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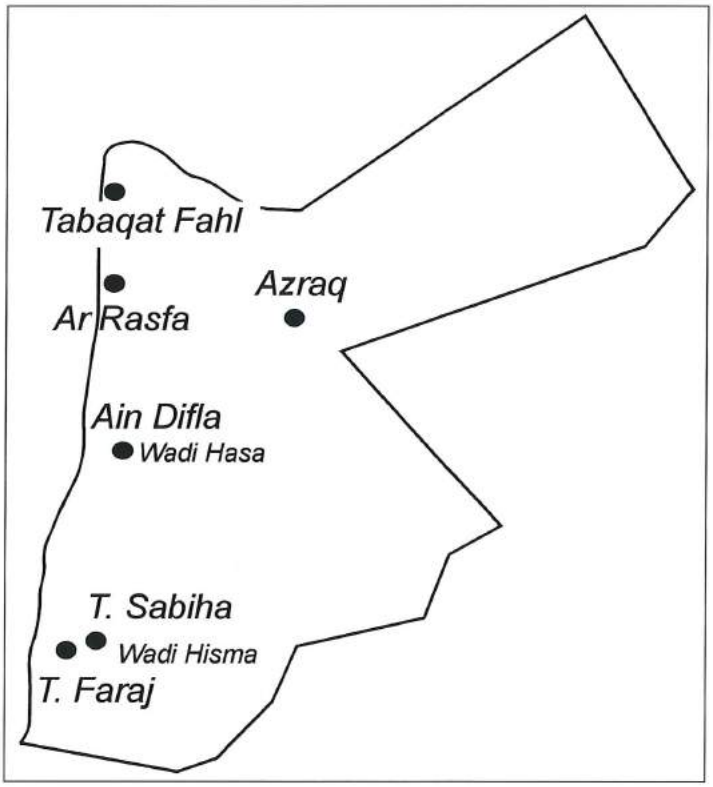
The Middle Paleolithic of Jordan: An Overview

The Middle Paleolithic of Jordan is known from isolated finds and surface scatters of Levantine Mousterian artifacts (e.g., Levallois cores, points, and flakes) all across the country, but artifact assemblages discovered *in situ* are rare (Henry 1998a). Sites have been reported from all but one of the country's broad physiographic units (the Bādiya) and where comprehensive Paleolithic surveys have been undertaken, Levantine Mousterian occurrences account for some 2-30% of the total inventory of sites (Henry 1995; Clark 1992). Although sites and find-spots are widespread and abundant (Zeuner *et al.* 1957; Huckriede and Wiesemann 1968; Bender 1974; Muheisen 1983; MacDonald 1988; 1992; Henry 1998b), as yet only a few have been intensively investigated. In fact, only a few sites have been reported to have buried horizons (FIG. 1). These come from investigations in Ṭabaqat Faḥl (McNicoll *et al.* 1985; Walmsley *et al.* 1993), Wādī Zagh (Shea in press), the al-Azraq Basin (Garrard *et al.* 1987; Rollefson 1983), Wādī al-Ḥasā (Clark *et al.* 1988; Clark *et al.* 1992; Clark *et al.* 1997), and Wādī Ḥismā (Henry 1995; 1997a; 1998a; Henry *et al.* 1996). Of these, only those sites from Wādī al-Ḥasā and Wādī Ḥismā have been studied in any detail. Although only a handful of sites have been intensively researched, these have contributed important evidence for addressing a variety of Levantine Mousterian issues including chronometry, paleoenvironmental reconstruction, artifact variability, and human ecology.



1. Map showing the locations of the major Levantine Mousterian sites in Jordan.

Ṭabaqat Faḥl: Wādī al-Ḥammeh and Wādī al-Ḥimār

Excavations in the the Wādī al-Ḥammeh Conglomerate, a 40m thick Late Pleistocene deposit, found within the Wādī al-Ḥammeh - Wādī al-Ḥimār drainage network has identified an extensive Middle Paleolithic horizon (Walmsley *et al.* 1993). The deposit consists of interfingering red, pebbly clays and pebbly marls, from which Middle Paleolithic artifacts are known to erode. The horizon appears bracketed by an overlying 14C date of ~36k b.p. (on *Melanopsis* shells) and the presumed time-equivalence of the base of the sequence with the adjacent Jordan Valley's inundation by the ancient Lake Lisan ~80kya (Walmsley *et al.* 1993: 174). Sedimentary data indicate that the ancient Wādī al-Ḥammeh contained a large fresh-water spring zone that occupied its lower reaches adjacent to the lake.

In directing the investigation, Edwards observed that artifacts are widely and consistently distributed throughout the deposits, but not nucleated in discrete sites (Walmsley *et al.* 1993:174). Given this depositional context, he initiated a sampling strategy in which pits were dug into unambiguous exposures of the clay beds at successive in-

tervals along an outcrop. This strategy resulted in the identification of twelve sites and the previously investigated site of WH 35 was reexamined. The series falls within a 30m elevational belt resting between -96 and -126m msl.

Although the distances between the test excavations are not reported, the artifact distribution appears widespread and nearly ubiquitous. This might result from post-depositional erosion and scatter, but if so, the noted fresh edges on the specimens imply that they were not transported over long distances. Alternatively, the widespread artifact distribution may be related to numerous episodes of partially overlapping encampments. Such a palimpsest of occupations would be nearly impossible to detect without large exposures of paleo-surfaces. In contrast to this general pattern, one site (WH 41), shows a concentration of artifacts in the form of a narrow, clustered band of sharp flakes and blades (Walmsley *et al.* 1993:175). Perhaps not coincidentally, WH 41 also differs from the other sites in its stratigraphic position.

The preliminary report of the investigation does not provide detailed or quantitative accounts of the artifact inventories of the sites, nor industrial designations. Edwards mentions, however, that there seems to be broad uniformity in the configurations of the assemblages, that he associates with the Levantine Mousterian, and he notes the presence of unidirectional Levallois point cores, Levallois points, flakes, bladelets, burins, scrapers and shatter debris (Walmsley *et al.* 1993:175).

Wādī Zagh: ar-Raṣfa

Another site located in northwestern Jordan is ar-Raṣfa, an open-air occupation located north of the Wādī Zagh at an elevation of ca. -37mbsl (Shea, in press). In the Late Pleistocene, the site would have been perched on a bluff overlooking ancient Lake Lisan. The initial testing of the site not only confirmed *in situ* Levantine Mousterian artifacts in a stratified context, constellations of refitted artifacts show the occupations to be in primary context. In his analysis of the artifacts, Shea (in press) cautiously suggests an Early Levantine Mousterian age for the assemblage, although he also notes a lack of agreement in certain seriation indices. Overall, the assemblage would appear to have been tied more to flake than blade/point production. Given the proximity to Cenomanian chert outcrops and the abundance of primary flaking evidence, the site may have served as a collection point for raw material in addition to a game lookout.

North Central Jordan Survey

Numerous Middle Paleolithic artifacts were recorded in a geoarchaeological investigation of the depositional sequences of several wadi systems in north central Jordan: the valleys of the Upper az-Zarqā' near as-Sukhna and its main tributary, Wādī aḍ-Ḍulayl, and three wadis (Rattama, al-Buṭm, and al-Kharrāna) that drain into the al-'Azraq Basin. (Besançon *et al.* 1984; Besançon and Hours 1983; Copeland and Hours 1988; 1989). Within the Upper az-Zarqā' study area, Levallois flakes and cores were found associated with a second terrace (the Khirbat as-Samrā' formation) consisting of gravels and fine sediments some of which are aeolian. In the al-'Azraq Basin area, Middle Paleolithic flakes were found *in situ* above Wādī Rattama within a terrace composed of fine gravels and silts. The artifacts are thought to represent two phases, both falling early within the last pluvial (Copeland and Hours 1988).

Al-'Azraq Investigations

Middle Paleolithic artifacts associated with the springs of the al-'Azraq Basin have been reported by several researchers (Zeuner *et al.* 1957; Garrard *et al.* 1987; Copeland and Hours 1988; 1989; Rollefson 1983; Rollefson *et al.* 1997), but definitive *in situ* finds have been especially elusive. During the excavation of a canal in 1956, Lower and Middle Paleolithic artifacts were reported at C Spring by the Barker-Harza Company (1958). The site was subsequently visited by Frank Zeuner and Diana Kirkbride, but controlled excavations were not undertaken until Garrard *et al.* (1987). Copeland (1989), in her analysis of the artifacts from the C Spring excavation, notes that while the Levallois cores of Levels P and Q could signal a Middle Paleolithic horizon they are likely Late Acheulean. Recent finds at another al-'Azraq spring locality, 'Ayn Soda, may also indicate a Middle Paleolithic presence in the basin (Rollefson *et al.*1997).

Al-Jafr Investigations

Huckriede and Wiesemann (1968) reported Middle Paleolithic sites and isolated finds in the al-Jafr Basin, but in the absence of detailed analysis of *in situ* finds, it is hard to know what to make of their claims. They mention the presence of Levalloiso-Mousterian artifacts in association with ancient Lake Jafr and also with the dry lake bed that appeared subsequent to its desiccation. Most of the artifact descriptions, however, focus on material recovered from an even later interval which they also attribute to the Middle Paleolithic and term the *Matakhium*. Thought to be post-Lisan in age, they viewed the *Matakhium* as evidence for the very late survival of the Middle Paleolithic. This seems rather far-fetched, and would so even in 1968, as we know the Middle-Upper Paleolithic transition in the Levant to have occurred ~40-50kya. The brief descriptions and illustrations of the *Matakhium* show an industry dominated by thick blades with predominantly unfacetted platforms that were struck from opposed platform cores; attributes that bear little resemblance to those of well studied Mousterian as-

semblages recovered from elsewhere in the Levant.

Wādī al-Ḥasā

Following an initial survey by MacDonald (1988), two sites ('Ayn Difla - WHS 621 and WHS 634) were intensively investigated by Clark (Clark *et al.* 1987; Lindly and Clark 1987; Clark *et al.* 1993; Clark *et al.* 1997).

'Ayn Difla, a collapsed rockshelter, consists of a small remnant of a high (12m) terrace and possibly a lower middle terrace of Wādī 'Alī (a tributary of Wādī al-Ḥasā). The deposit consists of five units. The two uppermost units post-date the occupation of the shelter and have acted to partially preserve the underlying units. Unit 3, consisting of roof spall, mass wasted boulders, and brecciated matrix, contains isolated artifacts and appears to represent the ancient collapse of the interior of the shelter. Units 4 and 5 represent alluvial deposits that are thought to be associated with the high and/or middle terrace. The chronometry of the deposit (established from a TL and 8 ESR assays) suggests a human presence in the shelter within an interval stretching from ~90-180kya, i.e., Oxygen Isotope stages 5 and late 6 (Clark *et al.* 1997). Although not within the shelter deposit, tufa from a nearby extinct spring area located at the same elevation as the high terrace also has yielded a Th/U date of ~141kya.

Pollen recovered from the 'Ayn Difla deposit is not well preserved, yet two studies point to steppic conditions (Lindly and Clark 1987; Clark *et al.* 1988; Clark *et al.* 1997). The second, more comprehensive study, suggests the presence of less marginal conditions than initially suspected, however. In this study, the setting appears to have been a cool steppe dominated by shrubs (Chenopodiaceae, Tubliflorae, Artemesia, and Cruciferae) and grasses. Trees apparently were present only as minor, localized elements occurring along drainages and in other better watered locations. The faunal remains recovered from the deposit also are consistent with the environmental reconstruction of a cool steppe (Lindly and Clark 1987). With only thirteen diagnostic elements, the assemblage is dominated by equids (*Equus hemionus/assinus, Equus sp.* indet.), but goat (*Capra sp.* indet.) and gazelle (*Gazella sp.* indet.) are also present. Given the apparent age of the deposit, one would expect a much more mesic setting in that pluvial conditions have generally been registered for the interval elsewhere in the Levant. The pollen and faunal data also seem inconsistent with evidence for spring activity near the site.

Artifacts found within the deposit are confined to chipped stone specimens of which 19,165 were recovered (Clark *et al.* 1997). Although intra-site spatial and stratigraphic comparisons have not been reported, comparison of the artifact inventories by excavation season (i.e., 1984, 1986, 1992) shows little variability.

As a whole the assemblage is characterized by the production of elongated, narrow based Levallois points, from both bi-directional (68%) and unidirectional cores, and a relatively high blade index (ILam = 41.8). The mean length:width ratio of the points is 3.2 (Lindly and Clark 1987). These technotypological signatures are consistent with its D-type Levantine Mousterian placement (Lindly and Clark 1987; Clark *et al.* 1997). Levallois points account for >61% of the tool-kit and, in a pilot study, show a high incidence of microwear and polish (Lindly and Clark 1987); a pattern recognized for points from other Levantine Mousterian sites (Shea 1995). Beyond points the tool-kit is dominated by burins, naturally backed knives, notches, and denticulates.

Although evidence of the various segments of a complete reduction sequence are present at 'Ayn Difla, the relatively low proportions of cortical elements and cores imply that the initial steps of decortification and core shaping were undertaken elsewhere in the site or at off-site locations. The high degree of exhaustion of cores and the low proportion of tools to debris and debitage indicate that the site was intensively occupied. This contention finds further support in a variety of other assemblage attributes thought to denote occupational permanence (Potter 1993).

Moreover, some twenty small hearths and two pits represent other lines of evidence pointing to the extended use of the shelter.

Site WHS 621

The site, located on the ancient shoreline of Lake Hasa, consists of a large, ~4000 m^2 surface scatter of Levantine Mousterian artifacts (Clark *et al.* 1988). The artifacts display little patination and fresh, unrolled edges and appear to be eroding from lacustrine marls. Although test excavations recovered material to a depth of 30cm, the site is not thought to be *in situ* in the restricted sense of the term (Clark *et al.* 1988). But even in a slightly derived context and with evidence of minor Upper Paleolithic and Chalcolithic components, it is viewed as an essentially unmixed Mousterian campsite (or series of campsites).

Over 6,000 artifacts, collected from the surface, make up the assemblage as reported (Clark *et al.* 1988; Potter 1993; 1995). Technologically, the assemblage exhibits a high proportion of blade production in association with a high faceting index. Moderately high proportions of Levallois points are present. Although these are not described, their length:width proportions coupled with the high faceting index for the assemblage indicates that they are probably broad-based forms. In their review of the technological and metric indices of the assemblage, Clark *et al.* (1988) note various ambiguities in attempting to place it within the Tabun sequence and, in turn, question the usefulness of the indices as chronological indicators. In a subsequent study, however, Potter (1993; 1995) refers

to WHS 621 as a Type-B assemblage.

Although primary elements account for >26% of the debitage, Clark *et al.* (1988) point to the paucity of specimens totally covered with cortex and suggest that cores were likely to have undergone initial shaping off-site. The presence of a substantial proportion of Levallois flakes, accompanied by moderate numbers of disk and Levallois flake cores, indicates that Levallois flake production formed a significant part of the technology, in tandem with point production.

The tool-kit is dominated by "miscellaneous" specimens which account for >25% of the tools. The unusually high representation of this type may stem from the deflated context of the assemblage and the attendant edge nibbling or "camel retouch" to which surface artifacts are subjected. Levallois points, notches, truncated/backed pieces, denticulates, endscrapers, and perforators round out the tool-kit.

In his analysis of WHS 621, Potter (1993;1995) thinks the assemblage represents relatively ephemeral encampments in comparison with the more intensively occupied 'Ayn Difla rockshelter. While several of the assemblage characteristics seem consistent with his conclusions, others appear unfounded. For example, greater tool-kit diversity and more intensive retouch are generally tied to lower levels of mobility and higher residential permanence, not the other way round (Henry 1992; 1995; Dibble 1988).

Aside from the lithic artifacts, 28 identifiable faunal elements were reported. Those identified to species include *Bos primigenius, Equus caballus*, and *Equus hemionus/asinus*. Clark *et al.* (1988), however, caution that the bones most likely accumulated naturally and merely represent "background fauna" of a marshy, lakeshore environment on the edge of a grassland steppe.

Wādī Ḥismā

Investigations of the northern and western flanks of Wādī Ḥismā in southern Jordan have revealed several sites containing Levantine Mousterian horizons (Henry 1982;1988; 1992; 1994; 1995; 1997; 1998a; Henry *et al.* 1996; Olson 1997). Although numerous "find spots" representing sparse surface scatters of artifacts have been recorded in most of the areas undergoing intensive survey, only eight sites have yielded evidence of *in situ* Levantine Mousterian occupations that are in primary context. All but the high elevation (1,300 masl) site of Ṭor Ṣabīḥa, fronting the Ma'ān Plateau, are clustered in the Jabal Qalkha area some 20-25km away and at lower elevations (900-1000 masl). And all but one of these (Site J447) are tied to caves, rockshelters, or shallow overhanging cliffs. Only two of the sites (Ṭor Faraj "Farrāj", and Ṭor Ṣabīḥa) have been investigated in detail (Henry 1995; 1998a; Henry *et al.* 1996). The others represent recent discoveries (J444 and J447) or recently exposed Middle Paleolithic horizons underlying Upper Paleolithic components (J403, J412, J431, J432).

Regional Geology and Paleoenvironment

Within the area, Levantine Mousterian occupations are found in aeolian sand deposits that appear to have accumulated under dry steppic conditions, although cooler and more moist than those of today. The Ṭor Ṣabīḥa, deposit produced a poor pollen assemblage dominated by grasses and Chenopodiaceae (type *Noaea*), an indicator of relatively warm conditions, along with low percentages of alder, elm, and pine (Emery-Barbier 1995). The presence of the halophytic plants (Frankeniaceae) indicates at least a limited occurrence of a wet saline setting near the site. The apparent abundance of grasses and even modest arboreal component, coupled with evidence for a wet ground setting, indicate greater available moisture than today. Although poorly preserved, faunal remains also indicate a steppe environment and include the bones of *Bos*, equids, gazelle, and ostrich eggshell fragments.

Environmental indicators from the deposit of Ṭor Faraj consist primarily of phytoliths (Rosen 1995; n.d.) that represent grasses, sedges, reeds, rushes, and palm. The grasses are predominantly C3 varieties, a group linked to cool, moist environments. Although the phytoliths confirm the presence of standing water near the site and thus imply a more moist setting than exists for the area today, the overall environment was undoubtedly arid given the accumulation of over 4m of drift sand within the shelter. Levantine Mousterian horizons are also found within aeolian red sand layers at five other sites in the Jabal Qalkha area (Henry 1997; 1998).

Chronometry

A broad chronometry has been established for the Levantine Mousterian horizons of Ṭor Faraj and Ṭor Ṣabīḥa, in the form of amino acid racemization (AAR), thorium/uranium (Th/U), and thermoluminesence (TL) determinations. AAR determinations for ostrich eggshell fragments from Ṭor Faraj and Ṭor Ṣabīḥa, yielded identical results (69.9±6 kya), yet Th/U determinations on the same samples produced ambiguous dates (Henry and Miller 1992; Henry 1995). Two of these samples provided dates that are clearly too young (28.9±3.9 and 31±5 kya), while the third furnished a date in agreement (62.4±14) with its AAR counterpart from Ṭor Faraj. Recently acquired TL dates from Ṭor Faraj, corrected for the dosimetry of the deposit, suggest a younger age than do the AAR and Th/U dates (Valladas 1996 pers. comm.). The combined dates from the three techniques (excluding the two implausible ones) show a range from ~ 44-69kya and a mean age of ~55kya for Ṭor Faraj.

Artifacts, Technotypology, Inter- and Intrasite Patterns

The Mousterian assemblages of the Ḥismā appear to share a technological focus on the production of broad based Levallois points. Points typically account for ~40-50% of the tool-kit. The points were struck from cores that had been predominantly shaped through unidirectional, convergent preparation. The production of broad-based points from cores shaped by unidirectional, convergent removals is quite similar to that described for the B-type assemblages of Kebara (Meignen 1995). But refitting at Ṭor Faraj also shows us that unidirectional preparation was progressively replaced by bidirectional preparation as the working faces of cores were reduced through successive point removals and that bidirectional preparation became the norm for cores-on-flakes (*Nahr Ibrahim*). Therefore, the directionality of scar patterns is likely a more sensitive indicator of core exhaustion and chert availability than temporal placement.

Similarly, the proportions of points and blades in assemblages are likely to be more strongly tied to environmental settings than time. Not only do the arid zone assemblages of B-type show much higher point and blade proportions, so do D-type assemblages. The greater point production in the arid zone was likely tied to an emphasis on hunting. Increased point production, in turn, would have resulted in more elongated by-products from preparatory removals. Blades also offer a distinct selective advantage over flakes in an environment requiring high mobility levels because of their greater edge production efficiency (Henry 1987; 1995).

Summary and Conclusions

Although only a few Middle Paleolithic sites in Jordan have been researched intensively, they show a potential for making significant contributions to the solution of regional and even global problems. Evidence obtained from the sites offers a means of: (1) evaluating the integrity of the Tabun sequence at a regional scale, (2) assessing the accuracy of the paleoclimatic reconstructions coeval with the Middle Paleolithic, and (3) examining the technotypological parameters used in the definition of Middle Paleolithic taxonomic units. Inter- and intrasite patterns identified in the context of Jordanian sites also have refined our understanding of Middle Paleolithic settlement - procurement strategies and behavioral organization.

Regional Applicability of the Tabun Sequence

On the basis of the technotypological seriation recognized at Tabun, the placement of the assemblages from 'Ayn Difla (D-type) and Ṭor Faraj/Ṭor Ṣabīḥa, (B-type) is generally consistent with the chronometry of these assemblages. 'Ayn Difla (dated by ESR, TL, and Th/U) yields a broad, but early dating range of ~90-180kya and is in general agreement with the ~80-270kya range for other D-type assemblages dated by similar techniques. Ṭor Faraj and Ṭor Ṣabīḥa, (dated by AAR, TL, and Th/U) present a tighter and much later temporal sweep of ~48-69kya that is in close agreement with the Kebara TL dates of ~ 45-66kya (Bar-Yosef 1994:36-37), but considerably later than the Tabun B ESR dates of~ 97kya (EU) or ~121kya (LU). Although the ambiguities of Levantine Mousterian chronometry are far from resolved, the Jordanian sites of 'Ayn Difla, Ṭor Faraj, and Ṭor Ṣabīḥa, indicate that D-type assemblages are earlier than B-type on a regional scale. Moreover, the dates from Ṭor Faraj and Ṭor Ṣabīḥa, furnish additional support for placing B-type assemblages within an interval stretching from ~ 44-70kya.

The assemblages from Wādī Ḥismā and Wādī al-Ḥasā share some other technotypological features that fail to fit the Tabun succession, however. The proportions of blades and points in the Jordanian assemblages are quite high and exceed comparative values for most Levantine Mousterian assemblages, especially B-type assemblages. Tabun IX (D-type) is an exception to this pattern, yet this could be a consequence of selective introduction of blades into the cave, since there is little evidence that they were manufactured there (Jelinek 1982b). In that point and blade indices for the assemblages of the arid zone tend to be significantly higher than those of the Mediterranean zone regardless of time-frame (Henry 1995), it would appear that such features are not time-sensitive and thus perhaps not very useful seriation devices on a region-wide scale. Similarly, the linkage between directionality in the preparation of core faces and the sizes of the faces, as observed at Ṭor Faraj, indicates that the relative proportion of unidirectional and bidirectional preparation is more of a function of core exhaustion than chronology. Of course, these observations need verification at additional sites, especially in the arid zone.

Paleoenvironmental Succession

Paleoenvironmental evidence from the Jordanian sites, however, is not in strict agreement with our prevailing notions of the climatic succession during the Levantine Mousterian. Pollen from the 'Ayn Difla deposit points to steppic conditions, whereas pollen, geologic, and faunal data linked to D-type Levantine Mousterian deposits elsewhere indicate a moist, even pluvial climate. The apparent spring activity near 'Ayn Difla thought to be synchronous with the occupation of the shelter also is hard to reconcile with the pollen data that is indicative of dry conditions.

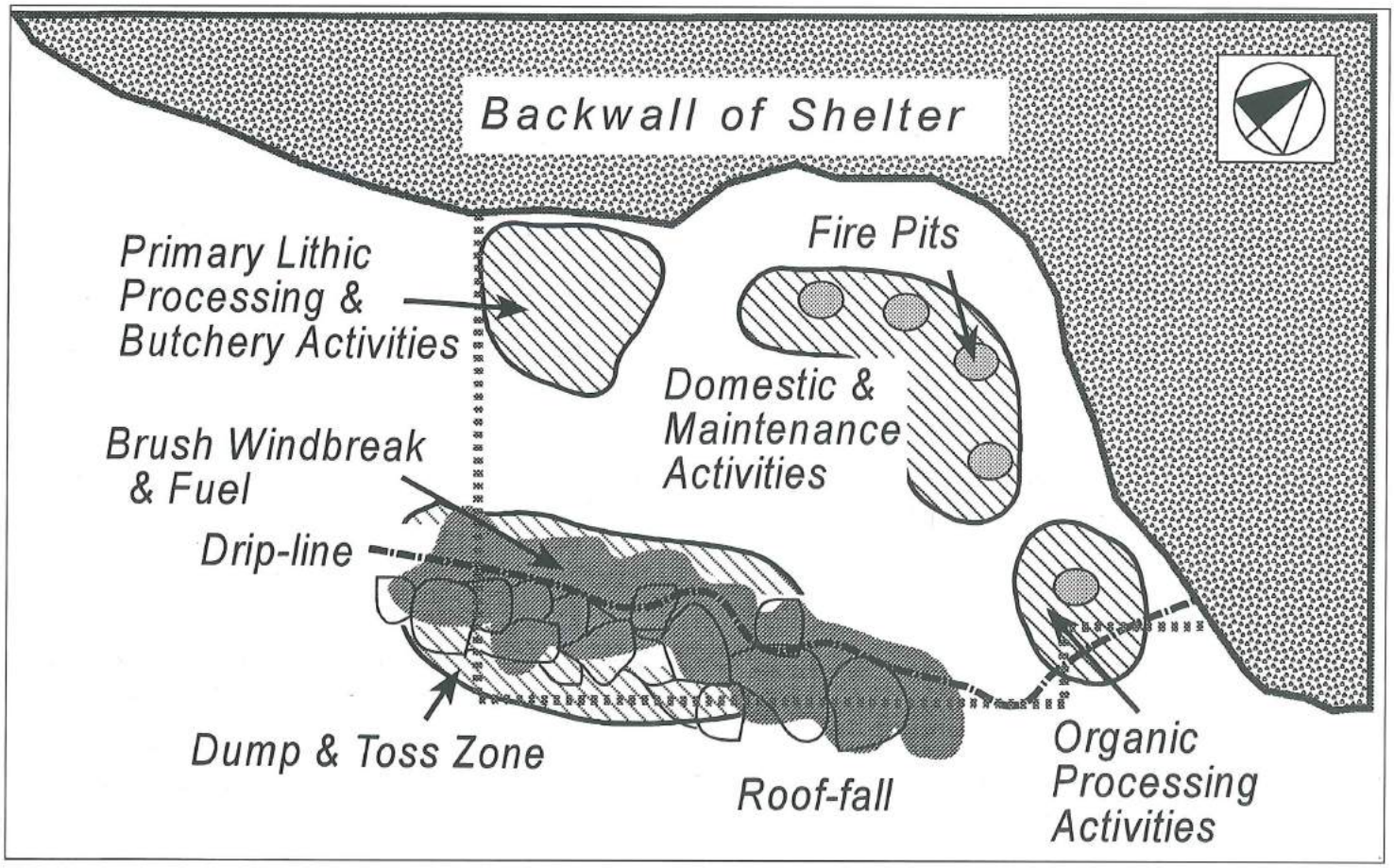
Sedimentary, pollen, and phytolith data from Ṭor Faraj and Ṭor Ṣabīḥa, also indicate steppic conditions. Although more moist than today's setting, in which rainfall ranges from <50 to <200mm annually, the environment of the Wādī Ḥismā ~48-69kya was likely arid as evidenced

by the accumulation of thick deposits of drift sand containing Levantine Mousterian horizons. This apparent late Levantine Mousterian arid episode is consistent with much of the regional evidence, especially the geologic sequences recorded by Goldberg (1981; 1986) in the southern Levant, but fails to mesh with Weinstein-Evron's (1988) pollen results from Lake Huleh in the northern Jordan Valley. The lack of agreement in region-wide comparisons of environmental evidence may stem from the lag-times along latitudinal gradients that occur within the Levant during episodes of climatic change (Henry 1983; 1989; Baruch and Bottema 1991; Baruch 1994). Also, as Clark *et al.* (1997) stress, west-east environmental gradients are poorly understood. This is largely because we have had few points of reference from which to model paleoclimatic reconstructions. Data from the Jordanian sites are thus hugely important in filling this void.

Inter- and Intra-site Patterns

Attribute studies of the assemblages from Wādī al-Ḥasā (Potter 1993) and Wādī Ḥismā (Henry 1995) indicate that the Middle Paleolithic occupants of the sites followed settlement-procurement strategies that involved different levels of mobility and lengths of residence. While on a general level, this is consistent with the findings of Marks (1981; Marks and Friedel 1977) in the central Negev, neither the Ḥasā or Ḥismā data suggests the kind of long-term, nearly permanent residence pattern posited for the Negev. Given the differences in environmental settings and time-frames, this perhaps should not be surprising.

The settlement-procurement pattern defined for the Ḥismā, in fact, complements the Negev model. Based upon B-type assemblages, it appears to fill the void that accompanied the emergence of arid conditions and erosion in the Negev. Unlike the Early Levantine Mousterian pattern of the Negev in which pluvial conditions supported nearly permanent, logistically supported base-camps, the drier, but elevationally ameliorated conditions of Late Levantine Mousterian times in southern Jordan prompted a different settlement-procurement strategy. This strategy, essentially representing a composite of that proposed for the Middle and Upper Paleolithic of the Negev, encompassed *both* longterm, logistically organized base-camps and opportunistically supported ephemeral camps. These were seasonally and elevationally structured within a pattern of transhumance. The Jordanian



2. Plan of Floor II of Ṭor Faraj showing the distinct distributions of cores and Levallois points related to different activity areas. The shaded contours denote the densities of chert chips.

evidence is thus important in supporting claims that Middle Paleolithic settlement patterns in the Levant were diverse and complex, as they are among modern foragers.

Intra-site studies undertaken at Ṭor Ṣabīḥa, and Ṭor Faraj reinforce the reconstruction of the inter-site patterns. The spatial distributions of various artifact categories at Ṭor Ṣabīḥa, conform to the expected overlapping, simply organized, and single locus artifact concentration of an ephemeral campsite. In contrast, the artifact distribution at Ṭor Faraj shows a much more complex site structure with domestic area containing numerous hearths and wide-range of activity modes (sleeping, cooking, food-preparation, and maintenance activities) as well as other spatially segregated activities tied to lithic manufacturing and butchery (FIG. 2). When coupled with the inter-site evidence, these findings challenge long-held notions that Middle Paleolithic organizational strategies were limited to simple, opportunistic, expedient, and routinized behaviors.

This review of the Jordanian Middle Paleolithic shows that we have just begun to realize the ultimate potential for Jordanian sites to contribute to the solution of Middle Paleolithic problems.

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