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ÖKÜZINI - COMPARISONS WITH THE LEVANT

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The sequence of lithic industries of the Late Paleolithic in Anatolia or as it is often called in the Levant, the Epi-Paleolithic, is only known from a few sites. The best recorded site is Öküzini where more than 50 radiocarbon dates span the time from 16,500 BP to 8,500BP. Other sites include those excavated by Bostançı, such as Beldibi and Belbasi.

Before we propose some comparisons with the Levant, we need to say a few words on the Anatolian sequence.

The preliminary reports by Yalçınkaya et al. (1995) and Otte et al. (1995)as well as the paper by Albrecht et al.(1988) on Karain B, provide for the first time a dated sequence in which the microlithic component begins with non-geometric forms and ends with the introduction of a small number of geometric types. When the Beldibi and Belbasi assemblages are added to this sequence, in spite of the lack of dates, they seem to be, in general, later than the top layer at Öküzini. If this proposal is correct, then the assemblages rich in geometric forms are even later than 8,500 BP or are at least contemporary with the millennium of 9,000-8,000 BP. Personally, I would not be surprised if the uppermost layer at Beldibi is even later and will fall within the next millennium - 8,500-7,500 BP.

In a previous publication with Richard Meadow (Bar-Yosef and Meadow 1995), I followed the ideas of others, such as J. Cauvin, in proposing that Neolithic societies advanced from the Euphrates and the Tigris valleys into the central Anatolian plateau. I feel that the new information from the Konya plain and the Antalya region supports this contention. We therefore see the later dates of the Epi-Paleolithic industries as representing the groups of hunter-gatherers who live contemporaneously with the Neolithic farmers. This situation is also true in certain regions of the Levant. Once cultivation was established between the Damascus basin and Jericho, the latest hunter-gatherers can be found in marginal, semi-arid areas. One site in southern Sinai produced this kind of information/ the site of Abu Madi I. It is a seasonal habitation of foragers who produced microliths, including Helwan lunates, at the time of the Sultanian, the first major culture of the PPNA in the Levant. But the course of the socio-economic changes in the Levant was somewhat different from the Anatolian situation, especially from about 10,000 BP to 7,500 BP. However, this topic is beyond the scope of this lecture.

Let us return to the earlier times, to the Epi-Paleolithic of the Levant and Anatolia before the Holocene, during the Terminal Pleistocene. The Levantine Epi-Paleolithic is well known mainly from systematic surveys and excavations in the central and southern Levant (e.g., Bar-Yosef 1991; Goring-Morris 1987, 1993, 1995; Bar-Yosef and Belfer-Cohen 1989, 1992; Henry 1989; Byrd and Garrard 1990; Valla 1995). Less is known about the northern Levant which borders the arc of the Taurus (e.g., Fujimoto 1979; M.C. Cauvin 1981, 1987; Cauvin and Coquegniot 1988).

The basic Epi-Paleolithic sequence continued the tradition of the Levantine Upper Paleolithic. It is a blade/bladelet industry. The trend for higher frequencies of microliths or backed bladelets, without geometric forms, increases around 20-19,000 BP. The characteristic types which designate the Kebaran entity are still missing at that time and other names of industries could be introduced. I prefer to call them Late Ahmarian instead of defining an industry on the basis of one assemblage or two, especially when those were excavated 60 years ago. It should be stressed that in all the assemblages we find large tools such as scrapers, burins and denticulates. In some sites, pounding and grinding stone tools were uncovered (Wright 1991). The sites and the assemblages differ from one another by the shapes of the microliths. But the overall composition of the assemblages reflects the activities carried out on-site as well as in the exploited territory around the site or even far away. We estimated the size of the territories for one band as ranging from 250-350 sq. km in the coastal ranges (like in Mount Carmel and the Galilee) and as larger in the steppic zone.

The Kebaran is known from the coastal ranges of the southern Levant. It is not present in the arid belt, and despite having only a few radiocarbon dates, it seems to have been contemporary with the Late Glacial Maximum (ca. 18-15,000 BP). Hence, we feel that this distribution actually marks the limits of the inhabitable region. The deserts at that time were cold and dry, more than in any other previous period, except perhaps for Isotope Stage 4, some 75-65 thousand years ago.

The common microlithic types are the curved micro-points and the Kebara point (an obliquely truncated backed bladelet). In the Azraq basin, the common types were also double curved and resemble narrow elongated lunates. The use of the microburin technique is reported mainly from sites east of the Jordan River such as in Yabrud III (Rust 1950) or the Azraq region (Byrd 1988, 1994). But it is also reported form Nahal Hadera V, near the southern end of Mt. Carmel. Most of the Kebaran cores have one striking platform. In some instances, they resemble the *rabot* type, such as in Ein Gev I in the Jordan Valley.

The typological and quantitative variability of the Kebaran is known from many surface sites and a few excavations. However, the chronology of the different cultural groups within the Kebaran is still poorly known. It should be stressed that in some Kebaran assemblages we find small triangles and the use of the microburin technique, although always in very small quantities.

Beginning around 14-15,500 BP, we observe several clusters of different assemblages. The distinct trait of these in the western side of the Levant are the geometric microliths. These are elongated trapezes and rectangles (or the mixed type known as trapeze-rectangle). The frequencies of the trapeze-rectangle were employed in order to define the entity of the Geometric Kebaran.

The Geometric Kebaran assemblages are found from south Sinai, through Israel, Jordan and Syria. One site is reported from the Euphrates valley (Roodenberg 1977). Local variants are numerous, especially in southern Jordan (Byrd and Garrard 1991; Garrard *et al.* 1988). Mostly it seems that industrial 'facies' with triangles such as Jilat 6 upper (Byrd 1988, 1997) or with dominance of lunates and triangles such as the Middle and Late Hamran (Henry 1988, 1989) co-exist with the more classical Geometric Kebaran during the time span of

14,000 through 12,800 BP. In the Sinai and the Negev, a special entity known as Mushabian, is recognized.

The Early Mushabian (13,500-11,000 BP) is characterized by the production of arched backed bladelets and La Mouillah points that were manufactured with the microburin technique and accompanied by large tools (scrapers, disks, etc.). It was the combination of the microlithic forms obtained by the microburin technique that led to the suggestion to see the origin of this entity in Northeast Africa. These were arched backed bladelets, scalene triangles, *piquant trièdre*, etc.

The microlithic component of the Late Mushabian (also called Ramonian by Goring-Morris [1987]), is dominated by obliquely truncated backed bladelets, made with the microburin technique and Halewan lunates. This industry is contemporary with the Early Natufian that emerged around 12,800 BP. The Early Natufian was first recognized within the Mediterranean vegetational belt in the southern Levant. The lithic industry of the Early Natufian was often produced from cores with more than one striking platform. The blanks there were used for the fabrication of geometric microliths. These were essentially Helwan lunates and backed lunates. In most cases, they were made from short narrow flakes and short and wide bladelets. This way of manufacturing microliths was a departure from the production of slender bladelets that characterized the previous Epi-Paleolithic entities. Other tool types were sickle blades, scrapers, burins (mainly in the more forested hilly areas), elaborate denticulates and perforators. The Late Natufian (dated to around 11,000-10,500/300 BP) is mainly characterized by the dominance of backed lunates that often become shorter by comparison to earlier assemblages. In both the Early and Late Natufian, the microburin technique is not used by all the prehistoric groups. This enabled us to identify certain groups and to locate them geographically.

The final entity is the Harifian (10,700/500-10,100 BP) which is a desertic adaptation of the Late Natufian and therefore has clear territorial limits in the Negev and Sinai (Goring-Morris 1991). Other parts of the Levant document the continuation of the Late Natufian, perhaps with a few local variants until the change to what is called the Khiamian (or 'Epi-Natufian' in Mureybet) marks the onset of the Early Neolithic (around 10,300/10,100 BP).

We now move to the Zagros region because the Neolithic sequence of this area was different from the Levant. The difference is not so much in the economy but in the lithic industries. It is therefore essential to examine this region.

In the Zagros region which is much larger than the Levant, the knowledge of the Late Paleolithic or the Epi-Paleolithic is still rather fragmentary (Smith 1986; Olszewski 1993; S. Kozlowski, in press and see this volume). It is assumed that the Baradostian, often equated to the Levantine Upper Paleolithic, evolved into the Zarzian, a term that incorporates both microlithic, with low frequencies of geometric forms, as well as the assemblages in which geometric microliths dominate (Wahida 1981; Olszewski 1993). On the whole, there are several features which differentiate the Zagros from the Levant: 1) the accidental or ephemeral use of the microburin technique, 2) the tendency for the triangles to dominate the geometric group, and 3) the rare presence of the shouldered point also known as the Zarzi point.

The Late Paleolithic of Öküzini and Karain B provided information on the period between 18,000 to about 8,500 BP. This sequence is characterized by high frequencies of backed bladelets or microliths and the presence of microgravettes. The geometric microliths make their first appearance at Karain B but are definitely more numerous from Unit VII onward in Öküzini. The main geometric types are the triangles, lunates and a few trapezes. No evidence for systematic use of the microburin technique was found. From this aspect, the Öküzini microlithic industries more closely resemble the Zarzian than the Levantine Natufian. This observation is supported by any techno-typological comparison between the assemblages of layers IV, III and II with the roughly contemporary Natufian industries. Another feature that resembles the Zagros is the dominance of short and 'thumbnail' scrapers. While the size of the scrapers is in part due to resharpening, it could be attributed to the size of the radiolarite nodules. However, when compared to the Natufian, the avoidance of the microburin technique expresses cultural preferences or the preservation of technical tradition and cannot be attributed to the kind of exploited material.

By 10,000 BP, the evidence from Franchti cave (mentioned above) and the Cypriote site at Akrotiri (Simmons 1988) indicate that navigation was already practiced by the coastal bands of Mediterranean hunter-gatherers. The upper units in Öküzini testify to the contemporaneity with the Early Neolithic of Anatolia. The broken polished axe from Unit 1 could have been an exchanged item with farmers or a local imitation. Such celts are known since the early days of the PPNA sites in the southern Levant.

The question that should now be raised concerns the relationships between the assemblages of Belbasi and Beldibi, excavated and reported long ago by Bostançı. The presence of these two sites closer to the shore also led us to propose a seasonal movement of foragers between the foothills of the Taurus and the coast. While this was probably an optimal solution for the colder periods until 13,000 BP, another settlement pattern can be proposed for the later time. With the warming up of the Terminal Pleistocene and expansion of forest and woodland, increasing sources of plant food would be available in the intermontane valleys of the Taurus. After 9,000 BP, the presence of farming communities became an attraction for foragers, whether for exchange or temporary workplace. This leaves open the question of the dating of the assemblages of Belbasi and the upper layers in Beldibi. One may seem them, as in the site of Penerbasi in the Konya foothills, as the later existence of societies of hunter-gatherers.

In conclusion, when compared to the Levantine sequence, the Anatolian Late Paleolithic, or Epi-Paleolithic, has its own typological and technological character. The socio-economic changes caused by the onset of the agricultural revolution make the results of the excavations at Öküzini one of the most important sources of information that enable us to evaluate the impact of this change.

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