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## **Late Neolithic Settlements ( E-01-2 “CAMP” ) from the Gebel Ramlah Playa Basin, South-Western Desert of Egypt ( Preliminary Report )**

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### **I. Introduction**

In the season of 2000, the Combined Prehistoric Expedition held a field school in Prehistoric archaeology, directed by Fred Wendorf and Romuald Schild, for a group of Supreme Council of Antiquity inspectors and geologists from the Geological Survey of Egypt. It was during one of the cursory surveys, when Kimbal M. Banks and Michael Kobusiewicz, together with a group of students, found concentrations of Neolithic sites located along the south-western shores of a fossil playa formed at the foot of a prominent, unnamed mountain, later to be named Gebel Ramlah (Sand Mountain). The gebel is situated about 25 km NW of Gebel Nabta (Fig. 1). The GPS coordinates of Gebel Ramlah are as follows: 22°42'37''N; 30°30'17''E; and about 278 m asl (Schild et al. 2002).

During the 2001 field season, the CPE began excavation of two sites, E-01-1 and E-01-2, located on the south-western shores of the Ramlah Playa Basin (Schild et al. 2002). The first one, excavated by Halina Królik contained remains of settlements attributed to the Early Neolithic phase of Al Jerar (house) and to Late Neolithic (graves, hearths, etc.). The second one ( E-01-2 ), comprised a settlement and a graveyard. The exploration of the graveyard had been conducted by Michael Kobusiewicz, Jacek Kabaciński and Joel D. Irish in 2001 and continued over the next field season in 2003. During the latter season a settlement located nearby the cemetery was tested (Fig. 2).

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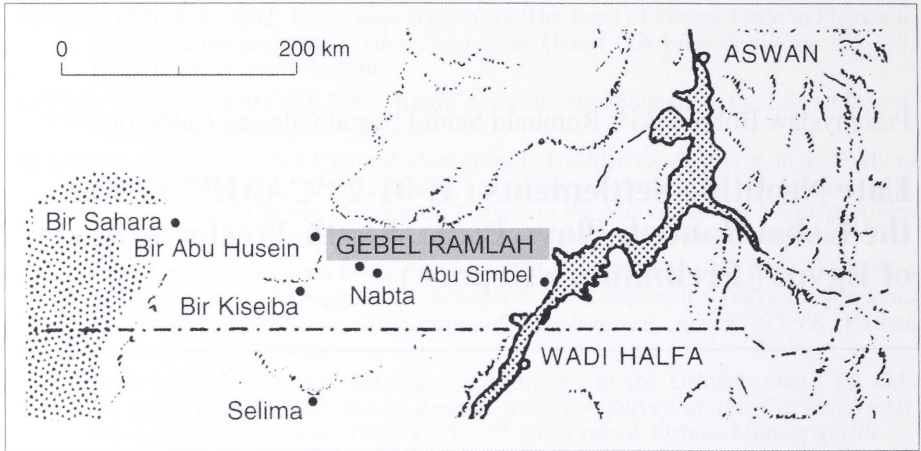


Fig. 1. Location of Gebel Ramlah.



Fig. 2. Gebel Ramlah, Location of site E-01-2 "CAMP".



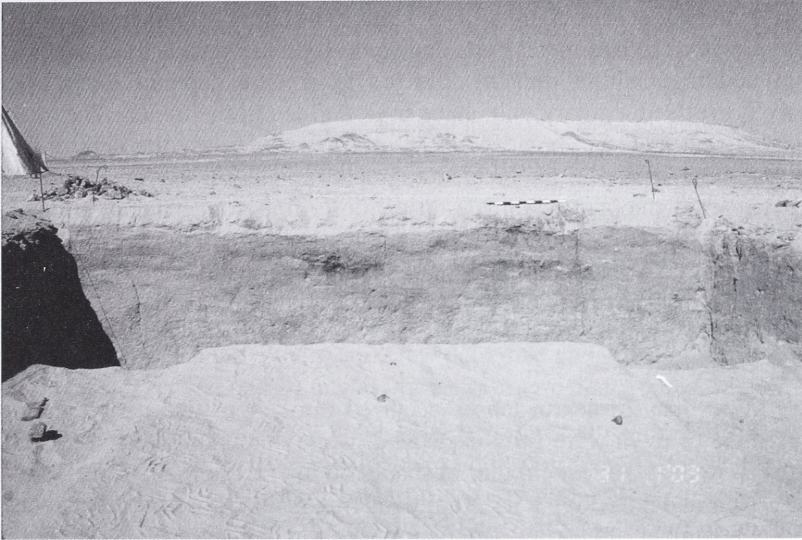


Fig. 3. Gebel Ramlah E-01-2 "CAMP": North Profile of Trench.



Fig. 4. Gebel Ramlah E-01-2 "CAMP": Sample of hearth.

## II. The Excavations

A trench of 4 x 5 m was laid out. The archaeological materials were recorded within square meter units and spits, 10 cm in thickness, conformably to natural bedding. Cultural remains occurred down to the depth of 70 cm below the surface. Three sedimentary units have been defined in the trench. The amount of archaeological material, however, decreased rapidly below the depth of 50 cm. The upper unit (Bed 9 of the local stratigraphic sequence, see Schild et al. 2002), 10 to 15 cm in thickness, is made up of loose, fine-grained, gray alluvial sand. The middle one (Bed 8), 35-40 cm in thickness, is composed of pale brown consolidated, conspicuously laminated sands of alluvial origin. The lower one (Bed 7), over 40 cm in thickness, is made up of a light yellowish brown, very consolidated gravelly alluvial sand. At the base of the trench is a very pale brown, consolidated sand.

More than 20 hearth lenses occurred throughout two upper sedimentary units. Some of them were fully excavated, while others only tested. Most of the hearths were oval, almost circular in shape (40 to 100 cm in diameter), and about 10 to 20 cm in depth (Fig. 3, 4). Numerous fragments of fire-cracked stones were found in a number of hearths. The finer deposit in the hearths consisted of a dark gray sand mixed with charcoal and very small fragments of burnt stones. In some cases, however, the presence of a hearth was marked by minor reddish oxidations. Twenty one biological samples were collected from the majority of hearths. All of these were examined by Dr. Maria Lityńska-Zajac, Institute of Archaeology and Ethnology, Polish Academy of Sciences. Ten radiocarbon assays from the site, on the other hand, have been measured by Dr. Gilberto Calderonii, University of Rome.

## III. Description of the Material

About 1600 artifacts comprising lithic assemblages, lower and upper parts of a grinding stone, over 70 fragments of pottery, as well as almost 2600 faunal specimens (bone, shells, eggshells) have been recovered from the trench. An analysis of the surficial scatter-pattern of finds, as well as those pertaining to particular sedimentary units, show a minor concentration of finds at the northern part of the trench. Apart from that, a small concentration of pottery has been found at the depth of 20 cm as well as a cache consisting of several cores.

### III.1. *The Lithic assemblages*

The trench yielded 1590 lithic artifacts, among which the following major categories have been defined: about 40 cores, 1464 debitage pieces and 86 tools. Most of the lithics were made of three types of raw materials: Egyptian flint (932 pieces or 60%), quartz (351 pieces or 22%) and chert (128 pieces or 8%). Lesser



amounts of stone artifacts were attributed to raw materials such as: petrified wood (63 pieces or 4% , agate (54 pieces or 3%), silica glass (30 pieces or about 1%), and quartzitic sandstone (21 pieces or 1%). Apart from these, there were single artifacts made from ferruginous sandstone (six pieces), basalt (two pieces) and granite (one piece), accounting for less than 1% of the total.

Of 40 cores, single platform specimens were the most numerous (16 pieces). Most commonly, these are small cores, less than 3 cm in length and width. Some of the cores show traces of limited preparation. There are also larger pieces, all made from Egyptian flint (e.g. one measuring 119x91x54 cm). Furthermore, there are five initially struck cores, among them three relatively large ones made from Egyptian flint. All of the latter were found deposited in close proximity, one touching another, and together with one single platform core, constituting a sort of cache. Finally, there are a few patterned and unpatterned, multiple platform cores; 90° cores; and 14 unclassifiable or fragmentary cores (Fig. 5).

The debitage, comprising in total 1464 specimens, include 356 flakes, 75 blades, 121 unidentifiable flakes and blades, 806 chips, and 106 chunks. As regards blanks, flakes from single platform cores, amounting to 232 pieces (approximately 67% of all flakes), are predominant. In vast majority, they are made from Egyptian flint, chert, quartz and agate. Their sizes range from 1.5 to over 5 cm in their maximum dimension (or diameter); the majority, however, being flakes of 2.5-3 cm in diameter. Primary flakes (57 pieces or 17% of the total flake number) and flakes from multiple platform cores (42 pieces or 12%) as well as 90° cores (13 pieces or 3%) are also relatively numerous. Among 75 blades, the ones deriving from single platform cores are dominant, amounting to almost 60 pieces (80% of all blades). Eleven specimens are primary blades (14% of all blades). The latter are usually small and their length rarely exceeds 3 cm. They are irregular and of proportions similar to those of flakes.

The collection contains 86 tools. Most of the tools (73 pieces or 84%) are made from Egyptian flint. Some, however, are made on chert (5 pieces) and quartzitic sandstone (4 pieces) blanks. The predominant tool forms are various pieces with continuous retouch (43 pieces or 50%) and denticulated flakes or blades (25 pieces or 29%). The remaining categories include: five perforators, three lunates (two of them made from agate blanks), three characteristic arrowheads and three bifacial tools, one tanged point, one denticulated endscraper, and two unidentifiable tools. On the surface of the site, in close vicinity of the trench, a point with Heluan retouch has been recorded (Fig. 6, 7, 8).

### *III.3. Faunal remains*

On the basis of preliminary analysis of the archaeozoological material (conducted by Dr. Achilles Gautier), the collection contains remains of cattle,

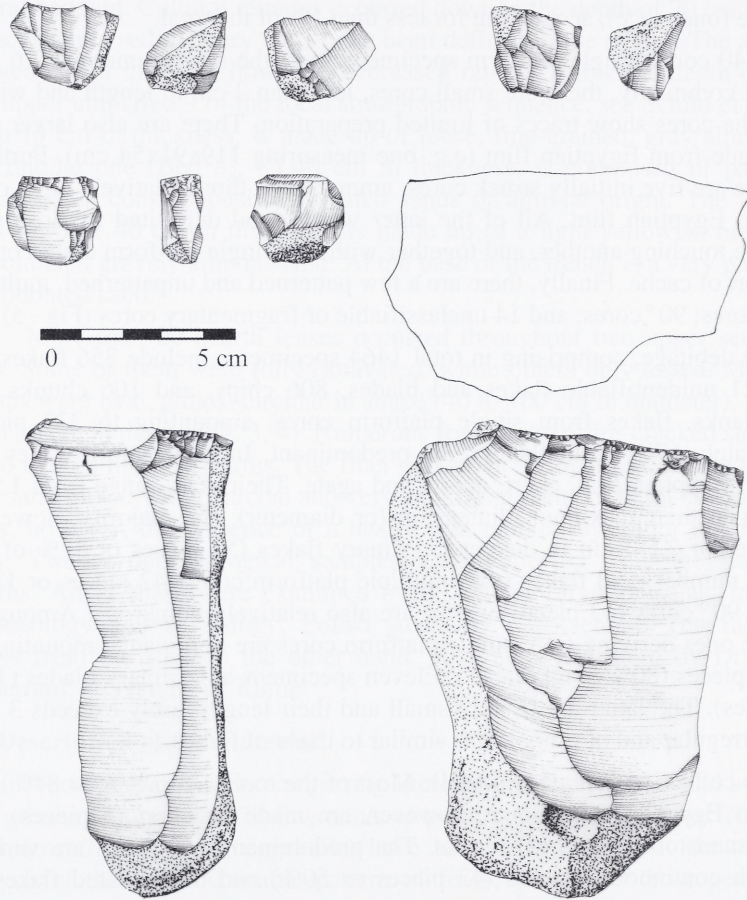


Fig. 5. Gebel Ramlah E-01-2 "CAMP": Cores.



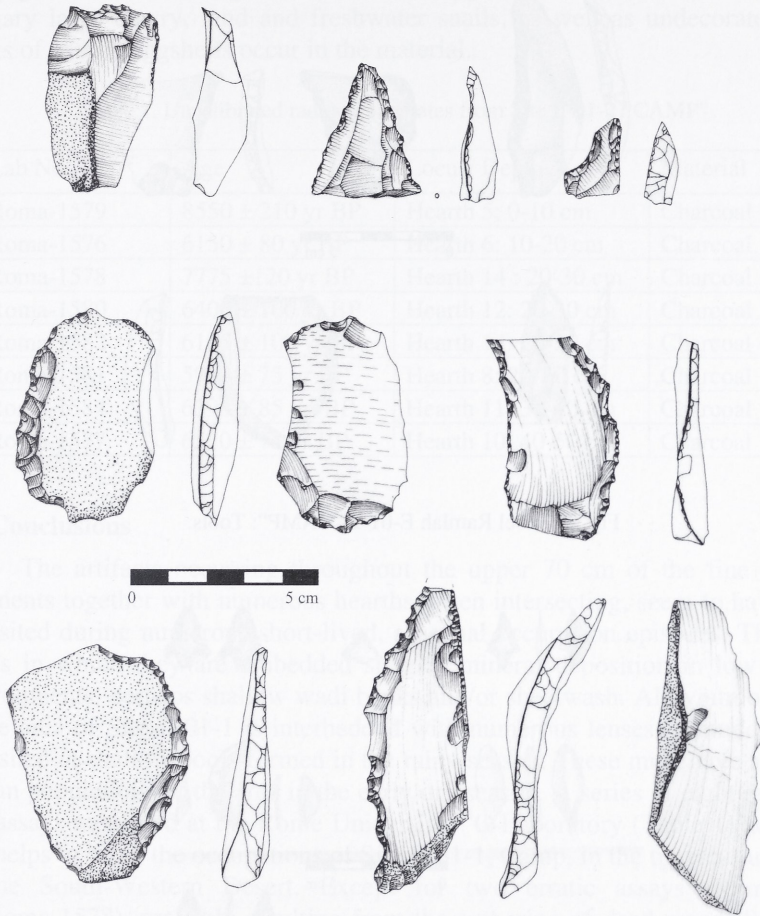


Fig. 6. Gebel Ramlah E-01-2 "CAMP": Tools.

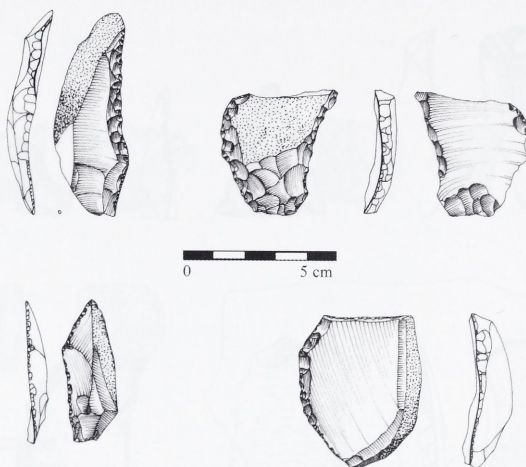


Fig. 7. Gebel Ramlah E-01-2 "CAMP": Tools.

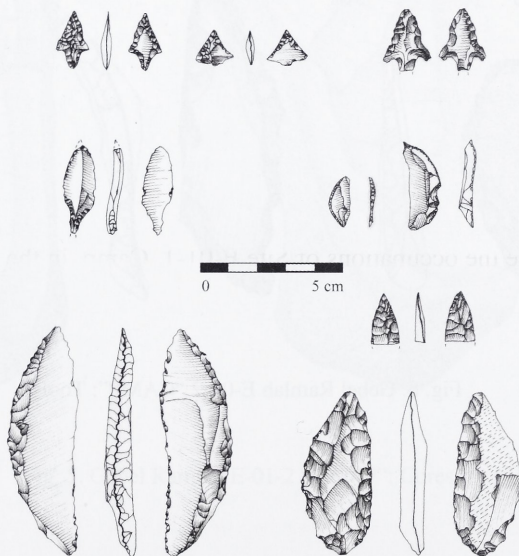


Fig. 8. Gebel Ramlah E-01-2 "CAMP": Tools.



sheep/goat, two kinds of gazelle, fox and a large Nilotic bird. Moreover, a fragmentary large cowry, land and freshwater snails, as well as undecorated fragments of ostrich eggshells occur in the material.

Table 1. Uncalibrated radiocarbon dates from Site E-01-2 "CAMP"

Lab No	Age	Locus/ Depth	Material
Roma-1579	8550 ± 210 yr BP	Hearth 5: 0-10 cm	Charcoal
Roma-1576	6150 ± 80 yr BP	Hearth 6: 10-20 cm	Charcoal
Roma-1578	7775 ± 120 yr BP	Hearth 14 : 20-30 cm	Charcoal
Roma-1580	6400 ± 100 yr BP	Hearth 12: 20-30 cm	Charcoal
Roma-1582	6185 ± 100 yr BP	Hearth 14: 20-30 cm	Charcoal
Roma-1581	5980 ± 75 yr BP	Hearth 8: 20-30 cm	Charcoal
Roma-1584	6395 ± 85 yr BP	Hearth 11: 30-40 cm	Charcoal
Roma-1577	6570 ± 75 yr BP	Hearth 10: 40-50 cm	Charcoal

#### IV. Conclusions

The artifacts occurring throughout the upper 70 cm of the fine alluvial sediments together with numerous hearths, often intersecting, seem to have been deposited during numerous short-lived, seasonal occupation episodes. The sediments in which they are embedded suggest mineral deposition in low energy environments, perhaps shallow wadi banks and/or sheetwash. Alluvium of Bed 9 in the area of Site E-01-1 is interbedded with numerous lenses of muddy sands deposited in shallow pools formed in the rainy season. These must have attracted human populations of the area in the early dry season. A series of eight radiocarbon assays measured at the Rome University <sup>14</sup>C Laboratory (Table 1) additionally helps to place the occupations of Site E-01-1, Camp, in the time/culture units of the South-Western Desert. Except for two erratic assays (Roma-1579 and Roma-1578), probably resulting from the gathering of dead wood (Schild et al. 1996), the dates locate the occupations within an early part of the Late Neolithic wet interphase (Schild and Wendorf 2001: 47). The radiocarbon aging of the occupations perfectly agrees with the pottery styles recorded at the site indicating association with Ru'at El Baqar Late Neolithic (Wendorf and Schild 2001: 664; Nelson 2002: 9-19).

At the nearby site E-01-1, the sandy silts of Bed 6 containing relatively rich Al Jerar archaeology can be securely tied to the late section of the El Nabta/Al Jerar humid interphase ending around 7300 - 7200 <sup>14</sup>C years BP (Schild and Wendorf 2001: 46). The archaeology of Bed 7, in the stratigraphic trenches in the immediate vicinity of Site E-01-2, is unmistakably that of the Middle Neo-

lithic or Ru'at El Ghanam variant dated at Nabta Playa between ca. 7100 and 6500 radiocarbon years BP, and coeval with the Middle Neolithic humid interphase (Schild et al. 2002). This cultural episode is associated with our lower unit recorded in the trench. The aforementioned assumption is supported by the occurrence of typical Middle Neolithic pottery in this layer.

According to a number of  $^{14}\text{C}$  dates, the adjacent graveyard of Site E-01-2 should be associated with the Final Neolithic humid interphase (Kobusiewicz et al. 2004). The already truncated grave pits of the Final Neolithic of Gebel Ramlah are dug into the low energy alluvial sands of Bed 6 containing Late Neolithic occupation horizons. Both, the stratigraphy and the  $^{14}\text{C}$  aging clearly indicate that the Final Neolithic beds that could have been contemporaneous with the burials had been removed by deflation.

It cannot be ruled out that some of the artefacts found on the surface of the site in lag position are, in fact, coeval with the graves.

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