

A BRIEF NOTE ON THE 2001-2002 WINTER SEASON SURVEY OF THE AL-JAFR BASIN IN SOUTHERN JORDAN

Sumio Fujii

Introduction

In order to collect basic information on the general occupational history of the al-Jafr basin, a brief reconnaissance survey was conducted from 27 December 2001 to 6 January 2002, focusing on the northwestern part where Qā' Abū Ṭulayḥa West (QATW) (قاع ابو طليحة), our main concern for these five seasons (Fujii 1998; 1999; 2000; 2001; 2002a; 2002b), is situated. As a result, about thirty archaeological sites were located for the first time.

The purpose here is to present a brief summary of this survey. A comprehensive description of surveyed sites is beyond the scope of this paper, since the examination of the finds is still in progress. This paper focuses on several sites worthy of special comments, including a Pre-Pottery Neolithic B (PPNB) settlement (JF-0116), a few Late Neolithic (LN) and Early Bronze Age (EBA) pseudo-settlements (JF-9705 and JF-0104), a few K-lines (JF-0118 and JF-0125), and a tabular scraper knapping station located in Bāyir (باير) (JF-0126).

JF-0116 (Jabal Juḥayra جبل جحيرة)

JF-0116 is a small PPNB settlement that was located in the southeastern flank of Jabal Juḥayra, a dormant volcano a few kilometers northwest of al-Ḥusayniyya (الحسينية) (Fig. 1). Aside from al-Jafr-17, a flint scatter located in the northeastern hilly country in the al-Jafr basin (الجفر) (Quintero and Wilke 1998: 120-121), and an unconfirmed candidate south of Ma'ān (معان) (pers. communication from Dr. A. Garrard), this is the first PPNB site that has so far been firmly identified in the basin. Furthermore, it is the first PPNB settlement site with clear evidence for structural remains.

The site extends below a cluster of small rockshelters opening in the southeastern flank of Jabal Juḥayra (Fig. 2), thus being protected from the predominant wind in this area. A flint scatter and several wall lines of stone-built structures, both rectangular and sub-rectangular, were found on the southern, steep slope along a small ravine. Based on the range of this flint scatter, the site area was estimated at ca. 0.5ha, suggesting that the site represents a small settlement comprising about a dozen dwellings.

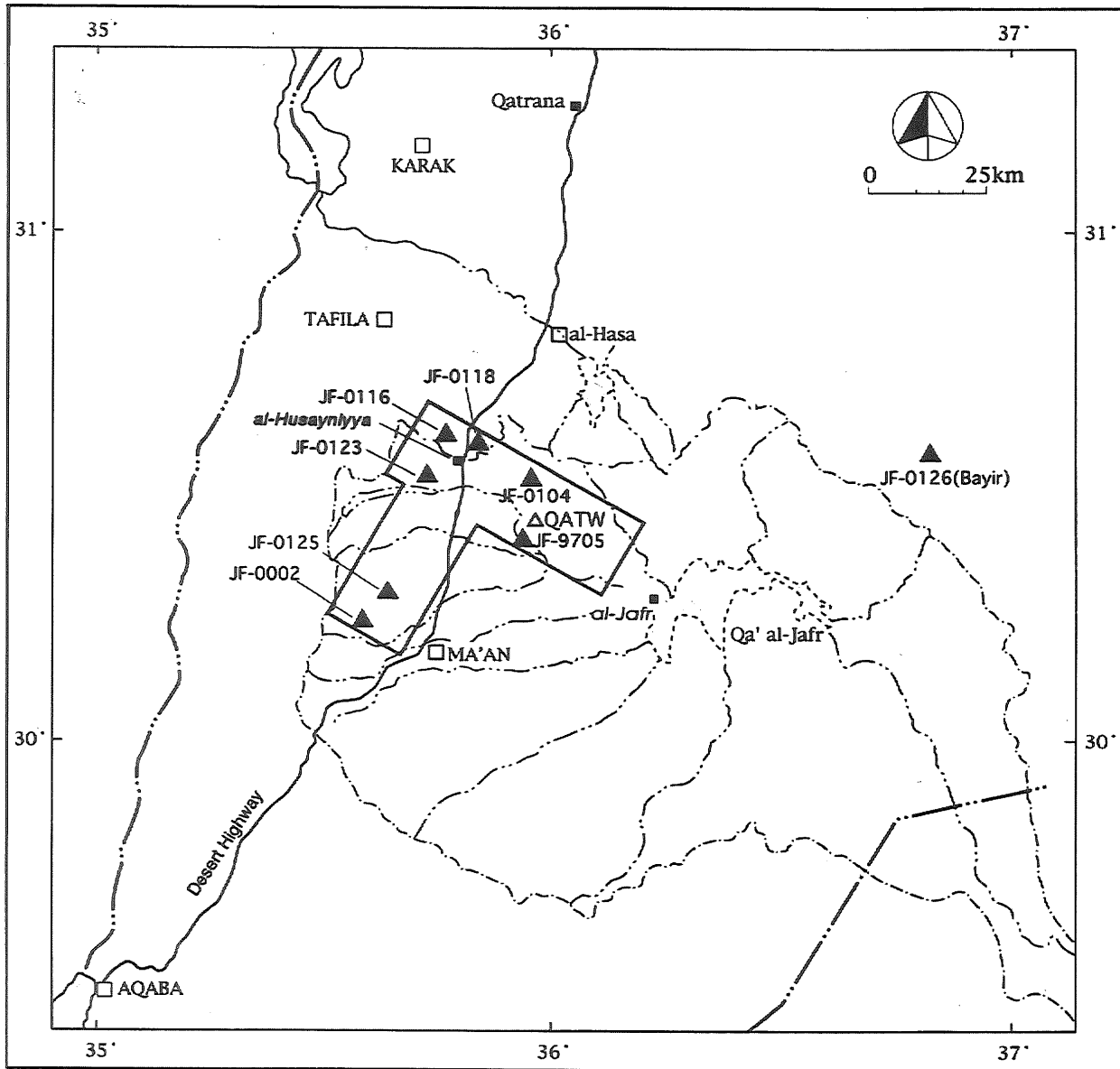
The surface finds consists of some dozens of flint artifacts, which are characterized by bidirectional cores and blades (Fig. 3:1-5, 10-17). It must be noted that the former includes a few typical samples of naviform cores (Fig. 3:4, 5), a chronological marker of the PPNB entity. Also noteworthy is the occurrence of a Byblos type (?) point, which has a long, slightly offset, semi-abruptly re-touched tang (Fig. 3:8). In addition, a few small axes/chisels (Fig. 3:6, 7) and an amorphous implement (Fig. 3:9) are also included in the finds.

It is therefore evident that the site is dated to the PPNB, although it is still difficult to assess what phase of the PPNB it belongs to. However, the occurrence of non-naviform type bidirectional cores (Fig. 3:1-3), which resemble the opposed platform wedge-shaped cores from Jabal Quwaysa (جبل قويسة), an Early Neolithic site in Wādī Ḥismā (وادي حسمى) (Henry 1995: fig. 14.4 and 14.6), might suggest the existence of a layer (or layers) assigned to the Early and/or Middle PPNB. Also suggestive is the probable existence of sub-rectangular (or oblong) structures, which are characteristic of the earlier stage of the PPNB, as evidenced by similar examples at Bayḍā (بيضا) (Kirkbride 1967: fig. 1) and 'Ayn Abū Nukhayla (عين أبو نخيلة) (Kirkbride 1978: fig. 2).

Whatever the case, the finding of this site is highly significant in that it demonstrates that the westernmost hilly country in the al-Jafr basin was inhabited by a PPNB (semi-) sedentary population. It might be possible that the site represent a trans-watershed counterpart of the Wādī Faynān (وادي فينان) PPNB entity (Najjar 1994; 2001; Simmons and al-Najjar 1996; Finlayson and Mithen 1998; Barker 2000).

Pseudo-Settlements

The pseudo-settlement is a settlement-like entity formed by a linear or circular combination of burial cairns. It is critically different from a simple cairn cluster or a simple cairn field in that: 1) the burial cairns are generally associated with a rectangular pseudo-house or a curvilinear pseudo-wall; 2) thus, overall, the linear or circular combination of these burial cairns presents a settlement-like ap-



1. The survey area and the sites referred to in the text.

pearance; 3) nevertheless, what it represents is, in fact, the final picture of a gradual addition of a burial cairn entity to an adjacent lot.

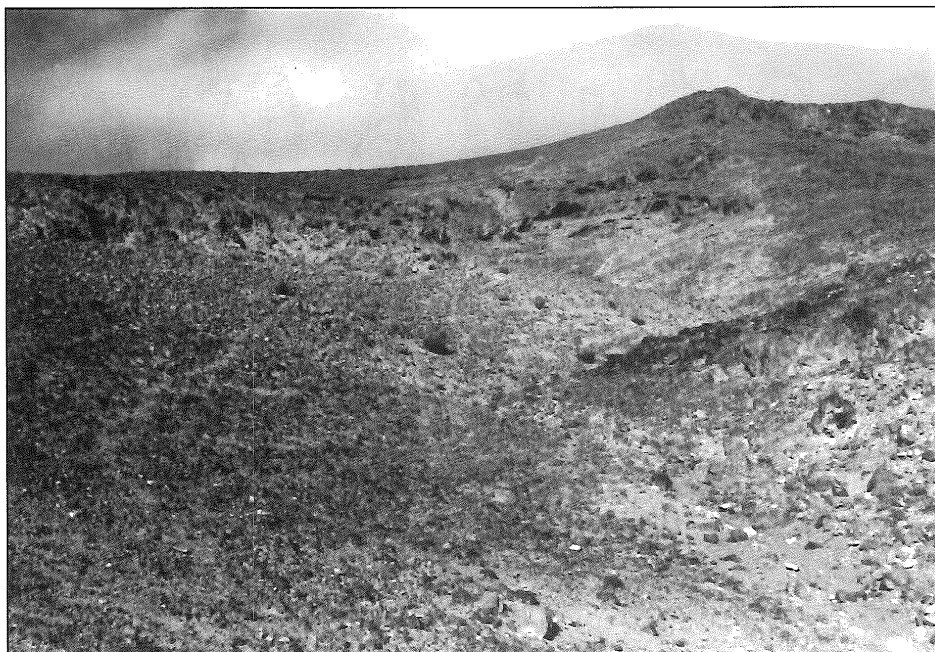
The internal structure and archaeological implications of the pseudo-settlement were first clarified in the excavations at QATW, although a circular combination of burial cairns and curvilinear walls had already been noted elsewhere, especially in an-Naqab النقب (e.g., Haiman 1992). Advanced on this base was the pseudo-settlement hypothesis (Fujii 2001: 33-37; 2002a; 2002b). The formation process of the Layer 4 structural complex (i.e., linear combinations of burial cairns and two-rowed upright slab walled, rectangular pseudo-houses) and the Layer 3 structural complex (i.e., circular combinations of burial cairns and curvilinear pseudo-walls) at QATW is now reasonably understood within the

framework of the pseudo-settlement hypothesis.

The 2001-2002 winter season survey has identified several more pseudo-settlements, a few of which will be introduced below. The existence of these examples demonstrates that the hypothesis is applicable to a broader context beyond the type-site, QATW. This, in turn, would further corroborate the validity of the pseudo-settlement hypothesis.

JF-9705 (Wādī Abū Ṣafāh وادي أبو صفاه)

JF-9705 is a composite site that was located ca. 3km WSW of QATW. It extends over both banks of Wādī Abū Ṣafāh, one of the major drainage systems of the al-Jafr basin. The site includes both a QATW Layer 4 type pseudo-settlement and a Layer 3 type pseudo-settlement, of which the former lies on the western, higher elevation, bank and



2. JF-0116 (Jabal Juḥayra) (from E).

the latter on the eastern, lower elevation bank, respectively.

As is the case with QATW, the Layer 4 type pseudo-settlement in this site comprises a straight chain of a rectangular structure that is associated with a small burial cairn at the left corner of a facade. However, this pseudo-settlement is much less elaborate in construction quality than that of QATW in that small limestone pebbles, instead of large slabs, are used for the construction material and the wall lines often fade out in the *ḥammāda* surface. This makes it difficult to trace the profile precisely, although the overall layout clearly supports the identification as a QATW Layer 4 type pseudo-settlement. The surface finds were very poor both in number and variety — another similarity to the QATW Layer 4 pseudo-settlement.

The Layer 3 type pseudo-settlement at this site consists of a few large, round structures ca. 10-15m in diameter. The walls of these structures are constructed with a large volume of limestone and flint cobbles, and still remain standing ca. 1m high. A small burial cairn, usually round in general plan, often intervenes in the walls, thus suggesting a similarity to a QATW Layer 3 type pseudo-settlement. Here again, the surface finds were very poor, comprising a dozen undiagnostic flint artifacts and pottery sherds, including a few samples probably dated to the EBA.

JF-0104

(Wādī ar-Ruwayshid ash-Sharqī وادي الرويشد الشرقي)

This site was located on a flat *ḥammāda*, flint pavement desert, below the hilly country that ex-

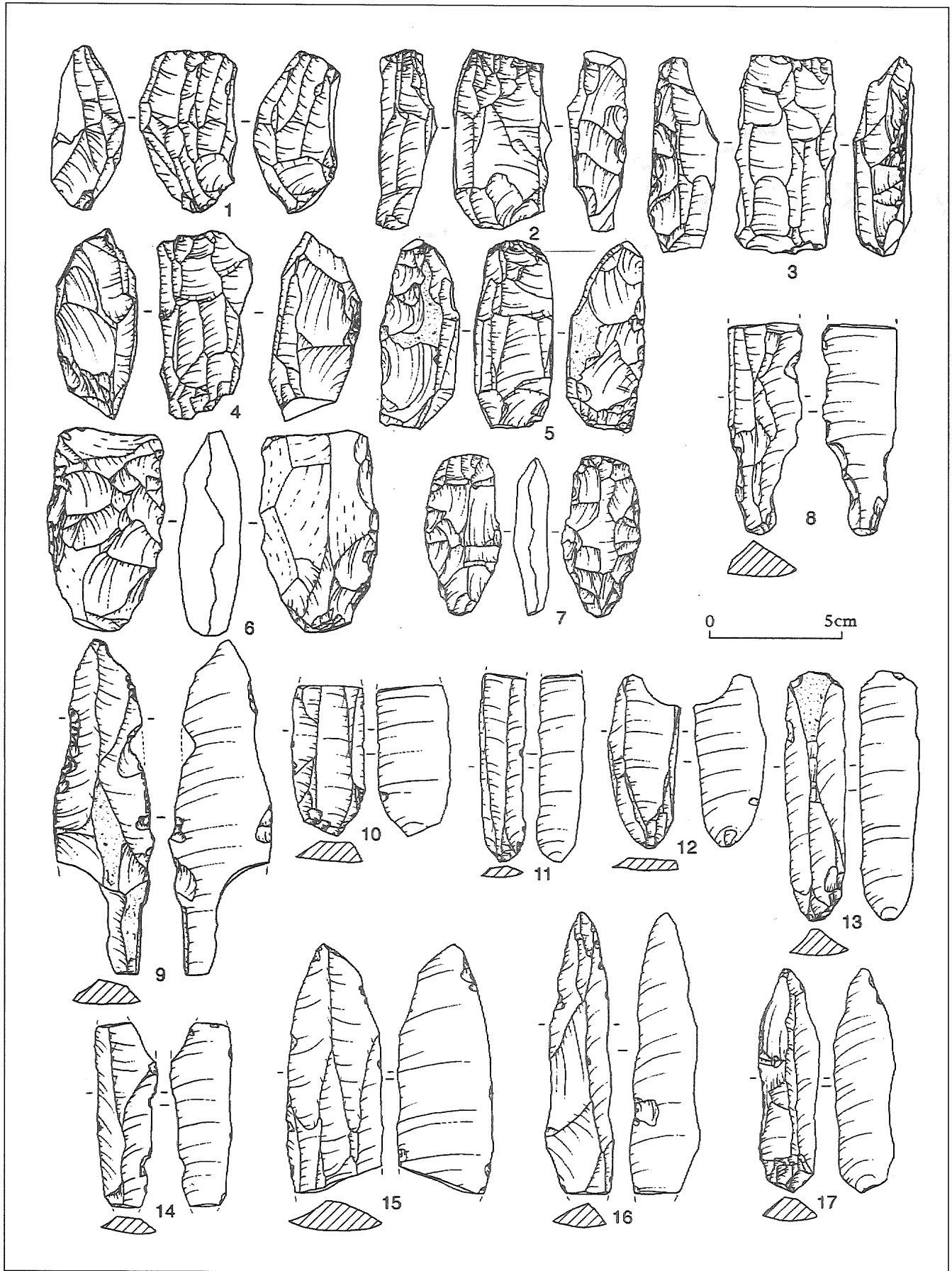
tends north of the Ḥusayniyya-Jafr road. It lies on the western bank of Wādī ar-Ruwayshid ash-Sharqī, a tributary of Wādī ar-Ruwayshid, one of the major drainage systems in the al-Jafr basin. This is another composite site involving two types of a pseudo-settlement. However, as was the case with JF-9705 mentioned above, two pseudo-settlements are situated ca. 50m apart from each other.

The Layer 4 type pseudo-settlement at this site consists of a single, short combination of rectangular pseudo-houses with a small burial cairn at the left corner of a facade and a few cells at the rear left corner of a room. However, as was the case with JF-9705, the precise profile of these pseudo-houses was often difficult to trace due to the poor quality of construction (Fig. 4).

The Layer 3 type pseudo-settlement, on the other hand, is entirely exposed on the *ḥammāda* surface, thus being discernible without any difficulty. It is represented by a large round structure that combines a dozen small burial cairns, ca. 1-2m in diameter, and curvilinear pseudo-walls (Fig. 5). It is interesting to note that these cairns and walls often include upright limestone boulders — another similarity to the QATW Layer 3 pseudo-settlement. No diagnostic artifacts were found at this site, but this may also support the identification as a pseudo-settlement.

Other Examples

To date, a composite pseudo-settlement has been limited to these two (or three if we include QATW). However, the evidence for a Layer 3 type



3. JF-0116 (Jabal Juhayra): the flint collection.



4. JF-0104 (*Wādī ar-Ruwayshid ash-Sharqī*): the Layer 4 pseudo-settlement (three members of the staff signify the location of a burial cairn).



5. JF-0104 (*Wādī ar-Ruwayshid ash-Sharqī*): the Layer 3 pseudo-settlement.

pseudo-settlement were found at some other sites including JF-9701, -0001, -0108, and -0113. This, coupled with the frequency of K-line sites, and tabular scraper and Jafr blade production sites mentioned below, clearly indicates that the al-Jafr basin was often utilized by the EBA pastoral populations for symbolic burial and flint exploitation as well as seasonal pasturing. In contrast, the evidence for a Layer 4 type pseudo-settlement still remains scarce, probably suggesting a low population density in that period.

K-Lines

The K-line represents an elongated, free-

standing, stone-built feature that comprises a long chain of cairns and walls. This unique feature was first identified in the western Naqab Highland (Evenari *et al.* 1958; Glueck 1958; 1959; Haiman 1999) and recently dated, though still tentatively, to the EBA (Haiman 2000). The distribution of the K-line has so far been limited to the Naqab Highland, but the identification of a few similar examples in our survey area would necessitate modification of this picture.

JF-0118 (Tall Burma تل برمة)

The first example of a K-line in the Jordanian plateau was found on a gentle basalt slope west of

Tall Burma, an isolated volcanic hill a few kilometers northeast of al-Husayniyya (Fig. 6). It extends roughly in a straight line from the southern skirt of Tall Burma down to the eastern bank of Wādī Burma, measuring ca. 0.8km in total length.

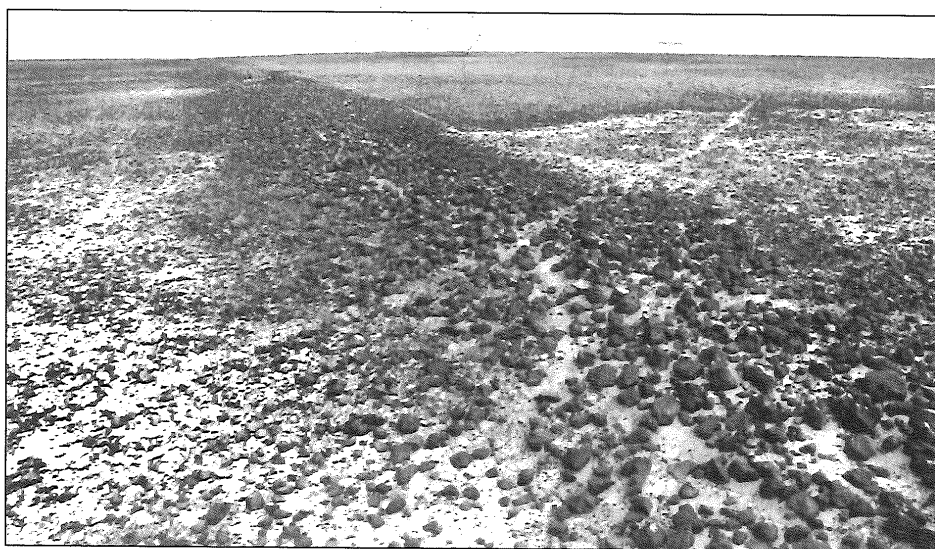
This K-line is constructed exclusively with basalt cobbles, eruptions of Tall Burma. Although the wall of this K-line is collapsed all over, the number and volume of fallen cobbles suggest that the original height was less than 1m. As is the case with the Naqab examples, the wall is often interrupted by a cairn-like small link either round or sub-rectangular in general plan. An examination of a well-preserved example (Fig. 7) has suggested that, as noted by Glueck (1959: 9), the cairns are wider (ca. 3m in diameter or depth) than the wall (ca. 1m). Also noteworthy is the present height (ca. 0.5m) of

the cairn, which suggests that it was originally a little higher than the wall. It may also be interesting to note that this cairn has a hollow center ca. 1m in diameter, although it might have resulted from an illicit excavation.

JF-0125 (Tall 'Ābūrā تل عابورا)

The second example of the K-line was located on the southern flank of Tall 'Ābūrā, an isolated limestone hill near Udhruh (أذرح), a small town ca. 20km northwest of Ma'an (Fig. 8). A landmark is the pumping station G1215, which is situated ca. 0.5km northeast of the site.

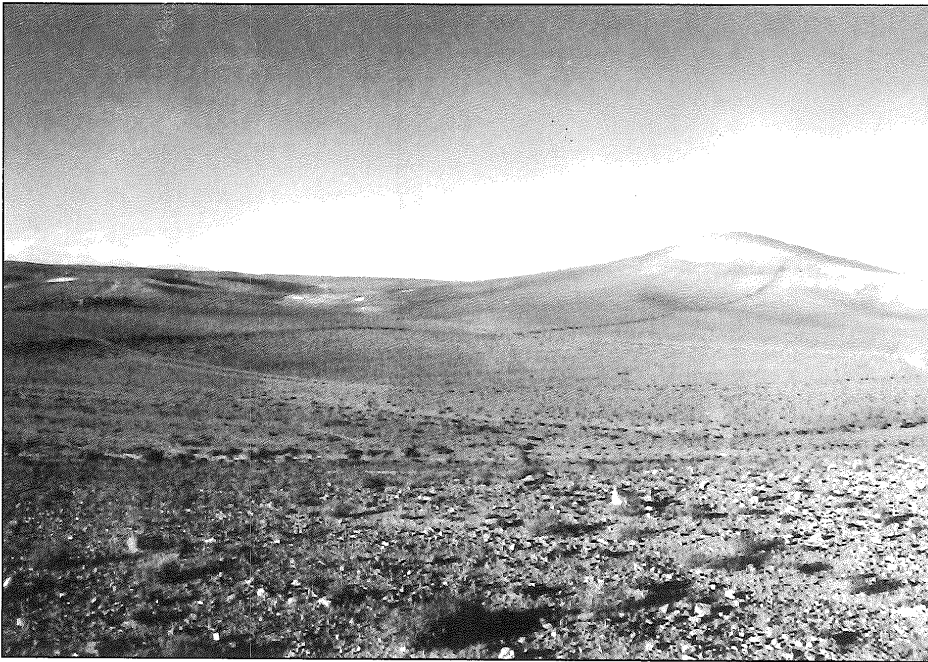
This is a typical K-line in terms of both the site setting and the scale. It extends roughly in a straight line from the southern flank of Tall 'Ābūrā down to its skirt and further passes over an undu-



6. *JF-0118 (Tall Burma): the K-line (from E).*



7. *JF-0118 (Tall Burma): a cairn (round link) in the wall of a K-line.*



8. JF-0125 (Tall 'Abūrā): the K-line (from S).

lating plain to the south, thus measuring a few kilometers in total length. Echoing the site setting, limestone and sometimes flint cobbles and boulders were used for the construction material. A brief examination has confirmed that a small cairn, ca. 1-2m in diameter, often intervenes in the wall. Interestingly, upright limestone and flint boulders are often included both in the cairns and in the wall.

Other Examples

A possible example of a K-line (JF-0002) was located on a hilltop ca. 1km east of Bīr Abū Dannah (بیر أبو دنه), a small village ca. 20km west of Ma'ān. This site includes a cluster of large round structures as well as a possible K-line. The K-line, though partly disturbed by recent agricultural activities, extends some hundreds of meters passing over the northern slope of the hill (Fig. 9). As was the case with the two K-lines mentioned above, cairn-like small, round links often intervene in the wall, thus providing a qualification for the third example of the K-line in the Jordanian plateau.

Another possible example (JF-0123) was found on the southern flank of "Ḥarra as-Sayyiya", an isolated volcanic hill some kilometers southwest of al-Ḥusayniyya. However, this elongate stone pile runs largely along a dirt road, possibly suggesting that it resulted from the road construction.

JF-0126 (Bāyir باير)

Although omitted from this paper, more than ten knapping stations for tabular scrapers and Jafr blades have been located in the hilly countries extending north of the Ḥusayniyya-Jafr road. Most, if



9. JF-0002 (Bīr Abū Dannah): the K-line (from S).

not all, of them are probably dated to the EBA on the basis of a line of evidence from QATW. The high frequency of these EBA lithic production sites, along with the occurrence of a variety of burial-related sites, suggests a full-scale re-activation of pastoral nomadism in the fourth millennium BC



10. JF-0126 (Bāyir): the flint outcrops (foreground) and a tabular scraper knapping station (background) (from N).

— a general trend in the southern Levantine arid peripheries (Finkelstein 1995).

Of special interest in this regard is JF-0126, which was located by chance during our one-day excursion to Bāyir, an ancient crossroad in the Jordanian Bādiya. This site lies on the western slope of a gentle hill ca. 1km north of a police station that has recently gone out of use. A dense scatter of tabular scraper and Jafr blade cores and debitage was found beside a series of flint outcrops (Fig. 10). This is the first tabular scraper production site to be located west of the Azraq-Jafr road. The finding of this site suggests that the EBA pastoral population expanded further deep into the Bādiya beyond the range suggested by a recent synthesis (Baird 2001: 649-650).

Concluding Remarks

The 2001-2002 winter season survey has revealed that the al-Jafr basin, though seemingly poor in archaeological potential, is in fact rather rich in archaeological occurrences. This paper merely referred to a few aspects of it. A comprehensive report, which incorporates the results of the previous surveys conducted from 1997 to 2001 and the next one planned in the 2002 summer season, is to be published in the near future.

Acknowledgments

I would like to express my gratitude to the Department of Antiquities of Jordan for their kind cooperation, and to the Ministry of Science and Education, Japan, for their financial support (The al-Jafr Basin Prehistoric Project is funded by the

Monbusho Grant-in-Aid International Scientific Research Program: Grant No. 12571041 and 13571037). Also, I must express my many thanks to Mr. Ahamad Sharma, representative of the Department, and the members of the staff (Ryouichi Kontani and Masashi Abe), who withstood the terrible weather during that winter.

S. Fujii
Faculty of Letters
Kanazawa University
Kakuma-machi, Kanazawa
920-1192, Japan

Bibliography

- Baird, D.
2001 The Analysis of Chipped Stone. Pp. 639-651 in B. MacDonald, R. Adams and P. Bienkowski (eds.), *The Archaeology of Jordan*. Sheffield: Sheffield Academic Press.
- Barker, G.
2000 Farmers, Herders and Mines in the Wadi Faynan, Southern Jordan: a 10,000-year Landscape Archaeology. Pp. 63-85 in G. Barker and D. Gilbertson (eds.), *The Archaeology of Drylands*. London: Routledge.
- Evenari, M., Aharoni, Y., Shanan, L. and Tadmor, N.H.
1958 The Ancient Desert Agriculture of the Negev: III. Early Beginnings. *IEJ* 8: 231-268.
- Finkelstein, I.
1995 *Living on the Fringe*. Sheffield: Sheffield Academic Press.
- Finlayson, B. and Mithen, S.
1998 The Dana-Faynan (South Jordan) Epipalaeolithic Project: Report on Reconnaissance Survey, 14-

- 22 April 1996. *Levant* 30: 27-32.
- Fujii, S.
1998 Qa' Abu Tulayha West: An Interim Report of the 1997 Season. *ADAJ* 42: 123-140.
1999 Qa' Abu Tulayha West: An Interim Report of the 1998 Season. *ADAJ* 43: 69-89.
2000 Qa' Abu Tulayha West: An Interim Report of the 1999 Season. *ADAJ* 44: 149-171.
2001 Qa' Abu Tulayha West, 2000: An Interim Report of the Fourth Season. *ADAJ* 45: 19-37.
2002a Qa' Abu Tulayha West, 2001: An Interim Report of the Fifth Season. *ADAJ* 46 (this volume).
2002b Pseudo-Settlement Hypothesis: Evidence from Qa' Abu Tulayha West. *Archaeozoology of the Near East* 5: 183-196.
- Glueck, N.
1958 The Seventh Season of Archaeological Exploration in the Negeb. *BASOR* 152: 18-38.
1959 An Aerial Reconnaissance of the Negev. *BASOR* 155: 2-13.
- Haiman, M.
1992 Cairn Burials and Cairn Fields in the Negev. *BASOR* 287: 25-45.
1999 *Map of Har Hamran Southeast (199)* (Archaeological Survey of Israel). Jerusalem: Israel Antiquities Authority.
2000 The 'K-Line' at Har Romem in Light of the Survey of the Map of Har Ramon (203). *'Atiqot* 39: 21-29.
- Henry, D.O.
1995 *Prehistoric Cultural Ecology and Evolution: Insights from Southern Jordan*. New York: Plenum Press.
- Kirkbride, D.
1967 Beidha 1965: An Interim Report. *PEQ* 99: 5-13.
1978 The Neolithic in Wadi Rumm: 'Ain Abu Nekheleh. Pp. 1-10 in R. Moorey and P. Parr (eds.), *Archaeology in the Levant*. Warminster: Aris & Phillips Ltd.
- Najjar, M.
1994 Ghwair I, a Neolithic Site in Wadi Feinan. Pp. 75-85 in *The Near East in Antiquity* 4. Amman.
2001 Towards a Commonly Accepted Chronological Framework of the Pre-Pottery Neolithic B Period in Jordan. Pp. 101-105 in *SHAJ* 7. Amman: Department of Antiquities.
- Najjar, M., Abu Dayya, A., Suleiman, E., Weisgerber, G. and Hauptmann, A.
1988 Tell Wadi Feinan, the First Pottery Neolithic Tell in South Jordan. *ADAJ* 34: 27-56.
- Quintero, L.A. and Wilke, P.J.
1998 Archaeological Reconnaissance in the Al-Jafr Basin, 1997. *ADAJ* 42: 113-122.
- Simmons, A.H. and al-Najjar, M.
1995 Test Excavations at Ghwair I, a Neolithic Settlement in the Wadi Faynan. *ACOR Newsletter* 8/2: 7-8.

