

INVESTIGATIONS AT JABAL QUIESA, JORDAN (1993): A RECONSIDERATION OF CHRONOLOGY AND OCCUPATIONAL HISTORY

by
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Introduction

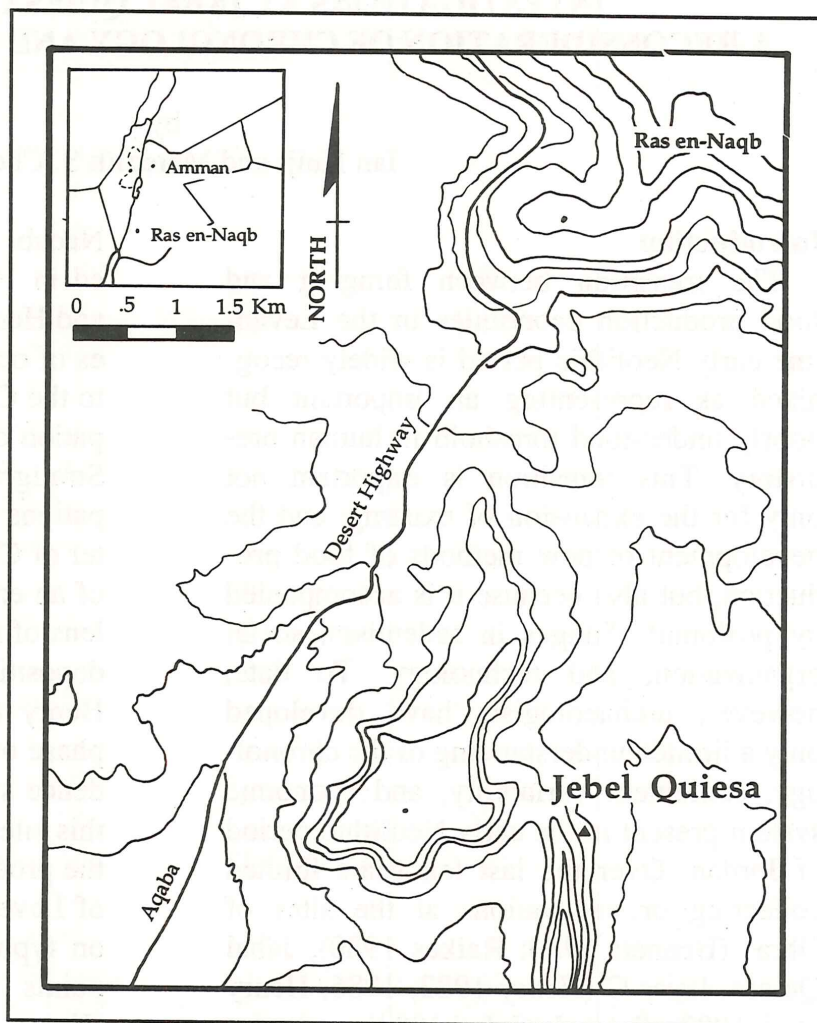
The transition between foraging and food production economies in the Levantine early Neolithic period is widely recognized as representing an important but poorly understood threshold in human prehistory. This transition is important not only for the expansion of existing, and the development of new methods of food production, but also because it is accompanied by profound changes in sedentism, social organization, and technology. To date, however, archaeologists have developed only a limited understanding of the chronology, settlement variability, and economic system present in the early Neolithic period of Jordan. Over the last ten years limited collecting or excavations at the sites of Dhra' (Bennett 1980; Raikes 1980), Jabal Quiesa, layer C (Henry 1982; 1986; Henry *et al.* 1983), Şabra I (Gebel 1984), and most recently, 'Iraq ed-Dubb (Kuijt *et al.* 1991; 1992) have provided a somewhat improved, but still very limited understanding of the early Neolithic period in Jordan. At most of these sites, such as Jabal Quiesa, the scale of test excavations has been too limited to assess adequately the exact period of occupation by means of radiocarbon dating, the nature of settlement size, and/or the preservation conditions at the site. In an attempt to develop a better understanding of the issue, a team from Harvard University undertook excavations at the early Neolithic/Chalcolithic occupation of Jabal Quiesa, Jordan, in June 1993 (Fig. 1).

Previous Field Explorations

The site of Jabal Quiesa was first recorded by Henry *et al.* (1983) as part of a broader paleo-environmental and archaeological survey of areas to the south of Ras en-

Naqab, Based on test excavations conducted in 1979 and 1980, Henry (1982; 1986) and Henry *et al.* (1983) identified two phases of occupation: the more extensive dating to the Chalcolithic, and an ephemeral occupation dating to the early Neolithic period. Stratigraphic evidence for these two occupations consisted of approximately one meter of Chalcolithic deposits (layer A) on top of an erosion hiatus (layer B), defined by a lens of rubble. Layer C is a 20-25 cm thick deposition zone resting on bedrock, which Henry (1986: 20) attributes to the oldest phase of the Early Neolithic. Available evidence suggests that in the Neolithic period this site existed as a small camp devoted to the production of blades and points. Dating of Level C at Jabal Quiesa has been based on typological similarities of three tanged points with opposed proximal notches (Henry 1982: 438) with those described from the Aceramic Neolithic horizon of Tell Mureybet in Syria (Cauvin 1974).

Despite the importance of this site within the literature, it is clear that our archaeological understanding of periods of occupation, past use, and material cultural of the past occupants of Jabal Quiesa are limited in several ways. First, there are no associated radiocarbon dates for the cultural materials from layer C, identified as dating to the PPNA. If the chipped stone materials recovered from layer C do date to the early Neolithic period then it is important to get a solid and clear understanding of the chronological placement of all phases of occupation. Second, Henry's excavations resulted in the recovery of a limited number of stone tools from layer C, and so it is necessary to expand this collection in order to both characterize the site in terms of lithic technology and facilitate the comparison of

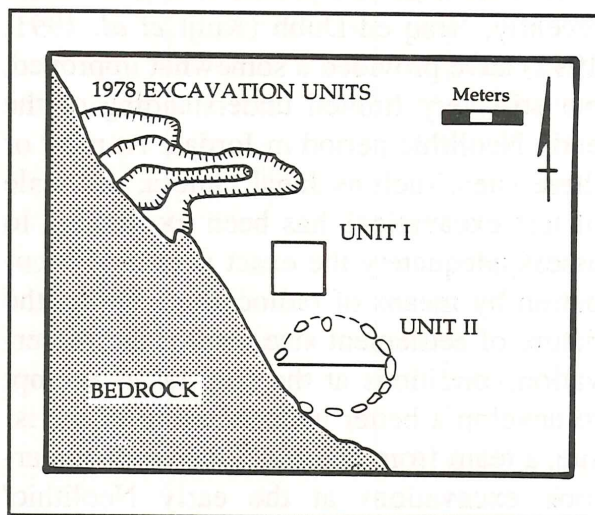


1. Location of the Chalcolithic / Neolithic site of Jabal Quiesa, Jordan.

these materials with those of other Neolithic sites.

The 1993 Soundings

Two soundings were undertaken to expand our preliminary understanding of the occupational history outlined by Henry *et al.* (1983) for Jabal Quiesa and to confirm the tentative identification of the deposits in layer C as being from the early Neolithic period. Excavations undertaken in 1993 included the partial excavation of a 2 x 2 m unit, placed 1.8 m to the south of the 1979 units, down to bedrock, and the excavation of the northern half of a circular stone structure located just to the south of the main shelter area, labelled as Locus 2 by Henry (1982) (Fig. 2). Excavation was undertaken by trowel with sediments screened through 2 mm mesh. The following describes these excavation units and the mate-



2. Location of Test Units 1 and 2, 1993 test soundings, Jabal Quiesa.

rial culture recovered in them.

Test Unit 1

Located 1.8 m to the south of Henry's line of excavation units, a 2 x 2 m test unit was placed next to Henry's 1979 excava-

tion units to assure continuity with the stratigraphic divisions recorded in the previous excavations (Fig. 2). Test Unit 1 was excavated as a 2 x 2 m block down to 0.80 m below the surface, and then reduced to a 2 x 1 m unit down to a depth of 1.80 m to the top of bedrock. Surprisingly, all of the 1.8 m of deposits were aeolian in nature with no observable stratigraphic separations. Unlike the wall profiles of Henry *et al.* (1983), there was no evidence of *in situ* charcoal, rocks, or differential amounts of cultural materials in Test Unit 1. Recovered cultural materials consisted of six ceramic body sherds from the Chalcolithic period, and fewer than 100 non-diagnostic chips/chunks and flakes (Table 1). No tools or diagnostic lithic materials were recovered in the process of excavation.

Test Unit 2

Test Unit 2 was located in the northern half of the circular stone structure situated some 5 m to the south of the major rock shelter area (Fig. 2), previously identified as Locus 2 by Henry *et al.* (1983). Excavations revealed that this circular structure was constructed by placing large stones in an upright position, and clearing the floor area of rocks. Located at the center was a small hearth with ash deposits and outlined with limestone rocks. A gap in the stones, facing the rockshelter, probably served as an entrance to the structure. As with Test Unit 1, the entire structure appeared to have been filled with, and built upon, aeolian sedimentary deposits. Only the location of

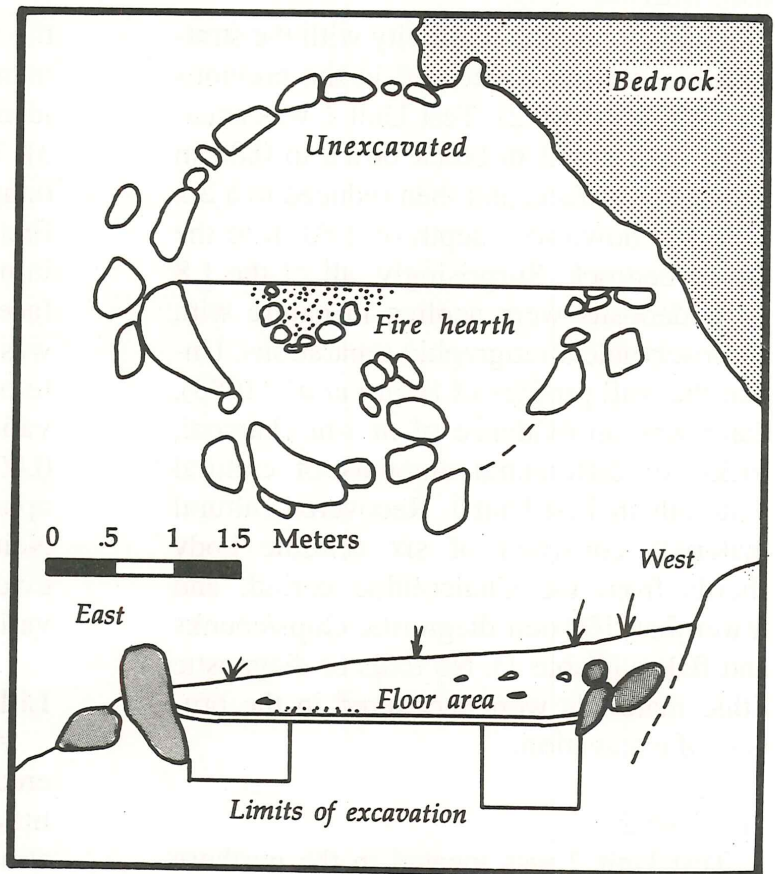
the fire hearth, associated rocks, and placement of the upright stones allowed for the identification of a possible floor area (Fig. 3). Two tools and less than ten items of debitage were recovered from this area. The first tool, a lunate (Fig. 4:2) was recovered in mixed fill deposits very close to the surface, while the second, a small endscraper was recovered close to the floor zone next to one of the upright stones. With the excavation of the floor level, two small 0.80 x 0.80 m test units were excavated down to approximately 1.2 m below the surface. Neither of these two probes revealed any evidence for subsurface intact deposits or variation in sediments.

Lithic and Ceramic Artifacts

Analysis of the cultural materials recovered *in situ* from Units 1 and 2 provide very little, if any, indication of the period of construction and occupation of the circular stone structure or the antiquity of the deposits just above bedrock in Unit 1. The single temporally diagnostic artifact recovered in Unit 2, a lunate, was located in fill deposits well above the floor in a secondary context. No temporally diagnostic tools were recovered during excavation of Unit 1. Only non-diagnostic debitage, such as flakes and blades, were recovered with excavation, and even these were recovered in very low quantities. In Unit 1 non-diagnostic ceramic body sherds, probably dating to the Chalcolithic period, were recovered down to a depth of approximately 1.2 m. Thus, in sum, no diagnostic tools

Table 1. Type and number of lithic and ceramic materials, by unit, recovered in the 1993 excavations of Jabal Quiesa.

Unit #	Tools	Blades	Flakes	Chips/ Chunks	Cores	Ceramics
One	0	2	11	83	0	6 body sherds
Two	2	1	0	8	0	0
Surface	2	31	82	231	32	6 body sherds
Totals	4	34	93	322	32	12 body sherds



3. Plan view and profile of Test Unit 2, Jabal Quiesa, Jordan.

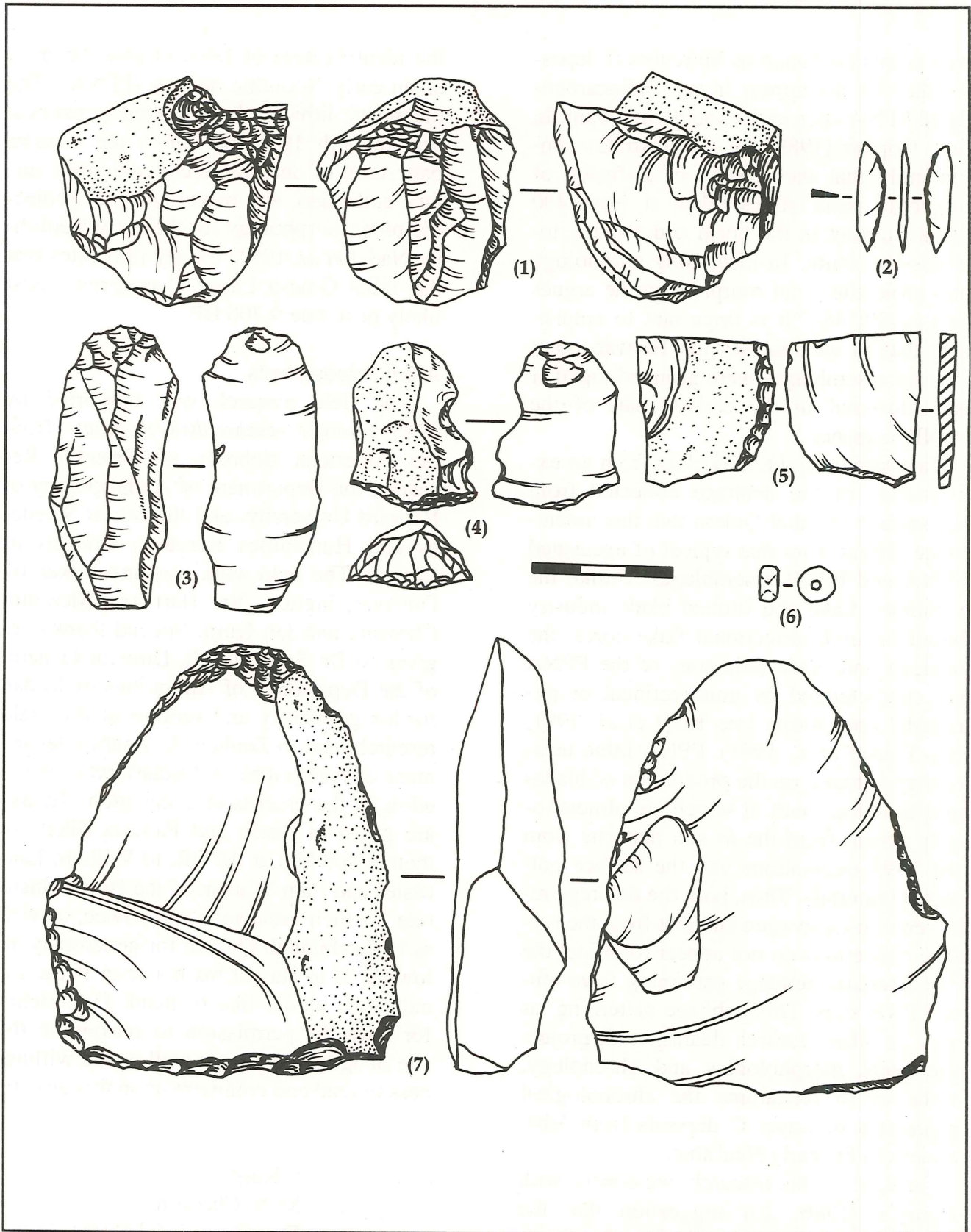
were recovered in the process of excavation in either of the two units (Table 1).

To compensate for the extremely limited data recovered in excavation, we undertook an extensive surface collection of Jabal Quiesa within 20 m of the areas beside, above, and below the major shelter area. This resulted in the recovery of a further 376 lithic items and six Chalcolithic body sherds, as well as two formed tools. Of these, only a single fan scraper, diagnostic of the Chalcolithic period, provided any indication as to the period of occupation of the site (Fig. 4:5). The second formed tool was a endscraper on a large quartzite flake.

Discussion and Summary

As noted earlier, the tentative dating of Jabal Quiesa is based upon perceived similarities in projectile point morphology (Henry 1982; 1986; Henry *et al.* 1983), illustrations of which are as of yet unpublished, with Cauvin's study (1974) of projectile point morphology from Tell

Mureybet and other sites in Syria. Specifically, excavations at Jabal Quiesa yielded three tanged points, which Henry (1982: 438) classified as form A26 (Helwan point) in Cauvin's (1974) projectile point typology. Recent studies by Gopher (1989), Bar-Yosef (1981), and Nadel *et al.* (1991), however, have clearly documented that in the southern Levant Helwan projectile points initially appear in the earliest part of the Pre-Pottery Neolithic B period. Nadel *et al.* (1991: 111) indicate that projectile points characteristic of the early Neolithic period of the southern Levant can be divided into three forms: the El Khiam, Salibiya, and Jordan Valley forms. These point forms, typologically similar to those found at the PPNA sites of Dhra' and 'Iraq ed-Dubb, are distinct from the Helwan point Henry describes from Jabal Quiesa. Perhaps more problematic is Gopher's (1989: 47-48) research, based on a multi-dimensional seriation analysis of arrowhead assemblages in the Levant, demonstrating that while Hel-



4. Chipped stone materials recovered from Jabal Quesa: 1) multi-directional blade core (surface collection), 2) lunate (fill, Unit 2), 3) blade (surface collection), 4) endscraper (floor Unit 2), 5) fan scrapper (surface collection), 6) stone bead (surface collection), 7) quartzite end/side scraper (surface collection).

wan points are found in Mureybet II deposits, they do not appear in any radiocarbon-dated PPNA sites in the southern Levant. In fact, Gopher (1989: fig. 4) illustrates convincingly that the process of diffusion of projectile point styles takes at least 400 years, starting in the north and moving towards the south. In discussing chronology and projectile point morphology, he argues that (1989: 48) "It is important to emphasize that in all analyses the Helwan point bearing assemblages were grouped together and clustered in the earliest part of the PPNB sequence."

In a similar light, it is clear from an examination of the debitage collected from the surface of Jabal Quiesa that this assemblage differs from that typical of excavated PPNA and PPNB assemblages. Unlike the combined flake and limited blade industry based on multi-directional flake cores, the bladelet and blade industries of the PPNA are characterized by unidirectional or pyramidal core forms (see Kuijt *et al.* 1991; Bar-Yousef *et al.* 1991). PPNA lithic technology is based on the production of blades and bladelets, both of which are almost totally absent from the *in situ* deposits from the 1993 excavations and the surface collected materials. Thus, both the debitage recovered in excavation and that from the surface collections do not appear to reflect the characteristic debitage patterning from other PPNA sites. This debitage patterning, as well as other research dealing with projectile point morphologies and chronology, force us to reexamine the chronological placement of Layer C deposits from Jabal Quiesa in the early Neolithic.

In light of this research, we concur with Henry's (1986: 20) suggestion that the overwhelming majority of occupational evidence at Jabal Quiesa dates to that of the Chalcolithic Period. More specifically, our archaeological investigations do not support

the identification of Jabal Quiesa, layer C, as an early Neolithic deposit (PPNA). The diagnostic lithic tools recovered in excavation in both 1993 and 1979, the broader patterning of debitage recovered from surface collection, and recent study of projectile point morphology for the early Neolithic (Nadel *et al.* 1991) clearly illustrates that the Jabal Quiesa Layer C materials most likely post-date 9,700 BP.

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