**New Epipalaeolithic sites found during the last 20 years of the Manasseh Hill Country Survey in the Eastern Samaria and Lower-Middle Jordan Valley**

**Danny Rosenberg and Shay Bar**

**Abstract**

The Epipalaeolithic period of the southern Levant is well documented and has been studied for over 90 years. The period encompasses three major cultural complexes, namely the Early Epipalaeolithic Kebaran, the Middle Epipalaeolithic Geometric Kebaran and the Late Epipalaeolithic Natufian. While the presence and characteristics of the Epipalaeolithic period have been widely discussed, some geographic regions have hardly received a comprehensive overview, and thus are frequently left outside the archaeological discourse. The current paper surveys the available information regarding the Epipalaeolithic period in the Eastern Samaria Mountains and the Lower-Middle Jordan Valley, integrating old and new data in the discussion.

**Keywords**: Epipalaeolithic period, Kebaran, Geometric Kebaran, Natufian, Eastern Samaria, Lower-Middle Jordan Valley

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**Introduction**

The Epipalaeolithic period in the southern Levant spans from about 22,000 to 11,700 cal BP, reflecting a mosaic of many cultural entities that were identified based on lithic techno-typological criteria and radiometric dating (e.g., Bar-Yosef 1970; Goring-Morris 1995; Goring-Morris et al. 2009; Maher et al. 2011; Goring-Morris and Belfer-Cohen 2017). This timespan endured several climatic changes, and the impact of these on the palaeoenvironments and hunter-gatherers’ adaptations has long been a concern of Late/Terminal Pleistocene research of the Levant (e.g., Bar-Yosef 1996; Goring-Morris and Belfer-Cohen 1998; Rosen 2007; Maher et al. 2011). These fluctuations were accompanied by several changes and trends in lithic technology and typology, and a general shift from non-geometric microliths during the Early Epipalaeolithic to geometric forms in the Middle Epipalaeolithic, and later to lunates in the Late Epipalaeolithic (e.g., Bar-Yosef 1970; 1981; 1998; Maher et al. 2012).

Most Epipalaeolithic entities were present on both sides of the Jordan Rift Valley, albeit with different intensities. Kebaran sites were located primarily in and west of the valley, while Nebekian sites were almost entirely located to the east, and Masraqan and Nizzanan sites were found on both sides (e.g., Bar-Yosef 1970; Bar-Yosef and Belfer-Cohen 1989; Maher et al. 2011; Goring-Morris and Belfer-Cohen 2017). These reflect trends in human behavior and adaptation in the region during the Terminal Pleistocene, and the rise of demographic pressure that led to the emergence of sedentism (e.g., Bar-Yosef and Belfer-Cohen 1989; Goring-Morris 1995; Goring-Morris et al. 2009).

The current paper integrates data regarding Epipalaeolithic sites discovered in the past 20 years as part of the Manasseh Hill Country Survey in the Eastern Samaria Mountains and the Lower-Middle Jordan Valley. We will focus on the Early Epipalaeolithic Kebaran (about 22,000–18,000 cal BP), the Middle Epipalaeolithic Geometric Kebaran (about 18,000–14,700 cal BP) and the Late Epipalaeolithic Natufian (about 14,700–11,700 cal BP) sites and occurrences, discussing them along several chronological, geographical and cultural lines.

**Eastern Samaria and the Lower-Middle Jordan Valley**

Geologically, the eastern fringes of Samaria are connected to the Wadi Far'ah anticline, which runs from northeast to southwest. It is bordered on the west by the Nablus and Jenin synclines, and on the east by the Sartaba syncline and the slopes of the Jordan Valley. The anticline is dissected by a row of faults running mostly from southeast to northwest, forming a series of horsts and grabens. The Lower-Middle Jordan Valley, on the other hand, is a stretch of flat land between the Samarian Mountains to the west and the Jordan River to the east. It consists of continental and marine sedimentary rock, formed from the Neogene period to the present. The younger rocks belong to the Upper Pleistocene Lisan Formation, above which are deposited mostly clastic rocks that were formed in the Holocene (Mimran and Belitzky 1995: 257). According to Belitzky (1999), the Lisan Lake began to shrink and withdraw to the present boundaries of the Dead Sea about 20,000 years ago. With the retreat of the lake, a sloping plain was exposed, descending gently from an elevation of about 200 m below sea level in the vicinity of Lake Kinneret to about 400 m below sea level at the Dead Sea (see also Begin et al. 1985; Bartov et al. 2002; 2003).

The lower Jordan Valley around the Fazael basin and south to the Dead Sea belongs to the Saharo-Arabian phytogeographical region, characterized by a desert climate with irregular rainfall of 50–200 mm and temperature that ranges between 38℃ in the summer and 9℃ in the winter (Gat and Karni 1995: 17). The average maximum relative humidity in the winter ranges between 75% and 85% (Rubin et al. 1992), and in the summer is about 70% (Gat and Karni 1995: 17–18). The vegetation is meagre, and there are many areas with no plant life at all. The desert climatic conditions are attributed to the location of the Jordan Valley east of the Samaria Mountains and its distance from the Mediterranean Sea (Gat and Karni 1995: 17). Two kinds of water sources exist in the region: perennial streams that flow east toward the study region (e.g., Wadi Far'ah) or within it (Wadi Malih and Wadi Fazael), and springs located inside the study region (see summary in Bar 2014: 18–20).

The Epipalaeolithic period of Eastern Samaria and the Middle Jordan Valley has been studied since the 1950s, when Kenyon’s major excavations at Tel el-Sultan (Jericho) uncovered a Natufian stratum at the base of the Tel (Kenyon 1959; 1960a; 1960b). During the 1970s and 1980s several prehistoric surveys in the Middle Jordan Valley around the Salibiya basin and Wadi Fazael were performed and published, and a number of Epipalaeolithic sites were found (Bar-Yosef et al. 1974; Goring-Morris 1980; Schuldenrein and Goldberg 1981; Schuldenrein 1983; Hovers and Bar-Yosef 1987). Several small-scale excavations were also conducted in the region (e.g., Bar-Yosef et al. 1974; Goring-Morris 1980; Hovers et al. 1988; Grosman et al. 1999), and since 1978, during the Manasseh Hill Country Survey, several additional sites and occurrences were recorded (Zertal 2008; Bar and Zertal 2016; Zertal and Bar 2017; 2019).

**The new sites**

During the last two decades of the Manasseh Hill Country Survey, several Epipalaeolithic sites were discovered and surveyed in Eastern Samaria and the Lower-Middle Jordan Valley, and are now added to the sites discovered in the past (Fig. 1 and see Winter 2008; 2017; 2019). These include two Middle Epipalaeolithic Geometric Kebaran sites, eight Natufian sites and nine Epipalaeolithic sites which were not further defined. While no additional Early Epipalaeolithic sites were noted, one should bear in mind that major prehistoric surveys were mainly conducted in the Fazael and Salibiya basins (see Goring-Morris 1980; Schuldenrein and Goldberg 1981; Schuldenrein 1983; and see also Hovers and Bar-Yosef 1987).

While no new Kebaran sites were discovered, two new Middle Epipalaeolithic Geometric Kebaran sites were noted. These are Khirbet Malih (C) and Jelamet el-Ahmar (C) located close together, north of Wadi Malih. Khirbet Malih (C) (Fig. 2 and see Zertal 2008: site 94) is located on a small hillock in the valley of Wadi Malih near the modern road from Tubas to Mehula. The size and location of the site point to a seasonal or temporary camp site (Winter 2008), but the surveyors reported scattered stones, possibly connected to structures at the place (Zertal 2008: 304). The lithic assemblage was comprised of bladelet cores and microliths. The latter include rectangles, trapezes, arch-backed bladelets and obliquely truncated bladelets. Jelamet el-Ahmar (C) (Zertal 2008: site 185), located on a low hilltop on the cultivated plain south of Wadi Far'ah, was seemingly a seasonal or temporary campsite (Winter 2008). The surveyors reported several installations and a flint scatter. The lithic assemblage contained various types of microliths, including obliquely truncated bladelets, arch-backed bladelets, rectangles and trapezes.

The eight Natufian sites include Khirbet el-Meiyiteh in the northern part of the studied area, 'Iraq el-Hamra, the final Natufian and easternmost site of Huzuk Musa, four occurrences in the southeastern area of Salibiya basin [sites 82 (A), 82 (C), 82 (E) and 82 (F)], and Elevation Point 470 (3), northwest of Jericho.

Khirbet el-Meiyiteh is an Intermediate Bronze Age fortified site (Bar et al. 2013) with an earlier Natufian presence (Winter 2008; Zertal 2008: site 90). It is located above the Wadi Malih riverbed, about 3 km southeast of the Urqan er-Rub complex of Epipalaeolithic sites. The Natufian lithic assemblage (Fig. 3: 1–9) included bladelet cores, bladelets, burin spalls and microburins. The tools included sickle blades, scrapers, burins, microliths and retouched bladelets (some with oblique truncations). Two lunates and a single triangle were also found. Most of the tools, cores and waste materials were made from gray and brown colored flint.

'Iraq el-Hamra (Zertal 2008: site 189) is located on a hill on its southwestern slope south of Wadi Far‘ah, and was either used as a base camp or for repeated or seasonal camping (Winter 2008). The Natufian lithic assemblage (Fig. 3: 10–24) included various cores dominated by bladelet cores, dozens of bladelets and several microburins (Winter 2008). The tools included many scrapers, burins and microliths, dominated by retouched bladelets. The geometric microliths included variants of rectangles, trapezes and lunates, including the Helwan lunate. The raw material is dark colored flint.

Huzuk Musa (Rosenberg et al. 2010; Groman-Yaroslavski et al. 2013; Nadel and Rosenberg 2013; Winter 2017; Zertal and Bar 2017: site 47) is situated at the foot of the Samarian Mountains (Fig. 4). It covers an area of about 1–2 hectares, mostly on an east-facing slope, where more than 10 oval structures were noted, and two were recently probed (Fig. 4: A-B and see Rosenberg et al. 2010). These are usually 2–4 m across and 5–10 m2 in area. The site was tentatively dated to the Late Natufian/Pre-Pottery Neolithic A period, based on the flint assemblage (Fig. 4: C), bedrock features (Fig. 4: D) and architecture (Rosenberg et al. 2010; Nadel and Rosenberg 2013). A 3x1 m test trench was excavated in 2008, cutting through parts of Structures 1 and 3. The walls are one course wide, sometimes interlaced with the bedrock. Structure 1 is oval and probably opened to the south. Within the structure, near the northern part of the wall, a small installation was noted. The floor level or the bottom of the wall was not reached in the excavation, but it is clear that the wall had more than four consecutive courses of stones. A rich assemblage of shell beads, including some in the middle of production, was discovered (Fig. 4: E).

A sample of nearly 2500 flint artifacts from Structure 1 was studied, including 92 tools (Rosenberg et al. 2010: table 1). Flakes dominated the assemblage, while blades and bladelets comprised 24% of the sample. Within the tools, blade and bladelet blanks are much more common (68.5%) than the flake blanks (17.4%). Among the tools, there are a single lunate, a single el-Khiam point and four sickle blades. In addition, two arrowhead fragments, a Beit Ta‛amir knife and 13 lunates (none with Helwan retouch) were found in other parts of the excavated area. However, the tools in the studied sample are dominated by perforators of various subtypes, and most were probably related to the intensive production of shell beads noted at the site (Rosenberg et al. 2010: table 3; Groman-Yaroslvski et al. 2013).

Four newly discovered small Natufian occurrences were noted southeast of the Salibiya basin (Zertal and Bar 2019: site 82; Winter 2019) in the plains west of the el-Muslabah ridge and south of the Wadi Abu Baqar tributaries. The lithic assemblage of Site 82 (A) includes a distinct bladelet core, bladelets and retouched bladelets and a single sickle blade: a backed bladelet with sickle gloss was also noted. Site 82 (C) has a small lithic assemblage dominated by flakes and bladelets: it also includes a sickle blade – a retouched backed bladelet with sickle gloss. Site 82 (E) assemblage is dominated by flakes and bladelets. A single sickle blade on an unretouched flake was also found. Site 82 (F) small assemblage is dominated by chips and bladelets, with a few microliths and two sickle blade segments.

Elevation Point 470 (3) (Bar, unpublished; Fig. 5) is the highest site in the study, located on a terrace on the eastern slope of the Samaria Mountains, above one of the tributaries of Wadi Wahita. Its Epipalaeolithic lithic assemblage (Fig. 3: 25–30) includes two Helwan lunates and a single backed lunate (Fig. 3: 28–30), as well as a few other microliths, bladelet cores and a single obsidian bladelet (Fig. 3: 31).

The remaining Epipalaeolithic sites, that were not ascribed to a period or cultural entity include Khirbet Qau'n (1) (Zertal and Bar 2017: site 2), which is an Early Bronze Age and Epipalaeolithic site located in the plain near Wadi Shubash, the northernmost Epipalaeolithic site in the study area. The microlithic industry included waste material, bladelet cores, bladelets and two microliths (Winter 2017). Wadi Abu el-Loz (Zertal 2008: site 253) is a multi-period enclosure site located on a saddle in the Zahret el-Meidan ridge in the hilly region of the desert fringes of Samaria, 6 km west of the Jordan River. The Epipalaeolithic lithic assemblage includes a small microlithic component and a single backed sickle blade (Winter 2008). Ras Umm Khubezah (Zertal 2008: site 219) is located in a small wadi on the eastern slope of a hill in the hilly region of the desert fringes of Samaria, 6 km west of the Jordan River and 3 km northeast of Wadi Far'ah. The Epipalaeolithic lithic assemblage includes bladelets and a single backed and truncated sickle blade with retouched cutting edge (Winter 2008).

Joret el-Kareireh (Zertal and Bar 2017: site 115) is a multi-period site located on a broad spur at the western margins of the small Mekhora valley. More than 60 installations of various types were found in the western part of the spur, and some are probably Epipalaeolithic (Eitam 2005: 698–708). The Epipalaeolithic lithic assemblage included a bladelet core, bladelets and microburins, as well as a small microlithic assemblage (Winter 2017). Umm Sawaneh (5) (Zertal and Bar 2017: site 123) is located in the northern parts of the Sartaba Massif, west and above the deep channel of Wadi Zeith. A concentration of 15 cupmarks and 51 varied rock-cut installations was noted (Eitam 2005: 710–715). The Epipalaeolithic lithic assemblage includes bladelets, a microburin and many chips (Winter 2017).

Jaffa en-Noon (4) (Bar and Zertal 2016: site 76) is located on a slope of the Jaffa en-Noon ridge in the hilly eastern fringes of Samaria, 5 km east of Aqrabeh. The Epipalaeolithic lithic assemblage includes bladelet cores, bladelets, microburins and retouched bladelets. Jaffa en-Noon (9) (Bar and Zertal 2016: site 75) is located on a flat area on the Jaffa en-Noon ridge near Jaffa en-Noon (4). The Epipalaeolithic lithic assemblage includes a few bladelet cores, many bladelets and a single backed sickle blade. Wadi Kamoneh (5) (Bar and Zertal 2016: site 150) is located in the western fringes of Sahl Afjem valley in the hilly eastern fringes of Samaria, 6 km east of Aqrabeh. The Epipalaeolithic lithic assemblage includes bladelet cores, bladelets and microburins. Finally, Elevation point 138 (1) (Zertal and Bar 2017: site 175/1) is located on the gentle slopes of a flat hill in the eastern fringes of Samaria, 1.2 km north of Ma'ale Ephraim. The Epipalaeolithic lithic assemblage includes bladelet cores, many bladelets and a small microlithic component (Winter 2017).

**Discussion**

The occupational history of Eastern Samaria and the Lower-Middle Jordan Valley during the Epipalaeolithic period is tightly interlaced with climatic and environmental changes that occurred between about 22,000 and 11,700 cal BP and their impact on the local geographyand ecology (e.g., Schuldenrein 1983; Maher et al. 2012). One of the most important factorspertaining to the location of sites is the retreat of the Lisan Lake toward the end of the Pleistocene (e.g., Goring-Morris 1980; Schuldenrein 1983; Hovers and Bar-Yosef 1987;Edwards 2001; Maher et al. 2012). Altogether, some 50 Epipalaeolithic sites and occurrencesare known in the study area, mainly located in Wadi Fazael and the Salibiya basin.

*Early Epipalaeolithic Kebaran sites*

The Early Epipalaeolithic Kebaran in the Eastern Samaria and the Lower-MiddleJordan Valley is represented by seven sites and occurrences (Fig. 1, Table 1), suggesting restricted use during this time span. These are spread in a relatively small area from WadiAhmar (Urqan er-Rub II) in the north to the northern part of the Salibiya basin (Tal’atZa’arah I) in the south. Most of them are located in the Fazael area, about 170 b.s.l. (with the exception of Fazael VII located at 70 b.s.l.).

**Table 1. Early Epipalaeolithic Kebaran sites in Eastern Samaria and Lower-Middle Jordan Valley**

|  |  |  |  |
| --- | --- | --- | --- |
| **Site** | **Location** | **Elevation** | **References** |
| **Urqan er-Rub II** | 1916/1634 | 169 b.s.l. | Hovers et al. 1988 |
| **Wadi Ahmar (I)** | 1916/1633 | 193 b.s.l. | Hovers and Bar-Yosef 1987 |
| **Fazael III (A)** | 1907/1618 | 190 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 44–55; Schuldenrein 1983: table 2 |
| **Fazael III (B)** | 1907/1618 | 190 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 33–41; Schuldenrein 1983: table 2 |
| **Fazael III (D)**  | 1907/1618 | 190 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 41–44; Schuldenrein 1983: table 2 |
| **Fazael VII** | 1883/1622 | 70 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 55–67; Schuldenrein 1983: table 1 |
| **Tal’at Za’arah I** | 1912/1555 | 180 b.s.l. | Goring-Morris 1980: 16; Schuldenrein 1983: 384–385, table 2 |

The Early Epipalaeolithic Kebaran sites in the study area include Urqan er-Rub II, a small basecamp located in Wadi Ahmar featuring an assemblage dominated by microliths, such as retouched bladelets, micropoints and curved backed bladelets (Bar Yosef et al. 1974; Hovers et al. 1988; Hovers and Marder 1991). Wadi Ahmar (I) is situated close to Urqan er-Rub II on the alluvial terraces of Wadi Ahmar. The tool assemblage is dominated by microliths that include a high percentage of obliquely truncated and backed bladelets and a small component of geometric microliths (Hovers and Bar-Yosef 1987: table 2, 83).

Slightly south of Wadi Ahmar in the Fazael basin there are three Early Epipalaeolithic Kebaran occurrences in Wadi Fazael ]Fazael III (A), (B), and (D)[. The lithic assemblages are dominated by non-geometric microlithic industries that included obliquely truncated bladelets with a retouched back, micropoints and Falita points and low percentages of microburins (Bar-Yosef et al. 1974; Goring Morris 1980: 33–55). A fourth site, Fazael VII, is a small-scale ephemeral campsite (Goring Morris 1980: 55–65). The site, located on the highest point of all the Kebaran sites (70 b.s.l.), was noted in a section of the riverbed of Wadi Hableh, not far from the Fazael springs. The lithic technology represents a blade/bladelet industry where tools are dominated by microliths, including especially the obliquely truncated bladelet.

The southernmost Early Epipalaeolithic Kebaran site is Tal’at Za’arah I located on the alluvial deposits of the northern bank of Wadi Tal’at Za’arah, not far from its debouchment into the Jordan Valley. It is small, less than 75 m2, and probably a seasonal encampment site. The lithic assemblage included micropoints (Goring-Morris 1980: 16, 68; Schuldenrein 1983: 384–5, table 1).

*Middle Epipalaeolithic Geometric Kebaran sites*

The Middle Epipalaeolithic Geometric Kebaran is represented by seven sites and occurrences (Fig. 1, Table 2), continuing the Kebaran trend of small number of sites. Two of these are in the Wadi Malih area [Khirbet Malih (C) and Jelamet el-Ahmar (C)], three are in the Fazael and Ahmar basins [Urqan er-Rub IV, Fazael III (C) and VIII), and one is to the north of the Salibiya basin area on the northern bank of Wadi Tal’at Za’arah (Tal’at Za’arah II). These generally show a more even distribution between relatively higher elevations (about 10–70 b.s.l., three sites) and lower elevations (about 170–205 b.s.l., four sites), compared to the Kebaran sites.

**Table 2. Middle Epipalaeolithic Geometric Kebaran sites in the Eastern Samaria and Lower-Middle Jordan Valley**

|  |  |  |  |
| --- | --- | --- | --- |
| **Site** | **Location** | **Elevation** | **References** |
| **Urqan er-Rub IV** | 1916/1634 | 169 b.s.l. | Goring-Morris 1980: 15 |
| **Khirbet Malih (C)** | 1957/1930 | 30 b.s.l. | Winter 2008: site 94 |
| **Jelamet el-Ahmar (C)** | 1957/1930 | 10 b.s.l. | Winter 2008: site 185 |
| **Wadi Ahmar (II)** | 1916/1633 | 205 b.s.l. | Hovers and Bar-Yosef 1987 |
| **Fazael III C** | 1907/1618 | 190 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 71–77; Winter 2019: site 18 |
| **Fazael VIII** | 1883/1622 | 70 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980; 77 Schuldenrein 1983: table 2 |
| **Tal’at Za’arah II** | 1912/1555 | 180 b.s.l. | Goring-Morris 1980: 16; Schuldenrein 1983: 384–385,table 2 |

Apart from the two new sites mentioned above, the Middle Epipalaeolithic Geometric Kebaran sites include Urqan er-Rub IV, an extensive site located on an alluvial context some 30 m southeast of Urqan er-Rub II, on the eastern bank of Wadi Ahmar. Its lithic assemblage is characterized by narrow trapeze-rectangles (Goring-Morris 1980: 15, 82). Wadi Ahmar (II) is located 200 m east of Wadi Ahmar I, and the lithic assemblage includes geometric microliths such as trapezes and rectangles, proto-trapezes and trapeze rectangles (Hovers and Bar-Yosef 1987: table 2, 84).

Fazael III (C) is located on the northern bank of Wadi Fazael (Bar-Yosef et al. 1974; Goring-Morris 1980: 71–777; Winter 2019: site 18). Although the site is geologically *in situ*, the artifacts were washed from their original position (Goring-Morris 1980: 71). The lithic sample includes intrusive elements, mostly from the adjacent Kebaran assemblages of Fazael III (B) and Fazael III (A). Microliths comprise nearly 40% of the tools, geometric microliths about 20% and microburins about 2.5% (Goring-Morris 1980: table 16). Trapeze-rectangle microliths are common, the majority assigned to the former type, and six triangles and three proto-lunates were also found. Fazael VIII was found in a section of the riverbed of Wadi Hableh, north of the Fazael springs, eroding from the top of the exposure north of Fazael VII (Goring Morris 1980: 77). The biased nature of the sample is apparent in the restricted frequencies of the microliths. These comprise 5.5% of the tools, geometric microliths about 9.5% (including three trapezes) and microburins about 4.0% (Goring-Morris 1980: 79, table 16).

Tal’at Za’arah II is the southernmost Geometric Kebaran site. It is a small site associated with alluvial deposits on the northern bank of Wadi Tal’at Za’arah, not far from its debouchment into the Jordan Valley. The lithic assemblage is dominated by geometric microliths (Goring-Morris 1980: 16; Schuldenrein 1983: 384–385, table 2, fig. 40).

*Late Epipalaeolithic Natufian sites*

The Natufian culture of the Late Epipalaeolithic period reflects a dramatic rise in the number of sites in Eastern Samaria and the Lower-Middle Jordan Valley, with some 23 sites identified so far (Fig. 1, Table 3). These include Early Natufian (2 sites), Late-Final Natufian (14 sites) and Natufian sites that so far have not been designated to a specific phase (7 sites). They are spread throughout the Wadi Malih area (Khirbet el-Meiyiteh), the Wadi Far’ah area ('Iraq el-Hamra) and northeast of it (Huzuk Musa), the Fazael basin (Fazael VI and IV), the Salibiya basin (Gilgal II, Salibiya I-V, VII-VIII, XII-XV), the southeastern Samaria shoulder [Elevation Point 470 (3)] and the Jericho Plain (Jericho).

While we see a clear preference for location based on elevation (about 220–230 b.s.l), this is mainly a reflection of the proliferation of Natufian sites in the Salibiya basin. Nonetheless, the Natufians are the first to occupy areas at higher elevations, between 20 and 440 a.s.l (Elevation Point 470 (3), the most western site in the study area).

**Table 3. Late Epipalaeolithic Natufian sites in the Eastern Samaria and Lower-Middle Jordan Valley**

|  |  |  |  |
| --- | --- | --- | --- |
| **Site** | **Location** | **Elevation**  | **References** |
| **Khirbet el-Meiyiteh** | 1942/1925 | 70 a.s.l | Winter 2008: site 90 |
| **'Iraq el-Hamra** | 1902/1800 | 20 a.s.l. | Winter 2008: site 189 |
| **Huzuk Musa** | 2014/1782 | 260b.s.l. | Rosenberg et al. 2010; Groman-Yaroslvski et al. 2013; Nadel and Rosenberg 2013; Winter 2017:site 47 |
| **Fazael IV** | 1894/1621 | 120 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 7; Grosman et al. 1999 |
| **Fazael VI**  | 1885/1621 | 70 b.s.l. | Goring-Morris 1980: 14; Schuldenrein 1983:table 1 |
| **Gilgal II** | 1931/1547 | 225 b.s.l. | Noy 1979; Dag and Goring-Morris 2010  |
| **Salibiya I** | 1929/1542 | 230b.s.l. | Schuldenrein 1983: table 1; Crabtree et al. 1991 |
| **Salibiya II** | 1929/1545 | 230 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya III** | 1931/1543 | 230 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya IV** | 1932/1545 | 230 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya V** | 1929/1545 | 230 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya VII** | 1926/1545 | 225 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya VIII** | 1929/1545 | 230 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya XII** | 1925/1541 | 218 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya XIII** | 1927/1539 | 225 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya XIV** | 1927/1538 | 225 b.s.l. | Schuldenrein 1983: table 1 |
| **Salibiya XV** | 1929/1541 | 225 b.s.l. | Schuldenrein 1983: table 1 |
| **South-East Salibiya basin (82a)** | 1928/1540 | 230 b.s.l. | Winter 2019: site 82a |
| **South-East Salibiya basin (82c)** | 1932/1539 | 230 b.s.l. | Winter 2019: site 82c |
| **South-East Salibiya basin (82e)** | 1930/1538 | 230 b.s.l. | Winter 2019: site 82e |
| **South-East Salibiya basin (82f)** | 1930/1533 | 230 b.s.l. | Winter 2019: site 82f |
| **Elevation Point 470 (3)** | 1838/1470 | 440 a.s.l. | Bar, unpublished |
| **Jericho** | 1921/1420 | 220 b.s.l. | Kenyon 1959 |

Apart from the new Natufian sites described earlier, these include the Late Natufian site of Fazael IV located at the junction of Wadi Fazael and Wadi Ducan. It was found in colluvial deposits on top of a 15 m thick sediment deposition above the wadi (Bar-Yosef et al. 1974; Goring-Morris 1980: 7; Grosman et al. 1999). The small area of the excavations limited the possibility of reconstructing the site; however, most likely the site represents a short-term repeated occupation (Grosman et al. 1999). The Late Natufian assemblage comprised a high percentage of microliths (56.6% of the tools); of these 60% were lunates and 40% were triangles. Of the lunates, 64% were shaped by abrupt retouch. The microburin technique also accounts for a high percentage of the debitage. Fazael VI is an extensive Early Natufian site found within a colluvial deposit capping the terrace at the junction of Wadi Fazael and Wadi Hableh. The lithic assemblage includes large Helwan lunates and blades. Sickle blades are not common. The site, suggested to be a base camp, also features a rich assemblage of faunal remains and basalt stone tools (Goring-Morris 1980: 14, 87).

The Late-Final site of Gilgal II is located immediately to the south, and with partial overlap to the Pre-Pottery Neolithic A site of Gilgal I (Noy 1979; Dag and Goring-Morris 2010). The excavated lithic assemblage includes a high percentage of perforators, backed blades, a few sickle blades and microliths. The microliths include exclusively small lunates, none of which show Helwan retouch (Dag and Goring-Morris 2010: table 8.9, 130).

Salibiya I is a large Late Natufian site on the banks of Wadi Salibiya. Its size is estimated to be more than 500 m2. The lithic assemblage is typical of the Late Natufian, with small unifacially retouched lunates (Crabtree et al. 1991; Belfer-Cohen and Grosman 1997). Several other Late Natufian and possibly Late Natufian sites in the Salibiya basin were mentioned by Schuldenrein (1983: table 1), although not much information was given. These include Salibiya II, located southwest of the Pre-Pottery Neolithic A site of Netiv Hagdud, and Salibiya III, IV, V, VII and VIII. Salibiya XIII, XIV and XV are find spots located on the banks of Wadi Salibiya (Schuldenrein 1983: table 1). Salibiya XII is an Early Natufian site associated with a pebble accumulation on the alluvial fan of Wadi Salibiya between Gilgal and Netiv Hagdud.

*Epipalaeolithic sites with no further attribution*

Thirteen Epipalaeolithic sites were not clearly ascribed to a period or cultural complex, although it is probable that ascription to one of the three Epipalaeolithic phases discussed in this paper is likely (a few probable designations were proposed; however, the lithic data is too meager or insufficient), were included here in order to supplement the coverage of sites and distribution (Table 4). Most of these are in the desert fringes of Samaria, but some are located in the Jordan Valley. Their elevations range from about 230 b.s.l. to 240 a.s.l., reflecting a wide distribution.

**Table 4. Other Epipalaeolithic sites with no clear chrono-cultural affiliation in Eastern Samaria and Lower-Middle Jordan Valley**

|  |  |  |  |
| --- | --- | --- | --- |
| **Unclear Sites** | **Location** | **Elevation**  | **References** |
| **Khirbet Qau'n (1)** | 1941/2016 | 45 b.s.l. | Winter 2017: site 2 |
| **Wadi Abu el-Luz** | 1981/1820 | 155 a.s.l. | Winter 2008: site 253 |
| **Ras Umm Khubezah** | 1977/1773 | 35 a.s.l. | Winter 2008: site 219 |
| **Joret el-Kareireh** | 1899/1734 | 230 a.s.l. | Winter 2017: site 115 |
| **Umm Sawaneh (5)** | 1908/1720 | 110 a.s.l. | Winter 2017: site 123 |
| **Jaffa en-Noon (4)** | 1883/1713 | 225 a.s.l. | Bar and Zertal 2016: site 76 |
| **Wadi Kamoneh (5)** | 1890/1687 | 85 a.s.l. | Bar and Zertal 2016: site 150 |
| **Jaffa en-Noon (9)** | 1881/1657 | 240 a.s.l. | Bar and Zertal 2016: site 75 |
| **Elevation Point 138 (1)** | 1881/1657 | 180 a.s.l. | Winter 2017: site 175 |
| **Fazael V** | 1894/1621 | 70 b.s.l. | Bar-Yosef et al. 1974; Goring-Morris 1980: 14;Schuldenrein 1983: table 1 |
| **Fazael XII** | 1900/1619 | 130 b.s.l. | Goring-Morris 1980: 15 |
| **El-Amri I** | 1913/1596 | 215 b.s.l. | Schuldenrein 1983: table 2 |
| **Salibiya VI** | 1929/1546 | 230 b.s.l. | Schuldenrein 1983: table 1 |

The current overview of Epipalaeolithic sites is partial at best. The Manasseh Hill Country Survey had a minor focus on prehistoric sites, and surveys targeting prehistoric occupations and occurrences were conducted in restricted areas only (Bar-Yosef et al. 1974; Goring-Morris 1980; Schuldenrein and Goldberg 1981; Schuldenrein 1983; Hovers and Bar-Yosef 1987). There are likely several other unnoted and hidden Epipaleolithic sites. However, based on the current state of the art, several observations are possible.

At this state of the research we can claim that between about 22,000 and 14,700 cal BP, Eastern Samaria and the Lower-Middle Jordan Valley were only sparsely occupied by Kebaran and Geometric Kebaran hunter-gatherers. This was probably also the case during the Early Natufian, while during the later parts of the Natufian, especially in the Salibiya basin, there was a clear rise in occupation. This is at least in part related to the retreat of the Lisan and the concurrent contraction of both vegetal and faunal resources (e.g., Schuldenrein and Goldberg 1981), however we should not exclude *a priori* other factors effecting hunter-gatherers’ mobility patterns (e.g., Keeley 1988; Kelly 1995 and references therein).

These Epipalaeolithic sites are found in a variety of habitats and ecosystems. Interestingly, Wadi Malih, Wadi Salibiya and Wadi Fazael-Wadi Ahmar attracted much Epipalaeolithic activity, while other major drainage systems in the area (e.g., Wadi Shubash, Wadi Far’ah and Wadi ‘Aujah) show hardly any activity. Most of the sites included in the current study are small, with only few exceptions, and they include no substantial architectural remains or bedrock features or installations that can be securely associated with the lithic remains. It is clear, however that several sites do reflect more intensive use or occupations, and that some of the Natufian sites in the study area clearly reflect new dimensions of settlement intensity, and represent characteristics of early sedentism.

The full picture of the Epipalaeolithic occupational history of Eastern Samaria and the Lower-Middle Jordan Valley area must await more intensive future prehistoric surveys that will screen the area in high resolution, and for further excavations. For now, we are left with more questions than answers pertaining to the Epipalaeolithic site distribution and their characteristics. While it is clear that the environmental conditions played a crucial role in such patterns, the complexity of hunter-gatherer mobility patterns adds another difficulty to the reconstructions of the Epipalaeolithic usage and mobility in the region.

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**Caption for Figures**

**Fig. 1.** General map of Eastern Samaria and the Lower-Middle Jordan Valley

**Fig. 2.** Geometric Kebaran lithic materials from Kh. Malih (C)

**Fig. 3.** Natufian artifacts from: 1–9. Khirbet el-Meiyiteh; 10–24. 'Iraq el-Hamra; 25–31. E.P. 470 (3)

**Fig. 4.** Final Natufian/PPNA Huzuk Musa

**Fig. 5.** E.P. 470 (3) – A general look at the site, the Natufian lithic material was collected under the cliffs (the enclosures belong to a later use of the site)