

**PALAEOENVIRONMENTAL AND ARCHAEOLOGICAL STUDIES
IN THE KHANĀŠIRĪ REGION/NORTHERN JORDAN
PRELIMINARY RESULTS OF THE ARCHAEOLOGICAL SURVEY 1999**

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A. Introduction

Tall Khanāširī (تل خناصری), located between the modern towns of Irbid and al-Mafraq, is one of the most prominent archaeological sites in Northern Jordan. It is a tall of nearly thirty meters height situated on top of a natural hill, thus forming a landmark overlooking a wide territory up to the 'Ajlūn hills to the west and to Jabal al-'Arab to the North-east (**Fig. 1**). In the past, the site and its immediate surrounding were visited by several scholars like Gustav Schumacher (Steuernagel 1925; 1926), Nelson Glueck (1951) and Siegfried Mittmann (1970). However, no detailed studies were undertaken until now.

With respect to geomorphology, climate and vegetation, the region around Tall Khanāširī forms a transitional area between the optimal zones of the 'Ajlūn and the marginal zones east of al-Mafraq characterised by the basalt desert, al-Ḥarra (**Fig. 2**).

This specific topographical situation and the proximity to two main roads connecting the Mesopotamian lowlands with the Mediterranean coast as well as inland Syria with Northern Arabia led to questions concerning settlement structures, as well as cultural contacts of this zone through the ages.

The investigation of these questions are the main topics of a joint project of the Institute of Archaeology and Anthropology of Yarmuk University, Irbid and the Oriental Department of the German Archaeological Institute which began in Spring 1999 under the direction of F. al-Khraysheh and R. Eichmann. The project has two aims of research: the definition of structure and function of Tall Khanāširī (Kerner *et al.* 1999) and a systematic archaeological surface survey of the surrounding area (Bartl *et al.* 1999; in press) the preliminary results of which will be presented here.¹

The surveyed area of the first campaign which

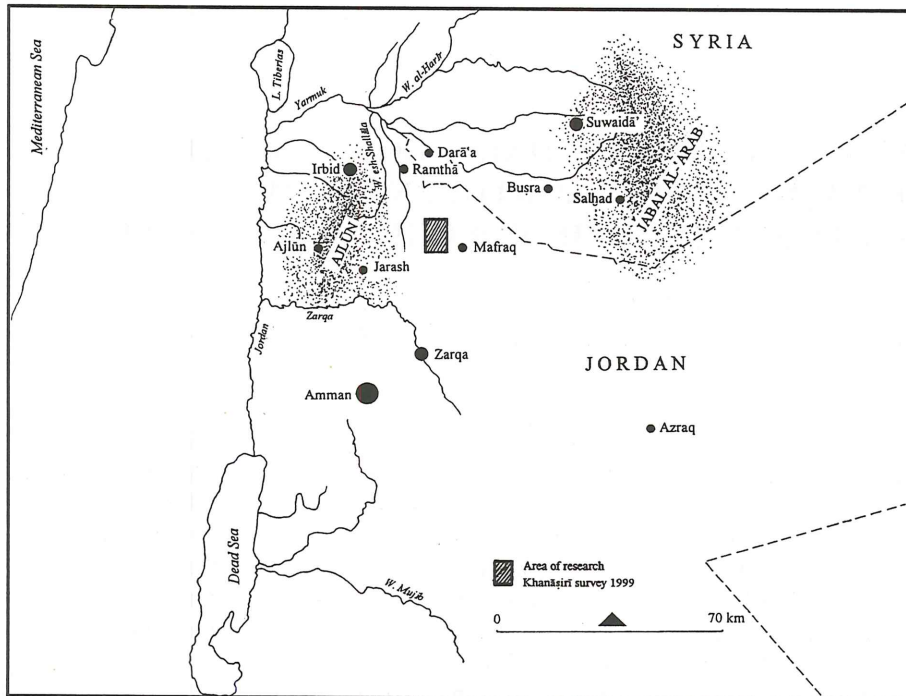


1. Tall Khanāširī and its vicinity, view from southeast to northwest.

1. We would like to thank all the participants in the survey team for their enthusiasm, interest and contributions: Mohammed Ababneh (Yarmuk University), epigrapher; Abdulrahim Atia (Yarmuk University), archaeologist; Hussein Debajah (Yarmuk University), photographer; Carola Hupbauer (Technische Fachhochschule Karlsruhe), surveyor; Jochen Eisele (Technische Fachhochschule Karlsruhe), surveyor; Bernd Müller-Neuhof (Freie Universität Berlin), prehistorian/archaeologist.

Moreover, we would like to express our gratitude to Khaled al-Jbour, representative of the Department of Antiquities Mafraq, who supported our work in every respect.

Our special thanks go to Hans-Dieter Bienert, then director of the German Protestant Institute in Amman for logistical help and to Prof. Zeidan Kafafi, Dean of Yarmuk University Irbid, for valuable comments on regional aspects and, particularly on the lithic finds.



2. Northern Jordan with area of research.

covered nearly 100km² is structured by a chain of low hills, the Jabal al-Khanāṣīrī (جبل الخناصيري), into two different regions (Fig. 3). North of the hill on top of which Tall Khanāṣīrī is situated, a wide plain opens, which to the northwest leads to the plain of Irbid. The villages of Fā' (فاع) and Burayqah (بريقة) are the main modern settlements in this area (Fig. 4). The area south of Khanāṣīrī with the main village of al-Manshiyah (المنشية) is of rather different character which allows for a more intensive agriculture (Fig. 5).

Water supply of the region depends entirely on groundwater and, in earlier times, depended on cisterns, since no perennial water courses exist in the area. Today, the structure of the habitat is characterized by a very sparse natural vegetation which is mainly used for sheep/goat pastoralism. The current state of the natural flora and fauna, however, does not reflect the original situation but is the result of intensive exploitation of the natural resources which started at the end of the 19th century. Gustav Schumacher who visited the area in 1900, reports the existence of a steppic forest of pistachio trees and a remarkable diversity in faunal species, among which large amounts of gazella were mentioned (Steuernagel 1925: 45-46/A.93-94).

During our field work, nearly 250 find spots that are artificially defined sites within modern villages and in the country, were investigated. The surface material — nearly 2500 pottery sherds and 7000 lithic flakes, tools and cores was collected ac-

ording to these units. The documentation of the find spots was done with a DGPS (differential global positioning system) which is able to generate coordinates with an accuracy of 2m. The recorded data were transmitted to a CAD system and plotted into a digitized map of the region.

The preliminary analysis of the surface material indicates two main phases of interest: the Palaeolithic to Early Neolithic periods and the time from the Iron Age onwards.

(K.B.; R.E.; F.K.)

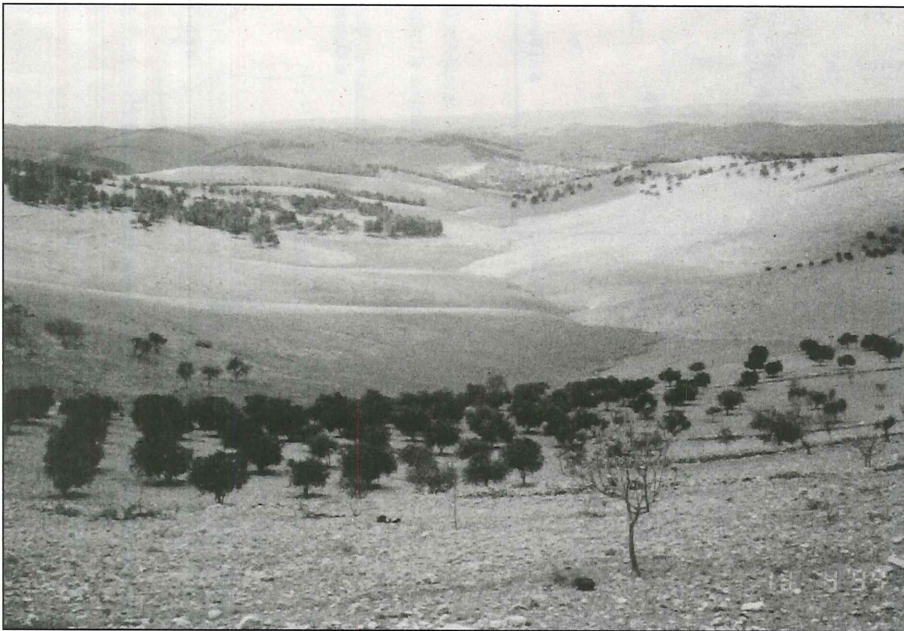
B. Survey Methods

As mentioned above, the area of research is structured by several large villages and by some wadi courses running from south to north. Since these features are the main landmarks of the region, the survey was carried out according to these topographical units. Therefore, two different strategies of recording had to be used.

The first strategy concerned areas within and in the immediate vicinity of the modern settlements al-Khanāṣīrī, Burayqah, Fā', Dayr Warāq (دير ورق), al-Buwayḍah (البويضة), al-Manshiyah and ad-Dajāniyah (الدجانية). Areas characterised by natural features like slopes, valleys and hilltops or marked by roads were investigated in their full extension. The other strategy was used for the open areas between the villages. Due to the long distances between the sites it was not possible to investigate the entire area in as much detail as the immediate vicinity of the settlements. Therefore, as a first step only



4. View from Tall Khanāširi to the north, to the left the village of Fā'.



5. Region southeast of Tall Khanāširi near Dayr Waraq.

the main wadi courses of the area were chosen for detailed research. The distinction of the different wadi areas were defined by natural or artificial landmarks (benches, buildings, etc.). The collection of finds, mainly flint material, was carried out by separating wadi bottom from the two wadi banks. Due to the high amount of artifacts spread all over the area and the limited capacities for transportation, the collection of material concentrated mainly on complete and, if possible, typologically clearly definable pieces. This meant that a preliminary selection of finds was done in the field and that the amounts of lithic artifacts per area is much larger than the number of collected samples.

(B.M.-N.)

C. The Prehistoric Periods

Lithics Analysis

The survey season in 1999 collected a relatively large number of lithic samples ($n = 131$). These samples were sorted in the summer of 1999 by the authors and classified according to cultural affiliation (e.g., PPNB) or time period (e.g., "Middle Palaeolithic"). In some cases artifact attributes were not distinct enough for confident assignment to a single category, so these pieces were placed in a "transitional" group (such as the "Lower/Middle Palaeolithic"). Inevitably there were chipped stone artifacts that had no distinctive characteristics of typology or technology that permitted any assign-

ment at all, and in these instances they were placed in the "unknown" group.

Altogether we assigned the artifacts to one of fifteen artifact groups, and these are listed in **Table 1**. Some of the categories demand additional comments. The first of these is the "Chalcolithic/Early Bronze" (or C/EB) category. Despite the implications in the nomenclature, metal artifacts were extremely rare in the Chalcolithic and Bronze Age, and people relied almost totally on the use of chipped stone for their tools. But with the exception of some rare tool types (fan scrapers, star-shaped eccentrics, etc.), there are virtually no clear referents for chipped stone artifacts from the fourth millennium and later, either in typological or technological terms. The same characterization also applies to the Iron Age, for which virtually nothing is known concerning chipped stone artifacts. Essentially, then, artifacts are assigned to this category (C/EB) simply because they do not seem to fit any other group criteria.

The "Late" grouping is similarly poorly defined. In essence, generally laminar artifacts with plain striking platforms, but otherwise not distinctive, fall into this category. However, it is conceivable that such artifacts could fit into the Upper Palaeolithic through the Iron Ages,² so it is not a very informative classification.

Finally, the "Unknown" category was used for those flakes, (more rarely) blades, and fragments that could have come from any of the periods under consideration.

The Samples

The collection samples varied considerably in terms of size, ranging from no artifacts (sample D, Burayqah) to several hundred pieces. Since the material was collected according to two different strategies (see section B above), it is not possible to use the relative numbers of artifacts in any statistical sense. Even if the collection techniques had been rigidly controlled, it is unlikely that varying quantities of artifacts would have much dependable meaning, since artifact abundance could have varied according to a wide number of factors, not the least of which is the problem of "archaeological visibility".³

The distribution of artifacts is presented in **Table 2**. The table reflects the sorting according to the various collection areas (Tall Khanāşiri, Fā' I, etc.). The total number of samples (#S) collected

from each area is provided in the second column, followed by the total number of artifacts in those samples. Thus, in area 1 (Tall Khanāşiri), 60 samples contained 3,420 artifacts.

Of those 60 samples, 11 contained Lower Palaeolithic artifacts (totaling 87 LP pieces), five of the samples had a total of 64 artifacts that were either Lower or Middle Palaeolithic in age, 42 of the 60 samples had Middle Palaeolithic artifacts, and 23 of the samples contained non-diagnostic chipped stone artifacts.

In addition to sorting the artifacts into the various temporal or cultural periods, we also classified them according to debitage type (core, blade, flake, etc.) and tool/core type (Micoquian handaxe, end-scrapers, Levallois point core, Naviform blade, burin on concave truncation, etc.). This information is not included in this report because of inadequate time to interpret the meaning of the results. In any event, as a preliminary analysis, this report is more concerned with the relative importance of the temporal/cultural periods rather than any particular use of an area at certain times.

Results

The results of the classification are presented in **Table 1**. Notice that all of the periods are represented, although some periods were represented more heavily than others. There is considerable variation in the presence of certain periods from different areas in the survey region, although this may be a reflection of the relative amount of area that was covered rather than a real depiction of the actual importance of the different time periods. For example, there is only one sample for each of the last three areas in **Table 1** (and those samples are all very small as well), so it is not surprising that C/EB and "Late" artifacts dominate all three areas.

The results in **Table 1** are portrayed in a different way for the survey areas that produced more than one collection sample in **Table 2**. Several interesting features emerge from this rearrangement of the data.

The first is the popularity of artifacts of the Chalcolithic/Early Bronze Age in all the areas, a result which contradicts the preliminary analysis of the pottery sample. Contrary to the flint assemblage, the ceramic collection shows no traces of these periods and point to first permanent settlements in the Iron Age (see section D below). However, more detailed research into this aspect will be

2. It is unlikely that such artifacts would date to the PPNB, for blades from this period are generally very distinctive.
3. Under this principle, artifacts from older periods are not ex-

pected to be as numerous due to the more extensive amount of time for destruction or concealment.

Table 1: Distribution of artifacts in the various samples from the survey collection areas.
 Area: 1 = Tall Khanāsiri; 2 = Fā' I; 3 = Fā' II; 4 = Fā' III; 5 = Dayr Waraq; 6 = Burayqah; 7 = Aydūn; 8 = Buwayḡah; 9 = ad-Dajāniyah
 #S = Number of collection samples
 LP = Lower Palaeolithic; LMP = Lower/Middle Palaeolithic; MP = Middle Palaeolithic; M/UP = Middle/Upper Palaeolithic; UP = Upper Palaeolithic; UP/E = Upper Palaeolithic/
 Epipalaeolithic; E = Epipalaeolithic; C/PN = PPNC/Pottery Neolithic; PN = Pottery Neolithic; N/CEB = Pottery Neolithic/Chalco-Early Bronze; C/EB = Chalco-Early Bronze; Late =
 UP or later (but not Neolithic); Unk = unknown.
 The first number in a cell represents the number of samples represented; number in parentheses = number of artifacts in the samples.

Area	#S	LP	LMP	MP	M/UP	UP	UP/E	E	PPNA	PPNB	C/PN	PN	N/CEB	C/EB	Late	Unk
1	60 (3420)	11 (87)	5 (64)	42 (420)	--	5 (12)	4 (7)	--	1 (65)	14 (76)	3 (170)	1 (75)	1 (71)	42 (1600)	20 (629)	23 (144)
2	12 (221)	1 (1)	--	9 (45)	--	--	--	1 (10)	--	--	--	--	--	8 (90)	1 (64)	3 (11)
3	36 (1451)	10 (59)	8 (84)	12 (48)	2 (29)	5 (257)	2 (16)	1 (1)	--	2 (2)	--	1 (97)	--	27 (619)	9 (107)	16 (132)
4	1 (31)	--	--	1 (5)	--	--	--	--	--	--	--	--	--	1 (23)	--	1 (3)
5	7 (373)	--	--	3 (10)	--	--	1 (4)	1 (4)	1 (43)	6 (92)	4 (100)	--	--	2 (64)	2 (47)	4 (9)
6	12 (159)	--	1 (5)	5 (19)	--	1 (6)	--	--	--	--	--	--	--	3 (25)	7 (92)	4 (12)
7	1 (6)	--	--	--	--	--	--	--	--	--	--	--	--	1 (6)	--	--
8	1 (6)	--	--	1 (2)	--	--	--	--	--	--	--	--	--	--	1 (4)	--
9	1 (9)	--	--	1 (2)	--	--	--	--	--	--	--	--	--	1 (7)	--	--
Total	131 (5676)	22 (147)	14 (153)	74 (551)	2 (29)	11 (275)	7 (27)	3 (15)	2 (108)	22 (170)	7 (270)	2 (172)	1 (71)	85 (2434)	40 (943)	48 (311)

Table 2: Distribution of artifacts as a percentage of sample representation for survey areas 1-3, 5-6.

	AREAS											
	N1	%1	N2	%2	N3	%3	N5	%5	N6	%6	N All	% All
LP	11	18.3	1	8.3	10	27.7	--	--	--	--	22	16.8
L/MP	5	8.3	--	--	8	22.2	--	--	1	8.3	14	10.7
MP	42	70.0	9	75.0	12	33.3	3	42.9	5	41.7	74	56.5
M/UP	--	--	--	--	2	5.6	--	--	--	--	2	1.5
UP	5	8.3	--	--	5	13.9	--	--	1	8.3	11	8.4
UP/E	4	6.7	--	--	2	5.6	1	14.3	--	--	7	5.3
E	--	--	1	8.3	1	2.8	1	14.3	--	--	3	2.3
PPNA	1	1.7	--	--	--	--	1	14.3	--	--	2	1.5
PPNB	14	23.3	--	--	2	5.6	6	85.7	--	--	22	16.8
C/PN	3	5.0	--	--	--	--	4	57.1	--	--	7	5.3
PN	1	1.7	--	--	1	2.8	--	--	--	--	2	1.5
N/CEB	1	1.7	--	--	--	--	--	--	--	--	1	0.8
C/EB	42	70.0	8	66.7	27	75.0	2	28.6	3	25.0	85	64.9
Late	20	33.3	1	8.3	9	25.0	2	28.6	7	58.3	40	30.5
Unk	23	38.3	3	25.0	16	44.4	4	57.1	4	33.3	48	36.6
Total	60		12		36		7		12		131	

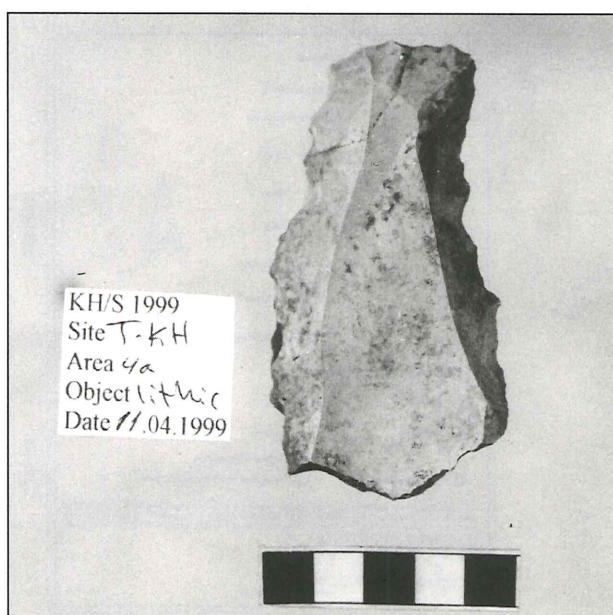
a topic of further work.

The second feature of interest in **Table 2** is the prominence of the Middle Palaeolithic among the samples, despite the low absolute numbers of artifacts that were recovered (**Figs. 6-8**). In **Table 1**, MP artifacts account for only 10% of the total, yet they were found in almost 60% of the survey samples. This result has been noted in several other surveys (e.g., MacDonald *et al.* 1983; Rollefson 1987) and seems to reflect the very long period of time represented by the Middle Palaeolithic (ca. 200,000 years) rather than a dense population of Pleistocene hunter-gatherer groups.

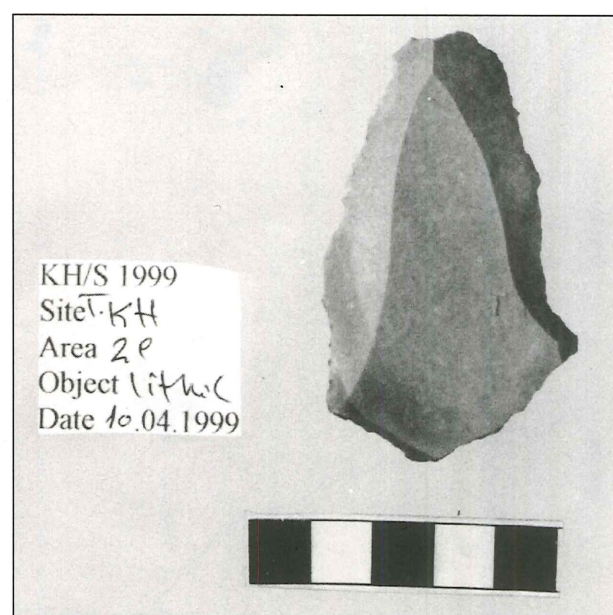
The relatively strong presence of Lower Palaeolithic evidence in the Tall Khanāşiri and Fā' II areas is also remarkable (**Fig. 9**), given the extreme

age of this period. (All of the Lower Paleolithic material recovered by the survey dated to the Late Acheulian period, ca. 400,000-200,000 years ago). In general, it appears that Lower Palaeolithic remains were confined to the Tall and Fā' areas.

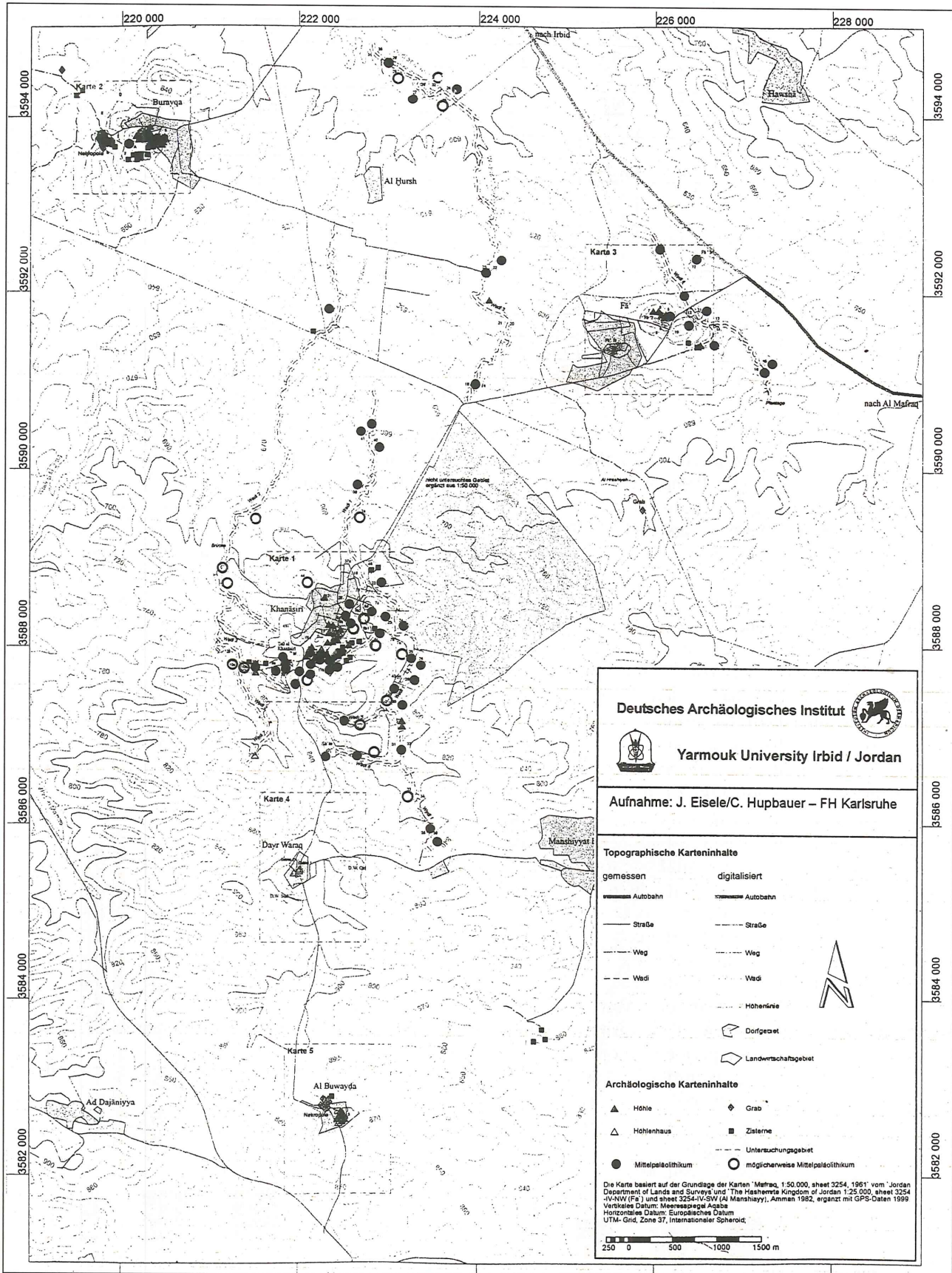
The diversity of temporal/cultural associations in the Tall Khanāşiri area (area 1) and in the Fā' II sector (area 3) is probably a direct result of the intensity of the survey operations in these places, although it is likely that these areas have always had a particular attraction for people in the form of water and other resources. The less intensive research (or the smaller area covered) around Fā' I, Fā' III, and Burayqah has consequences in the narrower cultural representations in the collections, although it must be remarked that despite the small size of



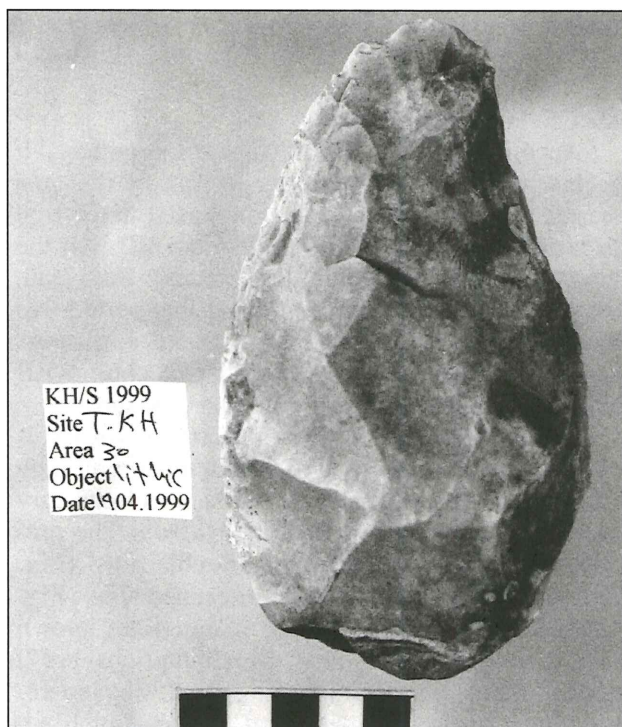
6. Lithic tool of the Middle Palaeolithic period.



7. Lithic tool of the Middle Palaeolithic period.



8. Sites with flint agglomerations of the Middle Palaeolithic period.



KH/S 1999
Site T-KH
Area 30
Object 1740
Date 19.04.1999

9. Lithic tool of the Lower Palaeolithic period.

the collections in the Dayr Waraq region, they were surprisingly diverse.

The Epipalaeolithic period is not well represented in the areas, and this may be a reflection of the less favorable climatic conditions this period represents (at least until the Natufian). On the other hand, many of the defining characteristics of the Epipalaeolithic deal with microlithic tools and techniques used to produce them. It may simply be that the small size of such artifacts is responsible for their absence in the survey collections, since they are not as easy to recognize as, for example, Lower Paleolithic handaxes. The few definite traces of Epipalaeolithic evidence are based for the most part on characteristic bladelet cores.

Neolithic evidence, while not overwhelming, is nevertheless substantial. The intriguing element is the presence of PPNA artifacts from the Tall Khanāşiri sector, and in view of the rarity of settlements in Jordan from this period, a more thorough search in the sample area (sample 6) is warranted. PPNB presence in the several sectors (including sample 6 at Tall Khanāşiri (is also noteworthy, and there is some reason to examine the Dayr Waraq area with more intensity as well. It is likely that a small Pottery Neolithic settlement (or camp) once existed in the Fā' II region.

Other Observations

As mentioned briefly earlier, there were consid-

erable numbers of tools from all of the periods, and in most cases it is clear that the presence in the area was more than a simple overnight camping stop (with the possible exception of the Epipalaeolithic period). The range of tools generally covered hunting, butchering and processing implements in the Lower, Middle, and Upper Palaeolithic periods, and a more generalized, broader "domestic" set of activities was generally represented among the tools for the Neolithic and later samples. If there was no preservation of architecture that would indicate permanent settlement around Tall Khanāşiri and Fā' II, the tool inventories might indicate farmsteads or small semi-permanent hamlets nearby.

One of the attractions (besides a probable permanent source of water) in the Tall Khanāşiri and Dayr Waraq areas was a supply of excellent quality flint in exposed sections along waterways and escarpments. Referred to as "Huweijir-type flint" because this superb raw material was first noticed in Wādī Huwayjir/Huweijir, near 'Ayn Ghazāl (Quintero 1996), the material is smooth with a satiny feel to it, and it is characteristically translucent with colors that range through pink, purple, and blue. Although we noted the presence of Huweijir-type flint during the analysis, we did not systematically record its presence beyond noting a general proportion among the samples. A visit to the Tall Khanāşiri and Dayr Waraq areas in the summer of 1999 provided the opportunity to locate *in situ* exposures of the flint nodules. Huweijir type flint was used throughout the occupational periods in the Tall and Dayr Waraq areas, although this resource was rare in the Fā', Burayqah, Buwaydah, Ayḏūn (ايدون), and Dajāniyah zones. To our knowledge, the use of Huweijir-type flint for the manufacture of Lower Paleolithic handaxes and Lower and Middle Palaeolithic Levallois points, blades and flakes has not been recorded before in the Levant.

With more detailed information concerning the exact placement and extent of the sampling areas, as well as detailed maps showing correlations with physical features in the landscape, a more thorough analysis and interpretation of the artifacts from the Khanāşiri survey will be possible.

(K.A.G.; G.O.R.)

Comparisons

All the periods represented by the lithic material are known from several other sites in Northern Jordan, some of which were investigated through intensive excavations.

Parallels to the Late Acheulian are known from the Azraq region: "Lions-Spring" (Copeland 1989a: 171ff.; Rollefson 1983: 25ff.), "C-Spring"

(Copeland 1989b: 325ff.; 1991: 1ff.), “‘Ain Soda” and “‘Ain Qasiya”) Rollefson 1997: 45ff.), south of the Khanāširi region sites in Wādī aḍ-Ḍulayl/Dhulail, in the az-Zarqā’ region (Copeland and Hours 1988: 287ff.) and nearby Khirbat as-Samrā’ (Besançon 1988: 95ff.) and west of Khanāširi in al-Mashāri’/Mashari’a 1 and the Ṭabaqat Faḥl formation (Macumber and Edwards 1997: 23ff.).

The nearest sites with Levallois-Mousterian material are situated at the Upper az-Zarqā’ valley and its main tributary Wādī aḍ-Ḍulayl (Besançon *et al.* 1984: 95, 99; Copeland and Hours 1988: 290), and in the east from Wādī Rattama and Wādī al-Kharrāna (Copeland and Hours 1988: 291ff.) which run from the west towards the Azraq Basin.

The Upper Palaeolithic period is documented in Azraq 17 (Copeland and Hours 1988: 52; Byrd 1988: 259) and one site in the Wādī al-‘Unaqiyah/Enoqiyah north of al-Azraq near Jabal ad-Drūz to the east (Coinman 1998: 54; Hours 1989: 461f.), Wādī al-Ḥammah/Hammeh 32 (Coinman 1998: 54f.; Edwards *et al.* 1988: 543) to the west and the sites Wādī Marazzah (Sites 47 and 48) and Wādī Abū ‘Ālūba (Coinman 1998: 55; Muheisen 1988: 515) to the southwest.

The nearest Early Epipalaeolithic sites are located in Wādī al-Ḥammah near Pella (Edwards 1996: 123ff.), Wādī Ziqlāb (Banning *et al.* 1992: 62), in the Azraq Basin Wādī Jilāt (Byrd 1988:259ff.; Garrard *et al.* 1986: 7ff.; 1988: 321ff.; Garrard and Byrd 1992: 54), Wādī al-‘Uwaynid (Byrd 1988: 259ff.; Garrard *et al.* 1987: 8ff.; 1988: 321ff.) and in al-Azraq (Azraq 17 and 18) (Garrard *et al.* 1987: 18ff.; 1988: 330ff.).

Late Epipalaeolithic (Natufian) sites are documented in Wadi Hammeh 27 (Sellars 1998: 88; Edwards *et al.* 1988: 541ff.; Edwards 1991: 123ff.) and Ṭayba ‘Ayn Rāḥūb (Sellars 1998: 88; Gebel and Muheisen 1985: 107ff.; Muheisen *et al.* 1988: 473ff.) to the west and at ‘Ayn as-Saraḥān (Azraq 18) (Sellars 1998: 84; Garrard and Price 1977: 118; Garrard *et al.* 1988: 331; Garrard 1991: 235ff.) in the Azraq Basin and several sites in the basalt desert towards the east (Sellars 1998: 85; Betts 1982: 79ff.; 1991: 217ff.).

PPN material is known from some sites in the area around Azraq (e.g. Wādī Jilāt) (Betts 1992: 111ff.; Garrard *et al.* 1986: 17ff.), Wādī az-Zarqā’ (Edwards and Thorpe 1986: 85ff.), ‘Irāq ad-Dubb (Kuijt 1994; Kuijt *et al.* 1991; Rollefson 1998) to mention the closest known appearance of this pe-

riod.

(B.M.-N.)

D. The Historical Periods

According to the finds of surface pottery, it seems that the permanent occupation of the area started rather late, i.e. in the Iron Age II in the first or second third of the first millennium BC. All the larger villages, like Khanāširi, Fā’ and Burayqah, seem to have been founded during that period. No hints to earlier occupation were found until now, apart from the above mentioned Chalcolithic/EB flint artifacts where dating criteria are doubtful.

Pottery of the Iron Age of Northern Jordan is characterised mainly by a distinct temper with high percentages of sand and lime. Surface colours vary between reddish brown and dark brown. The predominant shapes are pots with “double rims” (Fig. 10:1-2) and large bowls with thickened rims (Fig. 10:3). Parallels to our surface material are known from surveys at Tall Juḥafiyah (Lamprichs 1997) and az-Zayraqūn (Kamlah, in press), situated respectively to the southwest and northeast of Irbid. Comparable material from stratified contexts is known only rarely.⁴

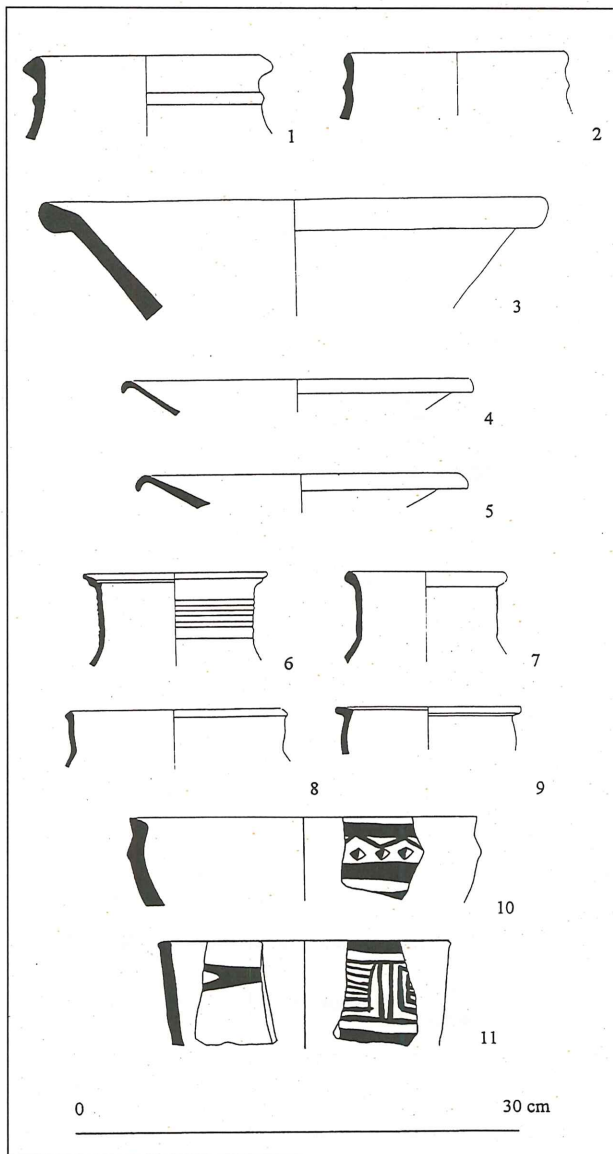
Pottery of the Late Hellenistic and Roman periods is documented at many find spots of the Khanāširi region. Black-burnished “fish plates” (Fig. 10:4-5) as well as red-slipped wares are very common types. The former are reported from many sites in the Levant. The distinct shape with drooping rim dates into the third/second century BC (Ben-Tor *et al.* 1996: fig. X.1,15-16). Red-slipped wares which were found at almost all sites are mainly preserved as body sherds which makes the definition of shapes rather difficult. However, the rather poor quality of texture and surface treatment may point to local production. The common pottery of that period is characterised mainly by a rather fine ware tempered with sand and lime, and of light buff to pinkish surface colour. Among the shapes different types of flasks and jars are predominant (Fig. 10:6). Ware and shapes are comparable to the repertoire of the so-called “Buff to Pink” pottery at Umm Qays/Gadara (Kerner 1990: 241).

A typical kind of pottery of the Roman and Late Roman periods⁵ is the so-called “brittle ware” which is found at many sites of the area and beyond. A common feature of this pottery is the use of non-calcareous clays and high amounts of mineral temper, both being appropriate for a function as cook-

4. Iron Age material from stratified contexts is reported from Tall ar-Rumayth (Lapp 1989) and Tall al-Fukhār (McGovern 1997). However, no pottery samples are published up

till now.

5. Pottery of this type is known from earlier (Hellenistic) and later (Early to Middle Islamic) periods as well.



10. Pottery types of the Khanāşiri survey (1-3: Iron Age; 4-5: Hellenistic period; 6-9: Roman/Late Roman period; 10-11: Mamluk-Ottoman periods).

ing pots. Since “brittle ware” pottery shapes show rather strong similarities through the ages, it is rather difficult to date them more precisely, especially if vessels are only partly preserved. Parallels to the pot shown on **Fig. 10:7** are known from Umm Qays/Gadara from Late Hellenistic as well as Late Roman contexts (Kerner 1997: figs. 12.14, 14.3). Pots similar to **Fig. 10:8** are documented at Jarash where they appeared in Early Byzantine contexts (Piazza 1983/84: fig. G 23).

The Islamic periods are mainly represented by a distinctive kind of handmade pottery with geometric designs, which are painted on the burnished pale buff surface. The repertoire of shapes consists of large bowls, pots and jars (**Fig. 10:10-11**). Par-

allels are known from sites like Ḥamāh, where this pottery type appears at the end of the 12th century (Riis and Poulsen 1957: 271ff.) as well as Abū Ghawsh/Gosh (de Vaux and Stève 1950: 133ff.) where it is known from Ottoman contexts. Concerning the survey material it is not yet clear whether it originally belonged to the early or to the late phase. However, painted pottery of geometric style was found at almost every village and, as well as at smaller sites which may represent nomadic camps.

To conclude, it can be stated that pottery finds are restricted almost entirely to the currently settled villages which point to a strong continuity of the settlement pattern. Concerning the periods of occupation it seems that settlement density reached a peak in the Roman/Late Roman period (**Fig. 11**) but was also quite substantial in the later Islamic period (**Table 3**).

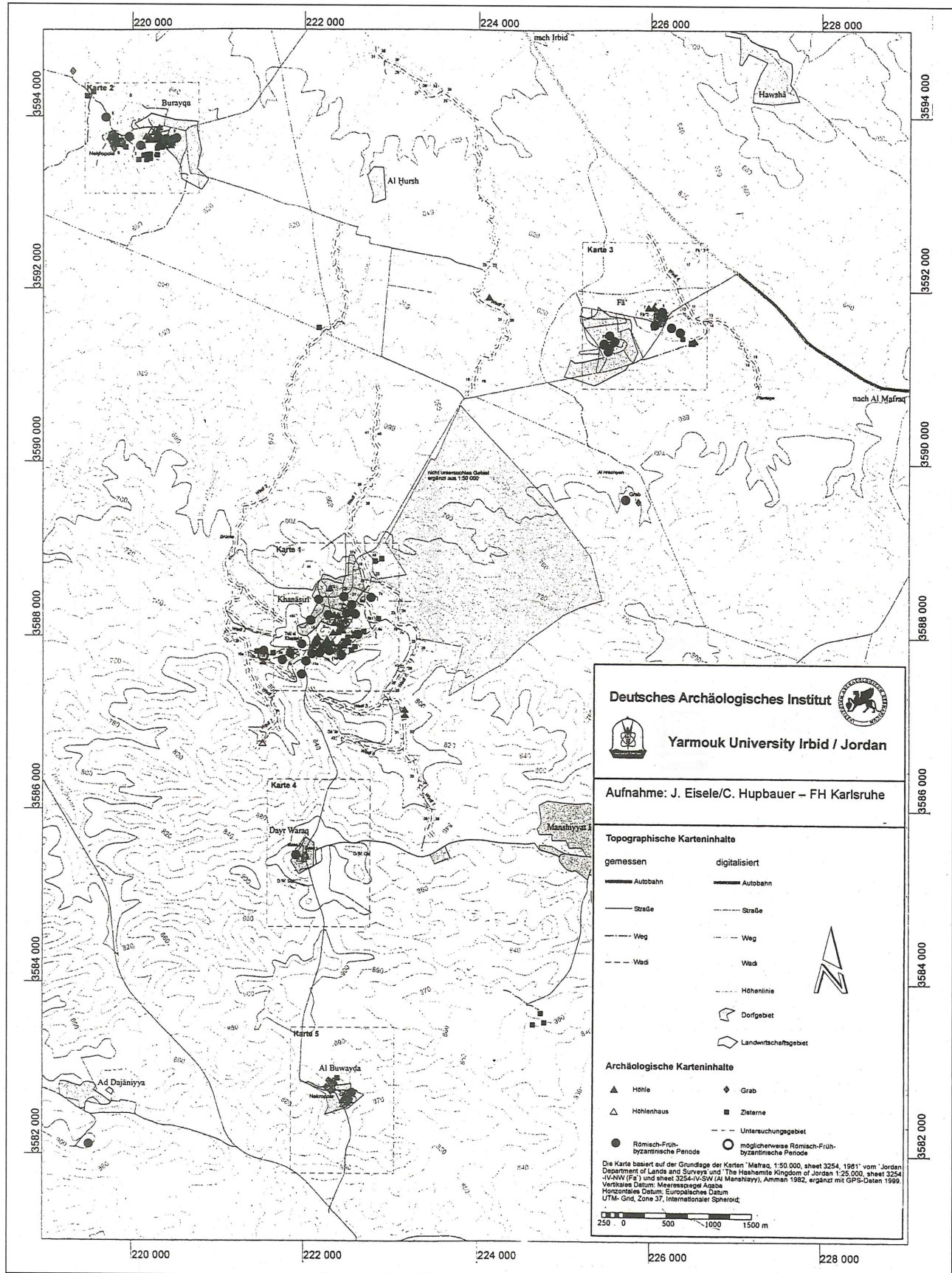
Apart from Tall Khanāşiri, which probably was a fortified site (Kerner *et al.* 1999), the structure of the settlements of the historic periods is not easy to define since almost all of them are covered by modern villages. However, it is remarkable that all of them are located on natural elevations or hill tops. They also feature many caves which are either natural or were dug into the soft limestone, which is typical for the area. As is seen best in the village of Burayqah, these caves were not only used as storage facilities and stables, but also as dwellings until the first half of the 20th century. The use of caves for dwellings in earlier periods as well may be the reason for the low agglomeration of settlement debris in the villages, which can hardly be defined as *tall* sites. However, there must have been substantial architecture as well as remains of antique houses, as shown in the abandoned Late Ottoman village of al-Buwayḡah, for instance.

Beside the villages, several necropoles were discovered, among which the one of Burayqah seems to be the most important. Several tombs have been robbed in the past and allowed access to the interior which consists of a central chamber and several niches. No objects were found, which makes it difficult to date the structures. It is probable, however, that they belong to the Late Roman period when the area was densely settled. Hypothetically, some of the cisterns found in the villages may date back to Roman/Late Roman times as well, but were probably also in use during later periods.

(K.B.; R.E.; F.K.)

E. Conclusions

To sum up, it seems that the Khanāşiri region was continuously inhabited throughout the Lower and Upper Palaeolithic periods, but was of less im-



11. Sites of the Roman/Late Roman period.

Table 3: Khanāširi survey 1999 - sites of the historical periods.

Site name	Iron Age	Hellenistic-Roman period	Roman/Late Roman period	Early-Middle Islamic period
Burayqah . بريقة	x?	x	x	x
al-Buwayḡah البويضة	x	x	x	x
Dayr Waraq دير ورق	x?		x	x
ad-Dajāniyah الدجانية			x	
Fā' فاع	x	x	x	x
Khanāširi village الخناصري		x	x	x

portance after the last Glacial.

These results point to rather favourable natural conditions in the area over a long period, which not only concerns food resources but also aspects of shelter and raw materials. The existence of several large natural caves and flint layers of very good quality are advantages which must have been of some importance. *In situ* exposures of flint nodules were located at several sites, particularly at Tall Khanāširi.

The apparent decrease of sites in the Epipalaeolithic and Early Neolithic periods is a rather surprising fact, since during the Late Epipalaeolithic at least, even marginal areas like the Negeb show an increase in occupation. Hypothetically, the differing results of the Khanāširi survey may be connected with unfavourable climatic and ecological conditions prevailing in the region during that time. More intensive survey work, however, may change this picture in future. Further work is also needed to define the structure of the Early Neolithic sites, of which one (Dayr Waraq) is currently being excavated.

Concerning the historical development of the area, it can be stated that only few written sources deal with the region east of the Jordan, particularly with the area east of the 'Ajlūn hills. Taking the history of the adjacent regions into account, it can be said that the Khanāširi region was an area between "the desert and the sown" since the Iron Age. It is certainly rather difficult to define the borderline between these different landscapes in the archaeological record.

In any case, it seems that during the Iron Age the Khanāširi region was part of the biblical land of Gilead, probably located at its eastern edge. Two biblical towns were repeatedly assumed to be located in the area: the capital Ramoth-Gilead and the city of Rehob. The former was identified by P. Lapp with Tall ar-Rumayth, 10km northwest of Khanāširi (Lapp 1989). Contrary to that, S. Mittmann suggested that Tall ar-Rumayth should be identified with the biblical site of Rehob (Mittmann 1970: 225ff.), which others located at Riḥāb,

to the south of al-Khanāširi (Steuernagel 1925: 362). Other suggestions for the localities of Ramoth-Gilead are the modern border town of ar-Ramthā or Tall al-Mu'allāqa, to the northeast of Irbid (Mittmann 1970: 12ff.).

For the post-biblical periods when the region was part of the Assyrian, Late Babylonian and Achaemenid empires, no historical information is available. Concerning the Late Hellenistic period it is assumed that the area east of the 'Ajlūn was part of the Nabataean kingdom, which expanded north in the first century BC from its original area in southern Edom (Negev 1977; Wenning 1990: 392). Archaeologically speaking, however, there is only little Nabataean evidence in the area up till now (Mittman 1970: 120; Kerner *et al.* 1999: 29). Another aspect of interest is the relationship to the Decapolis which rose in the adjacent region to the west during the first century BC. Occasionally, it was assumed, that the eastern borderline of this political unit differed according to the power of nomadic populations in the Eastern Desert (Bietenhard 1963: 36). With respect to structures and finds at Tall Khanāširi (Kerner *et al.* 1999), it is probable that the region played a specific role during that period. At any rate, after the Roman annexation of the Nabataean kingdom at the beginning of the second century AD, the entire area east of the 'Ajlūn including Jarash/Gerasa became part of the newly established *Provincia Arabia*. With the construction of the *via nova Traiana* at the beginning of the second century AD the Khanāširi region was part of the hinterland of the border line (Kennedy 1982; Kennedy and Riley 1990; Parker 1986; 1987).

A kind of "hinterland situation" is also attested for the Islamic periods, when the pilgrimage route *darb al-ḥajj* crossed the region. It may be that this gave stimulus for further settlement activities. However, with the increase of the power of the nomadic tribes who controlled the *ḥajj* route and the decrease of the central power during the Ottoman period, it was a disadvantageous situation which led to the abandonment of many villages, and it

was only during the late 19th century that the area was resettled (Lewis 1980).

To conclude, it can be stated that the first season of the Khanāsiri survey gave evidence of the rich archaeological potential of the area. However, many new questions arose from these preliminary results. It is therefore planned to intensify the survey work in order to place the results into a broader context.

(K.B.; R.E.; F.K.; B.M.-N.; K.A.G.; G.O.R.)

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