

Fig. 1. Location map of the Mount Carmel caves (a), showing el-Wad as the largest of the caves within the cliff.

Chapter 1

INTRODUCTION: THE SITE

Description and First Investigations

El-Wad (Cave of the Valley) is situated on the southern escarpment of Nahal Me'arot (Valley of the Caves), together with three other caves, Tabun ("Oven"), Skhul ("Kids") and Jamal ("Camel") (Fig. 1). It faces to the NW and lies approximately 44.5m above sea level and 12.5m above the level of the coastal plain, at a point where the wadi opens out onto the coastal plain. The name el-Wad may derive from the wadi that runs below the cliff, but we also have a highly interesting remark by Lambert to the effect that "water is said to come from the tunnel at the back of the cave in winter and disappear through the cave floor (with a lot of gurgling, according to the local inhabitants)" (Lambert, 1928,3:3-4).

A big cave with a lofty roof, el-Wad covers a larger area than any of the other three caves (Fig. 3). According to Garrod's subdivision, it consists of an outer and an inner chamber (Chambers I and II) and a 71m long corridor (Chambers III-VI). In front of the cave there is a small terrace, sloping slightly downwards to a distance of 9.5m from the cave mouth. A large talus, some 45m in radius, falls steeply away from the terrace towards the plain.

Any subdivision of the cave remains subjective, inevitably reflecting the conception and, perhaps, biases of the archaeologist who excavates the site. Another way of describing the cave might start by saying that it consists of a single, large, daylit outer room (Garrod's Chambers I and II), with several niches and alcoves, which is separated by a short and rather narrow corridor (Chamber III) from an inner, darker part (Chambers IV-VI). This would also better fit Garrod's initial impression that the cave "consists of a large well-lit chamber and a long corridor, faces NW., and commands a wide view of the plain" (Garrod, 1930a:77). Of the inner chambers, Chamber V is the most spacious while Chamber VI forms the butt of the cave, with walls that are narrowing in towards the end, a floor that is irregular and rising (actually the bedrock) and a roof that curves downwards, all contributing to reducing the

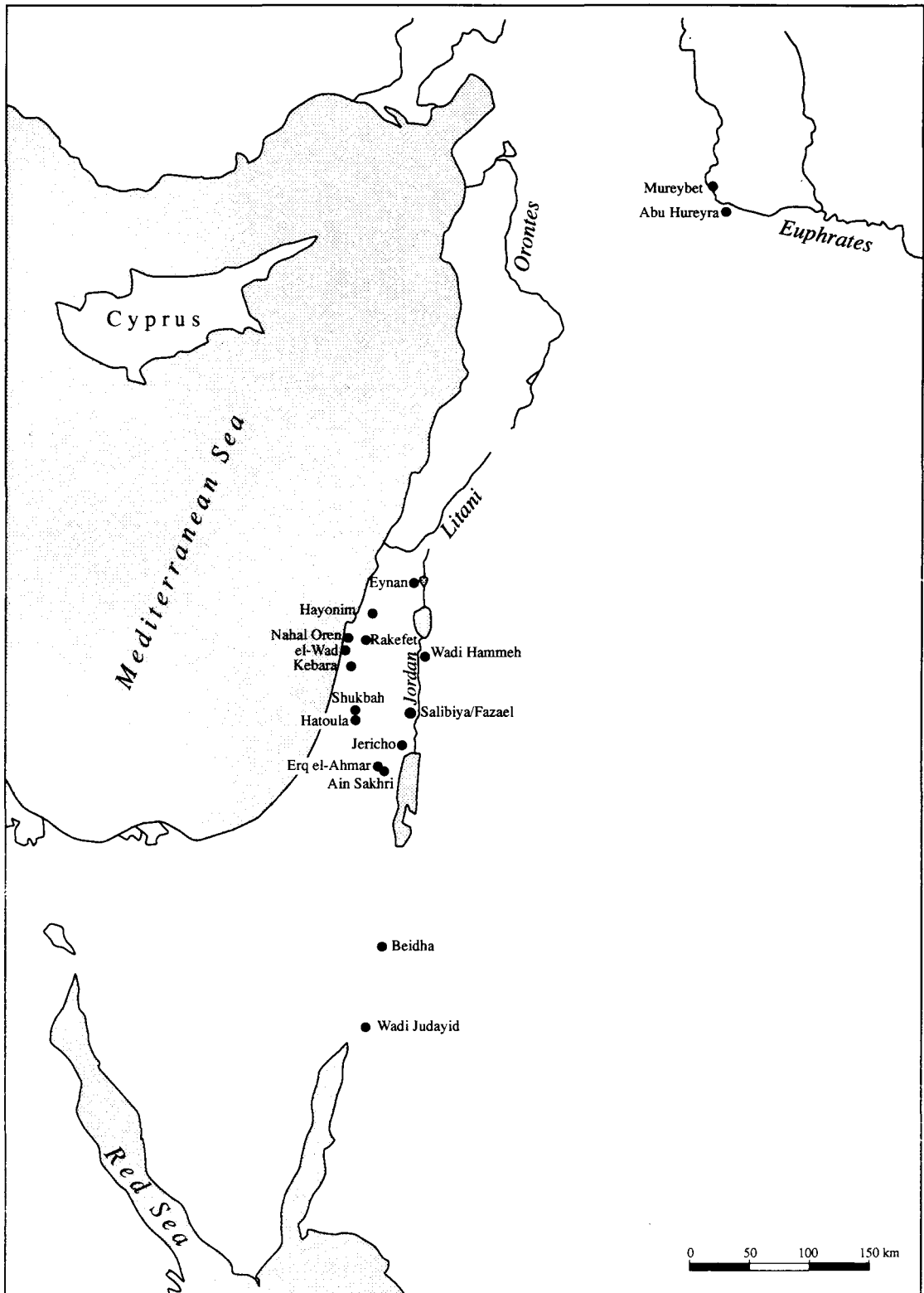


Fig. 2. Distribution of major Natufian sites in the southern Levant.

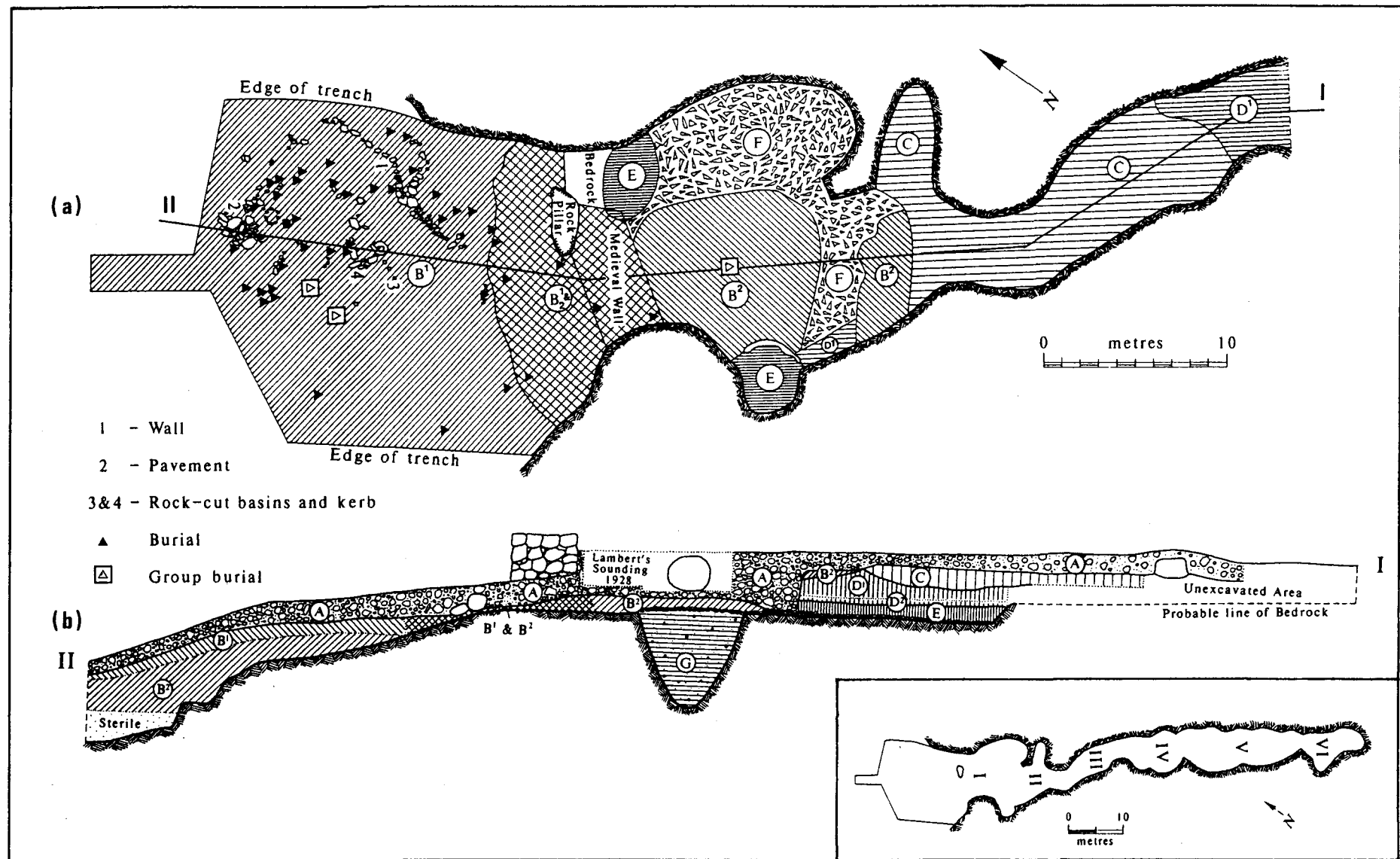


Fig. 3. Garrod's el-Wad. In the insert: key-map of the cave. The figures are the numbers of the chambers. (a) Ground plan of Chambers I-III and terrace, showing the distribution of the deposits after the removal of layer A; (b) Section I-II (for location see a). Layer A - Recent. Layer B - Natufian: B1 Late Natufian; B2 Early Natufian. C, D, E, F - Upper Palaeolithic. G - Middle Palaeolithic.

chamber's size. The main axis of the cave is NW-SE; only the axis of the connecting "corridor" (Chamber III) is WE. This, together with the narrowing of the "corridor" because of the huge masses of rock that project into it from the NE wall of the outer chamber(s), dictates the amount of daylight that enters into the inner parts of the cave and the way it spreads. Thus, daylight reaches the western part of Chamber III while its eastern part remains in the shadow. Furthermore, while the inner parts of the cave (Chambers IV-VI) are almost completely dark, some light can penetrate along the NE wall well into Chamber V. Since because of the light one tends to walk along the NE wall, one's immediate impression is that of a corridor while actually the inner part of the cave is rather spacious. Interestingly, the varied intensities of light penetrating into the different parts of the cave are clearly responsible for the distribution of blue-green algae (Cyanobacteria) in the cave (Vinogradova et al., n.d.).

Today the entrance to the cave is wide open (Fig. 4), but before excavations started this was "a well-formed lofty archway, facing NW., flanked by two roughly elliptical natural windows ... The window to the NE. of the entrance had been artificially enlarged to make a doorway ... and has a well-cut level threshold, with a door-socket on the SW. side" (Garrod and Bate, 1937:5). The entrance was partially blocked by a massive wall of rough unshaped limestone blocks (Fig. 5). While the NE window mentioned by Garrod still exists, the wall across the entrance has long since been removed and the NW window has been gradually destroyed by recent rockfalls.

Garrod assumed that both the stone wall and the NE doorway were medieval. A probable PPNB age was later suggested for the construction of the wall (Ronen, 1982), based on similar features found at the Sefunim Rock Shelter (Lamdan, 1984). The el-Wad terrace was also enclosed by a rough stone wall, but this was of recent date (Garrod and Bate, 1937).

It was Lawrence Oliphant, an English mystic and philo-Semite with a great love for the country, who first mentioned the Mount Carmel caves (Oliphant, 1886). More than a decade later the German traveller Graf von Mülinen included them in his book on the history and geography of Mount Carmel (Mülinen, 1908), noting the wall of big limestone blocks across the entrance of the largest of the caves [el-Wad], and a smaller sandstone wall in the cave's interior.

Archaeological interest in the site did not emerge until 1928. When, in 1927, the British Mandatory Government's Public Works Department initiated the Haifa Harbour Project and quarrying threatened to destroy the caves' cliff, Mr. Charles Lambert, Assistant Director of the Mandatory Department of Antiquities of Palestine, was assigned to check the cave to see whether it was worth saving.

In autumn 1928 Lambert made five soundings in el-Wad Cave, three inside and two on the terrace. Since, as Garrod has it, "the object of his work [was] simply to test the value of the site, he did not go below the surface of the Natufian layer" (Garrod and Bate, 1937:6). Nevertheless, this proved sufficient for Lambert to make some important discoveries. On the terrace, amongst stone walls and grinding implements, Lambert came upon two burials, later known to be Natufian, the first ever unearthed at Mount Carmel. Inside the cave an art object was found, the first prehistoric art ever discovered in the Near East. It was a segment of what originally had been the handle of a sickle-blade haft (Garrod and Bate, 1937) carved as "a young animal, probably a calf, standing with head thrown back, in an attitude which faintly records one of the painted



Fig. 4. The entrance to the cave today.



Fig. 5. The entrance to the cave in 1928. Lambert's trench 2 in left-centre foreground.

bisons in the cave of Altamira" (Director's report, 1928). Also found was a pierced shoulder-blade of a deer in which a large elliptical hole has been cut (and polished, possibly by use), which "recalls the *bâton-de-commandement* of the Upper Palaeolithic of Western Europe" (Garrod, 1930:77). The subsequent recognition of the caves as archaeologically important and their registration as an antiquity site were followed by six years of excavation directed, on behalf of the British School of Archaeology in Jerusalem and the American School of Prehistoric Research, by Dorothy A.E. Garrod. Palaeontological analyses were conducted by D.M.A. Bate, and the human remains were examined by T.D. McCown and A. Keith.

Garrod's Excavations

Garrod's expedition excavated el-Wad during five seasons (1929-1933). In 1929 and 1930 work was carried out both in the cave and on the terrace, but in the following years on the terrace only. What she called Chambers I and II were dug to bedrock; Chamber III was partially excavated; soundings to bedrock were made in Chambers IV and V, and the terrace and talus were dug to bedrock over an area of approximately 270 sq. m (Garrod and Bate, 1937).

At first, Garrod interpreted the sequence she found (Fig. 3) as Mousterian (Layer G), covered by three Upper Palaeolithic (layers E, D1+D2, and C), and ending with Natufian (layer B2 and B1) and Holocene (Layer A) deposits. Layer F contained a mixture of Middle Palaeolithic and Upper Palaeolithic material (Garrod, 1931). Later (Garrod, 1951) she changed her mind, now viewing layers G and F as a single cultural unit which she termed a "transitional industry" between the Middle and the Upper Palaeolithic. This she based on the composition of the lithic assemblages which included typical Middle Palaeolithic components (side scrapers and Levallois items) along with Upper Palaeolithic implements (endscrapers and burins). Emireh points, characteristic of this "transitional industry" in Israel, were also found. Following Garrod's initial interpretation, most scholars nowadays agree that both layers represent a mixed assemblage, resulting from water activity in the cave at the onset of the Upper Palaeolithic (see, for example, O. Bar-Yosef and Vandermeersch, 1972). Water had eroded the Mousterian (G) layer's uppermost part, considerably abrading the flints that were there, resulting in a mixture of items from the lower part of the Upper Palaeolithic layers with Mousterian artefacts. Layers G-F were uncovered in Chambers I-II, up to the entrance to Chamber III, where they filled and covered deep depressions (swallow holes?) in the cave's floor.

The industry of the oldest Upper Palaeolithic ("Middle Aurignacian") Layer E, uncovered in Chambers I-II, included simple, carinated and nosed endscrapers and numerous burins, and was marked by the abundance of "fine, spiky points made on delicate blades" (Garrod and Bate, 1937:47), which Garrod named "Font Yves" and which were later termed "El-Wad" points (a term introduced by the Symposium on Levantine Typology held in London in 1969, reported in Brézillon, 1971). The finds are currently attributed to the Levantine Aurignacian culture (Upper Palaeolithic III, according to Garrod and R. Neuville's division). The industry of Layer D, uncovered in Chambers II and III, was rich in steep scrapers, nosed scrapers and burins, resembling the European Middle Aurignacian of the early 1930s. El-Wad points are

rare, relative to the number found in the preceding layer. Layer D is now attributed to the Levantine Aurignacian culture (Upper Palaeolithic IV). Two sub-layers, D1 and D2, were distinguished here, based on the typology of the implements. A considerably higher percentage of retouched tools was found in sub-layer D2, their workmanship also of higher quality.

The Upper Palaeolithic of Layer C, exposed in Chambers II and III, was "marked by a very great preponderance of polyhedral burins and steep scrapers" (Garrod and Bate, 1937:41), a very extensive use of tabular flint, and a few Chatelperron points. The discrete characteristics led Garrod to name this industry she found "Atlitian", though it showed a clear affinity with the "Middle Aurignacian" of the previous layers. Layer C is currently assigned to the late Levantine Aurignacian (Upper Palaeolithic stage V).

Before embarking upon a description of the Natufian of Layer B, a few remarks concerning the sequence as constructed by Garrod are pertinent to our work. First, no complete sequence (Mousterian, Upper Palaeolithic and Early and Late Natufian layers) was ever found in any one section, as the (probably residual?) archaeological layers are unevenly distributed in the cave. For example, the Mousterian (Layer G), was found mainly in deep depressions (swallow holes?) in the bedrock (Fig. 3), usually mixed with Upper Palaeolithic remains, and its extension in the cave is thus limited. The Upper Palaeolithic (layers E, D, C) variably occurs in different areas of Chambers I-III (Fig. 3). Second, on the terrace only Natufian layers were present. These include the Early as well as the Late Natufian stages whereas in the cave only Early Natufian remains were found. Third, Natufian layers inside the cave were found only in Chambers I and II and were absent from Chamber III, where Upper Palaeolithic layers were encountered immediately beneath the upper mixed Layer A. Thus, the most complete sequence, but even there not in one section, was found in Chamber II. Interestingly, this 2.5m thick, undisturbed sequence, according to Garrod, is "more complete than any yet known in Palestine" (Garrod, 1929:221).

Garrod's Natufian

Garrod found only small patches of undisturbed sediments containing microlithic lithic industry in the cave (Fig. 3). In the outer chamber these contained a collective burial of ten skeletons in an extended position. Immediately below one of the skeletons Garrod found the second piece of prehistoric art discovered in Palestine — a small calcite pebble roughly carved into the shape of a human head. Garrod apparently believed that the decorated sickle haft discovered by Lambert originated from the same collective burial (Garrod, 1929) since "[Lambert's] sounding just reached the top of the Group Burial H. 1-10, and the carving came from the base of the trench" (Garrod and Bate, 1937: 38-39). A thin layer (Layer B2; Fig. 3), containing a microlithic lithic industry, was excavated in a small isolated area in Chamber II. The most extensive and important area is the terrace which, according to Garrod, has suffered less disturbances than those inside the cave and yielded the most notable Natufian finds. The Natufian included a few architectural remains and close to 100 burials (according to a reassessment by Belfer-Cohen et al., 1991), accompanied by a rich material culture of

lithics, decorative items, bone tools, groundstone implements and a rich and varied faunal assemblage.

Garrod noticed that the microlithic industries at Shukba, excavated in 1928 (Garrod, 1928), and el-Wad were similar and she therefore argued that "as it will be convenient to have a name for this culture, I propose to call it Natufian, after the Wadi en-Natuf, where we first found it in place" (Garrod, 1929:222). Only later, after further thorough excavations on the el-Wad terrace, the seemingly homogenous Natufian deposit there could be differentiated, on typological grounds, between an early (Layer B2) and a late (Layer B1) phase.

Many of the terrace structures, including a pavement, a retaining wall and four basins cut in the rock (Fig. 3), were assigned to the Lower, Early Natufian. Similarly, the tightly flexed skeletons, of both individual and group inhumations, as well as the decorated burials, were assigned to the early phase. Bone implements and art objects were numerous in the Early Natufian. The lithics of the early phase are characterized by relatively larger lunates than those found in the later, their back predominantly made by bifacial ("Helwan") retouch. Sickle blades are plentiful, while micro-burins are extremely rare.

By contrast, the lithics of the Upper Natufian (Layer B1) are characterized by smaller lunates, with steep retouched backs, many microburins, while sickle blades are relatively rare. Bone implements and art objects, too, are rare. The burials contain only individual inhumations and are only slightly flexed, the skulls bearing no ornaments. While the chronological relationship between the terrace and the cave collective burial mentioned above could not be precisely determined, the latter were considered to be of Early Natufian age (Garrod and Bate, 1937).

In 1980-1981, limited excavations were conducted by F. Valla, of the French Archaeological Mission in Jerusalem, and O. Bar-Yosef, of the Hebrew University of Jerusalem, north-east of Garrod's terrace excavations in an area immediately adjacent to it (Valla et al., 1986). Their aim was to re-examine the stratigraphy of the Natufian layers outlined by Garrod. The excavation revealed that Layer B1 ought again to be sub-divided, in Late and Final Natufian phases. The finds of the latter phase include flint artefacts, mostly short lunates, bone tools, and stone implements. Meticulous excavation procedures and the wet sieving of sediments guaranteed that many faunal data could be recovered, which made it possible to draw conclusions regarding palaeoenvironmental conditions at the site and the Natufians' manner of exploitation of the various biotopes.

Undoubtedly, as Garrod herself had already stated, "of these [Natufian] divisions by far the richest and most interesting is the Lower Natufian, in which much use is made of bone and shells in the fabrication of tools, weapons, and ornaments. This variety of material gives us the most complete picture we possess of any Stone Age culture of the region before the Neolithic of Jericho" (Garrod, 1957:213). Furthermore, the passage from the early to the later stages "is marked by the disappearance of nearly everything which in the earlier stage gives such an impression of a varied and interesting way of life" (Garrod, 1957:224).