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VI - THE EARLIER UPPER PALAEOLITHIC: A VIEW FROM THE SOUTHERN LEVANT

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1. Introduction

Southwest Asia encompasses Anatolia, the Levant, Cyprus, Mesopotamia, Arabia and, sometimes, Transcaucasia, as well as Iran. Prehistoric research within this vast region has been patchy, with a notable historical bias on the Levant. Pioneering prehistoric research there and further afield was Euro-centric in outlook, as demonstrated by the initial six stage unilinear model proposed for the Levantine Upper Palaeolithic by Neuville (1934) and subsequently modified by Garrod (1951). Even much later, prehistoric phenomena continued to be evaluated in comparison with European 'counterparts' (e.g. Bordes 1977).

Comparisons between the Levantine archaeological record and that from other Southwest Asian regions have been problematic, especially with regards data from stratified cave and rockshelter sites. Some of this data derives from old excavations that did not employ the rigorous methodology of present-day research, and thus one can question the very integrity of some of this information. A point to bear in mind is the fact that from the beginning of explorations in the Levant, it was conducted by different schools of prehistoric research. These circumstances have been a prime-mover with regards competing theoretical frameworks to explain the local archaeological record (see e.g. Marks 2003). In the late 1960's the later part of the Upper Palaeolithic sequence (post ca. 23,000 years) was re-defined as a separate unit, namely the Epi-Palaeolithic (for the history of research see Belfer-Cohen & Goring-Morris 2002). Still, during the earlier part of the 1970's discourse on the Levantine Upper Palaeolithic largely revolved around the aforementioned unilinear conceptual framework (e.g. Bar-Yosef 1970; Copeland 1975; Garrod 1957; Perrot 1968; Ronen 1976; Rust 1950). It was only following fieldwork within the marginal regions of the southern Levant that this unilinear developmental model was replaced by a radically new hypothesis relevant for the entire Levant. This new approach posited the presence of parallel Upper Palaeolithic phyla, encompassing at least the 'Ahmarian' and the 'Aurignacian' traditions (Gilead 1981; Marks 1981; and see Belfer-Cohen & Goring-Morris 2003 for an overview).

However, the 'European' frame of reference lingers on, as some researchers continue, for example, to impose the definitions of the 'Aurignacian' as originally formulated in Europe upon archaeological entities in the Levant and elsewhere in Southwest Asia. This is quite problematic bearing in mind that the term 'Aurignacian' was for a long while accepted in Europe as a generic synonym for 'Early Upper Palaeolithic'. Over time, it became apparent that various entities (in Europe and elsewhere) defined as 'Aurignacian' *sensu lato* differ in their specific techno-typological characteristics. These observations have caused profound changes in how the 'Aurignacian' is perceived in European research (and see Mellars 2009; Teyssandier 2008; Teyssandier et al. 2010).

Another issue to be addressed concerns the terminology of the technological and typological frameworks. This is most notable in the plethora of names used to describe the projectile points characteristic especially of the earlier phases of the Upper Palaeolithic – whether the Font Yves/Krems/Umm el-Tlel/Arjaneh/el Wad/Ksar Akil points – these terms have all been used at various times to describe what are basically, more or less symmetrically pointed blade/lets fashioned using inverse and obverse retouch (and see Copeland 1986 for a discussion of lumping all those types together). In the Levant such forms are present in both the Ahmarian and the Levantine Aurignacian (and see below): this has caused considerable confusion, as originally and in some places to this very day, the tool type was considered to represent a strictly Aurignacian feature (i.e. in the West European 'classical' Aurignacian). The same is true for the Dufour bladelet category, which comprises a great variety of morphotypes and is present in almost all Upper Palaeolithic entities in the Levant, and elsewhere, with differences in their reported frequencies stemming mostly from the quality of the excavation methods (i.e. with or without wet sieving procedures).

Carination was accepted by all and sundry to be a synonym for the 'Aurignacian', yet it was encountered in clearly much later industries from the Epi-Palaeolithic Kebaran in the Levant (Bar-Yosef 1991) to the Upper Palaeolithic industries of Georgia (Bar-Yosef *et al.* 2011). Moreover, A.E. Marks was the first to draw attention to the fact that most of the carinated items in the Upper Palaeolithic 'flake' industries are of the lateral variety, so much so that this was the only new tool type he had defined for the assemblages he had excavated in the Negev (Marks 1976), otherwise using as a rule ty-

pe-lists designated for the European UP. And indeed, flat carinated items are reported only from the sporadic Levantine Aurignacian assemblages, while all the other industries with high percentages of carinated items display mostly the lateral variety (Belfer-Cohen & Grosman 2007). This contrasts with the European Aurignacian, where flat carinated items outnumber lateral varieties.

Altogether the Levantine Upper Palaeolithic currently spans some 25,000 years, beginning ca. 50 k calBP, and concluding with the shift to the Epi-Palaeolithic at ca. 23 k calBP with the onset of the Late Glacial Maximum. The dating of the Middle to Upper Palaeolithic (MP-UP) transition in the Levant is currently based on readings from the latest Mousterian and the earliest Initial Upper Palaeolithic (IUP) - and see the sequence of both TL and 14C dates at Kebara cave, though the IUP there is missing (Rebollo *et al.* 2011 and references therein). It appears that the MP-UP shift occurred between ~48.5-47.1 k calBP, corroborating the ^{14}C dates of ca. 50 k calBP for the IUP levels 1-2 at Boker Tachtit (Volkman & Kaufman 1983). In the following pages we shall focus upon the local UP record through to ca. 30 k calBP, without presenting the later part of the sequence. Accordingly we shall not present later UP industries, including the 'Atlitian' and the late Ahmarian/'Masraqan' (Garrod & Bate 1937; Belfer-Cohen & Goring-Morris 2003). Furthermore, the shift to the Epi-Palaeolithic at the beginning of the LGM, ca. 23 k yrs ago, cuts the Levantine UP short as compared to its duration elsewhere, until the beginnings of the Holocene.

2. The emergence of the Levantine Upper Palaeolithic

A technological shift is observed in the transformation from Middle to Upper Palaeolithic, from surface exploitation (for flake blanks) to volumetric concepts (for blade/let production); yet we believe that the 'radical' aspect of this change has sometimes been over-emphasized (see Bar-Yosef 2000; Bar-Yosef & Kuhn 1999; Belfer-Cohen & Goring-Morris 2007, 2009). From a typological perspective, the characteristic forms of the late Middle Palaeolithic, i.e. flake-based points and sidescrapers, were replaced by endscrapers, burins, and blade/let forms.

It is interesting that the genetic evidence indicates a more radical scenario, as opposed to the gradual transformation indicated by the flint assemblages, for the MP-UP transition, with modern humans dispersing out of Africa (e.g. Olivieri *et al.* 2006). The tempo of modern human migration into and through the Near East is indicated by new ^{14}C dating in key sites (e.g. Mellars 2006; Bar-Yosef 2007). However, since human remains are almost absent for the time period involved, it is currently impossible to clarify the inter-relationships between the newcomers and the local populations in the region as a whole. Evidently, one has to be very careful when trying to connect between archaeological entities and discrete ethnic groups. World-wide, this has been a much debated issue pertaining to the prehistoric sequence. While the topic is beyond the scope of the present article, one can refer to the discussions focusing on the meaning of variability during the local Epi-Palaeolithic (and see Clark 1991; Clark & Lindly 1991; and debate in Goring-Morris *et al.* 1996).

2.1 The Initial Upper Palaeolithic (IUP)

During initial research in the Levant it was accepted as a given that Early Upper Palaeolithic lithic assemblages comprised 'archaic', Mousterian elements, i.e. Levallois products and sidescrapers, in tandem with 'new', Upper Palaeolithic tool types, i.e. blades, endscrapers, and burins, heralding the fully-fledged Upper Palaeolithic to come. Neuville (1951), in considering the first post-Mousterian industry, as recognized at Emireh cave, called it 'Upper Palaeolithic Phase I'. Garrod (1955) then suggested labeling this entity as the 'Emiran', based on her studies of both the material from Emireh cave and el Wad cave layer E.

Later research revealed the presence of at least two IUP provinces in the Levant. Ksar 'Akil rockshelter is a unique key site on the Lebanese littoral, with 15 m of Upper and Epi-Palaeolithic deposits. After a hiatus following the Middle Palaeolithic, the lowermost UP layers (layers XXV–XXIV) are considered as representing a 'Transitional Industry', since the assemblages display typical UP typologies combined with a characteristic MP technology (Azoury 1986; Copeland 1975; Ohnuma 1988).

A similar but different blend of 'transitional' characteristics was observed at Boker Tachtit in the Negev (Marks 1983; Marks & Kaufman 1983; Volkman 1983), where refitted cores revealed that Mousterian morphotypes, i.e. Levallois points, were produced using an Upper Palaeolithic bi-directional blade technology. This represents a change in the knappers' concept of the nodule's volume (the so-called north African 'Nubian' concept – and see Belfer-Cohen & Goring-Morris 2007, 2009) differing significantly from the local late Mousterian, which is characterized by a convergent Levallois point technology (Meignen & Bar-Yosef 1991; Kerry & Henry 2003). Accordingly, the term 'Transitional Industry' denotes a local cultural transition from the Levantine MP into the UP; this has biological implications, since continuity in the realm of lithic production could also reflect biological continuity (Kuhn 2003; and see above).

In the northern Levant, at Ksar 'Akil, the 'Transitional' industry is characterised by chamfered items on Levallois blanks – items shaped by a tranchet-type removal, producing a bevelled edge (Newcomer 1968-69). Interestingly, similar chamfered items are common in the Dabban layers at Haua Fteah cave, Cyrenaica (Libya), in the local IUP culture (McBurney 1967). Chamfered items also appear at the surface site of Nag Hamadi in the Nile valley (sometimes considered Proto-Dynastic in age), while only one small surface assemblage has been collected to date in the Negev (Goring-Morris & Rosen 1989).

Long-distance similarities have been observed also for the other known IUP variant, the 'Emiran', which is characterized by bifacially thinned Emireh points. Assemblages pertaining to this variant are known mostly from the southern Levant, including surface finds in Lebanon, where they chronologically overlap with the chamfered elements (Copeland 2001). Among the most prominent 'Emiran' assemblages are Boker Tachtit levels 1-2, which bear remarkable similarities to the distant Moravian 'Bohunician' entity (Svoboda & Bar-Yosef 2003 and papers therein; Tostevin 2003).

Accordingly, it seems plausible to suggest that both IUP variants reflect diffusions by long-range, 'leap-frogging' movements of highly mobile groups, on their route from Africa to Europe, a hypothesis substantiated by the dates of those industries, which are earlier in the Levant as compared with their European counterparts.

The assemblages of Ksar 'Akil layers XXIII-XXI/XX that overlie the 'chamfered' IUP feature single platform pyramidal cores for serial production of convergent blades and elongated, facetted Levallois-type points (Ohnuma & Bergman 1990); here we note resemblances to the IUP Emiran variant at Boker Tachtit. Additionally, somewhat similar techno-typological attributes were uncovered at Tor Sadaf in southern Transjordan (Fox 2003), where, notwithstanding the absence of Emireh points, the reduction sequence comprises a uni-directional technology for the production of blades and elongated triangular blanks with facetted platforms, i.e. corresponding morphologically to 'Levallois points'. Thus, the production of an 'old' tool form using 'new' core-reduction strategies testifies for a certain degree of continuity. Furthermore, blade production, a distinctive characteristic of the IUP industries in addition to the production of triangular points, has been observed within the Nile Valley (and see the Mousterian site of Taramsa [van Peer 2004; Vermeersch 2001]). This may correlate with the genetic evidence for a 'wave of advance' of groups from Africa (Olivierri *et al.* 2006) through the Levant, although the possibility of movement from the Horn of Africa via Yemen is also feasible (Rose 2010; Rose *et al.* 2011).

Another IUP site, situated in the el-Kowm basin of northeast Syria, within the steppic belt, is the open-air site of Umm el Tlel. Here, layers II Base and III 2A overlie a long Mousterian succession, characterized by a 'para-Levallois' reduction sequence (Boëda & Muhesen 1993; Bourguignon 1998). Many of the cores in these layers are volumetrically flat, producing numerous blades that mostly resemble narrow and elongated Levallois - 'Umm el Tlel' – points, which feature uni-directional scar patterns. These cores grade into 'regular' blade core types, thus marking the technological change at the beginning of the UP; these are somewhat akin to those at Tor Sadaf. The assemblages at Umm el-Tlel also display a pronounced UP character, comprising numerous burins and endscrapers. As in other IUP assemblages, these layers furnish some MP elements, such as the Nahr Ibrahim technique, notches and denticulates. However, the available dates (AMS date of 34 k calBP and a TL date of 36 k for III2A) seem rather late compared with IUP dates elsewhere.

IUP assemblages were also uncovered further north in the Levant, at the coastal Turkish sites of Üçagizli and Kanal caves. These assemblages are blade-based, with faceted striking platforms, comprising 'Umm el-Tlel points', a few chamfered pieces, endscrapers, burins and retouched blades (Kuhn *et al.* 2009). Noteworthy are the marine mollusc beads found in Üçagizli, which are similar to those reported from IUP layers at Ksar 'Akil (Kuhn & Stiner 2007).

2.2 The Early Upper Palaeolithic

The revolutionary notion that there are locally more Early Upper Palaeolithic cultural entities than the Aurignacian and its derivatives (as was accepted in Europe and assumed to be valid for all other regions of the Old World) was suggested independently by both Gilead (1981) and Marks (1981), based on research in the Negev and Sinai, thus defining the 'Ahmarian'. The evidence they presented was subsequently reinforced by data from the Mediterranean zone, whether by new discoveries, publication of previously excavated sites, or the re-interpretation of finds (Azoury 1986; Bachdach 1982; Bar-Yosef *et al.* 1996; Bar-Yosef & Belfer-Cohen 2004; Bergman 1987; Ohnuma 1988). The 'Ahmarian' was actually first observed in the much earlier excavations at Qafzeh and Erq el-Ahmar caves (Neuville 1951); yet, preconceptions barred an awareness of this UP variant and its significance at that time (and see Ronen 1976). It is of interest to note that layer XVII at Ksar 'Akil yielded the earliest Upper Palaeolithic *Homo sapiens* burial ('Egbert') recovered in the Levant (Bergman & Stringer 1989; Williams & Bergman 2010). The Ahmarian was eventually subdivided into an Early - ca. 45-30 k calBP - and a Late phase - ca. 30-23/22 k calBP (Belfer-Cohen & Goring-Morris 2003). In the southern and eastern steppic margins there appears to have been a greater degree of Ahmarian continuity than in Mediterranean coastal areas, where the cultural sequence appears to have been interrupted by the incursion of the Levantine Aurignacian.

The Early Ahmarian (ca. 42-30/25 k calBP)

The earliest dates for the Early Ahmarian were obtained for levels IV-III at Kebara (Bar-Yosef *et al.* 1996). While it is indeed found throughout the Levant, the Early Ahmarian is most clearly expressed in the semi-arid margins, as small and relatively ephemeral open-air sites, often adjacent to springs, most probably reflecting occupations by small groups of highly mobile foragers e.g. Boqer, Lagama, Qadesh Barnea, Ain Qadis, Abu Noshra, Wadi Hasa and Nahal Nizzana (Becker 2003; Gilead & Bar-Yosef 1993; Marks 1983; Monigal 2003). Occasionally, however, larger base-camp sites are found, e.g. Sde Divshon and Azmon (Ferring 1976; Phillips & Saca 2003). In the Mediterranean zone the Ahmarian lasted from ca. 42 k calBP until the arrival of the Levantine Aurignacian at about 37/33 k calBP. Prominent sites include cave and rockshelter occupations such as Erq el-Ahmar, Kebara, Qafzeh and Ksar Akil (Belfer-Cohen & Goring-Morris 2003).

The common denominators of all Early Ahmarian assemblages include series of standardized, symmetrical convergent blade/let blanks produced from single platform, narrow-fronted cores. Blanks for other tool classes, such as scrapers and burins derived from the initial setting up of the core preforms (Becker 2003; Davidzon & Goring-Morris 2002; Monigal 2003). The el-Wad point initially defined by Garrod (1957) and considered as a *fossile directeur* of the Levantine Aurignacian, is the most notable tool form. Other finds categories include rare bone tools (Coinman 1997), Mediterranean dentalium beads, as well as ochre, which is quite common in many sites. Rare, unmodified grinding stones have been documented at Qafzeh and Boqer (Gilead 1991). It is worth recalling that there is evidence especially in more peripheral areas, for local continuity at least through to and including much of the LGM (Goring-Morris 1995).

The Levantine Aurignacian (ca. 37-33 k calBP)

As noted above, just as the Aurignacian bearers in Western Europe, the Cro-Magnons became synonymous with modern humans, the term 'Aurignacian' came to globally designate virtually all early

Upper Palaeolithic industries. Thus also in the Levant, industries postdating the local Mousterian were called 'Aurignacian', even though many of the assemblages lacked 'typical' Aurignacian characteristics. The obvious differences were explained through different environmental backgrounds, admixtures of local traditions, etc. This was compounded by diverse interpretations as to the meaning of what constitutes the 'classic' definition of the Aurignacian (and see Clark & Riel-Salvatore 2009; Mellars 2009). As an example, for quite a while, the presence of carination was considered as a prominent hallmark of the 'Aurignacian', even though this technique appears more than once in the prehistoric record (including the 'Ahmarian', e.g. Boker BE [Marks 1983: fig.9-15] and the Epi-Palaeolithic 'Kebaran' [Bar-Yosef 1991]). Moreover, it transpired that it is crucial to differentiate between lateral carination and flat carination (Belfer-Cohen & Goring-Morris 1986; Marks 2003; Williams 2006, and see above). Indeed, it is instructive to follow Garrod's growing unease with the situation of using European 'yardsticks' : *"… the small, sharp Font-Yves point, which is the special feature of Upper Palaeolithic III* [i.e., the Levantine Aurignacian of today]*, is hardly known in the West"* (Garrod 1953:25). *And, additionally, "… the Upper Palaeolithic III represents the stage at which an incoming Aurignacian group made contact with the natives, adopting and developing the Font-Yves point, which was missing from their original tool-kit, and which in any case rather soon went out of fashion again" (ibid.: 33).*

Nonetheless, during the 1968 'Ksar Akil conference' it was decided (by broad consent) to incorporate all pre-LGM UP variants in the Levant under the term 'Levantine Aurignacian', enumerating the specifics of the particular characteristics of each stage, i.e. the division of the (Lebanese) sequence into 'Levantine Aurignacian A', 'B' and 'C' (Copeland 1975). Notwithstanding the subsequent definition of a quite separate and distinct UP strand (i.e. the Ahmarian), the definition of an 'Aurignacian' entity in the Levant using European criteria still lingers on. While in the Levant the decoupling of this automatic association has been under way for some time, this is not the case elsewhere in Southwest Asia (and see below).

It was merely by a fluke that the first UP assemblages to be excavated in the Levant resembled the European Aurignacian more than other assemblages that were uncovered during subsequent exploration. Nowadays, after 80 years of investigation, the geographic distribution of the Levantine Aurignacian (*sensu stricto*), which indeed is the only entity to share many common denominators with the European Aurignacian, is restricted to a few cave and rockshelter sites within the Mediterranean zone, e.g. el-Wad, Kebara, Raqefet, Hayonim, Ksar Akil and Yabrud. All other assemblages previously assigned to this taxon were re-checked and re-assigned to different, distinct entities. The ^{14}C dates available are quite dispersed, and it seems that the Levantine Aurignacian reflects but a brief incursion into the region, most probably via Anatolia (Goring-Morris & Belfer-Cohen 2006; Kozlowski 1992). Indeed, its dates are later than those available in central/western Europe (Conard & Bolus 2003). Apparently, the Levantine Aurignacian was thus briefly contemporaneous with the Early Ahmarian, which continued to develop in the steppic regions (Bar-Yosef *et al.* 1996; Lengyel *et al.* 2006). Levantine Aurignacian occupations are quite limited in scope, such as that in Hayonim cave, where it was located in a depression, with a few hearths accompanied by a 'kitchen midden' (Belfer-Cohen & Bar-Yosef 1981).

The technological attributes of the Levantine Aurignacian lithic industry comprise mostly tool blanks made on blades and, to a lesser degree, (twisted) bladelets. Yet the vast majority of the debitage items comprise flakes. The tool types include 'classic' Aurignacian features, à la Western Europe in the sense of 'Aurignacian I', such as nosed and shouldered flat carinated items on flake blanks, Dufour bladelets, scalar retouched items, and a rich bone and antler industry including horn bipoints (Newcomer 1974). Two split-base points, a hallmark of 'Aurignacian I' were reported from Kebara and Hayonim caves (Belfer-Cohen & Bar-Yosef 1999). The bone/antler points seem to have largely substituted the stone points of the Ahmarian. Other unique finds were two engraved limestone slabs at Hayonim, a number of pierced pendants on teeth of medium-sized mammals and notations on animal bones (Belfer-Cohen & Bar-Yosef 1981, 1999; Davis 1974; Marshack 1997).

Unnamed Flake-based Entities (post ca. 30 k calBP)

This later UP entity (sometimes called 'Arqov/Divshon') is distributed primarily in the arid zones of the Levant (Marks 1983, 2003). Again, the chronological position of the entity remains problematic, although the stratigraphic evidence indicates that it postdates most of the Ahmarian. These assemblages are characterized by laterally carinated items on thick flakes ('scrapers', 'burins' and/or 'cores') that differ significantly from classic Aurignacian flat carinated items; they had previously been included within the 'Levantine Aurignacian' tradition (Belfer-Cohen & Grosman 2007; Gilead 1991; Marks 1981; Williams 2003). In the Negev and Sinai this entity includes assemblages from: Har Horesha I, Ein Aqev (D31), Boqer C, Qadesh Barnea 602, Qseimeh II, Ramat Matred/Har Lavan, and Shunera XV, as well as the Madamagh sites in southern Jordan and others in the el-Kowm region east of the Rift Valley (and see Belfer-Cohen & Goring-Morris 2003). While several radiocarbon dates are available, most sites lack tight chrono-stratigraphic control, but it seems likely that most fall between 30-22 k calBP (Belfer-Cohen & Goring-Morris 2003).

3. The Levantine Early UP in the broader Southwest Asian context

Until recently prehistoric research in the huge expanses to the north of the Levant (of mountains, inter-montane valleys and plateaux) has been at best patchy and sporadic. We are constrained to discussions concerning the techno-typological configurations of particular assemblages, frequently located hundreds of kilometres apart. Moreover, as noted in the introduction, the very integrity of supposedly 'referential' assemblages is often doubtful. An illustrative example is the claim for in situ evolution from the MP based on the presence of Mousterian elements within local UP assemblages. This claim was first introduced for the Zagros UP on the basis of a study by Olszewski and Dibble (1994, 2006) of the assemblages from Warwasi, excavated in 1960 (Braidwood *et al.* 1961). Moreover, the earliest UP assemblages from that site were given a new taxonomic denomination, the 'Zagros Aurignacian'. Up to that time, the Zagros early UP was recognized as a local entity, the 'Baradostian' as defined by Solecki (1958), following his excavations in layer C in Shanidar cave. The identification of the assemblages from Warwasi, Shanidar and Yafteh (Hole & Flannery 1967) as 'Aurignacian' was endorsed by Otte and others who took it a step further by proposing that this entity actually represents

the origins of the 'classical' European Aurignacian (Otte 2007, 2008; Otte *et al.* 2007; Otte & Kozlowski 2009).

While some have claimed that it was actually Garrod who observed the similarity between UP industries from Zarzi and the European Aurignacian (Garrod 1930), it is worth recalling that those assemblages studied by her actually date to the later UP, and are today broadly recognized as the 'Zarzian' Epi-Palaeolithic entity. The use of the term 'Aurignacian' by Garrod thus reflected the terminology of her time, when everything related to the Upper Palaeolithic was considered as 'Aurignacian' *sensu lato*... (Olszewski 1999). This is one of the reasons why it is difficult for us to accept the terminology of a Zagros 'Aurignacian', or that the European 'Aurignacian' originated from a local MP to UP evolution in the Zagros. Indeed in the Levant, we have witnessed a progression from broad acceptance of a lengthy and widespread 'Aurignacian' presence, to one where, today, many researchers restrict the use of the term to but a few distinctive and often short-lived assemblages (and see above). We currently find it problematic to follow the reasoning of the local evolution proponents; thus, while Otte & Kozlowski (2009) note that the local Zagros Mousterian evolves quite naturally into the Aurignacian, sharing many common techno-typological traits, Otte *et al.* (2011: p.6) state that the lower part of the UP sequence at Yafteh is actually more attuned with Ahmarian techno-typology, while 'Aurignacian' characteristics only begin to appear higher up the sequence: *"The main arguments are technological and chronological analogies between the lower occupations at Yafteh and the Early Ahmarian (although typological differences exist) and technological and typological analogies between the upper occupation in Yafteh and the Levantine Aurignacian sensu lato"*.

Undoubtedly there are techno-typological traits observed in the Zagros UP assemblages similar to those of the West European Aurignacian (sharing these traits, to various degrees, with other UP assemblages elsewhere in Europe and Southwestern Asia). Yet, tracing and following particular characteristics over huge distances is approaching research from a 19th century paradigm, by ignoring the distinctive nature of local adaptations and regional variability. Clearly, there were connections between regions, yet one should take into consideration also the fact that there were also certain independent local trajectories, as demonstrated in the UP sequence of the Levant as well as in the Zagros.

Indeed, we should note that similarities may indicate: a) parallel or convergent developments; or b) even if elements were introduced from elsewhere, in no time (by prehistoric standards) those will be assimilated within local traditions, or adapted to particular local conditions. The only option to explain wide-ranging overall similarities is by accepting the notion of total replacement, as observed shortly after it occurred. Thus it is difficult for us to believe that the local early UP at Yafteh represents a mirror-picture of the French Aurignacian. Moreover, it was Garrod herself who suggested to Solecki to define the local UP he excavated at Shanidar as 'Baradostian' (having herself [in 1930] evaluated every post-Mousterian assemblage with a European measuring stick), thus bringing to an end the rule of Eurocentric orientation. Indeed, we need to balance both the existence of local developments and interactions, together with the 'larger' picture of highly mobile groups moving rapidly over huge distances, with the southwest Asia serving as a bridge between Africa and Eurasia. Accordingly, we need to be cautious when defining endemic occurrences, without introducing terminologies based on a priori paradigms.

Here, a good example is the definition of the same lithic points as hallmarks of both the Levantine Ahmarian and Aurignacian complexes (and see above). Already in early 1950's Dorothy Garrod (1953) had concluded that the frequencies of points and Dufour bladelets in the Levant (but also in the Zagros, see values for those tool types at Yafteh [Otte *et al.* 2007]) are much higher than those reported from European sites; she accordingly concluded that these were local morphotypes, adopted by incoming Aurignacian groups (and see the full citation above).

At the present level of knowledge, one should be cautious defining complexes just through single elements as has been demonstrated time and time again. One can mention again the presence of 'Aurignacian' elements such as carinated scrapers and scalar retouched blades, which both appear in small numbers within Ahmarian assemblages (e.g., Marks 1983, Fig. 9.9 – the site of Boker A and figs. 9.15, 18 – the site of Boker BE). Indeed, they even appear in later industries, such as the Middle Epi-Palaeolithic Ramonian (ca. 16/15 k calBP) assemblage from Nahal Neqarot (Belfer-Cohen 1994). Without going into details suffice it to state that we are witnessing morpho-typological convergence rather than direct linear evolution.

The Yafteh assemblages (Hole & Flannery 1967; Bordes & Shidrang 2009; Otte *et al.* 2007) are described differently by the various scholars who studied the material excavated by Hole and Flannery in the 1960's. Thus J.-G. Bordes and Shidrang identify a sequence of two different technological traditions, the older producing straight blade/lets from prismatic cores, with 'Arjeneh' points that broadly correspond to el Wad points. Later UP levels feature narrow-fronted cores (including lateral carinated) and twisted retouched (Dufour) bladelets. Others, such as Otte *et al.* (2007) see a direct *in situ* evolution from the Middle to early UP, considering this to be the birthplace of the entire Eurasian 'Aurignacian' phenomenon, which then spread westwards and southwards, an archaeological simile for later 'Indo-European' diffusions.

Granted, similarities with the Aurignacian are observed at Yafteh; but still, there is also a very distinct local character, so much so that in the most recent publication Otte *et al.* (2011) state: *"Yafteh could then be seen as a hypothetical taxonomic unit between a technological tradition derived from the Early Ahmarian and the Levantine Aurignacian."* If one is to acknowledge that this industry is evolving along its own, particular trajectory, then why not call it by a local name: the Baradostian?

There are researchers who consider also assemblages from Anatolia (i.e. Karain and Ökuzini) as variants of the 'Zagros Aurignacian' (Otte 2008), corresponding to movements by modern humans with their 'Aurignacian' industries out of Central Asia into Anatolia and thence into Europe. Yet there is currently no evidence to indicate that 'Zagros Aurignacian' assemblages predate those in Europe (Otte *et al.* 2011).

The initial appearance of the UP in Southwest Asia seems to have differed from region to region, reflecting local evolution as well as the very existence and intensity of inter-regional connections.

Unfortunately, we can reconstruct but only a small part of the processes leading to the appearance and development of the UP in each region. Within the Levant the transformation from MP to UP was relatively rapid, being characterised by considerable techno-typological variability. Recently published dating places the end of the Mousterian in the southern Levant at ca. 49,000 calBP with the earliest Ahmarian occurrence dated to ca. 47.5 k calBP, thus providing a time range for the local IUP (Rebollo *et al.* 2011). By contrast, in the more northerly regions of the Taurus/Zagros (and the Caucasus [Bar-Yosef *et al.* 2011]) the earliest dates for the local UP in Yafteh cave cluster ca. 39-36 k calBP (Otte et al. 2011, Table 1), so that there is no evidence for parallels with the Levantine IUP. Indeed, though the record remains fragmentary, with poor chronological control, there are indications that within the rugged mountainous areas of the Taurus, Zagros and Alburz, occupations were relatively ephemeral, perhaps with gaps corresponding to colder phases.

The Levantine IUP developed into the blade-based pan-Levantine Ahmarian tradition, which thrived in more steppic regions. The evidence available could indicate that some of highly mobile Ahmarian groups budded-off and left their historical 'core-area'. Moving by way of southern Anatolia to the Danube valley and/or the Mediterranean and thence into central and western Europe, they may be responsible for the so-called 'Proto-Aurignacian' (e.g. Bon 2000). Subsequently, following the emergence of the 'classic' Aurignacian in Europe, a brief incursion back into the Mediterranean portions of the Levant corresponds to the 'Levantine Aurignacian', which appears to have had a limited impact on future local developments.

Overall, one can observe close ties between our current comprehension of cultural processes and the relative intensity of research on the UP throughout Southwest Asia. While numerous phases and facies are recognized and defined in the southern Levant, the situation in the vast territories encompassing the Taurus/Zagros is broadly comparable to the situation in the southern Levant several decades ago. It seems that accepting an uninterrupted, unilinear cultural development, as was posited previously for the Levant, means ignoring possibilities of gaps in the record, i.e. absence of occupation, as well as the impact of the dynamic movements of small foraging groups creating their own local, endemic trajectories.

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