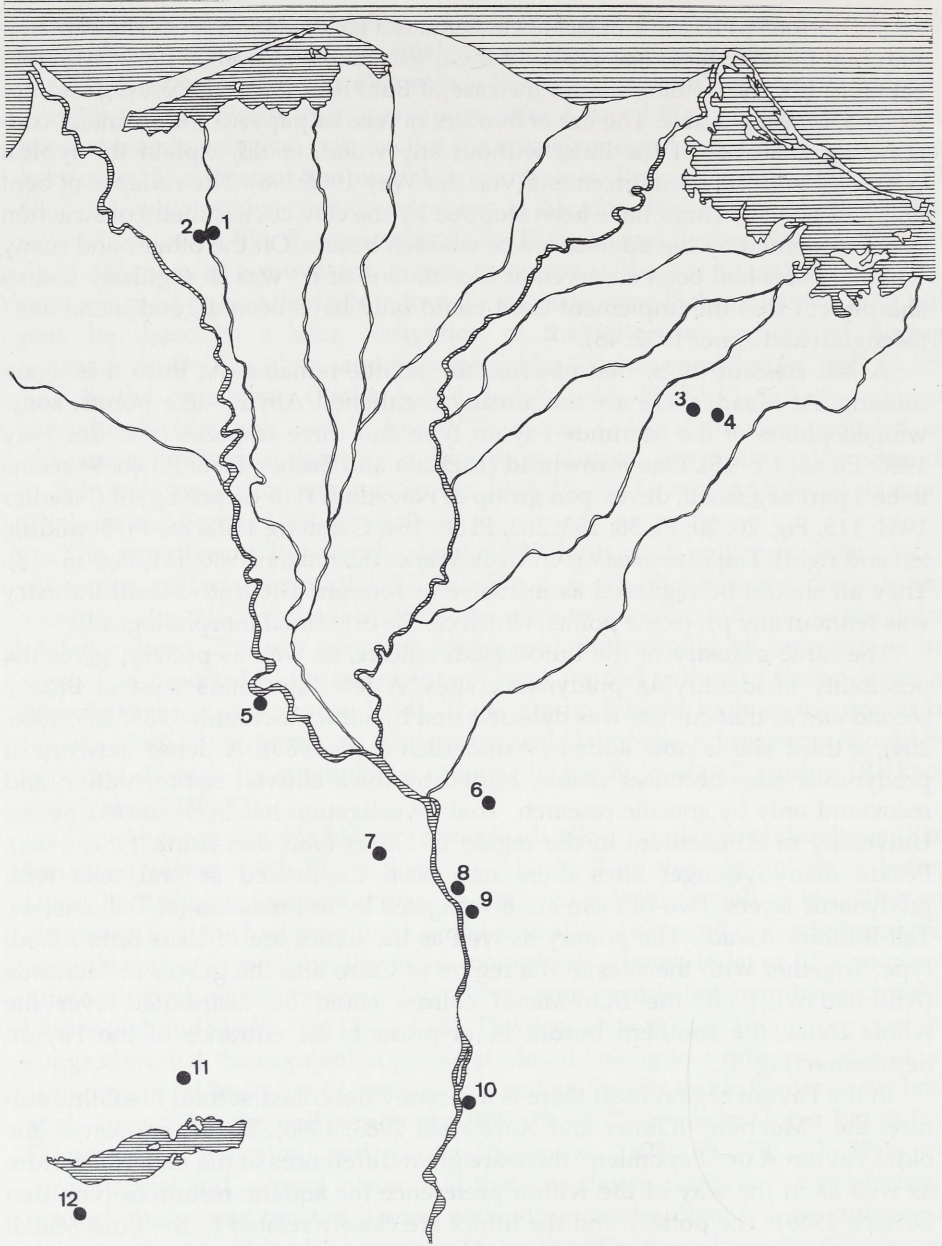


Fig. 4. Sites of the Buto-Maadi culture;

1: Buto; 2: El Qerdawi/Saradusi; 3: Tell el-Iswid; 4: Tell Ibrahim Awad; 5: Merimde-Benisalame; 6: Heliopolis; 7: Giza; 8: Maadi, Wadi Digla; 9: Tura, railway station; 10: Es-Saff; 11: Qasr es-Sagha ("Moerien"); 12: "Predynastic site" south of Qasr Qarun.

Merimde has emphasized this discontinuity and until today the inner Delta has shown no neolithic sites which could be predecessors. On the other hand the state of research of the Upper Egyptian lithic industries doesn't allow an exact determination. The twisted blade tools of Nagada II (Baumgartel 1960: 40) and especially the "Mostagedda"-industry, recently described by Holmes (1988), seems to have strong relations, but the interaction between Lower and Upper Egypt is one of the main questions in Early Egyptian history and any attempt to build up relations should have been done with completely proved data. The "bifacial" industries of Merimde-Fayum and Badari, the denticulated sickle blades and the blade knives of el-Omari and southern Egypt, the twisted blades in Lower and Upper Egypt are elements, which contrast in some aspects the stressed differences of northern and southern Egyptian cultures.

Connection to the Palestinian Ghassul-Beersheba culture (Perrot 1955: 183), which produced the main part of the imported pottery at Maadi, are better to determine: the micro-endscraper is, as well as in Buto-Maadi culture, a recently discovered "Leitfossil" in the Levantine Chalcolithic (Gilead 1984; Dollfus *et al.* 1988: 593). In that region we could possibly find the "roots" of this lithic industry in the Neolithic period, especially in the Yarmukian (Stekelis 1972). Here both bifacial core tools and bladelets occur; but again there is an absence of well stratified samples.

Conspicuous similarities with the Buto-Maadi lithic exist also in some Levantine and North African Upper Palaeolithic industries (especially the "Ahmarian" [Baruch and Bar Yosef 1986]), and the "Iberomaurusian" (Tixier 1963: 115; Phillips 1975), but we have yet no proof for any continuity of those lithic traditions into the neolithic. We are only able to determine the lithic tradition of the Buto-Maadi culture as a Lower Egyptian phenomenon with strong Levantine relations, a culture which disappears with the later predynastic phase

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