

PRELIMINARY REPORT OF THE SIXTH SEASON OF THE 'AQABA- MA'AN EPIGRAPHIC AND ARCHAEOLOGICAL SURVEY

by
W. J. Jobling

Introduction

The sixth season of the 'Aqaba-Ma'an survey was completed during the months from December 1984 to February 1985 at the invitation of the Director of Antiquities of the Hashemite Kingdom of Jordan and with the official Permit of that Department.

Special accommodation and research facilities at the 'Aqaba-Ma'an Biology Station were made available by Dr. Duraid Mahasneh, Vice President of the 'Aqaba Region Authority. These co-operative arrangements between Jordan and the University of Sydney are indicative of a happy and mutually valuable relationship which is much appreciated.

As in the previous seasons, the 'Aqaba-Ma'an Survey was funded by the Queen Elizabeth II Fellowships and the Australian Research Grants Scheme of the Australian Department of Science and Technology and the University of Sydney.¹

This year the survey team consisted of Mr. R.V.H. Morgan, Administrator Curator of the Newcastle Maritime Museum. As in previous years, Mr. Morgan was responsible for the photography and car-

tography of the project and assisted considerably with hydrological, climatological and maritime research in the area. He has also been working on the museological aspects peculiar to this area of research. As well as this, Mr. Morgan prepared all the sketch plans of new sites and assisted with the tracing of rock art and inscriptions. Mr. Morgan is preparing a computer coordinated catalogue of all the photographic material of the survey. It is planned to produce a videodisc edition of the epigraphic material as part of this catalogue.

The department representative was Dr. Zeidun Al-Muheisen of C.N.R.S. at Petra. Future survey and excavation work in the area and prospective arrangements have been made for a seventh season with his assistance. Mr. Michael Bannigan and Mrs. Lee Jobling of the University of Sydney joined the survey in February and assisted with the field work, photography, cataloguing and report. Together with the director, Mr. Bannigan, who was the photographer to the survey in the 1984 season, has also commenced a special computerized analysis of the graphics of the North Arabian scripts of the area.²

¹ The director is grateful to the Australian Government for the continued funding of this project of exploration and research begun in the 1979-80 season. The director also gratefully acknowledges the continued support and approval of the Vice Chancellor of the University of Sydney, Professor J. M. Ward, and of Professor Eric Sharpe of the Department of Religious Studies in granting permission and funds for Special Duties Overseas and extra facilities during the year for research at the University of Sydney. The use of computer facilities and research skills associated with the catalogues, gazetteer, rock art and inscriptions of the 'Aqaba-Ma'an Survey have been of great significance.

The director acknowledges the work being done at the University of Sydney by Miss Sue Jorgensen

and Mr. Jason Catlett with regard to the computer

generated data of the catalogues, gazetteer, North Arabian inscriptions and linguistics. Miss Jorgensen, who is the ARGS funded research assistant in Australia, has compiled an extensive bibliography of research in the 'Aqaba-Ma'an and related areas and as well as this has begun research work on the comparative semitic philological and historical linguistics of the North Arabian inscriptions of the area.

Mr. Christopher Morgan, a graduate in Anthropology from the University of Sydney, has been analysing the stylistics of the rock art of the whole area using the Penrose multivariate statistical analysis program.

Mrs. Ina Kehrberg of Jerash is continuing with the analysis description and drawing of the lithics and pottery from the previous seasons (1-5).

Aims

The sixth season of the 'Aqaba-Ma'an Survey had the following specific aims:

1. The further location, recording and photographing of inscriptions and rock art of the area;
2. To give particular attention to exploring and recording the areas in and around the Wadi Ḥafir, Wadi edh-Dhiqa, Wadi Sabit and Wadi Saham;
3. The identification of further sites along the Edomite Escarpment in the light of the preliminary sweep along this area in the fifth season of the survey in 1984;
4. The further location and study of archaeological evidence for the ancient hydro-technology of the area.

Broadly speaking these aims are in accord with the initial intention of the project, although it is noted that as each season has been completed it has been necessary to review and revise the plans for future research in the light of new evidence.³

Rock Art, Inscriptions and the Wadi Ḥafir

During the fourth season of the survey the 25 km. long Wadi Ḥafir was explored and very large numbers of well preserved North Arabian (Thamudic) inscriptions and rock art were discovered (Figure 1: 'Aqaba-Ma'an Survey 1985). Since then a systematic examination of the wadi has begun from the heights of Ras Ḥafir on the old Edomite escarpment down the wadi to the point where it debouches into the Ḥisma near Qā' ed-Disi. Thousands of inscriptions and outstanding examples of pre-Islamic rock art have been located. Many rock art panels are signed and, probably for the first time, it is possible to identify and describe collections or even schools of rock art. Preliminary content analysis of these panels and their motifs and comparison with Persian decorative

motifs and Byzantine floor mosaics located elsewhere in Jordan, the Sinai and Southern Israel provide valuable evidence for the delineation of the common culture of the Arabs of Jordan from the periods from the late sixth century B.C. through to the seventh century A.D.

The Wadi Ḥafir provides an important and geographically well contained area which is being carefully mapped and studied as a micro-environmental catchment area of singular significance for the trade routes passing from the Ḥisma to the Edomite plateau.

The rock art and inscriptions of the 'Aqaba-Ma'an area of Southern Jordan are eloquent semiotic evidence of the life, imagination and creative response of various generations of human occupation, possibly going as far back as the Upper Paleolithic period. Comparable to similar desert areas in the Middle East, this evidence provides modern scholars with an opportunity partly to enter into the mind of the ancient inhabitants of this area which is a marginal interface area between the Mediterranean and oriental worlds.

Reflecting a succession of different styles and generations of human response to an apparently considerably variable climatic environment, these long neglected epigraphic and glyptic remains are eloquent archaeological testimony to the occupation of these areas. While Emmanuel Anati's 7-Style Analysis remains somewhat inconclusive, it may yet be possible to generate less subjective assessment of this graphic evidence which will relate more accurately to the ten thousand or so years of human occupation.⁴

Preliminary research has begun into the style and schema of many of the rock art depictions on some rock panels in the area. The rock art, and associated epigraphy, were probably added to rock panels over a long time period. Therefore, it should be possible to detect variations in

³ See (i) W. J. Jobling, 'Recent exploration and survey in Southern Jordan: rock art, inscriptions and history', *Berytus* Vol. XXXI, 1983, p. 27-40; (ii) W. J. Jobling, 'Preliminary Report on the Archaeological Survey Between Ma'an and

'Aqaba', *ADAJ*, XXV, 1981, p. 105-111.

⁴ Emmanuel Anati, *Arte rupestre nelle Regioni occidentali della Penisola Iberica*, Edizioni del Centre, Samuel H. Kress Foundation, New York 1968, p. 124.

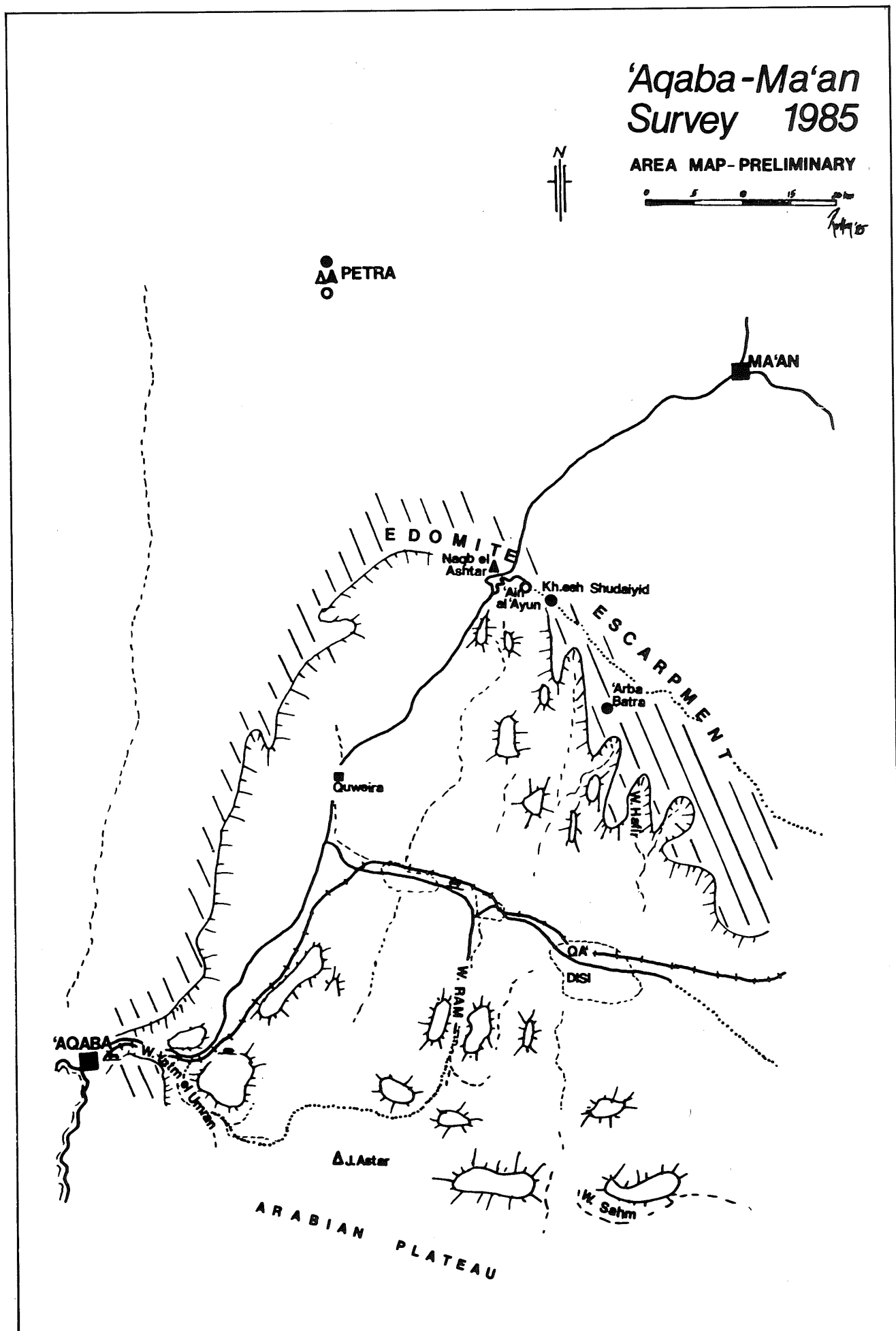


Fig. No. 1. Map 'Aqaba-Ma'an Survey 1985.



Fig. No. 2. North Arabian Hunting Scene AM83/37/22

style and schema in the rock art on the panels being analysed. If observed stylistic variations can be measured, then multi-variate statistical analysis could be carried out. Measuring a range of common attributes in the rock art depictions has shown (in early tests using Penrose co-efficients), that different styles of rock art cluster together. These results suggest that depictions were not added at random.

The long term implications of this direction of research are that a chronological sequence of rock art styles may be developed on the basis of measured statistics. This would give meaning to the rock art panels as well as allowing for interrelationships between different sites in the region to be analysed reflecting population movements and contact between groups of artists in the historical past.

In 1983 considerable attention was paid to a particular style of art which had been located in earlier surveys.⁵ Since then a large repertoire of this stylized and often signed pre-Islamic art has been located in the area generally and in the Wadi Ḥafir in particular. A good example of this art is the following hunting scene Wadi Ḥafir AM83/37/22 (Figure No. 2 and Pl. XLIII).

A preliminary reading of the North Arabian (Thamudic) inscription is as follows:

Transliteration:

1. W. ḥgg. bn. bglt. kṭṭ. kl
2. l. 'm. bn. smdt

Arabic:

1. وحجج بن بجلت خط كل

⁵ W. J. Jobling, 'The Aqaba-Ma'an Archaeological and Epigraphic Survey, 1980-1984', *TRASUS*, Vol. 2, No. 2, 1984, p. 34-52).

2. ل ام ابن سمدت

Translation:

1. And ḥgg son of bglt drew all (of it)
2. By 'm son of smdt

During this season many similar hunting scenes which have stylistic and content correlations were also located, identified and copied. A good example of this recent material is AM 85/93/25 (Figure No. 3 and Pl. XLIV).

Transliteration:

1. w. thbb. ktt
2. w. slmt. ktt h. w'l. kll
3. l. ḥglt

Arabic:

1. و تحبب خطط
2. وسلمت خطط هـ ومـل كلـ
3. ل حـجـلـتـ

Translation:

1. And thbb drew (it)
2. and slmt drew the ibex all (of it)
3. by ḥglt

This panel may be divided up into two sections. In the upper panel it is interesting to note that the stylized human figure on the left is a woman. The breasts on this figure are quite clearly represented in the rock drawing. Thus the scene captures a hunting episode in which a huntress is involved. If the scene is to be identified with inscription No. 1, then it is suggested that we not only have here a good clear picture of a female involved in hunting the ibex but that we know her name to have been thbb (*see HIn. p. 129).

In the lower panel, a second hunting episode is recorded in which stylized human and canine forms are portrayed along with the long horned animal which is the object of the hunt as in the top panel. However, in this case the inscription (or caption) to the panel indicates that the animal is the w'l or Nubian Ibex (*capra ibex nubiana*). This North Arabian (-Thamudic) name bears favourable comparison with the later classical Arabic name *وعـلـ* (w'l) and the Biblical Hebrew *לַיִל*. From a philological point of view it is also interesting to note that the definite

article is *h*.⁶

This scene compares interestingly with AM85/83/15 from the Wadi Ḥafir (Pl. XLV) which does not have any inscriptions but does have close parallels in style and content. Scenes such as these also provide considerable insight into the stylistic variety and artistic competence of their authors. As well as this, analysis of these scenes provides considerable detailed evidence for the lifestyles, society and fauna of the area in the period of the pre-Islamic North Arabians and also elucidates, to some extent, theories of the climate and ecology of the 'Aqaba-Ma'an area.

Of philological importance has been the number of drawings which, combined with their inscriptions, provides clear evidence that the grapheme previously identified as *t* (*thā*) has a phonetic value of *g* (*ḡim*). This grapheme consists of two circles joined by a vertical bar.

Two outstanding and quite clear examples of this new epigraphic evidence were found in the Wadi Ḥafir. The first example (AM85/100/12) was initially recorded in 1983. It is clearly inscribed on the top of a very large panel (Figure No. 4 and Pl. XLVI).

As can be seen from both the drawing and the plate, the carefully drawn camel has been identified by the inscription inscribed down the front of its neck. Underneath the belly of the camel the artist has signed his drawing.

AM85/100/12

Transliteration

1. l. k't. h. gml
2. w. k't. bn. gff. ktt

Arabic:

1. ل كات هـ جمل
2. و كات بن جفف خطط

Translation:

1. By k't the camel
2. and k't son of gff drew it

The second clear example of the phonetic value of this grapheme in this area come from a little further north along the Wadi Ḥafir (Fig. No. 5 and Pl. XLVII).

This second example, though defaced

⁶ Cf. (i) W. Fischer (ed.), *Grundriss der Arabischen Philologie*, Band I, Wiesbaden 1982, p. 20; (ii) F.

V. Winnett, *A Study of the Lihyanite and Thamudic Inscriptions*, Toronto, 1937, p. 16ff.

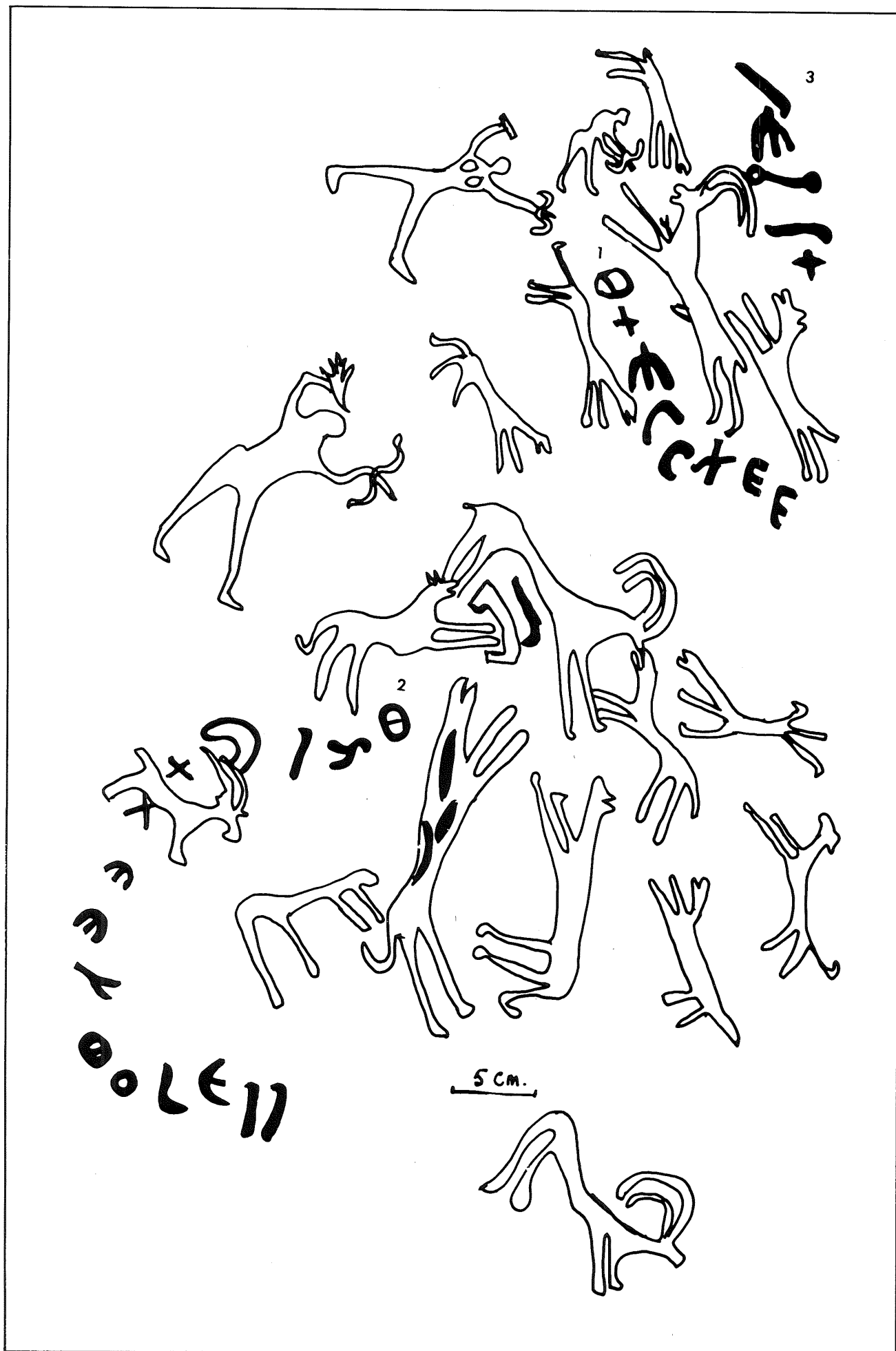


Fig. No. 3. North Arabian Hunting Scene AM85/93/25

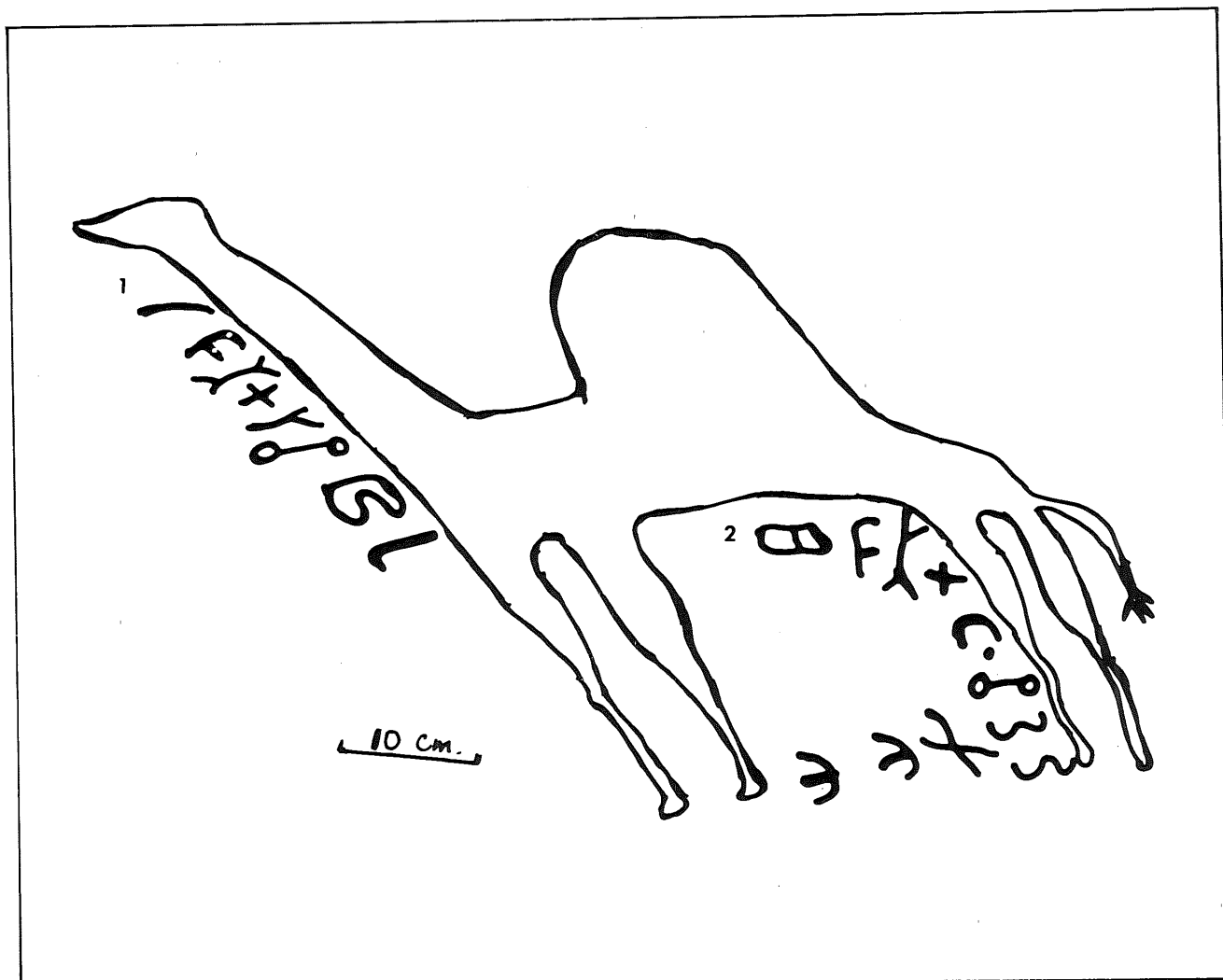


Fig. No. 4. North Arabian (Thamudic) Inscription and Drawing AM85/100/12

by a later drawing of a camel is as follows:
AM85/99/1

Transliteration:

1. *zh. bn* [] *bn. 'm. kṭṭ. gml*

Arabic: ل ز ح بن () بن عم خطط جمل

Translation:

By *zh* son of [] son of 'm he drew a camel

Both examples, the first (AM85/100/12) with the definite article (*h*) and the second (AM85/99/1) without the definite article provide good examples of the phonetic value of this particular grapheme. In these two instances the apposite situation of the inscription to the drawing (in this case of a camel) and the established equation of the respective second and third graphemes with the phonemes *mīm* and *lām* make it clear that the grapheme (or sign) filling the first consonant slot is *ḡim*.⁷

Hydrology, Climate and Demography

Since the first season of the survey special attention has been given to the location and recording of major antiquities and epigraphic sites in the area. One important result of this aspect of the survey has been the location of a large number of significant cisterns, dams and shaft wells which are part of the hydrological knowledge and technology of the previous inhabitants of these marginal desert areas. The location of the Qaṭṭar Ḥafir provided for the first time evidence for a water supply which would enable more than just seasonal occupation of the Wadi Ḥafir and also facilitate the transit of trade caravans through the wadi to the Edomite escarpment and thence to the major trading centres of Ma'an and Petra (Pl. XLVIII).

⁷ See E. A. Knauf, Südsafaitish, *ADAJ*, XXVII, 1983, pp. 587-596.

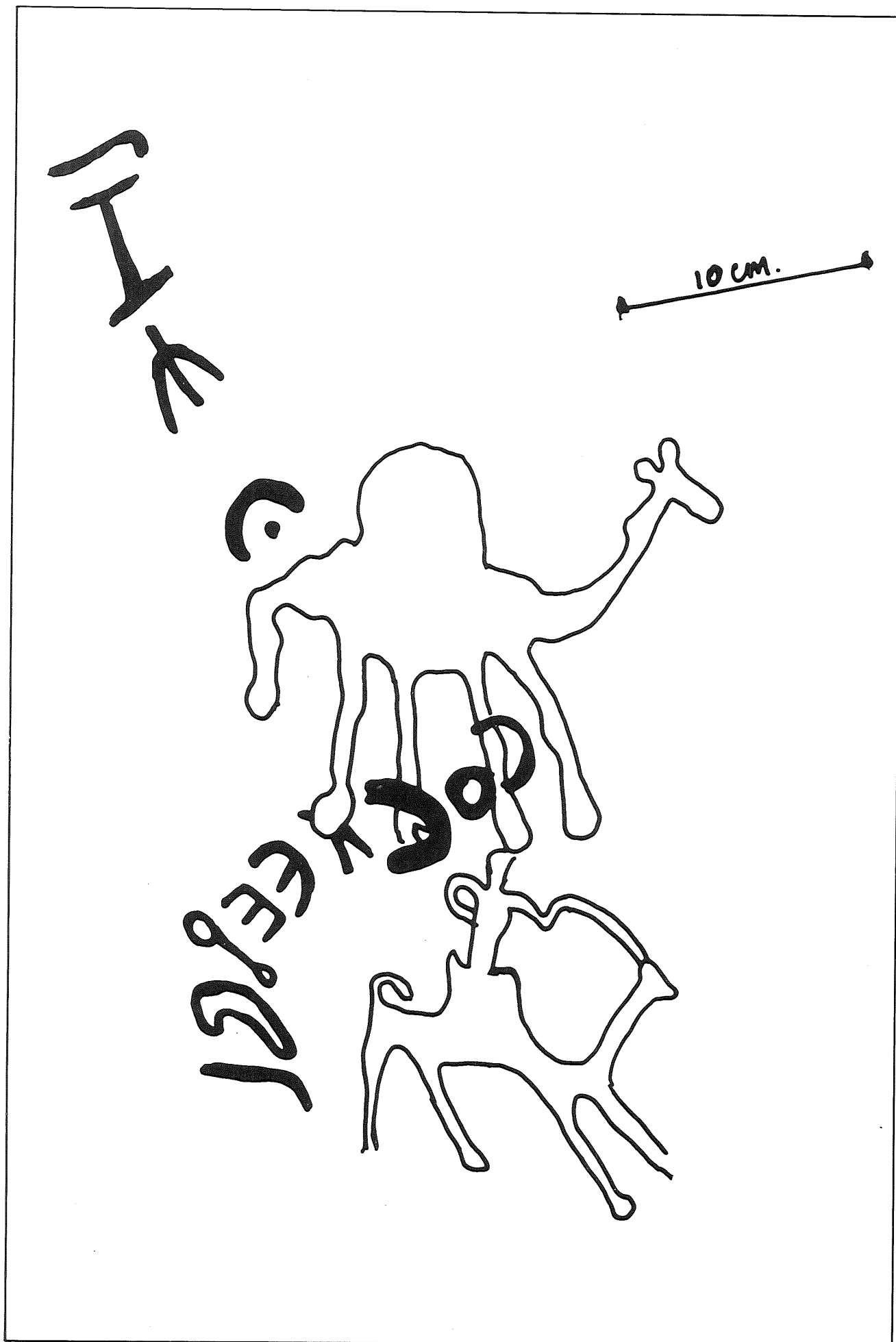


Fig. No. 5. North Arabian (Thamudic) Inscription and Drawing AM85/99/1

In depth and technology the Qaṭṭar Ḥafir rivals the hydrological constructions of 'Ain el-Shellaleh and 'Ain Abu Nukheila in Wadi Ram further south and with them provides evidence for the pattern of both occupation and transit through the Ḥisma to the Edomite plateau.

Qaṭṭar Ḥafir (see Fig. Nos. 6 & 7) is strategically situated in a rock overhang just below the outflow (or aquifer) in the non-porous strata of the western wall of the wadi and well to the north and relates directly to the geography of the Edomite plateau. A natural spring site, Qaṭṭar Ḥafir has been extensively excavated over several millenia of human usage. Worn and severely weathered North Arabian (Thamudic) inscriptions and rock drawings occur in and around the overhang. Epigraphic sites are indicated as Nos. 1-6 on Figure No. 6. There are also well worn stone troughs and the remains of channels cut into the wall of the overhang to utilize the runoff and drainage from the spring. While this water resource is still used by the Bedouin, it seems to have been allowed to fall into disrepair. Dr. Al-Muheisen has suggested that the stone cutting technique employed in those sections which have been excavated to provide greater water storage capacity are Nabataean (see Fig. No. 7). The very large subterranean reservoir has been designed to ensure that the slow but continual water flow is stored and made accessible. The remains of small stone buildings may be associated with the defence or control of the water supply. Situated, as it is, high up on the western wall of the Wadi the site commands a controlled view of the north to south sweep of the Wadi Ḥafir, and therefore, would have been easy to defend and control. While more work remains to be done at this site in future seasons it is perhaps possible to speculate that the Qaṭṭar Ḥafir

together with the large numbers of inscriptions and rock drawings of the Wadi Ḥafir provides evidence for one of the major transit lanes from the Ḥisma to the Edomite plateau. Tracks deeply worn into the escarpment wind up to the top of the northern plateau from the Wadi Ḥafir. Like similar tracks deeply worn into the granite at Far'at Mahlibah further south those leading up from the Wadi Ḥafir pass by a series of shaft wells which are sunk into depressions along the perimeter of the escarpment.⁸

The locating of Qaṭṭar Ḥafir and research and excavations conducted in previous seasons at Tell el Kharaza to the south west provide new and extensive evidence for patterns of hydrological activity and techniques in the area north of the Ḥisma. At Tell el Kharaza there is a well made Nabataean dam (Pl. XLIX) and a deeply carved series of water channels (Pl. L) which are the products of Nabataean engineering.⁹ Together, these two sites provide evidence for the variety and scope of the hydrological technology of the pre-Islamic indigenes of this area.

Summary Remarks

A highly successful survey and epigraphic research season was completed. Much more work remains to be done in the area and in particular future seasons are planned to cover in depth research in some of the micro-area studies noted in this report. There can be little doubt that once again research and exploration conducted this season indicate that this area in Southern Jordan has an important history and is a key area in the foreign and trade relations of pre-Islamic Arabia and the Levant.

W. J. Jobling
The University of Sydney

⁸ W. J. Jobling, 'Aqaba-Ma'an Survey, Jan.-Feb. 1981', *ADAJ*, Vol. XXVI, 1982, p. 202.

⁹ W. J. Jobling, 'The 'Aqaba-Ma'an Archaeological and Epigraphic Survey 1982 Season', *Liber Annus*, XXXII, 1982, p. 468.

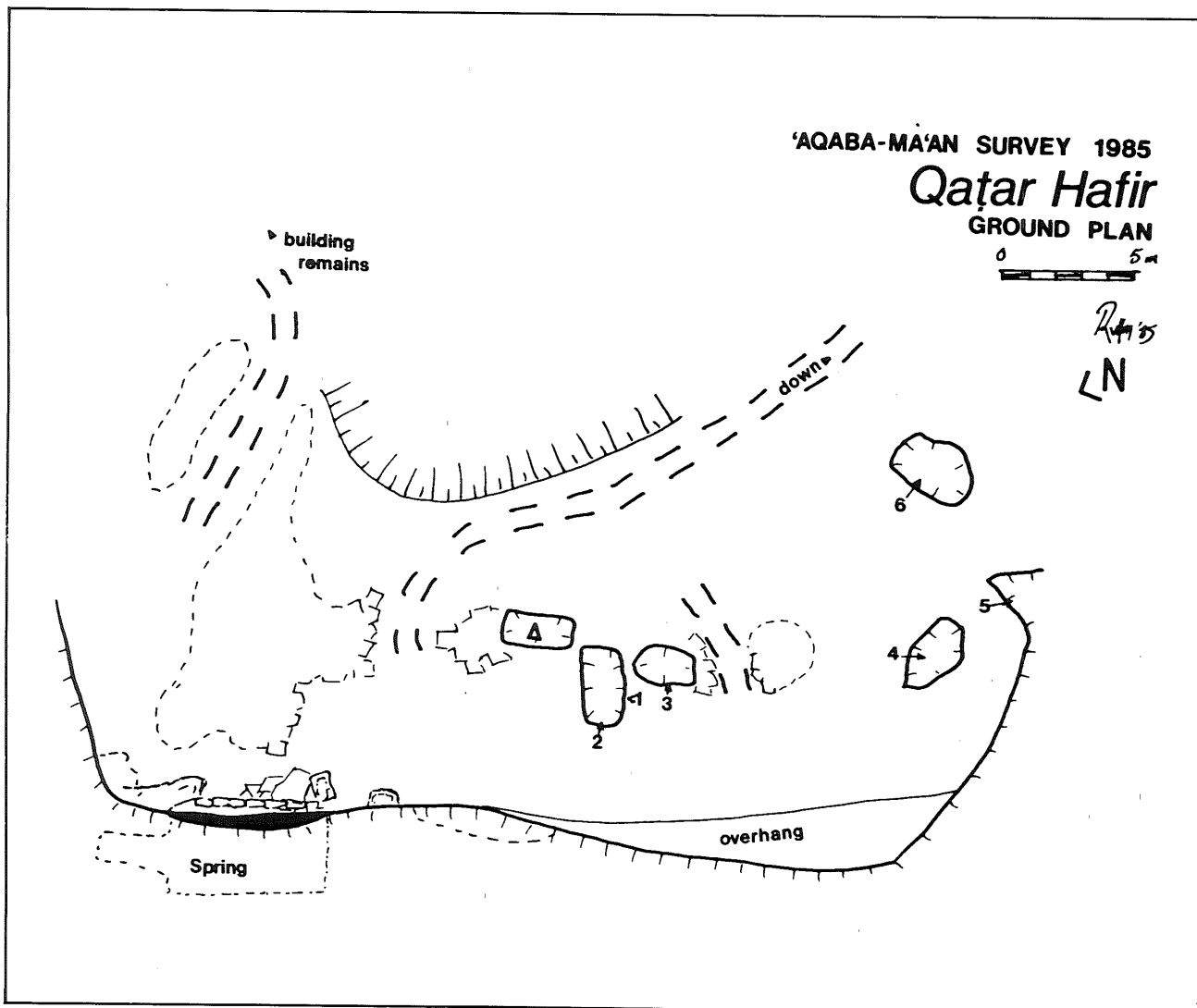


Fig. No. 6. Qatṭar Ḥafir: ground plan

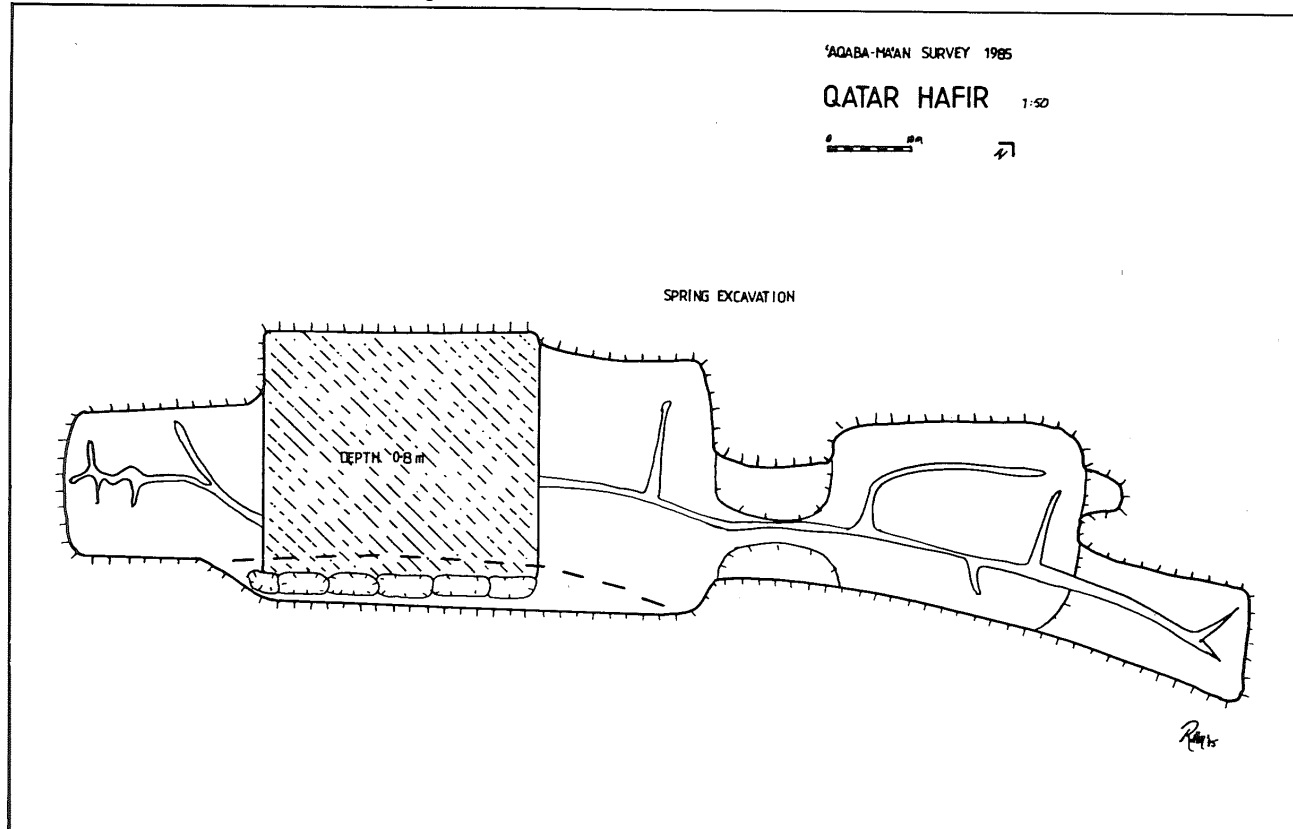


Fig. No. 7. Qatṭar Ḥafir: Spring excavation