

[ROSAPAT 03]



KHIRBET AL-BATRAWY

**An Early Bronze Age Fortified Town
in North-Central Jordan
Preliminary Report of the First Season
of Excavations (2005)**

Edited by LORENZO NIGRO

with contributions by
KHALED DOUGLAS, BILAL R. KHRISAT,
LORENZO NIGRO, ANDREA POLCARO and MAURA SALA



ROME 2006

«LA SAPIENZA» EXPEDITION TO PALESTINE & JORDAN

ROME «LA SAPIENZA»



EXPEDITION TO PALESTINE & JORDAN

ROME «LA SAPIENZA»



STUDIES ON THE
ARCHAEOLOGY
OF
PALESTINE &
TRANSJORDAN

03

UNIVERSITÀ DI ROMA «LA SAPIENZA»

DIPARTIMENTO DI SCIENZE STORICHE
ARCHEOLOGICHE E ANTROPOLOGICHE
DELL'ANTICHITÀ

SEZIONE VICINO ORIENTE

EXPEDITION TO PALESTINE & JORDAN

KHIRBET AL-BATRAWY

**An Early Bronze Age Fortified Town
in North-Central Jordan
Preliminary Report
of the First Season of Excavations
(2005)**

Edited by

LORENZO NIGRO

with contributions by

KHALED DOUGLAS, BILAL R. KHRISAT,
LORENZO NIGRO, ANDREA POLCARO and MAURA SALA

ROME 2006

ROME «LA SAPIENZA» STUDIES
ON THE ARCHAEOLOGY OF PALESTINE & TRANSJORDAN

EDITOR: L. NIGRO

EDITORIAL BOARD:

I. BRANCOLI VERGER, M. SALA

VOLUME 03

L. NIGRO (ed.)

*Khirbet al-Batrawy. An Early Bronze Age Fortified Town in North-Central Jordan.
Preliminary Report of the First Season of Excavations (2005)*

(= Rome «La Sapienza» Studies on the Archaeology of Palestine & Transjordan, 3)

© Copyright 2006 «La Sapienza» Expedition to Palestine & Jordan
Sezione Vicino Oriente - Dipartimento di Scienze Storiche Archeologiche
e Antropologiche dell'Antichità
Via Palestro, 63 – 00185 Rome – ITALY

All rights reserved. Copy or reproduction of parts of text or illustrations is strictly
forbidden without the explicit written permission given by «La Sapienza»
Expedition to Palestine & Jordan.

pp. 280, 17 x 24 cm, B/W illustrations.

ISBN 88-88438-02-10

ISSN 1826-9206

CONTENTS

0. Premise: Rome “La Sapienza” Expedition to Jordan	
[by Lorenzo Nigro]	iii
0.1. Foreword: General Framework of the Pilot Project	iii
0.1.1. Excavations and Restorations at Khirbet al-Batrawy	iv
0.1.2. The First Season of Excavations (2005) at Khirbet al-Batrawy	v
0.2. Previous “La Sapienza” Researches in Wadi az-Zarqa	vii
0.3. Scientific Aims of Rome “La Sapienza” Expedition to Khirbet al-Batrawy	viii
0.4. The Excavation Method and Recording System	x
0.5. Introduction to the Present Volume	xi
Acknowledgements	xii
1. Introduction [by Lorenzo Nigro]	1
1.1. Preliminary Activities	4
1.1.1. Preliminary Survey of the Valley	5
1.1.2. Preliminary Survey of the Site Surface	9
1.2. Topography of the Site	16
1.2.1. Site Extension and Perimeter	16
1.2.2. The Five Terraces	18
1.2.3. Fortifications and Entrances to the Town	25
1.3. Stratigraphy and Preliminary Periodization	37
1.3.1. Periods Batrawy I-IV: the Early Bronze Age (3400-2000 BC)	38
1.3.2. Periods Batrawy V-VI: Later Periods and Contemporary Frequentation	40
1.3.3. The Chronological Relevance of the Early Bronze Age Sequence at Khirbet al-Batrawy	40
Catalogue of Sporadic Pottery and Small Finds [by Maura Sala]	43
2. Occupational History of the Early Bronze Age in the Upper Wadi az-Zarqa [by Khaled Douglas]	49
3. Area A. The EB IV Village and the EB III Structures on the Acropolis [by Lorenzo Nigro]	63
3.1. Stratigraphy [by Maura Sala]	63
3.1.1. Phase 1: Recent Periods and Ephemeral Frequentation of the Site	64
3.1.2. Phase 2: Later Building Activities	65
3.1.3. Phase 3: Stratigraphy of Batrawy IV Village	65
3.1.4. Phase 4: Stratigraphy of Batrawy III Structures	73
3.1.5. Phase 5: Archaeological Deposits over the Bedrock	75
3.2. Architecture & Finds: the Early Bronze IV Village on the Acropolis [by Lorenzo Nigro]	77

3.2.1. Area A East.....	77
3.2.2. Area A West	89
3.2.3. An Overall Picture of the Early Bronze IV Village of Khirbet al-Batrawy	101
3.3. Pottery from the Batrawy IV Village [by Maura Sala].....	103
3.3.1. Batrawy IV Pottery Productions	103
3.3.2. Distributive Analysis	107
3.4. Architecture & Finds: the Early Bronze III Remains [by Lorenzo Nigro].....	109
3.4.1. Building A1 in Squares BnII18 and BoII18	109
3.4.2. Batrawy III Remains in Square BoII19: Courtyard L.16.....	114
List of Pottery, Objects and Samples by Contexts	117
Catalogue of Pottery and Small Finds [by Maura Sala]	121
4. Area B. The Northern Fortification [by Lorenzo Nigro]	153
4.1. Stratigraphy [by Andrea Polcaro]	155
4.1.1. Phase 1: Abandonment.....	155
4.1.2. Phase 2: the EB IV Layers of Occupation.....	155
4.1.3. Phase 3: Stratigraphy of Batrawy IIIb Fortification System.....	158
4.1.4. Phase 4: Stratigraphy of Batrawy IIIa Fortification System.....	165
4.2. Architecture & Finds [by Lorenzo Nigro]	167
4.2.1. The Northern Quarter of Batrawy IV Village.....	167
4.2.2. The Northern City-Wall of Batrawy III (Early Bronze III)	175
4.2.3. Layout and Stratigraphy of Batrawy III City-Wall.....	194
List of Pottery, Objects and Samples by Contexts	197
Catalogue of Pottery and Small Finds [by Maura Sala]	199
5. Bibliography	225
Appendix A: Across the Desert and the Steppe. Ancient Tracks from the Eastern Edges of the az-Zarqa and al-Mafraq Districts to the Western Fringes of the Black Desert of Jordan [by Maura Sala].....	233
Appendix B: Geoarchaeological Investigations at Khirbet al-Batrawy [by Bilal R. Khrisat].....	251

0. Premise: Rome “La Sapienza” Expedition to Jordan

[by Lorenzo Nigro]

Rome “La Sapienza” University resumed its research activities in the Hashemite Kingdom of Jordan in December 2004 with a preliminary survey in the Zarqa and al-Mafraq districts¹, focusing on the study of the Bronze Age in the Wadi az-Zarqa basin (pl. I). Archaeological researches were thoroughly carried on since May 2005, when the “Pilot Project of Excavations and Restorations at Khirbet al-Batrawy” started with systematic investigations at the selected site of Khirbet al-Batrawy (figs. 0.1, 0.7)².



Fig. 0.1 - General view of the site of Khirbet al-Batrawy (in the centre), from north; on the left, the abandoned limestone quarry to the north of the site; on the right, the Wadi az-Zarqa Valley.

0.1. Foreword: General Framework of the Pilot Project

The Pilot Project is aimed at the study of the urban origins during the 4th and 3rd millennia BC in the north-central Transjordanian region. The climatic and geographic characteristics of this area make it of great interest especially for the investigation of adaptive strategies of local communities, focusing on the relationships between natural resources and urban development during the pre-classical periods. The region lies, in fact, as a bridge at the fringes of three different ecological systems, which witnessed a variety of models of human settlement³: the Jordan Valley to the west;

¹ § 1.1.1.; Appendix A.

² Two seasons of excavations have been carried out at Khirbet al-Batrawy so far, respectively in May-June 2005 and May-June 2006. This volume offers a preliminary report of the first season of excavations.

³ Some of these geographic areas and ecological environments are well known, as well as human settlement in them, such as the Jordan Valley, while others, like the semi-arid zone in the Zarqa and al-Mafraq provinces (see, for instance, Bartl - al-

the central Transjordanian hills, crossed north-south and east-west by the Wadi az-Zarqa; the semi-arid steppe and the basalt desert to the east, at the south-western edge of the great volcanic *plateau* (figs. 0.2-0.3).



Figs. 0.2-0.3 - General view of the Black Basalt Desert from Jawa (December 2004).

The Wadi az-Zarqa itself was one of the main ancient routes connecting the Jordan Valley to the east and to the north, so that its valley offered a geo-economic environment favourable to the growth of the early urban civilization of Jordan⁴.

0.1.1. Excavations and Restorations at Khirbet al-Batrawy

The previously unexcavated fortified site of Khirbet al-Batrawy was chosen for the first step of the Pilot Project. Khirbet al-Batrawy lies on the eastern edge of the Wadi az-Zarqa Valley at a strategic spot of the ancient road network (maps 1-3), and, having been occupied almost exclusively in the Early Bronze Age, represents an extremely suitable case study for the investigation of the early urban origins and development in this district of the Hashemite Kingdom of Jordan⁵. Due to the geomorphologic and environmental characteristics of the site, which is located in the northern-western periphery of the modern city of Zarqa (figs. 0.6, 1.4)⁶, the Pilot

Khraysheh - Eichmann 2001), still need systematic investigation, especially concerning Early Bronze Age occupation.

⁴ Kafafi in press; Kafafi *et al.* 2000; Douglas in this volume.

⁵ The site was surveyed in the '90ies during the previous Rome "La Sapienza" survey in the Wadi az-Zarqa and Wadi adh-Dhulayl basins (§ 0.2.), but never investigated. It is indicated in *JADIS* as "Jreyyeh" (site nr. 2516.011, p. 2.172; Palumbo *et al.* 1996, 385-386).

⁶ The site lies within the area of the municipality of Zarqa. From one hand, it is heavily threatened by the modern urban development, since the eastern and

Project is also aimed at the identification of important cultural resources to be preserved and re-evaluated for tourist exploitation, in order to create an archaeological park possibly including the area of a nearby abandoned quarry (fig. 0.4)⁷, as always accomplished by Rome "La Sapienza" University in previous experiences⁸.



Fig. 0.4 - The abandoned limestone quarry north of Khirbet al-Batrawy, from west.

0.1.2. The First Season of Excavations (2005) at Khirbet al-Batrawy

The first season of excavations at Khirbet al-Batrawy took place from May 15th to June 13th on the behalf of the Jordan Department of Antiquities and its director Dr. Fawwaz al-Khraysheh⁹, with the support of Rome "La

southern sides of the *khirbet* have been reached by the expansion of the inhabited area of the city, and nowadays several houses touch the foot of the hill on these sides (figs. 0.5-0.6, 1.4, 2.16). But on the other hand, the site is located in a favourable spot, an isolated spur within the city periphery, and with a nearby abandoned quarry which might be exploited for tourist devices.

⁷ The north-eastern flank of the hill of Khirbet al-Batrawy is cut by a huge abandoned limestone quarry. A huge part of the hill flanking the *khirbet* to the north was, in fact, removed around fifteen years ago by the same quarry, which has drastically transformed the ancient landscape of the area, but which now could represent a suitable area for the future development of an archaeological park.

⁸ See e.g. the Archaeological Park of Tell Mardikh/ancient Ebla, and the restoration activities carried out at Tell es-Sultan/ancient Jericho by the Italian-Palestinian Expedition in years 1997-2000 (Nigro, F. 1998; 2000; 2006). For a holistic approach to the restoration and conservation activities see also Infranca 1999.

⁹ Rome "La Sapienza" team included: L. Nigro, director; A. Berti, architect; M. Sala, Supervisor of Area A; A. Polcaro, Supervisor of Area B; G. Marinelli; M. D'Andrea; E. Gallo; D. Montanari; V. Tumolo. The representative of the Department of

Sapienza" University, the Italian Ministry of Foreign Affairs, and the Italian Ministry of Education, University and Scientific Research, and the partnership of the Queen Rania's Institute of Tourism and Heritage of the Hashemite University of Zarqa¹⁰.

Excavations were conceived as the logic prosecution and expansion of previous research activities conducted by Rome "La Sapienza" University in the Wadi az-Zarqa and Wadi adh-Dhulayl valleys (§ 0.2.), and involved the participation of PhD or Specialization students, technicians, and advanced students of Rome "La Sapienza" University.

The first season of excavations at Khirbet al-Batrawy was aimed at fixing the main topographical and chronological pinpoints of the site, by surveying it fully and with the opening of two areas of excavation: Area A, on the Acropolis, and Area B, at the middle of the northern slope, in order to verify the occupational sequence represented by datable potsherds on the surface and to establish the depth and stratigraphy of its cultural deposits.



Fig. 0.5 - The expansion of the inhabited area of the city of Zarqa up to the southern edge of Khirbet al-Batrawy, from north-west (2005).

The 2005 season confirmed that Khirbet al-Batrawy was a major Early Bronze Age fortified town of the Wadi az-Zarqa Valley: the presence of a

Antiquities, who gave an invaluable support to the Expedition, was Inspector Romel Ghrayib.

¹⁰ Students and scholars of the Queen Rania's Institute of Tourism and Heritage of the Hashemite University participated in the dig under the direction of Dr. Khaled Douglas, and thanks to the support of the Dean of the Faculty, Prof. Sultan Maani. The Queen's Rania Institute of Tourism and Heritage team also included Dr. Fardus Ajlouni and Dr. Bilal R. Khrisat.

massive fortification system all around the site, its prominent location, and the fact that the whole hill was densely inhabited in the Early Bronze Age up to the very end of the 3rd millennium BC, with nearly negligible overlaps and recent interventions (such as shepherds' enclosures and some modern pits), make Khirbet al-Batrawy one of the more promising sites for the study of the origins, transformations and crisis of the earliest urbanization in the region.



Fig. 0.6 - Aerial view of the city of Zarqa, with the river and the site.

0.2. Previous *“La Sapienza”* Researches in Wadi az-Zarqa

The area of the Upper Wadi az-Zarqa basin, which the present research focuses on, was already visited and partially investigated by N. Glueck during his, in many respects still unequalled, general survey of Eastern Palestine in

years 1936-1938¹¹; and then looked over by M. Ibrahim in 1975 within the frame of a much larger survey¹².

From 1987 to 1999 Rome "La Sapienza" University carried out a series of systematic archaeological surveys and soundings focused on the Wadi el-Yabis¹³, Wadi az-Zarqa and Wadi adh-Dhulayl¹⁴ basins, under the scientific coordination of P. Matthiae, and the direction on the field of G. Palumbo, within the framework of a joint project with the Yarmouk University. These surveys identified hundreds of previously unknown sites of any period, many of which severely threatened by modern building activities and illegal digging, all along the valleys down to the Jordan River. A major aim of the Expedition in the '90ties was, in fact, the safeguard of the Jordanian Archaeological Heritage, which was epitomized in the filing by Dr. Gaetano Palumbo, in cooperation with the Department of Antiquities and the ACOR, of the catalogue of archaeological sites of Jordan called *JADIS (The Jordan Antiquities Database and Information System: a Summary of the Data)*¹⁵, still now an essential tool in the management and protection of the Country archaeological patrimony.

0.3. Scientific Aims of Rome "La Sapienza" Expedition to Khirbet al-Batrawy

The study of the earliest urban developments in the north-central district of the Hashemite Kingdom of Jordan is the primary focus of the present research.

The excavation at Khirbet al-Batrawy was planned as a holistic project, aimed at both investigating archaeological features and enhancing tourist exploitation, through the restoration and rehabilitation of the *khirbet* area, which offers a wide panorama over the modern city of Zarqa and the valley of the homonymous river.

The following are the main scientific aims of the project:

1. study of the process of growth, flourishing and collapse of a major urban centre at the time of the early Jordanian urbanisation during the

¹¹ Glueck 1939, 209-220, maps Ia-c.

¹² Ibrahim *et al.* 1976. A previous survey carried out by S. Mittmann in 1963-1966 was focused on the northern Transjordanian region in between the Yarmouk and az-Zarqa rivers, but without taking into consideration the area of the Wadi az-Zarqa basin itself (Mittmann 1970).

¹³ Palumbo - Mabry 1988; Palumbo *et al.* 1990; 1993.

¹⁴ Palumbo *et al.* 1996; 1997; Caneva *et al.* 2001.

¹⁵ Palumbo ed. 1994.

- 3rd millennium BC, setting it in the general framework of the dawn of the urban civilization in the ancient Near-East;
2. archaeological periodization of the site and reconstruction of its occupational history;
 3. study of the topographical, spatial and architectural organization of the town, in respect of the social structure of the community inhabiting it;
 4. study of the material culture in a socio-economic perspective, exemplifying the strategies of adaptation developed for the sake of urban life;
 5. comparison and study of interrelations between means of productions, life style and subsistence resources (also on the basis of paleobotanic and zooarchaeological data);
 6. examination of cultural and commercial interactions through the study of finds related to craft production and trade;
 7. study of relationships between the site and its surrounding landscape, in order to investigate economic and social differences in the settlement system of the area of the Upper Wadi az-Zarqa, exemplifying the adaptation to different environments of urban models and relationships between natural resources and urban features.

The preliminary approach to the above mentioned scientific aims, and operational goals¹⁶, consisted of the following:

- computer-aided examination of satellite and aerial photos, and identification of the main topographical and architectural features of the site;
- archaeological survey of the site with a preliminary identification of periods of occupation and of the main archaeological and structural features;
- setting of a topographic grid and mapping of the site (1:100);
- excavations at two selected areas of the site, in order to establish its stratigraphic sequence, and to investigate a dwelling quarter in Area A and fortifications in Area B;
- study of the finds by means of a detailed recording system.

¹⁶ Scientific aims of the project were related to the following operational goals of the Expedition: a) legal and physical delimitation of the site and inscription of it in the catalogue of the Department; b) establishment of a databank for the finds and the archaeological documentation produced by the Expedition; c) implementation of an internet site (www.lasapienzatojordan.it) devoted to the diffusion of the results of the Expedition to a large public; d) start of the first restoration interventions on the site.

0.4. *The Excavation Method and Recording System*

Digging procedures at Khirbet al-Batrawy followed the standard of Rome "La Sapienza" School of Near Eastern Archaeology¹⁷, which are summarized below. Excavation areas were dug according to squares based upon a grid of 5 × 5 m¹⁸, leaving safe baulks 1 m thick, so to be able to support the stratigraphic observations made in progress of excavation with a series of vertical supplementary sections. Baulks were successively almost always excavated removing each stratigraphic unit, whereas it appeared useful to expose structures and features in an open area. Horizontal digging was rigorously carried out according to the stratigraphic principle, distinguishing different stratigraphic units (*loci*) and related materials, with the main purpose of identifying and studying archaeological contexts.

Stratigraphic units (*loci*) were numbered in a continuous series: numbers 1-99 and 201-299 were attributed to Area A, and numbers 100-199 to Area B. *Loci* were preceded by capital letters, indicating in a very schematic way the kind of archaeological feature¹⁹. Each *locus* has been documented horizontally by its overlay (1:25) and vertically in sections (1:20); and they all are recorded in a CAD system.

Stratigraphic sequences were built up grouping coherent *loci* (such as a wall and the floor linked to it) into *Activities*, each illustrating a macro-event (e.g. for a building: foundation, utilization, destruction/collapse, abandonment); and putting Activities together in order to illustrate main historical *Phases* (such as the whole life of a building). *Loci* are usually given by squares²⁰, while Activities and Phases are established for Areas, and, eventually, equalized to the site *Periods* (§ 1.3.).

¹⁷ See also Marchetti - Nigro eds. 1998, 16-20; Marchetti - Nigro eds. 2000, 10-12; Nigro 2004, 25-29.

¹⁸ The grid is divided into 100 x 100 m squares, indicated by capital letters on the west-east axis (A-D) and by Roman numbers (I-IV) on the north-south one; each 100 x 100 m square is further subdivided into 400 5 x 5 m squares, indicated by small letters on the west-east axis and Arabic numbers on the north-south axis. Each square takes the name of the peg of north-east; this method allows to give an independent name to each square in the grid, maintaining the indication of the larger sector provided by the capital letter and the Roman number.

¹⁹ The following are the letters used for categorizing *loci*: F. = filling, layer, deposit; W. = wall; B. = bench; C. = drain, cistern, well; D. = deposition, burial; P. = pit; T. = tannur; L. = floor, paving, but also the name of a room/space.

²⁰ Nevertheless, note that structures maintain the same name in different squares, when their physical continuity is evident, such as in the case of some points of the city-wall.

The study of archaeological material has been implemented through classification and creation of interactive databases, which collect all information concerning finds, especially their archaeological context; the realisation of graphic and photographic documentation; the systematic gathering of samples for analyses.

Publication is, at any extent, the basic scientific goal of the Expedition. Publications of archaeological results are foreseen in English, Italian and Arabic. Three different publication levels are proposed: newsletters (in *Munjazat*)²¹; preliminary reports in *ADAJ* (and other specialized Journals)²²; preliminary report volumes with the publication of each season in the actual series (*ROSAPAT*), with the presentation of stratigraphy, architecture, and materials by contexts.

0.5. Introduction to the Present Volume

Results of the first season are thoroughly illustrated in the following chapters. The Introduction (Chapter 1) is dedicated to set the site in its ancient context, to illustrate its main topographical, architectural and stratigraphic features (with special attention to the town fortifications), also producing a preliminary periodization, and to describe the main goal of the pilot project. Chapter 2 offers a general presentation of the Early Bronze Age occupation in the Wadi az-Zarqa Valley with special focus on the variation in space and time of human settlement. Chapters 3 and 4 describe excavation results obtained respectively in Areas A, the Acropolis, and B, on the northern line of fortifications, with stratigraphy, architecture and finds; both chapters are followed by the list of finds arranged by contexts (with the aim of highlighting associations between pottery, tools and objects and to provide a comprehensive distributive figure) and by a detailed catalogue of retrieved items, including drawings and photos in plates²³, with dating and, when possible, comparisons²⁴. Appendix A is a preliminary report on the survey carried out by the Expedition on selected Bronze Age sites in the az-Zarqa and al-Mafraq districts to the western fringes of the Black Basalt Desert. Appendix B gives account of geoarchaeological investigations around the site of Khirbet al-Batrawy.

²¹ Nigro in press a; in press b.

²² Nigro 2006b; 2006d; in press c.

²³ Pottery is always illustrated by scale 1:4; the scale of objects drawings and photos is indicated in plates.

²⁴ Catalogues were filed by M. Sala.

Archaeozoological analysis of faunal samples retrieved in 2005 season will be illustrated in the following report, together with finds of 2006 season.

Acknowledgements

The Expedition wishes to express his deepest thank to Dr. Fawwaz al-Khraysheh, General Director of the Department of Antiquities of Jordan, for his enduring support, and to all the staff of the Department for its effective and prompt cooperation. A particular appreciation is addressed to the Inspector, Romil Ghrayib, and to the personnel of the Zarqa Office of the Department for their helpful collaboration on the field.

The establishment of Rome "La Sapienza" Expedition to Jordan was made possible thanks to the encouragement of our Master Prof. Paolo Matthiae, Vice-Rector of "La Sapienza" University, whom I wish to deeply thank, and to the strong support of the Department of Historical, Archaeological and Anthropological Sciences of Antiquity of Rome "La Sapienza" University, in the person of its former Director, Prof. Clementina Panella, and its current Director, Prof. Gilda Bartoloni. A grateful thank is also due to the other Academic Authorities of Rome "La Sapienza" University, the Rector, Prof. Renato Guarini, the Dean of the Faculty of Humanistic Sciences, Prof. Roberto Antonelli, and all members of the Research Commission of the University.

The project of archaeological investigation and restoration at Khirbet al-Batrawy is supported by Rome "La Sapienza" University, the Italian Ministry of Foreign Affairs²⁵, and the Italian Ministry of Education, University and Scientific Research. It was carried out in cooperation with the Queen Rania's Institute of Tourism and Heritage of the Hashemite University of Zarqa, under the scientific coordination of Dr. Khaled Douglas, Head of the Department of Sustainable Tourism. Our thank is also extended to the President of the Hashemite University Prof. Dr. Omar Shdeifat, the previous Dean of the Queen Rania's Institute of Tourism and Heritage, Prof. Sultan Maani, and the present Dean, Dr. Ahmad Al-Malabeh.

The Expedition express its gratefulness to the Italian Embassy in Amman, in the persons of H.E. Gianfranco Giorgolo, Ambassador of Italy, and Dr. Marco Canaparo; and to the former Ambassador of the Hashemite Kingdom of Jordan in Italy, H.E. Ramez Goussous, the present Ambassador, Her Royal Highness Wijdan Al Hashemi, for their kind cooperation.

²⁵ A special thank is addressed to Counsellor Francesco Saverio De Luigi, and Dr. Paola Cordone of the General Directorate for Cultural Promotion and Cooperation.

A special thank is also addressed to Dr. Gaetano Palumbo, who started Rome "La Sapienza" University research activities in Jordan, and to Prof. Zeidan Kafafi, who introduced us to Early Bronze Age archaeology of Jordan.

Last but not least, I wish to thank all the members of the Expedition, for their abnegation and positive participation in the excavation.

Rome, 8th December 2006

Lorenzo Nigro

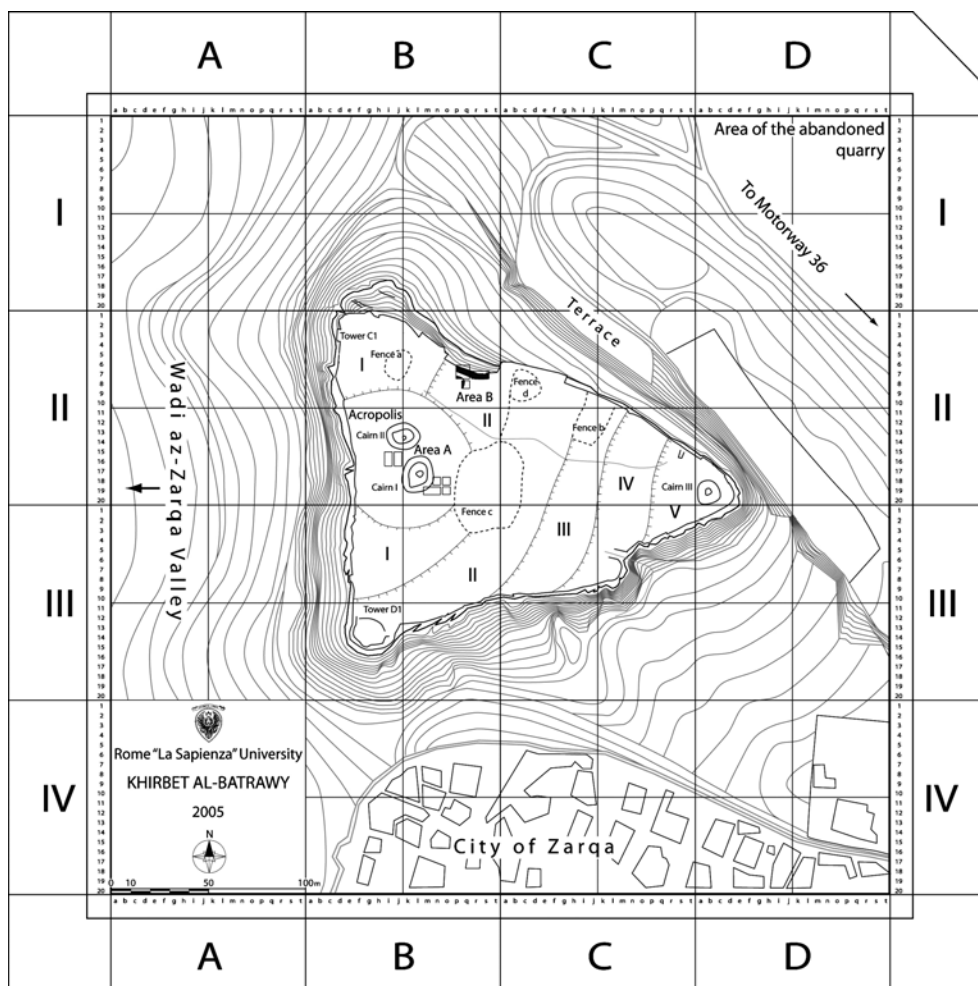


Fig. 0.7 - Topographical plan of Khirbet al-Batravy and its surroundings (2005).

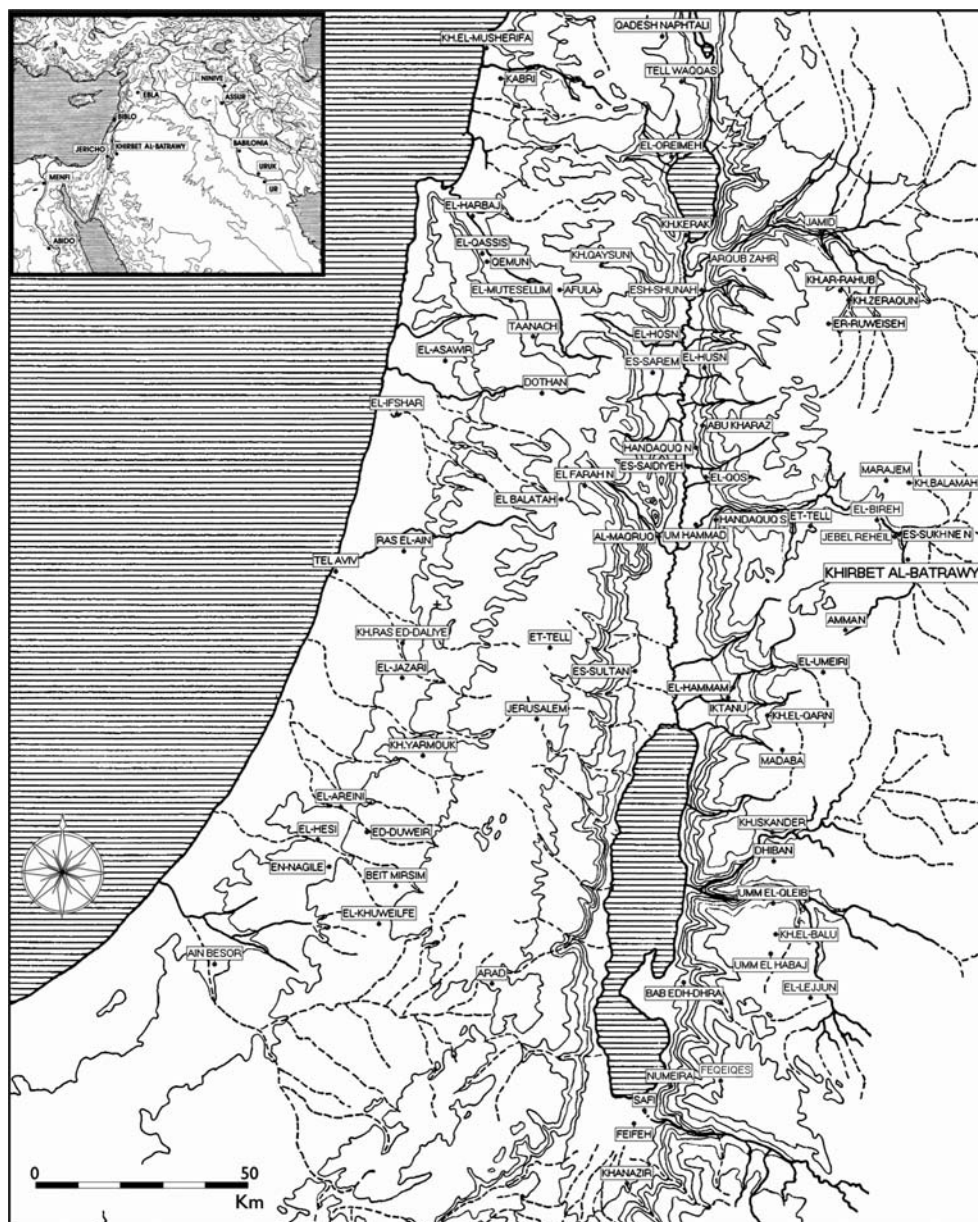
1. Introduction [by Lorenzo Nigro]

Renewed Rome “La Sapienza” archaeological researches in the Upper Wadi az-Zarqa, which include the “Pilot Project of Excavations and Restorations at Khirbet al-Batrawy”, were conceived as the continuation of previous investigations in the region carried out by the same Institution (§ 0.2.), and for this reason were preceded by a preliminary visit to several key Early Bronze Age sites of the district carried out in December 2004 along the Upper Wadi az-Zarqa Valley (§ 1.1.1.), and from the eastern end of the valley up to the western fringes of the Black Basalt Desert¹. After the latter was completed, archaeological investigations were focused on Khirbet al-Batrawy (fig. 1.1), starting with an accurate topographic survey (§§ 1.1.2.-1.2.; figs. 0.7, 1.2). At the end of the first season a general archaeological periodization was produced (§ 1.3.), summing up data collected during the preliminary survey and systematic excavations in Areas A and B.



Fig. 1.1 - General view of Khirbet al-Batrawy, from north; note the characteristic triangular shape of the *khirbet*, isolated and protected on the top of a rocky hill with steep cliffs. In the background, the modern periphery of the city of Zarqa (2005).

¹ A preliminary report on this survey is offered in Appendix A.



Map 1 - EB II-III sites in Palestine and Transjordan.

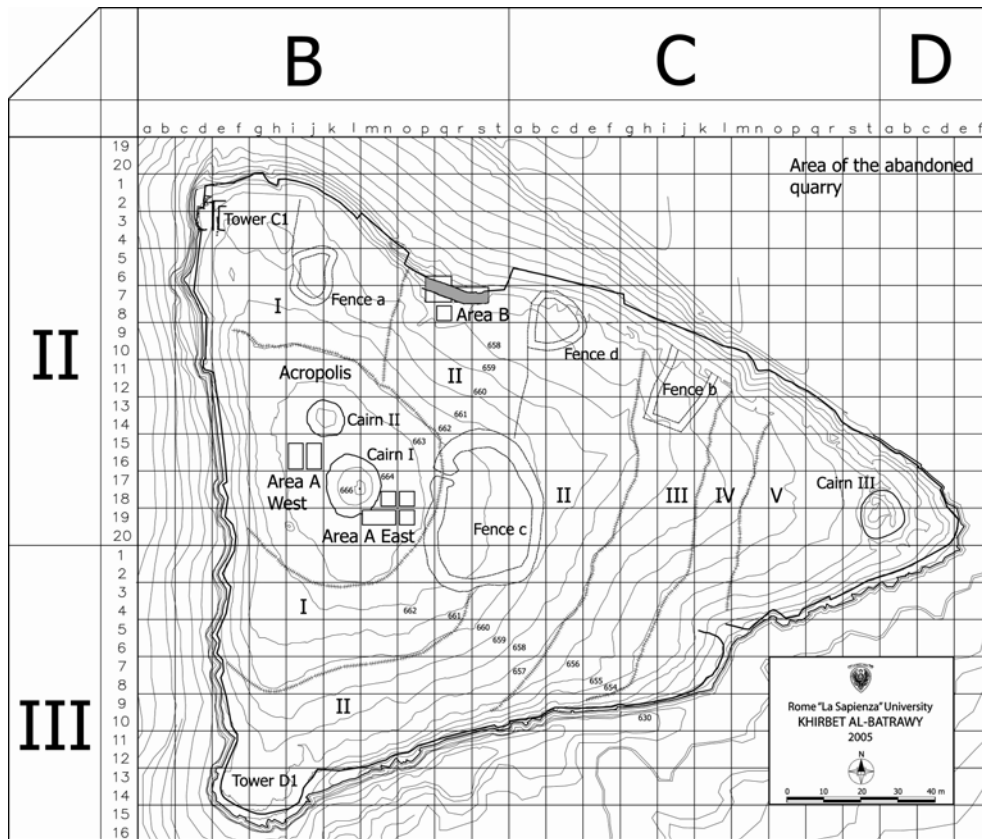


Fig. 1.2 - Topographical plan of Khirbet al-Batrawy (2005).

1.1. *Preliminary Activities*

The Upper Wadi az-Zarqa basin was chosen as the most suitable location for an archaeological research program focused on the earliest steps of urbanization in a border area, at the fringes of the semi-arid zone, between the latter and the Black Basalt Desert to the east, and the central Transjordanian hills to west. The Wadi az-Zarqa, from Amman, where it springs in the central Transjordanian Heights, down to Zarqa, is the easternmost perennial river of the Southern Levant, running north-south for roughly 30 Km at an average altitude of 500 m a.s.l., and then sharply bending westwards down to the Jordan River². As illustrated in Appendix A, it lies at the western end of main ancient routes crossing the Syro-Arabic Desert (map 3). The fortified town of Batrawy arose on the top of a cliff, from where it dominated a large part of the Upper Wadi az-Zarqa Valley (fig. 1.3). The site could thus exploit a fertile and hospitable riverside environment allowing intense agriculture (horticultural products) and animal breeding, and controlled a series of minor settlements along the

² Wadi az-Zarqa, the Jabbok River of the Bible, with its 96 km of length is the second perennial tributary of the Jordan River, after Wadi Yarmouk, and constitutes the natural border between the central Transjordanian *plateau* controlled by Amman (Rabbat Ammon in the Iron Age, Philadelphia in the Hellenistic and Roman times), which, according to the Old Testament, enclosed the land of the Ammonites and that of the Israelite tribe of Gad (Dt 3,16), and the northern district (where the major centre in antiquity could have been the site of Tell el-Huşn, near Irbid; Glueck 1951, 161-165). The Wadi az-Zarqa rises near Amman and runs at first towards north-east for around 30 Km, as long as in the Zarqa plain it turns towards north-west and crosses the mountains, connecting itself with the Wadi adh-Dhulayl. In correspondence of this connection the valley is large and well irrigated, and the EB II settlement of Tell es-Sukhneh North (*JADIS* nr. 2517.027, p. 2.173; Chesson *et al.* 1995; Palumbo *et al.* 1996, 385-386, 401-403, tab. 6; Palumbo *et al.* 1997, 14) exploited this favourable environment (figs. 1.5-1.6; maps 4-5; pl. I). The river continues for 5 Km north-west and the centre of Tell el-Bireh (an EB II possibly fortified settlement, with following intense Iron Age II and Roman-Byzantine occupations; *JADIS* nr. 2417.021, p. 2.164; Glueck 1939, 213-214; Palumbo *et al.* 1996, 385-386, 388, 390-391, fig. 7), controlled this stretch (fig. 1.7), after which, the river goes down steeply westwards, flowing into the Jordan south of Deir 'Alla (the last 10 Km turning towards southwest), and describing an overall arc of around 270°. Today the river is dry for most of the year south of the confluence with the Wadi adh-Dhulayl, but this phenomenon is recent due to the use of the springs in the area between the cities of Amman and Zarqa for human needs and agriculture; until a few years ago, it was possible to fish in the Wadi az-Zarqa even in summer.

valley, such as Tell es-Sukhne North, Jebel er-Reheil and Tell el-Bireh to the north³, and Khirbet er-Reseifeh to the south⁴.



Fig. 1.3 - The site of Khirbet al-Batrawy on the eastern side of the river in the Upper Wadi az-Zarqa Valley, from north-east (2005).

1.1.1. Preliminary Survey of the Valley

Just a few hundred meters south of Khirbet al-Batrawy, the Wadi az-Zarqa Valley enlarges and the river is bridgeable. Here, a main crossroad and a rest-point with fresh water marked a pivotal outpost on the routes connecting the far East and the southern highlands with the Jordan Valley⁵. This crucial border district has witnessed in the pre-classical history of Jordan a significant and alternate process of sedentarization, with an intense human occupation in the Early Bronze Age, decreasing in the following Middle and Late Bronze Ages, and being successively more stably inhabited from the Iron Age II and in following periods, with peaks in Roman-Byzantine and Middle Islamic Periods⁶. In modern times, it registered a progressive growth of settled population since the last decades of the 19th century AD, with a fierce increase of the built-up area in the last fifty years (fig. 1.4)⁷. Especially the Upper Wadi az-Zarqa Valley has been largely inhabited, and also the construction of infrastructures in the area of Amman itself has drastically modified the original landscape of the valley. For this reason, only some main archaeological sites have been identified and protected so far. Preliminary research activities of Rome "La Sapienza" Expedition were thus, at first, oriented towards an overlook of archaeological data still available from this district. The ancient tracks

³ See above note 1; Palumbo *et al.* 1996, 385-386.

⁴ Khirbet er-Reseifeh (*JADIS* nr. 2415.076, p. 2.162) is an EB III-IV site surveyed in the '30ies by N. Glueck (Glueck 1939, 205-207); nowadays it is mostly destroyed because of the modern occupation (Palumbo 1990, 57-58; 2001, 241-242).

⁵ See Kafafi in press.

⁶ Palumbo *et al.* 1996, 380-393; chap. 2 in this volume.

⁷ Zarqa itself is a city just recently founded, risen at the end of the 19th century as result of the allocation of conscripts shut in the prison of the nearby Burj az-Zarqa and Chechen settled in the area fleeing Russian persecutions.

following the Wadi az-Zarqa, and the main routes and sites along it have been identified and plotted in a series of historical-archaeological maps, paying selective attention to location and availability of basic resources (water courses, cultivable land, raw materials, trade network, etc.; maps 6-7), and considering paleoclimatic and paleogeomorphological data⁸. A considerable amount of data was collected by Palumbo and his staff during the survey in the '90ies and for the creation of *JADIS*. It is, in fact, impressive how the urban development of both Amman and Zarqa suburbs has been tumultuous, and how the readability of ancient monuments and sites is consequently diminished. The re-examination of these sites by our team has allowed, from the one hand, to enhance our chronological knowledge about their occupation (also in the light of latest discoveries in the region), and, on the other, to check their present state of preservation.

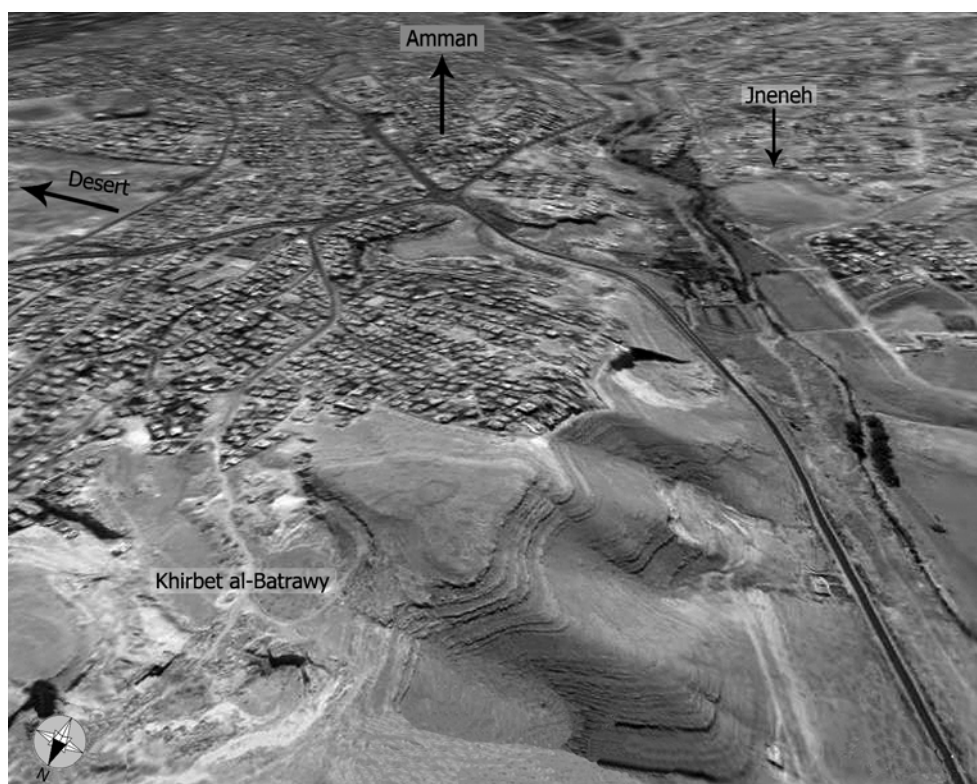


Fig. 1.4 - Aerial view of Khirbet al-Batrawy at the border of the northern urban expansion of the modern city of Zarqa, from north.

⁸ Appendix B.

Research activities were, moreover, aimed at the reconstruction of the ancient landscape and the identification of main routes along which settlements were frequently located.

As it concerns specifically the Upper Wadi az-Zarqa, a series of Early Bronze Age sites was surveyed and visited all along the valley (figs. 1.5-1.7; maps 4-5), from Khirbet al-Batrawy to the south, up to the hilltop site of Jebel Mutawwaq to the north, checking their main topographical features, as well as their occupational periods⁹. A general framework of the Early Bronze Age occupation in Upper Wadi az-Zarqa has, thus, been traced, also matching with data collected by previous Rome "La Sapienza" surveys¹⁰.



Fig. 1.5 - General view of the Wadi az-Zarqa Valley at the junction with Wadi adh-Dhulayl, from north (2005); in the background, Khirbet al-Batrawy.

⁹ The sites visited during this preliminary survey were respectively, from south to north, Khirbet er-Reseifeh (EB IV; *JADIS* nr. 2415.076; Palumbo 1990, 57-58), Khirbet al-Batrawy (EB II-III; *JADIS* nr. 2516.011), Jebel er-Reheil (EB II, IV; *JADIS* nr. 2417.022; Palumbo 1990, 57-59; Palumbo *et al.* 1996, 393-401), Tell es-Sukhneh North (EB II; *JADIS* nr. 2517.027), Tell el-Bireh (EB II; *JADIS* nr. 2417.021), and Jebel Mutawwaq (EB I; *JADIS* nr. 2418.011).

¹⁰ For a general presentation of the Early Bronze Age occupation in the Upper Wadi az-Zarqa, see chap. 2.



Fig. 1.6 - General view of the Upper Wadi az-Zarqa Valley from the top of the EB I site of Jebel Mutawwaq, looking south (2005).



Fig. 1.7 - The EB II site of Tell el-Bireh in the fertile riverside environment of the Upper Wadi az-Zarqa, looking south-west (2005).

1.1.2. Preliminary Survey of the Site Surface

As it regards the site itself (figs. 1.1, 1.8), a preliminary examination of its surface was carried out, when the topographic grid was set on the ground (figs. 0.7, 1.2).

Archaeological material was collected from the surface by large squares 20 x 20 m, being classified according to each period of occupation.



Fig. 1.8 - Zenith view of Khirbet al-Batrawy before excavations started.

Contemporary frequentation of the *khirbet* – which is less than five-minute walk from the houses of the north-western periphery of Zarqa – was restricted to some plunder pits, sparse ephemeral fireplaces and some burials (mainly of infants), concentrated within the main fence (c) located between Terrace I and II. The site was, in fact, subdivided into five terraces (§ 1.2.2.) and on its surface there were no other visible remains of occupation or frequentation referable to any period later than that of the

three cairns located respectively two on the summit of the Acropolis (fig. 1.9) and a third one on the easternmost tip of Terrace V (fig. 1.10)¹¹.



Fig. 1.9 - Cairns I and II on top of the Acropolis, from south-east.



Fig. 1.10 - Cairn III on the easternmost tip of Terrace V, from west.

Ceramic materials and other items (mainly flints) collected on the surface (pls. I-II) offered a preliminary glance at the occupational history of the

¹¹ The dating of these cairns is still a matter of investigation, since no chronologically diagnostic element has appeared associated to them until now (§ 3.1.2., note 6).

site (§ 1.3.); in the meanwhile, massive structures visible along the perimeter of the cliff indicated the presence of an articulated defensive system. Some stone structures emerging on the ground, moreover, testified to the dense presence of buildings within the ancient fortified town.

The last occupation largely documented in several spots of the site dates back from the Early Bronze IV, even though the majority of finds from this period was collected on the top of the Acropolis and on the slope north of it (one, however, has to take into account the fact that especially the north-western portion of Terrace II is largely occupied by collapsed stones, and the collection of pottery sherds or other finds from there was impossible). EB IV pottery material was also present on the south-western spur, where a jar burial was identified (named deposition D.200; figs. 1.11-1.12; pl. III), and sparsely on the other terraces of the site (especially on Terrace V, to the north-east). In some rare cases, EB IV structures (such as stone walls and installations like cists, mortars and silos) emerged on the ground. This was especially clear on the western side of the Acropolis and on the northern side of Terraces III, IV and V.

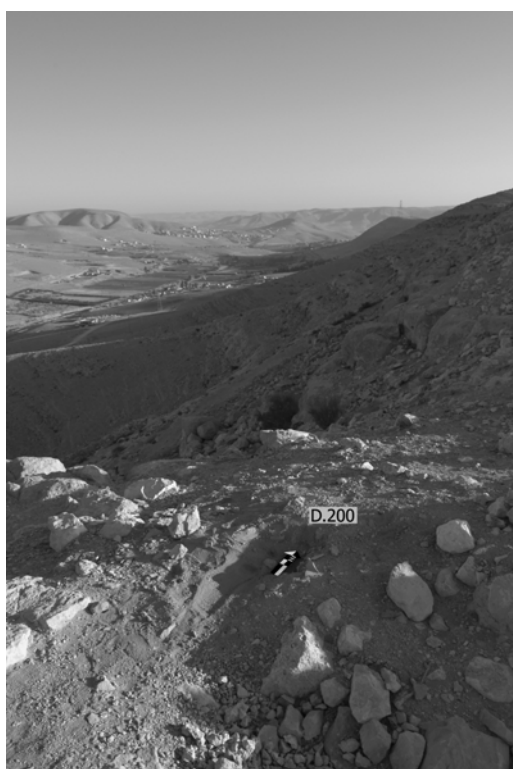


Fig. 1.11 - The EB IV deposition D.200 excavated in the collapsed remains of Period Batrawy III Tower D1.



Fig. 1.12 - EB IV jar burial KB.05.D.200/1.

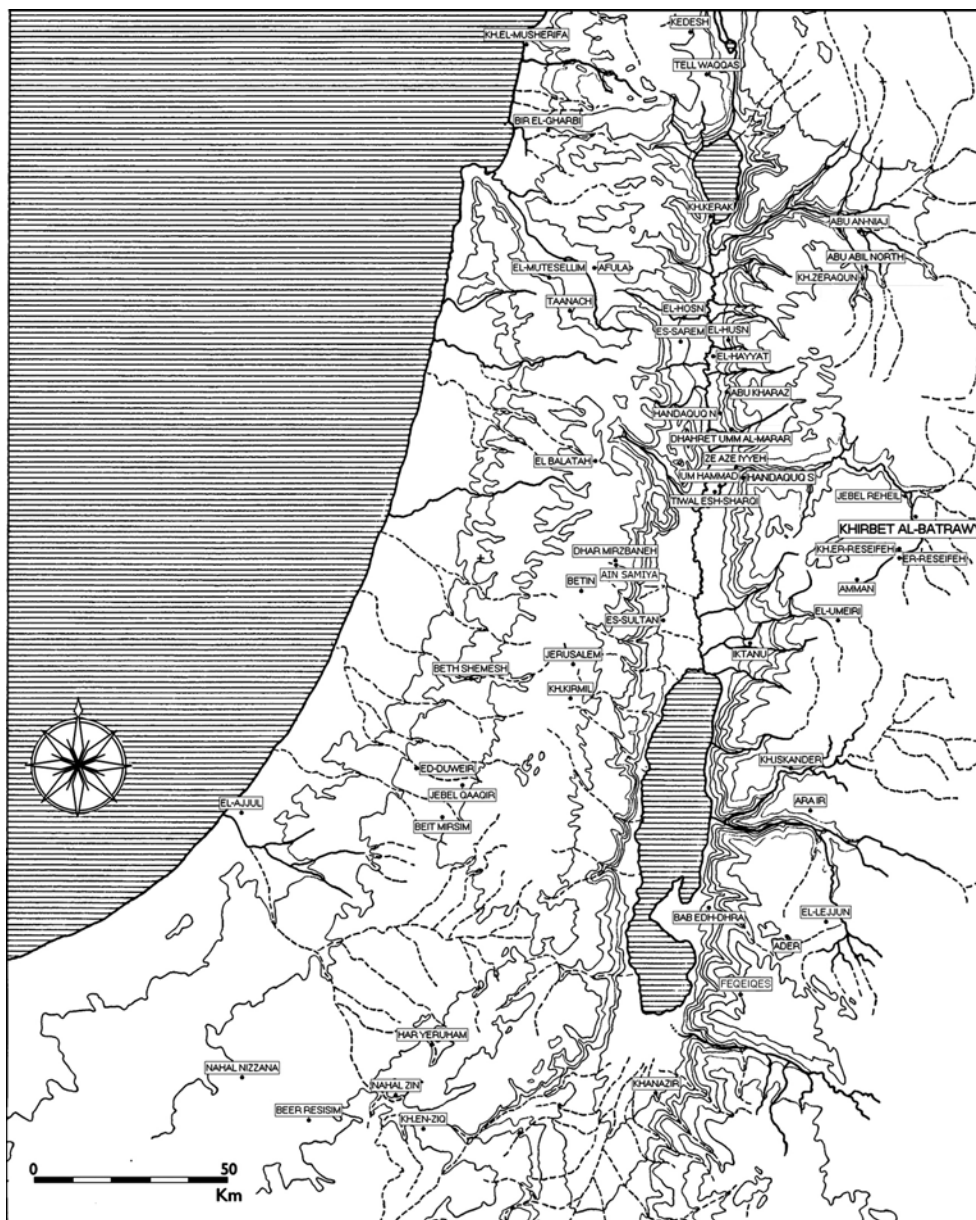
EB III materials were spread regularly all over the surface of the *khirbet*, and consisted both of pottery (mainly fragments of hole-mouth jars and radial-burnished platters with hammer-like rim) and flints (pls. I-II). Apart from the fortifications and related structures, which it will be dealt with below (§ 4.2.2.), at several spots on the surface major structures emerged, which, due to their building technique, have been tentatively ascribed to the Early Bronze III¹². One was visible along the north-eastern side of the Acropolis and was interpreted as a structure terracing and delimitating the summit of the site (see below; fig. 1.20); a second one, with an east-west orientation, was visible at the middle of Terrace III (fig. 1.22), while another, with the same orientation emerged on Terrace V (fig. 1.25). On Terraces II (north-west) and III (mid) underground structures (figs. 1.13-1.14) were exposed by illegal digging: one had exploited as cistern or a silos a natural cave of the bedrock (fig. 1.13), while the other was a semicircular room with a corbelled vault built-up with fieldstones.



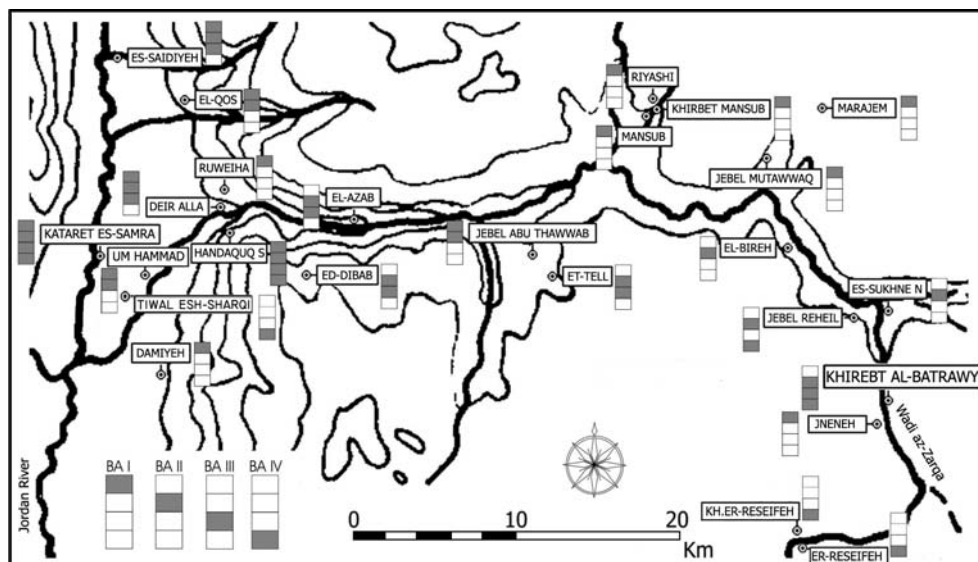
Fig. 1.13 - Natural cave exploited as water reservoir or silos.

Scattered EB II materials were also found, but in a very low percentage (an average of 9 % of total ceramic finds), except for some areas where their presence increased (up to 25 %), that is the southern fortification line and especially the south-western and the eastern corners of the site. Here, apparently, erosion and pillage exposed lower layers just inside the main fortification line, thus indicating the earliest occupation of the site (§ 1.3.).

¹² Actually, one may only surely exclude a dating from the Early Bronze Age IV, the building technique of which is well known from the dwellings excavated on the Acropolis (§ 3.2.).



Map 2 - EB IV sites in Palestine and Transjordan.



Map 4 - Early Bronze Age sites in the Wadi az-Zarqa Valley.

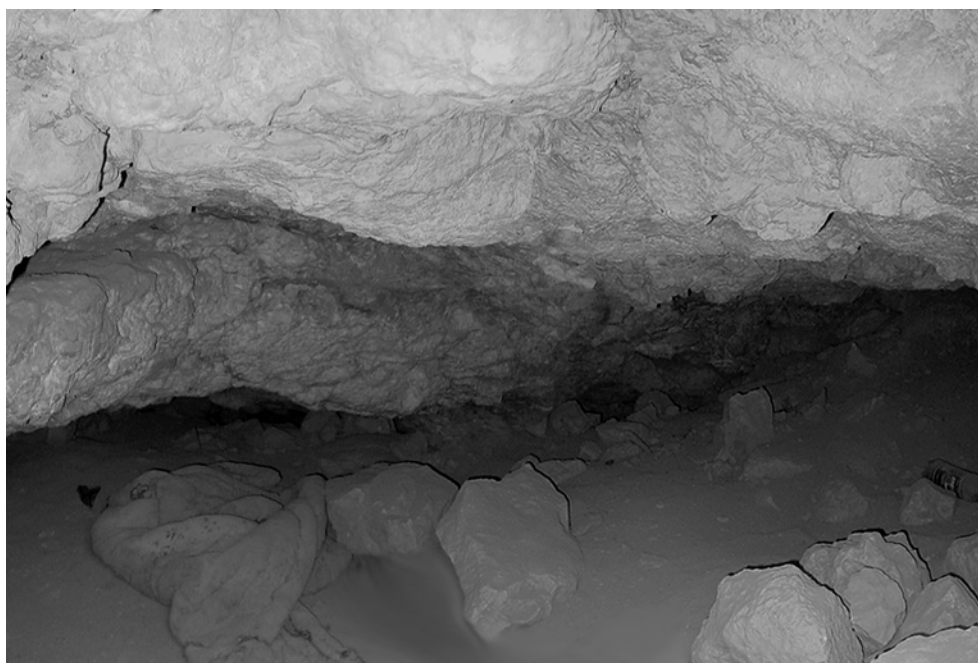
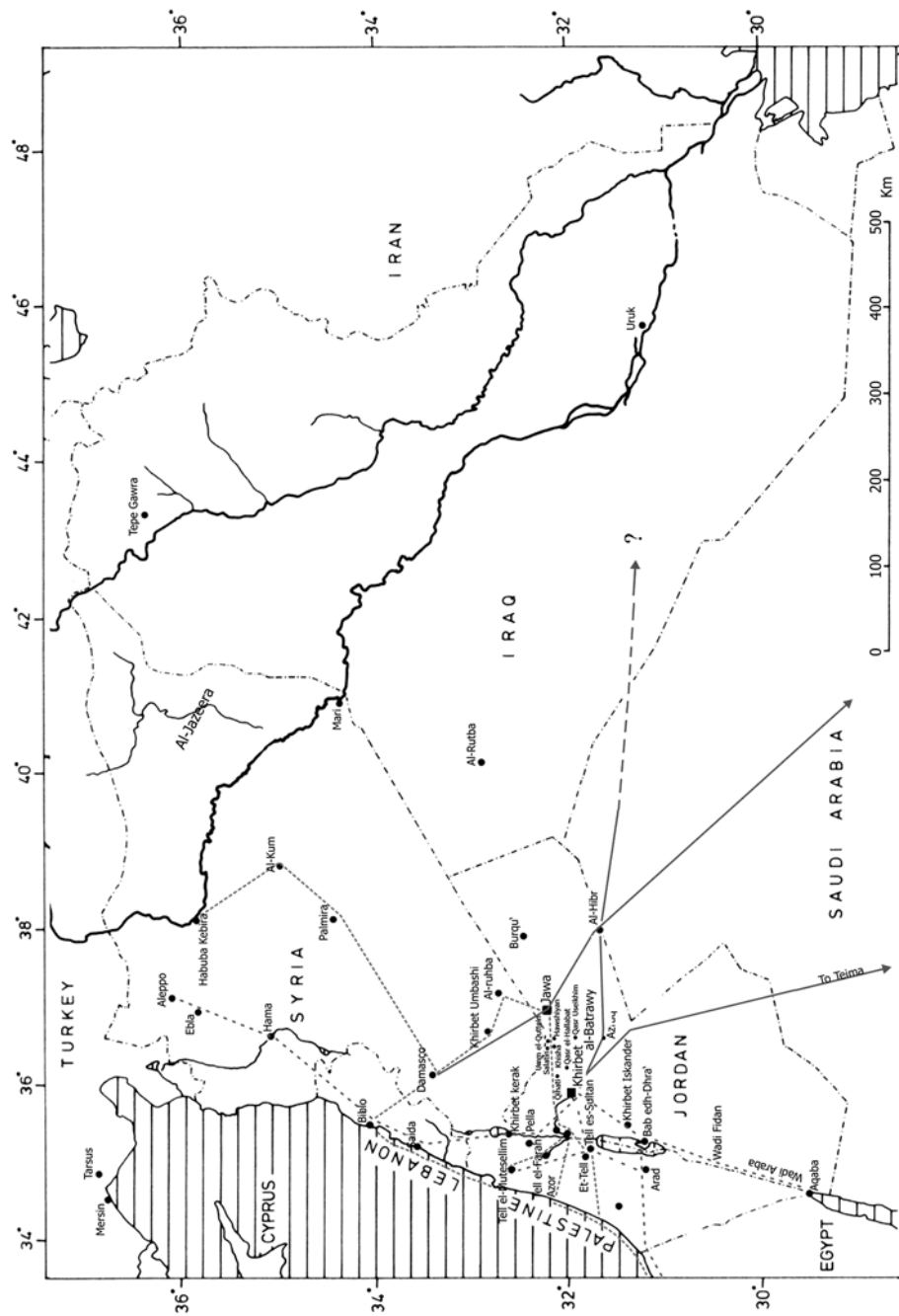


Fig. 1.14 - Natural cave perhaps employed as cistern on Terrace II.



Map 3 - Early Bronze Age tracks across the Ancient Near East.

1.2. *Topography of the Site*

The site of Khirbet al-Batrawy (Lat. 32°05',218" N, Long. 36°04',237" E)¹³ lies on the top of a rocky hill at an average altitude of 660 m a.s.l., today included in the north-western periphery of the city of Zarqa (fig. 1.1). From the hilltop, which it occupies entirely, Khirbet al-Batrawy dominates a large part of the Upper Wadi az-Zarqa (fig. 1.3). A detailed plan of the site was drawn at the beginning of the first season, including the emerging city-walls and all of the major architectural features appearing on the ground (fig. 1.2). This showed that the Early Bronze Age fortifications and dwellings skilfully exploited the natural topography of the site, characterized by a series of steps gently descending from west to east, and by steep cliffs on its sides.

1.2.1. *Site Extension and Perimeter*

The site measures, including the impressive fortification works all around it, almost 4 ha, and has a roughly triangular shape, with its base on the shortest (ca. 170 m) western side, where it looks towards the Wadi az-Zarqa. The western and southern sides are naturally protected by steep cliffs, which rapidly descend respectively down to the river at the bottom of the valley to the west (fig. 1.15), and to the level of the surrounding limestone *plateau* to the south. Conversely, the northern side shows an almost vertical rocky side only in its eastern half (where it has also been cut by a huge limestone quarry; figs. 1.16-1.17)¹⁴, while in the middle and to the west it is accessible from the saddle (fig. 1.18), which separates the *khirbet* from a twin hill located just to the north of it (see also Appendix B, pp. 257-258).



Fig. 1.15 - The steep cliffs on the western side of Khirbet al-Batrawy down to the Wadi az-Zarqa Valley, looking south-west.

¹³ *JADIS* p. 2.172, nr. 2516.011, where it is indicated as "Jreyyeh".

¹⁴ § 0.1.1., note 7.

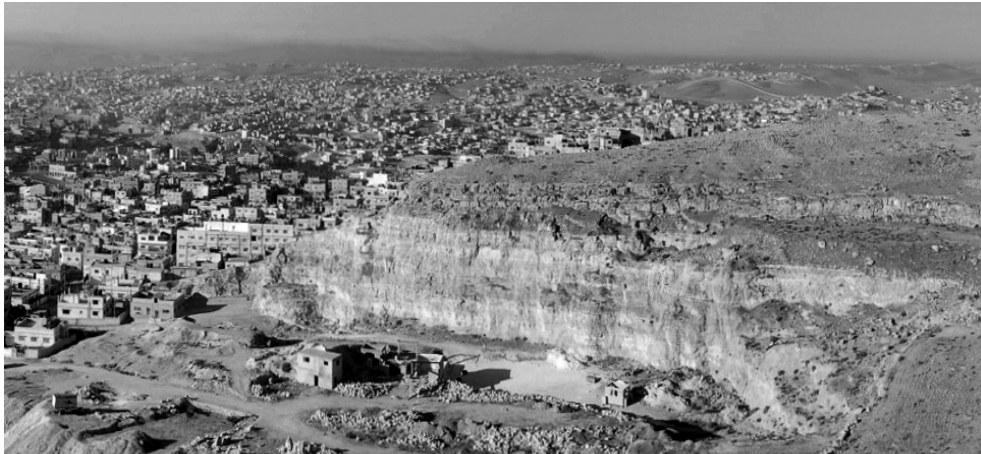


Fig. 1.16 - The vertical rocky cliff in the eastern half of the northern side of Khirbet al-Batrawy, from north.



Fig. 1.17 - The northern side of Khirbet al-Batrawy and the nearby abandoned quarry in the background, looking north.



Fig. 1.18 - The northern saddle, with indicated the ancient pathway to approach the site, from north.

1.2.2. The Five Terraces

The top of the hill consists of a series of flat terraces, gently sloping from west to east (fig. 1.19), from the summit of the Acropolis (Terrace I) down to the eastern tip (Terrace V).

The uppermost area is located at the centre of the western Terrace (I), and it has been called Acropolis (ca. 663 m a.s.l.), because of its dominant location and for the presence of a wall emerging on the surface on its north-eastern side (fig. 1.20), perhaps representing an inner partition limit between it and the main entrance to the town¹⁵, which presumably was opened on its northern side (see below). From the one hand, the Acropolis was the most exposed point of the hill to the constant western wind, and, thus, uncomfortable for domestic dwelling; on the other hand, however, it was one of the most panoramic spot of the site, suitable for symbolic building to be erected and for public structures which should control both the

¹⁵ The presence of partition and terracing walls within the cities, aimed to divide sector functionally diversified, is attested to in urban architecture of Southern Levant during the Early Bronze Age, for instance, at Megiddo (wall 4114; Loud 1948, 70, figs. 392-394) and et-Tell (Callaway 1980a, 42-43, fig. 4).

town and the underlying valley. Just on top of the Acropolis two huge cairns made of stones presumably collected from previous collapsed buildings were erected in later periods, oriented perpendicularly one in respect to the other. Cairn I lies on the very top of the Acropolis, and Cairn II just some meters to the north of it (fig. 1.9).



Fig. 1.19 - General view from the Acropolis of the top of the site with the flat terraces (I-V) gently sloping from west to east, looking east.

Terrace I, which incorporated the Acropolis, is 35 m towards the north and 25 m towards the south larger than the latter, reaching length of 135 on the north-south axis and a width of around 95 m on the east-west one (fig. 1.2). A flat area north of the Acropolis is occupied by a circular enclosure, around 15 m in diameter, named "Fence a". The eastern limit of Terrace I was marked by a step evident on the surface to the north and to the south, but no more preserved on the middle, where it was artificially enlarged for the creation of a rectangular enclosure (called "Fence c"), measuring around 42 m on the north-south axis and 30 m on the east-west one, delimited by a continuous heap of stones roughly 2.5 m wide at its base and 1.2 m high (fig. 1.21). Such a roughly rectangular fence, like the three other of smaller dimensions lying on Terraces II and III, is – except for the cairns – the only evidence of pastoral-nomadic presence on the site in the long time span of

abandonment or ephemeral frequentation following the desertion of Khirbet al-Batrawy at the end of the Early Bronze IV, around 2000 BC¹⁶.



Fig. 1.20 - The partition-wall on the north-eastern side of the Acropolis, from south.



Fig. 1.21 - At the top, the piled-up stone wall of Fence c, from east.

¹⁶ "Fence c" has been used in recent times as a burial place by very poor inhabitants of Zarqa, as some occasional discoveries demonstrated.

Terrace II has a half-moon shape extending all around the Acropolis and Terrace I on their northern, eastern and southern sides, with a central interruption represented by Fence c. To the north, it reaches a stone step west of Area B, while to the south it extends up to the south-western round spur. A small stone enclosure, named "Fence d", is located at the northern limit of Terrace II, not far from Area B. Terrace II is bordered by a crescent scarp-wall at the regular elevation of ca. 660.0 m, also suggesting that on this limit a street marked the step towards Terrace III.

Terrace III is instead a strip 20 m width, which gently slopes southwards in between 666.0 and 657.5 m. On the north-eastern limit of the terrace another small stone enclosure was visible, called "Fence b", abutting on the collapsed city-walls and on the scarp-wall between Terraces II and III. Roughly in the middle of the Terrace III, just over the central crest of the site, substantial structures east-west oriented have been noticed appearing on the surface, which have been interpreted as foundations of an EB III building (fig. 1.22).



Fig. 1.22 - Possible EB III wall emerging on Terrace III, from south.

The scarp-wall separating Terraces III and IV, like that between Terraces II and III, is clearly visible on the ground at its northern end, where it apparently abuts on the inner line of fortifications (figs. 1.23-1.24). Terrace

IV has a flat surface (between elevation 656 and 654.5 m) sealing a thick and compact archaeological deposit, with several structures emerging. It is around 30 m width on the east-west axis, decreasing to roughly 20 m to the south, where a ravine presumably indicates the location of a major entrance to the site (§ 1.2.3.; fig. 1.37).

The easternmost and lowest Terrace V has a triangular shape with its inner central part slightly higher (654 m), where the foundations of a huge building with three major walls and a forecourt were clearly visible (fig. 1.25). On the surrounding sloping sides of the terrace the collapsed and eroded remains of the city-wall formed a kind of inclined step (down to ca. 651 m). At the easternmost tip of Terrace V lies Cairn III, a huge heap of stones exhibiting the same shape and building technique of the two other cairns on the Acropolis, piled-up in a very panoramic spot of the site (fig. 1.26).



Fig. 1.23 - The scarp-wall separating Terraces III and IV and abutting on the inner line of Period Batrawy III fortifications, from east.



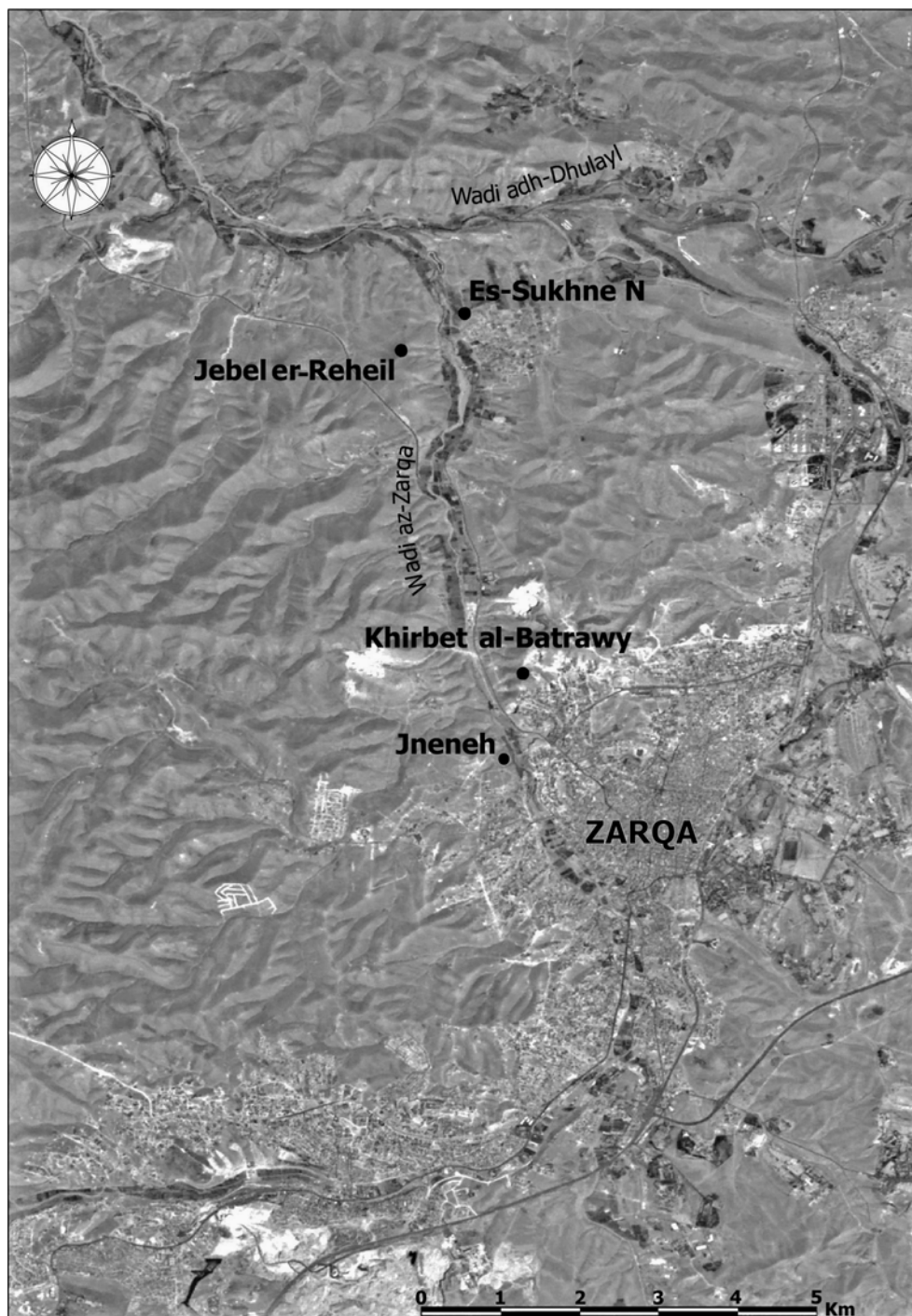
Fig. 1.24 - Emerging top of the scarp-wall separating Terraces III and IV, from east.



Fig. 1.25 - The foundations of a huge EB III building visible on the easternmost Terrace V, from west.



Fig. 1.26 - Terrace V with Cairn III, from east; in the background, the north-eastern periphery of the city of Zarqa.



Map 5 - The Upper Wadi az-Zarqa.

1.2.3. Fortifications and Entrances to the Town

During the preliminary survey of the site, its fortification system was examined and documented. As excavations successively proved, the defences of Batrawy were erected in Period Batrawy II (Early Bronze II; tab. 1.1) and remained in use until the end of Period Batrawy III (Early Bronze III). The following description is only a preliminary overview of the whole system, aimed at highlighting its prominent features (towers and gates) visible on the ground, and thus mainly referring to the last phase of life of the fortified town, the Early Bronze Age IIIB, but also including some features of preceding periods.

The defensive system of the fortified town of Batrawy was built all around the edge of the rocky hill by exploiting any cliff and spur. The main fortification work was a solid stone wall (2.9-3.6 m thick), from which at irregular intervals, depending on the natural conformation of the edge of the *khirbet*, bastions and towers projected. Due to the triangular shape of the mound, the main pinpoints of the defence were, of course, the corners, where huge tower-fortresses were located. Also the central stretch of the northern side, where the hill is less difficultly accessible, apparently deserved a more articulated protection (§§ 4.2.2.-4.2.3.).

The line of fortifications is illustrated below clockwise, starting from the north-western corner.



Fig. 1.27 - Dismantled limestone boulders of the foundations of the two protruding bastions of Tower C1, from north-west.

The north-western corner (Area C) hosted a rectangular tower (Tower C1; figs. 1.27-1.29), with two protruding bastions, one projecting towards west (W.301; fig. 1.28)¹⁷ and the other towards north (W.303), built directly on a rock terrace with big not worked limestone blocks (fig. 1.31).



Fig. 1.28 - Rectangular bastion W.301 of Tower C1 projecting towards west, from south; on the right, the collapsed central pillar of the tower.

Further to the east, a major structure (W.305) projected from the line of fortifications towards north-west (figs. 1.29-1.30, 1.32), up to the very edge of the spur, possibly in order to protect a secondary entrance to the city (see below), not far from the saddle, which represented the easiest access to the site. An advanced line of fortification was indicated by wall W.307 (fig. 1.33), a NW-SE oriented structure detected on the lowest step of the north-western spur, which probably is related to a reconstruction of the city-wall.

The location of the main gate roughly at the middle of the northern side of the site, where Area B was opened (chap. 4), was suggested by various clues: a shallow depression possibly indicating the way of a passage (in the area between grid columns "Bo" to "Bq"); superficial evidence of an

¹⁷ The western bastion projects 1.9 m and was 6.3 m long on the north-south axis.

advanced line of fortifications, with a possible opening on the eastern flank of the saddle, together with the slight turn inwards of the city-wall itself; the presence of a protruding rectangular bastion just to the east of the city-wall inset (figs. 1.34-1.35).

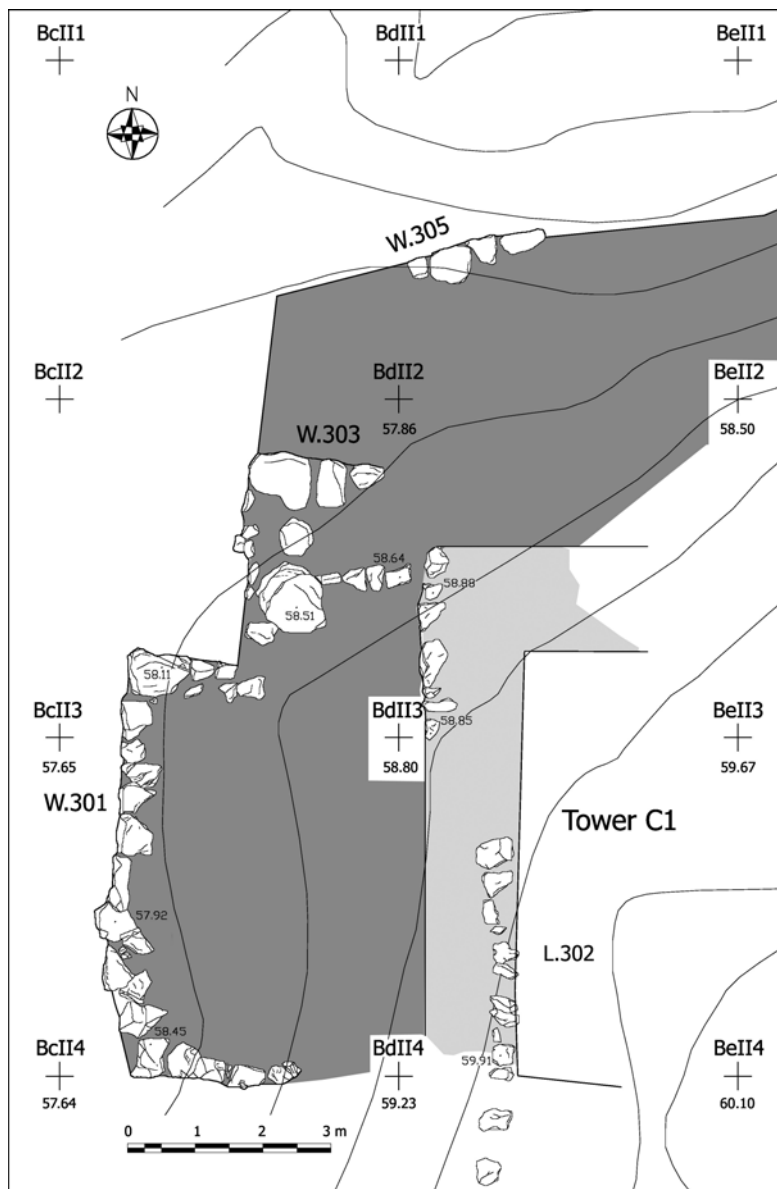


Fig. 1.29 - Plan of Tower C1.



Fig. 1.30 - Wall W.305 projecting from the line of fortifications towards north-west, from south-east.



Fig. 1.31 - The big un-worked limestone blocks of bastion W.301, directly lying on the bedrock of the *khirbet*, from south.



Fig. 1.32 - Wall W.305 projecting from the line of Period Batrawy III fortifications towards north-west, from north-west.



Fig. 1.33 - The advanced line of fortification represented by the NW-SE oriented wall W.307 on the lowest step of the north-western spur, from north-east.

The bastion not only possibly protected the passageway to the gate, but also blocked the access to the east (thus making impossible the presence of a gateway in that stretch of the site border)¹⁸, which further to east is naturally defended by a vertical cliff 40 m high.

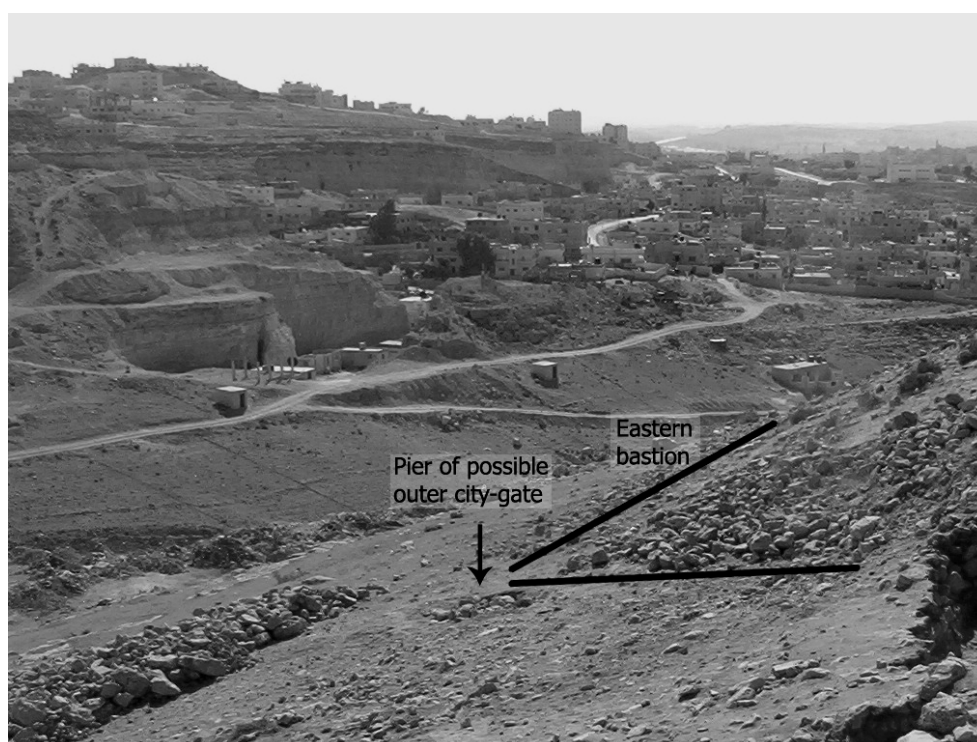


Fig. 1.34 - Protruding rectangular bastion just to the east of the city-wall inset on the eastern side of the northern slope, from west.

¹⁸ Such rectangular elongated projecting towers and bastions are quite a common feature in Palestinian EB III defensive architecture (Kempinski 1992, 68, 72-73), as attested to at Tell Ta'annek (Lapp 1969, 12, fig. 2), Khirbet ez-Zeraqon (Genz 2002, fig. 2), et-Tell (Marquet-Krause 1949, 16-17, pls. XCII, C; Callaway 1980b, 7-11, 152-154, figs. 96, 98), Khirbet Yarmouk (de Miroschedji 1990, 54-55, figs. 1-2, 9, 11), Tell el-Khuweilifeh (Seger 1989, 121, figs. 3, 5), Tell el-Hesi (Seger 1989, 127-129), Tell es-Sultan (Nigro 2006a, 367-369) and Bab edh-Dhra' (Rast - Schaub 2003, 253-264).



Fig. 1.35 - Dismantled foundation of the rectangular bastion on the eastern side of the northern slope, from north-east.

Notwithstanding this natural protection, the erection of the city-wall was deemed necessary also on this easternmost side of the northern perimeter of the *khirbet*, because of the presence of a terrace on the vertical slope around 4 m under its edge, which might be used as a path to climb up the town flanks.

In the easternmost corner, the city-wall followed the curvilinear outskirts of the spur, forming a kind of round tower with small semicircular offsets adjoined (fig. 1.36). Such a structure emerged on the ground at a lower elevation in respect of the connected northern city-wall, due to the erosion and, possibly, to the partial removal of its successive reconstruction at the time when the overlying Cairn III was built. It probably dates back from Period Batrawy II (Early Bronze II) and very generally reminds, at a reduced dimensional scale, the southern corner of the EB II city of Tell 'Arad¹⁹.

¹⁹ Arad, Area K: Amiran *et al.* 1978, 11-13, fig. 1, pls. 149-150, 173-174, 182-183; Amiran - Ilan 1996, 19-23, pls. 1, 68-70, 90-91. It must be said that this comparison is valid only for the general layout of the city corner; it simply points out the fact that curvilinear defences were a common feature during Early Bronze II in Southern Levant (Kempinski 1992, 68-72), as attested to also at et-Tell



Fig. 1.36 - Round tower with small semicircular offsets at the eastern corner of the site, from north.

Roughly 45 m west of the eastern corner, along the southern side, a ravine in the edge of the hill indicated the location of another gateway, of which only a huge limestone pier was preserved across the city-wall (figs. 1.37-1.38). This entrance was approached through a passageway running south-west/north-east at the foot of the cliff and turning left to the north-west into the city (fig. 1.37)²⁰. This entrance was especially defended by the structures built over the spur to the west of it, some meters inside the city, which was 3.5 m higher than the ramp of the passage itself. From that point onwards, the city border rose again up to the south-western corner, with the city-wall closely following the very edge of the hill.

Also the south-western corner of the *khirbet* hosted a huge tower (fig. 1.39), controlling the Wadi az-Zarqa Valley at a strategic turn, which offered a wide

(Marquet-Krause 1949, 3, pl. C; Callaway 1980b, 65-68, 72-81, figs. 8, 38, 42, 49-51), Tell es-Sultan (Nigro 2006a, 358-360), Tell 'Arad (Amiran *et al.* 1978, 11-13, fig. 1, pls. 149-150, 177-178, 180, 182-183; Amiran - Ilan 1996, 19-23, pls. 1, 68-70, 79-80, 90-93), Khirbet 'Aliyah (Braun 1989, 96-98, fig. 1) and Khirbet ez-Zeraqon (Genz 2002, fig. 3; Ibrahim - Douglas 2004, figs. 5-7).

²⁰ It seems reasonable that from this entrance a street climbed the site towards the Acropolis, leading to the southern gate.

panoramic view²¹. This spot was called Area D and a preliminary examination of emerging structures showed that Tower D1 (figs 1.40-1.42) underwent several transformations, apparently with an original round plan (detected at a lower level, directly founded on the bedrock), followed by a reconstruction with an almost square bastion in the middle. Anyway, systematic excavations are needed in this spot to clarify the tower plan and its constructive history. The western side was the best protected one of the site, due to the steep cliff, and at least two projecting terraces, which hosted offsets or protruding towers built with large boulders set directly over the bedrock, aimed at allowing a watchful overlooking of the edge of the hill towards the underlying valley (figs. 1.43-1.44). On this side, the city-wall was irregularly preserved, due to strong erosion and some plunder pits. Its location on the very edge of the cliff was always respected, except for a spot not far from the north-western tower, where it sharply turns inwards (fig. 1.45), perhaps for a more effective control of an underlying spur.



Fig. 1.37 - The entrance across the southern line of fortifications, from east; note the ramp approaching the gate and the huge limestone pier preserved at the top.

²¹ The collapsed remains of the tower were used for some jar burials during Early Bronze IVB, when the inhabited area of Batrawy was reduced to only some more favourable spots of the *khirbet*; one of these burials was identified and excavated: it is a simple burial in jar (D.200; § 1.1.2., figs. 1.11-1.12).



Fig. 1.38 - Limestone pier preserved at the top of the passageway across the southern line of fortifications, from south-west.

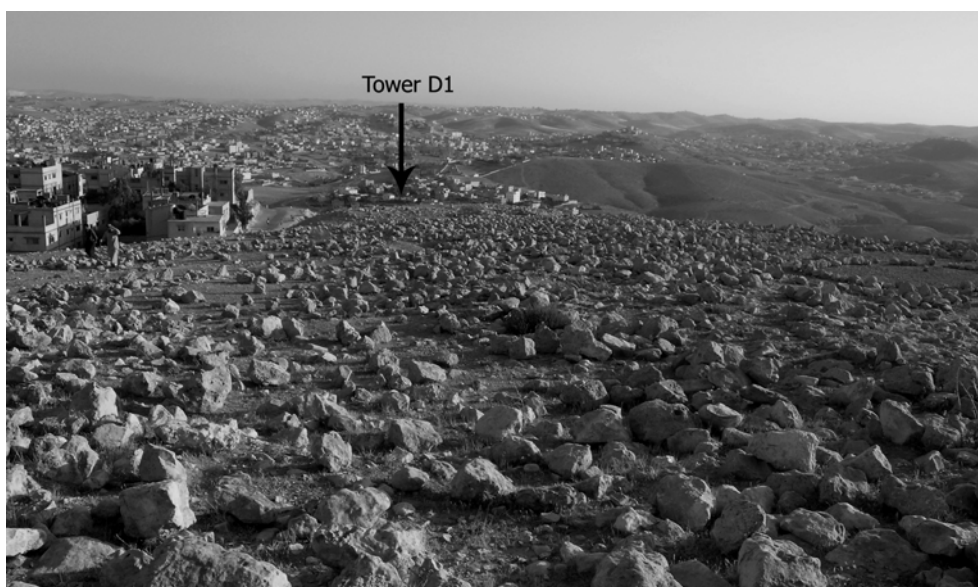


Fig. 1.39 - General view of the south-western sector of the *khirbet* with Terrace II and Tower D1 at the projecting corner of the site, looking south-west.



Fig. 1.40 - Collapsed remains of Tower D1 at the south-western corner of the *khirbet*, from north.



Fig. 1.41 - Panoramic view from the top of Tower D1, looking south.

As it has been provisionally illustrated with the above detailed description, the fortified town of Batrawy during the Early Bronze II-III had an articulated defensive system, very well adapted to the natural configuration of the site,

which testifies to the full urban status of Batrawy and its long life, covering the whole urban Early Bronze Age of Transjordan.



Fig. 1.42 - Round perimetrical wall of Tower D1, from north-west.



Fig. 1.43 - Period Batrawy III city-wall along the western edge of the *khirbet*, from north.



Fig. 1.44 - Period Batrawy III city-wall preserved on the edge of the western side of the *khirbet*, from east; in the bottom background, the Wadi az-Zarqa Valley.



Fig. 1.45 - The western edge of the *khirbet*, turning inwards at the mid, from north.

1.3. *Stratigraphy and Preliminary Periodization*

On the basis of ceramic finds from the site surface survey, and, more substantially, of the systematic excavations carried out during the first season in Areas A and B, an overall preliminary archaeological periodization

has been put forward summing up all available stratigraphic data, in order to function as preliminary working tool for the next excavation seasons. No absolute dating is yet available to anchor this provisional stratigraphy, and, thus, the chronological assessment of Batrawy archaeological periods is temporarily based upon the chronology generally accepted in the region²².

Site Period	Archaeological Period	Absolute Chronology	Phases of Area A	Phases of Area B
Batrawy I	Early Bronze I	3400-3000 BC	-	-
Batrawy II	Early Bronze II	3000-2700 BC	-	Phase 5
Batrawy IIIa	Early Bronze IIIA	2700-2450 BC	Phase 5	Phase 4b-a
Batrawy IIIb	Early Bronze IIIB	2450-2300 BC	Phase 4c-b	Phase 3c-a
Batrawy IVa	Early Bronze IVA	2300-2200 BC	Phase 4a	Phase 2d
Batrawy IVb	Early Bronze IVB	2200-2000 BC	Phase 3c-a	Phase 2c-a
Batrawy V	Later Periods	2000 BC-1950 AD	Phase 2	-
Batrawy VI	Contemporary frequentation	1900-2005 AD	Phase 1	Phase 1

Tab. 1.1 - Archaeological periodization and stratigraphic phases of Khirbet al-Batrawy.

Six major periods have been distinguished (Batrawy I-VI), which conventionally and preliminary respectively coincide with the main archaeological periods in which the Early Bronze Age is subdivided in Palestine and Transjordan, and with the following periods down to contemporary times. A continuous stratigraphic sequence has been so far made available by excavations only for Periods Batrawy III-IV, each one subdivided into two sub-periods²³.

1.3.1. Periods Batrawy I-IV: the Early Bronze Age (3400-2000 BC)

The possibility of a proto-urban frequentation of the hill during the Early Bronze I, Period Batrawy I, is not documented at the moment, but it cannot be ruled out *a priori*, as it is also suggested by the funerary utilization of some caves in the surrounding cliffs during this period (fig. 1.46), and by the

²² Stager 1992, Volume I, 28-39, Volume II, fig. 16; Mazar 1992, 108-109, tab. 3; Philip 2001, 168-169.

²³ Such subdivisions are based both on clear stratigraphic and structural changes, and on observations of morphological transformations of pottery types and, more significantly, of their frequency. Nevertheless, they have to be considered a provisional assessment.

presence of a relevant EB I village, Jneneh, just across the Wadi az-Zarqa, in front of Khirbet al-Batrawy²⁴.



Fig. 1.46 - Caves on the slopes of cliffs surrounding Khirbet al-Batrawy.

Batrawy II (Early Bronze II, 3000-2700 BC) strata were not reached in the first season, even though several deposits including ceramic materials from Early Bronze II allow to hypothesize that during this period the town was first established, possibly as the result of a process of synecism involving several ex-EB I communities previously settled in the mid-Wadi az-Zarqa valley and in sites like the nearby village of Jneneh. One cannot rule out the possibility that groups coming from the desert also settled in the Valley in this period. It seems reasonable, on the basis of stratigraphic observations both in Area B and along the fortified perimeter of the site, to hypothesize that the city-wall was first erected at the beginning of Period Batrawy II.

Batrawy III (Early Bronze III, 2700-2300 BC) layers were excavated both in Area A and Area B, and various structures were brought to light along with the massive city-wall of Area B dating from this period. Constructive phases of fortifications and buildings uncovered in Area B allow to distinguish two

²⁴ The site of Jneneh was identified by K. Douglas roughly 500 m to the south-west of Khirbet al-Batrawy on the other side of the Wadi az-Zarqa (Douglas in this volume, pp. 50-51, figs. 1.4, 2.16, maps 4-5); Jneneh also had a major Iron Age II occupation (*JADIS* nr. 2516.016, p. 2.172).

major phases within Period Batrawy III²⁵, the most recent of which is characterized by a series of superimposed floors in the corridor just inside the city-wall (§ 4.2.2.).

Batrawy IV (Early Bronze IV, 2300-2000 BC) strata and structures were excavated in several spots of the site (on the Acropolis, in Area A, and, with a more complex stratification, at the centre of the northern side of the site, in Area B), showing also in this case a subdivision of the period at least into two main phases: Periods Batrawy IVA and IVb, respectively corresponding to Early Bronze IVA (2300-2200 BC) and IVB (2200-2000 BC). The two phases are both attested to in Area B²⁶, while the dwelling quarter on the Acropolis (Area A) apparently belongs only to the last phase of development of this period (Batrawy IVb).

1.3.2. Periods Batrawy V-VI: Later Periods and Contemporary Frequentation

Period Batrawy V includes all historical periods from the desertion of the site at the very end of the 3rd millennium BC to modern times; but especially the period (Roman-Byzantine?) which the three cairns, erected respectively on the Acropolis (Cairns I and II) and on the easternmost Terrace V (Cairn III), belong to.

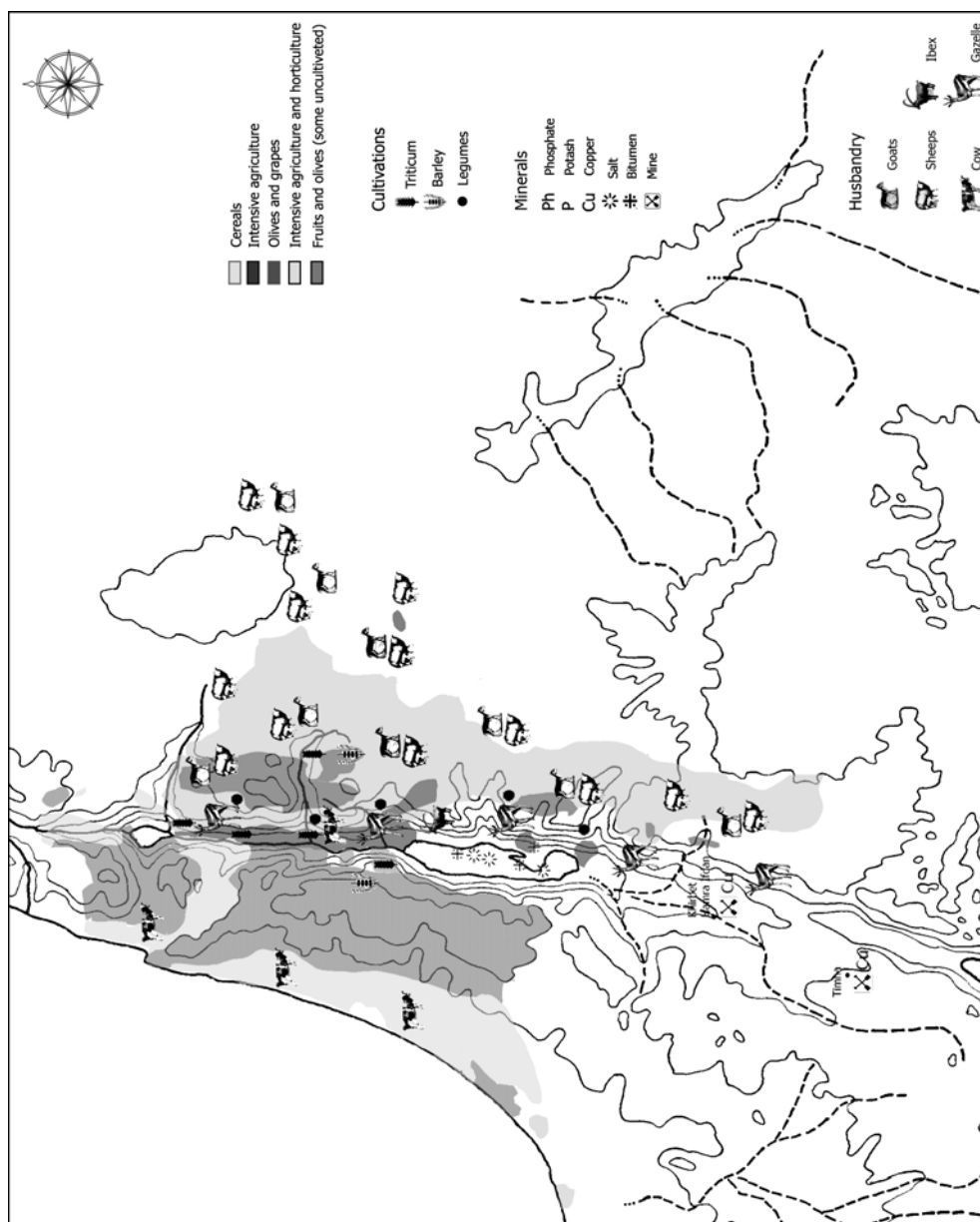
Period Batrawy VI represents the modern and contemporary frequentation of the *khirbet*, starting from the end of the 19th century AD, when the fortress of Zarqa was established, onwards.

1.3.3. The Chronological Relevance of the Early Bronze Age Sequence at Khirbet al-Batrawy

From the chronological point of view, Khirbet al-Batrawy deserves a special interest, having been extensively occupied only during the Early Bronze Age, in a time span roughly corresponding to the whole 3rd millennium BC. It seems, thus, a very promising site for a careful diachronic definition of the north-central Transjordanian cultural horizons in the period of the earliest urbanization. Superimpositions and interventions later than the Early Bronze Age affected the site only trivially, basically consisting of the above mentioned three cairns and four stone enclosures (Fences a-d); so that the site can really offer an almost complete undisturbed stratigraphic sequence, suitable for a comprehensive periodization of the early urbanization in this region of Southern Levant.

²⁵ Periods Batrawy IIIa and IIIb, respectively corresponding to the Early Bronze IIIA (2700-2450 BC) and Early Bronze IIIB (2450-2300 BC).

²⁶ Actually, the earliest period is represented only by sparse burials and pits dug into the remains of the abandoned EB III town (such as the two refuse pits cut against the inner face of the city-wall in square Bq117), while the second phase has a throughout occupational sequence, attested to especially in Area B (§ 4.2.1.).



Map 7 - Distribution of cultivations and raw materials in Palestine and Transjordan.

CATALOGUE OF SPORADIC POTTERY AND SMALL FINDS

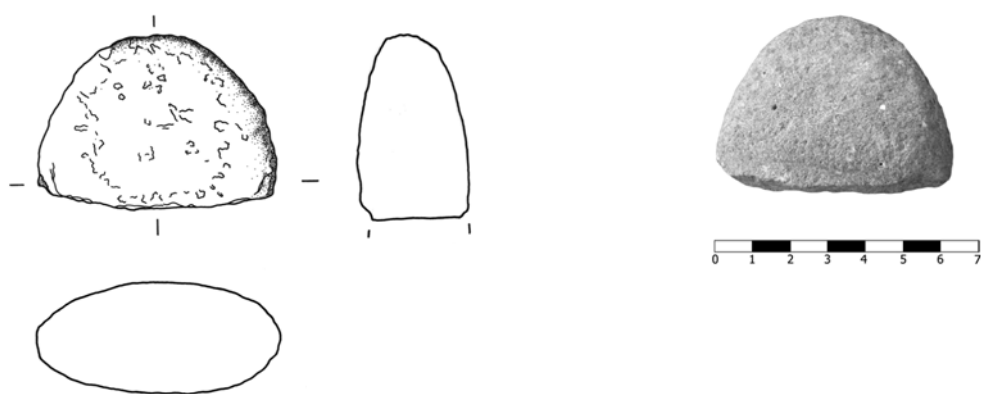
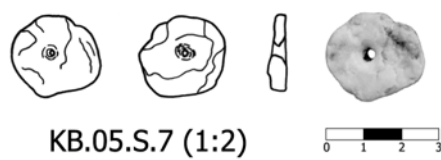
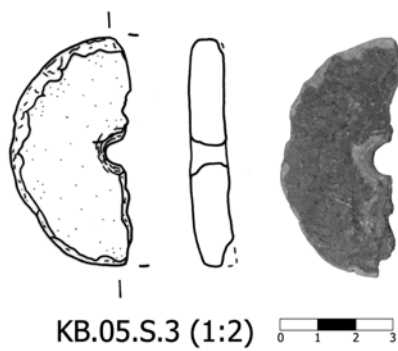
Pl. I - Sporadic Small Finds from the Surface of the *Khirbet*

KB.05.S.3, spindle whorl. Context: sporadic. State of preservation: half. Material: pottery. Technique of manufacture: handmade. Material colour: 2.5YR2.5/1 (reddish black). Diameter: 6 cm; width: 1 cm. Description: circular-shaped spindle whorl; central hole 0.5 cm of diameter. Dating: EB III. Bibliography: Genz 2002, pl. 139:4-7, 9-10.

KB.05.S.7, bead. Context: sporadic. State of preservation: fragmentary. Material: limestone. Technique of manufacture: chipped. Material colour: 10YR8/1 (white). Diameter: max. 2.2 cm; min. 1.8 cm. Description: bead of roughly circular shape with central hole. Dating: EB III. Bibliography: Palumbo 1990, fig. 59:3-4.

KB.05.S.4, grinder. Context: sporadic. State of preservation: half. Material: basalt. Technique of manufacture: sculpture. Material colour: 10B8/4 (dark bluish gray). Height: 4.8 cm; length: 6.4 cm; width: 3 cm. Description: grinder of oval section and rounded profile. Dating: EB III.

KB.05.S.2, grinding stone. Context: sporadic. State of preservation: half. Material: basalt. Technique of manufacture: sculpture. Height: 8 cm; length: 10.5 cm; width: 3.5 cm. Description: grinding stone of semi-oval section and rounded profile. Dating: EB IVB.



Pl. II - Sporadic Pottery from the Surface of the *Khirbet*

KB.05.S.0/4, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5Y5/0 (gray). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Diameter: 12 cm; rim width: 0.4 cm; wall width: 0.5 cm. Description: jar with flaring neck and slightly everted rim. Dating: EB III. Bibliography: Genz 2002, pls. 44:12, 64:6.

KB.05.S.0/2, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR5/0 (gray). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: 10 cm; rim width: 0.4 cm; wall width: 0.7 cm. Description: jar with flaring neck and everted rim. Dating: EB III. Bibliography: Daviau 1991, figs. 6.21:14; 6.32:25; Harrison 1997b, fig. 5.9:10.

KB.05.S.0/14, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR7/3 (very pale brown). Temper/inclusions: mineral; dimension: small; frequency: low. Diameter: n.r.; rim width: 0.5 cm; wall width: 0.9 cm. Description: jar with flaring neck and everted rim. Dating: EB III. Bibliography: Daviau 1991, fig. 6.22:7.

KB.05.S.0/3, jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR7/4 (pink). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: 15 cm; rim width: 0.7 cm; wall width: 1.2 cm. Description: jar with slightly everted pointed rim. Dating: EB III. Bibliography: Genz 2002, pls. 13:13, 46:13.

KB.05.S.0/5, jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral (white grits); dimension: medium; frequency: medium. Diameter: n.r.; rim width: 1.3 cm; wall width: 1.2 cm. Description: jar with slightly everted rounded and thickened rim. Dating: EB III. Bibliography: Kenyon - Holland 1982, fig. 60:19.

KB.05.S.0/15, jug. Class: Simple Ware. State of preservation: rim, wall, fragmentary handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10YR7/1 (light gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Diameter: 9 cm; rim width: 0.4 cm; wall width: 0.6 cm. Description: jug with slightly everted rim. Dating: EB III.

KB.05.S.0/1, jar. Class: Storage Ware. State of preservation: rim, wall, fragmentary handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR7/6 (reddish yellow). Temper/inclusions: mineral (white grits); dimension: medium; frequency: medium. Diameter: n.r.; rim width: 0.8 cm; wall width: 0.8 cm. Description: jar with knob handle. Dating: EB III. Bibliography: Kenyon - Holland 1982, fig. 66:1.

KB.05.S.0/17, jar. Class: Storage Ware. State of preservation: rim, neck, shoulder. Technique of manufacture: wheel. Firing: medium-high. Fabric colour: 10YR6/8 (light red)+10YR5/3 (brown). Temper/inclusions: mineral; dimension: medium; frequency: small, medium-small. Diameter: 16 cm; rim width: 0.6 cm; wall width: 0.9 cm. Description: jar with flaring neck and slightly everted rim. Dating: EB III. Bibliography: Genz 2002, pl. 22:6.

KB.05.S.0/6, hole-mouth jar. Class: Storage Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: sandwich, 2.5Y4/0 (dark gray)+5YR6/4 (light reddish brown). Temper/inclusions: mineral (white grits); dimension: medium, large; frequency: medium-high. Diameter: 20 cm; rim width: 1 cm; wall width: 1.2 cm. Description: hole-mouth jar with slightly pointed rounded rim. Dating: EB III.

KB.05.S.0/13, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5Y7/1 (light gray). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Wall width: 0.9 cm. Description: pushed-up ledge handle. Dating: EB III. Bibliography: Amiran 1969, pl. 8:16-19.

KB.05.S.0/10, Islamic ware. Class: Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10YR6/3 (pale brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Decoration: painted (5YR3/2 dark reddish brown). Wall width: 0.7 cm. Dating: Islamic period.



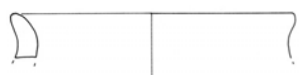
KB.05.S.0/4



KB.05.S.0/2



KB.05.S.0/14



KB.05.S.0/3



KB.05.S.0/5



KB.05.S.0/15



KB.05.S.0/1



KB.05.S.0/17



KB.05.S.0/6



KB.05.S.0/13



KB.05.S.0/10



KB.05.S.0/16



KB.05.S.0/8



KB.05.S.0/11



KB.05.S.0/9

[Pl. II]

KB.05.S.0/16. Class: Simple Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/6 (light red). Temper/inclusions: mineral (white grits), vegetal; dimension: small, medium; frequency: medium-low. Surface treatment: outer burnish. Wall width: 0.6 cm. Dating: EB III.

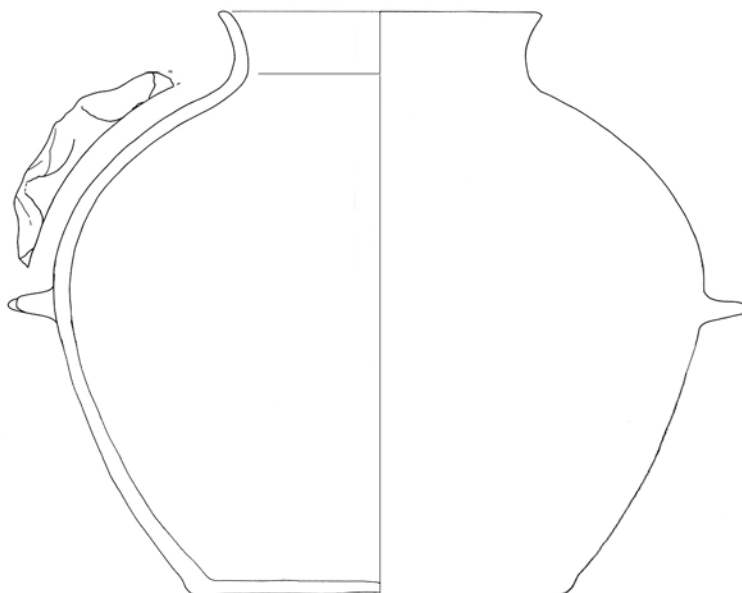
KB.05.S.0/8, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: slightly sandwich. Temper/inclusions: mineral (white grits); dimension: medium, medium-large; frequency: medium. Decoration: impressed (thumb-indented). Wall width: 1.7 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. V:12.

KB.05.S.0/11, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR7/4 (very pale brown). Temper/inclusions: mineral; dimension: small; frequency: low. Decoration: outer band-combed. Wall width: 0.8 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. III:14.

KB.05.S.0/9, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow)+7.5YR6/0 (gray). Temper/inclusions: mineral (white grits); dimension: medium, large; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.1 cm. Dating: EB III.

Pl. III - Jar Burial KB.05.D.200/1

KB.05.D.200/1, jar. Class: Storage Ware. State of preservation: complete. Technique of manufacture: handmade. Firing: high. Fabric colour: 7.5YR6/4 (light brown). Temper/inclusions: mineral; dimension: small, medium; frequency: medium-high. Rim diameter: 16 cm; rim width: 0.6 cm; wall width: 0.9 cm. Description: jar with slightly everted rim, short flaring neck and envelope ledge handles. Dating: EB IVB. Bibliography: Oren 1973, figs. 18:1, 20:12.

**KB.05.D.200/1**

2. Occupational History of the Early Bronze Age in the Upper Wadi az-Zarqa [by Khaled Douglas]*

The Upper Wadi az-Zarqa during the Early Bronze Age witnessed an intensive human occupation. The settlements during this period peaked and were denser than any other time during the prehistoric period.

Occupation during the Neolithic period in the Upper Wadi az-Zarqa does seem to have been quite intensive. Several real settlements of considerable size were identified: Zuqm et-That (JRS¹ site nr. 13; *JADIS* nr. 2417.027; grid ref. 249.56E, 172.96N) and Kharaysin (*JADIS* nr. 2417.001; grid ref. 244.00E, 179.30N) with PPNB material and al Hasayyah (JRS site nr. 8; *JADIS* nr. 2417.025; grid ref. 249.16E, 173.14N) with PPNB and Yarmoukian occupation². Several small Neolithic sites have been found along the Wadi az-Zarqa. These sites are relative to a smaller wadi drainage in 'Ain Ghazal area³. 'Ain Ghazal itself is located along parallel bank sides of the Wadi az-Zarqa, near Amman, which is considered to be one of the largest Neolithic sites in Jordan. This might have served as a central site in the region. However, human occupation in the region of the Upper Wadi az-Zarqa was dramatically reduced at the end of the Yarmoukian Period.

No real settlements from the Chalcolithic period were found in the area, which means that the Upper Wadi az-Zarqa was almost abandoned during the Chalcolithic period. Chalcolithic occupation was almost rare in the region, as evidenced by the rarity of sites containing material from this period. G. Palumbo, in his survey of the Upper Wadi az-Zarqa, confirmed that there is a clear absence of permanent villages, like the ones found in Jordan Valley and the highlands of northern Jordan⁴. So, in his 144 km² surveyed area, Palumbo determined that Chalcolithic occupation was represented in two seasonal encampments: they are Hasiyya 1 (JRS site nr. 15; *JADIS* nr. 2417.028; grid ref. 249.60E, 173.23N) and JRS site nr. 80 (*JADIS* nr. 2517.50; grid ref. 251.72E, 172.82N).

* By Dr. Khaled Douglas, Head of the Department of Sustainable Tourism - Queen Rania's Institute of Tourism and Heritage, The Hashemite University, Zarqa.

Most of the data presented in this article based on the results of several archaeological surveys. Unfortunately it is not easy to evaluate the real intensity of the settlement, since almost all evidence comes from surface survey.

¹ Jebel er-Reheil Survey (JRS).

² Caneva *et al.* 2001, 102.

³ Simmons - Kafafi 1988, 31-33.

⁴ Palumbo *et al.* 1996, 385.

This might contradict Palumbo's expectations after his 1993 survey in the region, where he mentioned that "given the nature of the landscape and land use during the EB I and II periods in the same region, however, it cannot be excluded that larger and more permanent sites may have existed here during the 5th and early 4th millennia BC"⁵. Since no similar permanent Chalcolithic settlements have been discovered to date, the idea of abandonment during this period could be more readily accepted.

On the contrary to the Chalcolithic period, the Upper Wadi az-Zarqa was more attractive for people of the Early Bronze I (fig. 2.1). Although the number of sites did not increase rapidly, seven sites have been found with EB I components in the Upper Wadi az-Zarqa. Unfortunately, all of these sites were known through archaeological surveys and none of them was excavated, except for the Amman Citadel. Small soundings have been excavated one on the Upper Citadel⁶ and one on the Lower Citadel⁷. Because of the later occupations on the Citadel, it was impossible to determine the size or the nature of the settlement of the Early Bronze I.

Four Chalcolithic/Early Bronze I sites were discovered through 'Ain Ghazal survey along the Wadi az-Zarqa⁸. The surveyors did not identify if these sites were occupied primarily in the Early Bronze I or if their occupation was a continuation from the Chalcolithic to the Early Bronze I. Due to the fact that they contain EB I components, the sites can be considered as EB I sites. Just one of these sites was assumed to be a relatively large settlement, AGAS⁹ 59. It is located ca. 4 km northeast of 'Ain Ghazal and contained several blocks of rooms¹⁰. Another small site is AGAS 49, which overlooks a small wadi and consists of substantial architectural remains. The two other sites, AGAS 51 and 54, contained few material remains, which means they might have been used for a short period of time.

Through Palumbo's survey, one EB I site was identified. The site, JRS site nr. 65 (*JADIS* nr. 2417.042; grid ref. 247.24E, 171.10N), is located on a ridge ca. 2.5 km south of the Wadi az-Zarqa. It was assumed as an ephemeral village or campsite. It was reused during the Early Bronze II¹¹. Later investigations of Palumbo's surveyed area revealed a new EB I site, Jneneh, ca. 3-4 ha. It is located on a flat promontory directly on the left

⁵ Palumbo *et al.* 1996, 385.

⁶ Zayadine 1977-78.

⁷ Zayadine *et al.* 1987.

⁸ Simmons - Kafafi 1988, 33-35.

⁹ 'Ain Ghazal Archaeological Survey (AGAS).

¹⁰ Simmons - Kafafi 1988, fig. 1.

¹¹ Palumbo *et al.* 1996, 385; see below.

bank of the Wadi az-Zarqa (fig. 2.16; maps 4-5). This site was recognized by Palumbo as a large unfortified Iron Age II village, JRS site nr. 45 (*JADIS* nr. 2516.016; grid ref. 250.88E, 165.25N). Remains of a fortification wall surround the site on its eastern side and are still visible today. The numerous EB I artefacts on the surface, which covered the whole site, indicate an intensive use of the site during this period, while the location of the site immediately beside the rich water source, suggest a permanent settlement. This site seems to be abandoned sometime during the Early Bronze I and was never reoccupied until Iron Age II. Jneneh is located ca. 1.5 km south-southwest of the EB II-III fortified settlement of Khirbet al-Batrawy. Since no EB I materials were discovered at Khirbet al-Batrawy to date, neither on the surface or through the excavation, there is a strong possibility that the populations of both sites were related somehow. However, Jneneh was in sight of Khirbet al-Batrawy before the constructing of modern buildings between the two sites (fig. 2.16). This kind of relationship between Khirbet al-Batrawy and Jneneh is very similar to the situation between Khirbet ez-Zeraqon, EB II-III fortified town, and Tell al-Fukhar, an unfortified EB I settlement¹². The two sites are in close proximity and facing each other on both sides of the wadi. It is possible that the unfortified EB I settlement was shifted to a fortified hilltop during the Early Bronze II.

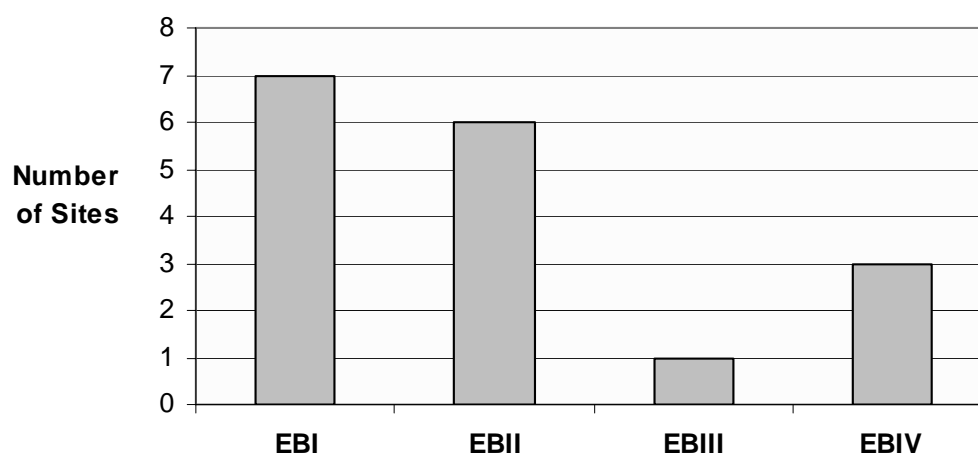


Fig. 2.1 - Number of Early Bronze Age sites in the Upper Wadi az-Zarqa.

The human occupation during the Early Bronze I in the Upper Wadi az-Zarqa was not very intensive comparing to the Middle Wadi az-Zarqa region, mainly Jerash and er-Rumman regions (fig. 2.3). However, during

¹² *JADIS* nr. 2422.007, p. 2.167-168; Mittmann 1994; Strange 1997.

their survey in er-Rumman area, R. Gordon and E.A. Knauf discovered thirty-one sites of the Early Bronze I¹³. They identified seven of these sites as villages, while one as a fortified 2.4 ha town, Jebel et-Tuweim (et-Tell)¹⁴. Most of these sites were situated on gentle slopes and very close to perennial water sources. The concentration and variety of the EB I sites, camps, hamlets, villages and towns in er-Rumman area, make the idea of an existing hierarchical system acceptable. Several scholars espoused this theory, especially in the latter part of this period, Early Bronze IB¹⁵. In this case, the fortified site of Jebel et-Tuweim could be portrayed as a central site in the er-Rumman region. This situation is similar to the Jerash region, north of the er-Rumman. Several archaeological surveys took place in the Jerash region¹⁶. Out of thirty-eight sites dated from Chalcolithic to Early Bronze II, twenty-five sites with EB I material were counted in the Jerash region¹⁷. These sites varied in different types, camps, hamlets, villages and towns. Most were erected close to water sources, except for some sites, which were far from water, like Jebel Mutawwaq¹⁸. Jebel Mutawwaq, 24 ha, is one of the largest EB I settlements, not just in the Jerash region but in Jordan (*JADIS* nr. 2418.011; grid ref. 244.20E, 180.31N). It is a hilltop site enclosed by an enclosure wall and is surrounded by several smaller open sites. This site could have been occupied as a central settlement in the region during the Early Bronze IA. In regards to the size and site location, Jebel Mutawwaq might have played a more important role than Jebel et-Tuweim in er-Rumman region.

The high concentration of the EB I sites in the Middle Wadi az-Zarqa, more than 56 sites comparing to the less densely occupied upper part of the wadi, which only had seven sites (figs. 2.1-2.3), indicates that the Middle Wadi az-Zarqa region was more populated and might have played an important cultural role in the Early Bronze I than the Upper Wadi az-Zarqa region¹⁹. This situation dramatically changed during the Early Bronze II and III. The number of settlements in the Upper Wadi az-Zarqa was increased from 7 sites in the Early Bronze I to 10 sites in the Early Bronze II, where in the Middle Wadi az-Zarqa the number was decreased sharply from 56 sites in the Early Bronze I to 11 sites in the Early Bronze II.

¹³ Gordon - Knauf 1987.

¹⁴ Gordon - Knauf 1987, fig. 1, site nr. 4.

¹⁵ Richard 2003, 288.

¹⁶ Glueck 1951; Mittmann 1970; Hanbury-Tenison 1987.

¹⁷ Hanbury-Tenison 1987, fig. 4.

¹⁸ Hanbury-Tenison 1987, 132.

¹⁹ Kafafi in press.

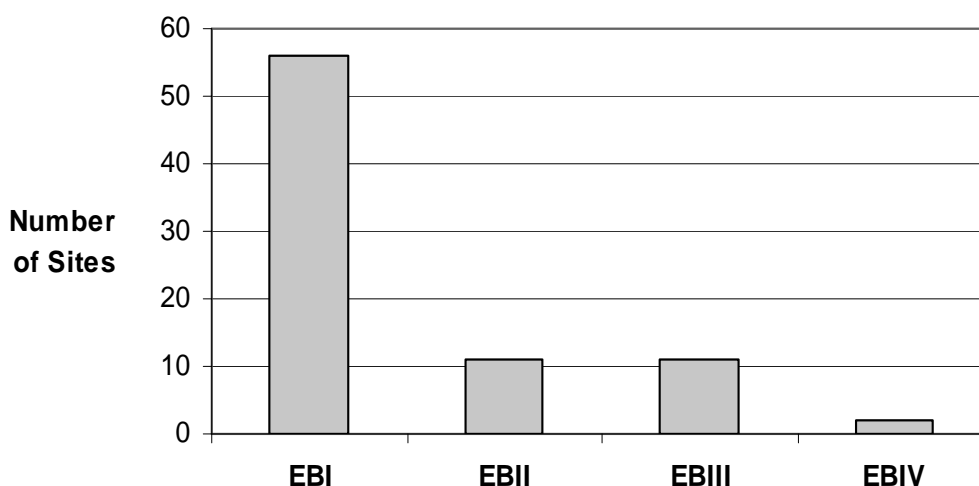


Fig. 2.2 - Number of Early Bronze Age sites in the Middle Wadi az-Zarqa.

In the Middle Wadi az-Zarqa there was a sub-regional shifting in the settlement patterns. Out of the thirty-one EB I sites that have been discovered in er-Rumman survey, only one site, Jebel et-Tuweim (et-Tell), yielded EB II-III material²⁰. The survey of Jerash region showed a somewhat similar situation with ten EB II-III sites were countered, comparing to twenty-five EB I sites²¹. This means that the total number of the EB II-III sites was reduced from 56 to 11.

The decrease in the number of the sites from Early Bronze I to Early Bronze II-III in the Middle Wadi az-Zarqa region fits perfectly with the results of several studies highlighting the shifting patterns of settlement during the Early Bronze Age in Jordan and Palestine²². At the same time, it does not fit well with the idea of connecting the decrease in the number of sites from Early Bronze I to Early Bronze II-III with the increase of average site size of Early Bronze II-III. This was very clear through the er-Rumman survey, where only one EB II-III site remained from the thirty-one EB I sites, which existed in an area which was also occupied in the Early Bronze I. There was no clear difference on the site size between the two periods²³.

²⁰ Gordon - Knauf 1987, 292.

²¹ Hanbury-Tenison 1987, fig. 4.

²² Amiran 1970; Gophna - Portugali 1988; Esse 1991; Finkelstein - Gophna 1993; Falconer 1994; Harrison 1997a. In northern Palestine the number of EB II-III sites decreased from Early Bronze I, but the average site size in Early Bronze II-III increased (Esse 1991, 151).

²³ Gordon - Knauf 1987, 291.

The Jerash region survey showed there was no difference in size between the EB I and EB II-III sites²⁴. However, this situation might be similar to the central hill country of Palestine, where the increase in average site size does not match fully with the drop in the number of sites²⁵. At the same time, however, thinking about a decisive collapse in settlement at the end of Early Bronze I followed by widespread abandonment and then diminished resettlement in Early Bronze II is difficult, especially in the light of the absence of excavation works in the region.

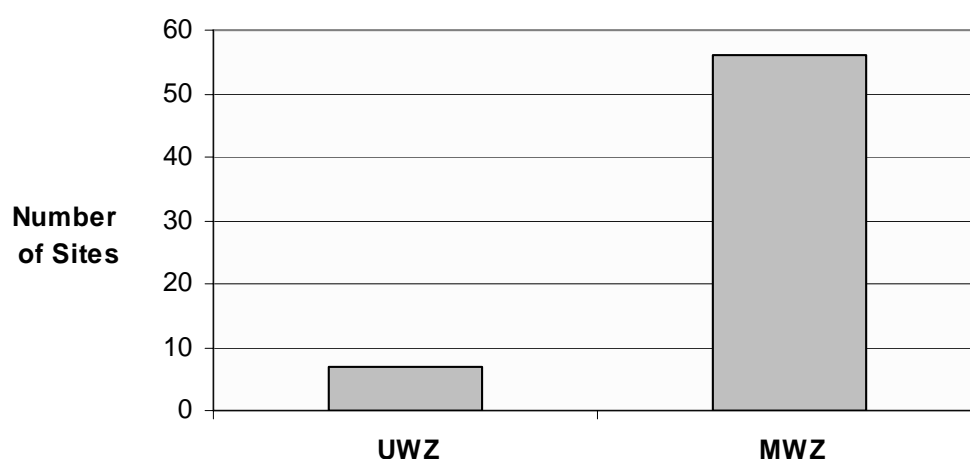


Fig. 2.3 - Number of EB I sites in the Upper and Middle Wadi az-Zarqa.

The Upper Wadi az-Zarqa witnessed essential changes in the settlement patterns between Early Bronze I and Early Bronze II. The density of the settlements during Early Bronze II increased in very large percentage in the Upper Wadi az-Zarqa. This kind of changes never happened before.

This increase in population later surpassed previous population size during the Roman and Byzantine periods. The total number of EB II sites increased significantly from the preceding period Early Bronze I. Six EB II sites were identified in Palumbo's survey, four of them were fortified (figs. 2.4-2.5). Khirbet al-Batrawy was the main fortified settlement in the region.

²⁴ Hanbury-Tenison 1987, fig. 4.

²⁵ Finkelstein - Gophna 1993, 6-8.

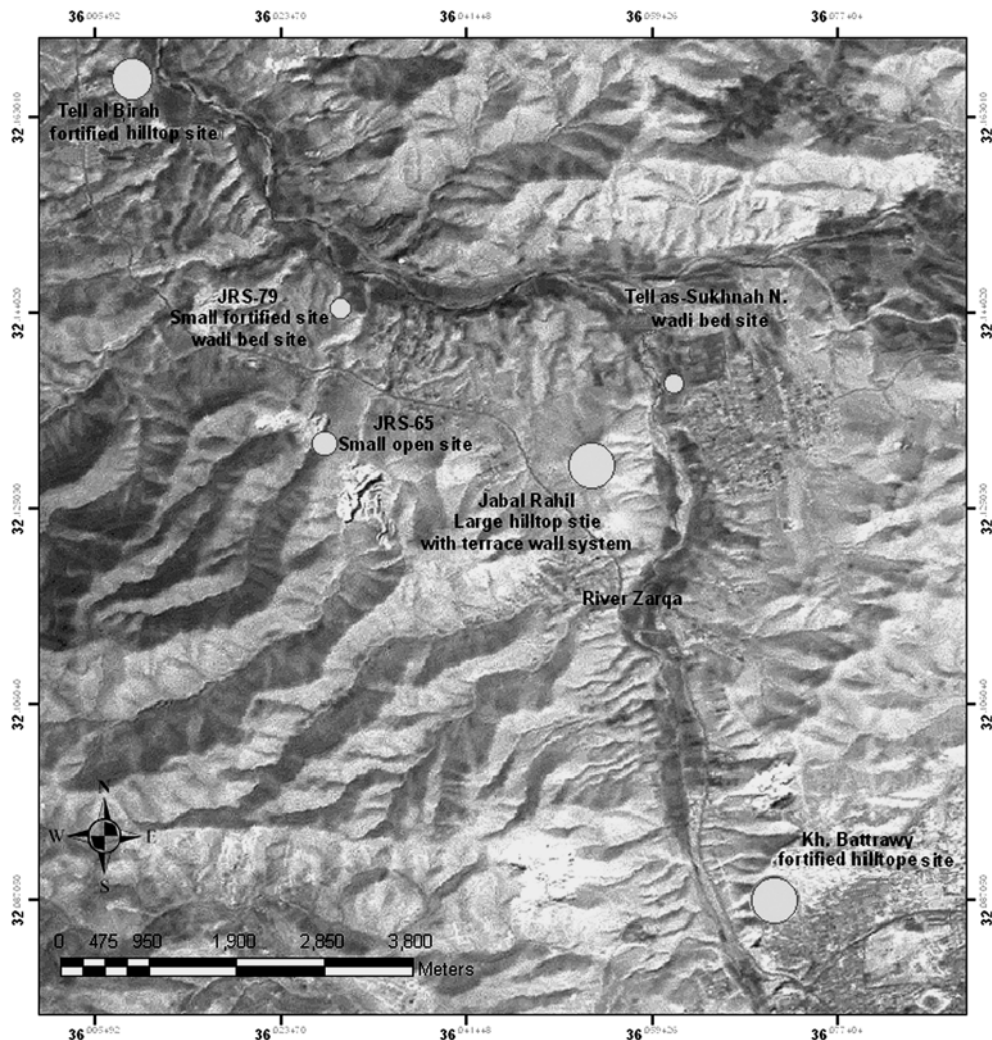


Fig. 2.4 - Aerial photography of the Upper Wadi az-Zarqa showing the EB II sites.

Tell el-Bireh (JRS site nr. 5; *JADIS* nr. 2417.021; grid ref. 245.50E, 175.06N) is a large EB II site located to the left side of the Wadi az-Zarqa and ca. 5 km northwest of Jebel er-Reheil. This site is fortified and situated in a defensible position. Tell el-Bireh was reoccupied in Iron II, Roman and Byzantine periods²⁶. The other EB II site, which might contain fortifications,

²⁶ Palumbo *et al.* 1996, fig. 7.

is JRS site nr. 79 (*JADIS* nr. 2417.048; grid ref. 247.37E, 172.64N), where large mud-brick walls on stone foundations were visible in a bulldozer cut, which might belong to a fortification wall²⁷. This site is located ca. 7 km north-west of Khirbet al-Batrawy and situated in the bottom valley, which is remarkable for this period. The fourth EB II site in this region is Tell es-Sukhneh North (JRS site nr. 7; *JADIS* nr. 2517.027; grid ref. 250.33E, 171.86N). Although this site was damaged by the modern street nets connecting the modern village es-Sukhneh with Al-Qnaiah, the bulldozer cut showed over a meter of deposits with architectural remains of well preserved mud-brick over stone foundations²⁸. Tell es-Sukhneh North is located ca. 5 km south of Tell el-Bireh on the right hand side of the Wadi az-Zarqa.

The two unfortified EB II sites are Jebel er-Reheil and JRS site nr. 65. Jebel er-Reheil is the largest EB II site in the Upper Wadi az-Zarqa region (JRS site nr. 1; *JADIS* nr. 2417.022; grid ref. 249.62E, 171.00N). Its summit measures ca. 250 m long and between 80 and 50 m wide. The site is situated on a high hilltop dominating a wide bend of the Wadi az-Zarqa²⁹. It is located on the other side of the Wadi az-Zarqa facing Tell es-Sukhneh North³⁰. Jebel er-Reheil is located in the center area between Khirbet al-Batrawy, 5 km to the south-east, and Tell el-Bireh, 5 km to the north-west. The main periods of occupation were Early Bronze II and Early Bronze IV. The site was thought to be fortified or at least surrounded by an enclosure wall during the Early Bronze IV³¹. After sounding excavations at the site³², it became clear that the site was surrounded with a terrace walls system, rather than a well defined fortification³³. It is not clear till now if the terrace walls system was used as part of a new fortification system or was used as an architectural solution to solve the slope problem on the steep slopes around the site. In regards to the dating of the terrace system, Palumbo

²⁷ Palumbo *et al.* 1996, fig. 6.

²⁸ Palumbo *et al.* 1996, fig. 5.

²⁹ The site was first discovered by Glueck in 1935 during his extensive survey of the Transjordanian *plateau* (Glueck 1939, 210-211) and revisited in 1988 by G. Palumbo (Palumbo 1990). Intensive survey and sounding excavations took place at the site in 1993 by Palumbo and his team during the Upper Wadi az-Zarqa survey project (Palumbo *et al.* 1996, 393-401).

³⁰ JRS site nr. 7, see above.

³¹ Palumbo 1990, 59.

³² Specifically in Trench 1, which was opened across a possible fortification wall on the eastern slope of the hill (Palumbo *et al.* 1996, fig. 17).

³³ Palumbo *et al.* 1996, 395.

suggested an Early Bronze IV dating rather than Early Bronze II, depending on the percentage of the diagnostic pottery sherds that collected through the excavations³⁴. The terrace system at Jebel er-Reheil is clearly different from the fortifications that exist at Khirbet al-Batrawy, where the border of the fortification wall can be seen and followed clearly from the surface.

The other unfortified EB II site in Palumbo's survey area is JRS site nr. 65 (*JADIS* nr. 2417.042; grid ref. 247.24E, 171.10N). It is located ca. 2.5 km to the west of Jebel er-Reheil and was first occupied during the Early Bronze I. This site is situated ca. 2-3 km to the west from the main water source in the region (Wadi az-Zarqa).

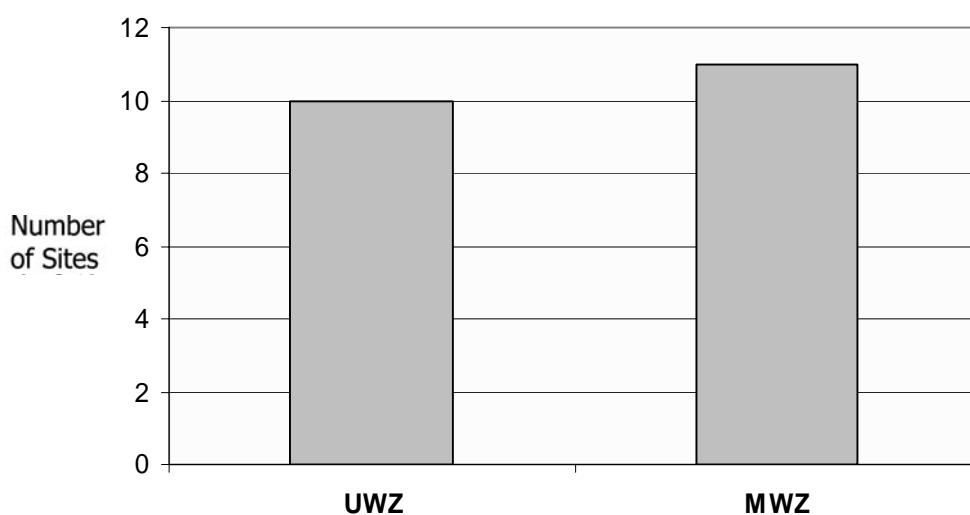


Fig. 2.5 - Number of EB II sites in the Upper and Middle Wadi az-Zarqa.

The transition process from the Early Bronze II to the Early Bronze III in the Upper Wadi az-Zarqa took place in a dramatic way. The number of settlements decreased very sharply during the Early Bronze III, where only one from six EB II sites was occupied during the Early Bronze III (fig. 2.1). Khirbet al-Batrawy (JRS site nr. 6; *JADIS* nr. 2516. 011; grid ref. 251.24E, 166.28N) is the only settlement proved to be occupied during the Early Bronze III in the Upper Wadi az-Zarqa, while the other EB II sites were totally abandoned (fig. 2.6).

³⁴ Palumbo *et al.* 1996, 398.

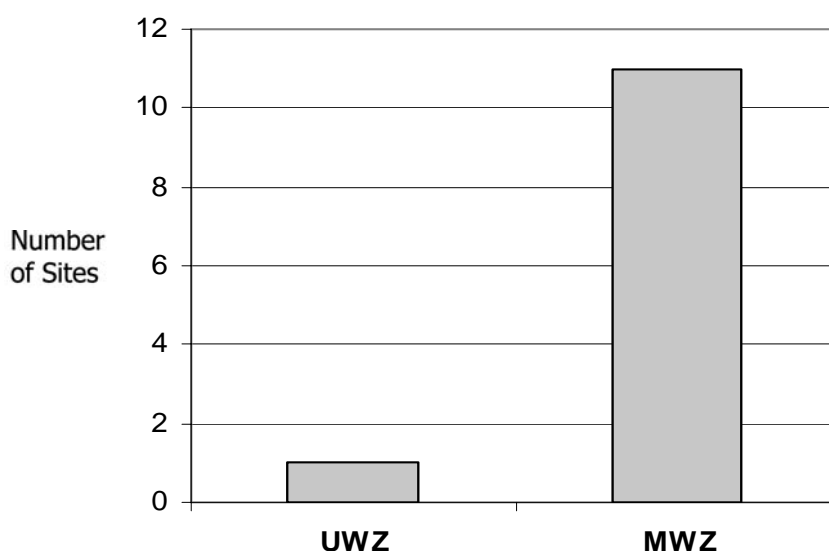


Fig. 2.6 - Number of EB III sites in the Upper and Middle Wadi az-Zarqa.

Several questions can be asked in regards to the relationship between the abandoned EB II settlements and Khirbet al-Batrawy. For example, is it possible that there were some population movements from the abandoned or destroyed EB II sites in the region, or were there migrations from outlying regions to the relatively safe site of Khirbet al-Batrawy, which was a massively fortified settlement? In this case the settlement size would be a very important indicator to prove or disapprove this idea. Khirbet al-Batrawy is around 4 ha, a dimension which sets it among the largest settlements in the Upper Wadi az-Zarqa Valley. On one side and on the other side, the site size of Khirbet al-Batrawy didn't show any remarkable changes between the Early Bronze II and Early Bronze III. But since small parts of Khirbet al-Batrawy were excavated to date, the possibility of such population movements by the end of the Early Bronze II to Khirbet al-Batrawy still exists. It is important to mention that the settlement of Khirbet al-Batrawy was very intensively fortified, which could be interpreted as an important indication of a somewhat fragmented and unstable political condition during the Early Bronze III in the region.

During the Early Bronze IV, the number of settlements tripled in the Upper Wadi az-Zarqa (fig. 2.7)³⁵. Three main sites were occupied during the Early

³⁵ This conclusion fits well with the general approach of the increase of the sites from Early Bronze III to Early Bronze IV.

Bronze IV: Khirbet al-Batrawy, Jebel er-Reheil and er-Reseifeh³⁶. The excavations at Khirbet al-Batrawy showed clearly that the EB IV settlement was unfortified, although the EB IV architecture was distributed all over the site, even on top of the EB III fortification wall. Most of the material culture of the Early Bronze IV was found over the destruction layer of the EB III remains. This shows perhaps direct contact between the EB III³⁷ and EB IV³⁸ people. However, at Jebel er-Reheil the EB IV settlement was large and extended all over the site. As we mentioned above, Jebel er-Reheil was first occupied during the Early Bronze II, but not during the Early Bronze III. So the situation at Jebel er-Reheil for EB IV people was different than at Khirbet al-Batrawy, since Jebel er-Reheil was an unoccupied site.

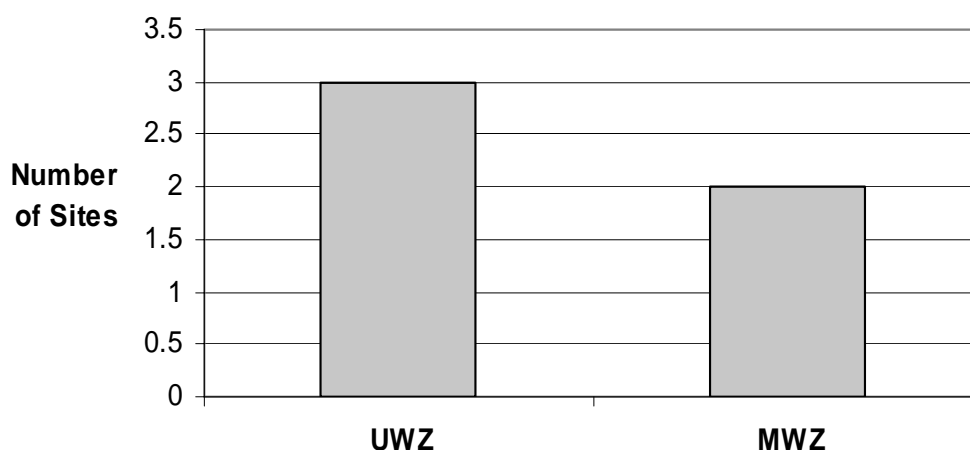


Fig. 2.7 - Number of EB IV sites in the Upper and Middle Wadi az-Zarqa.

Although the location of the EB IV sites in the Upper Wadi az-Zarqa was on hilltops or defensive positions, these sites were sedentary settlements. This was clear from the nature of the architecture found on both sites of Khirbet al-Batrawy and Jebel er-Reheil. In the Middle Wadi az-Zarqa area two EB

³⁶ Er-Reseifeh is almost destroyed because of the modern occupation. For more detailed information see Palumbo 1990, 57; 2000, 242.

³⁷ For the stratigraphy of the EB III layers see §§ 3.1.4.-3.1.5. (Area A) and §§ 4.1.3.-4.1.4. (Area B).

³⁸ For the stratigraphy of the EB IV layers see § 3.1.3. (Area A) and § 4.1.2. (Area B).

IV sites were found in er-Rumman survey³⁹, while in the Jerash region survey no EB IV sites were discovered⁴⁰.

The following points summarize the result of this study:

1. In both areas UWZ and MWZ the peak occupation was in the Early Bronze I, in MWZ 69% of the total EB sites were belonging to the Early Bronze I, while in the UWZ 41% (figs. 2.8-2.9).
2. The majority of the EB I sites were concentrated in the MWZ (fig. 2.10).
3. The transition from the Early Bronze I to the Early Bronze II went down very sharply in the MWZ (from 56 EB I sites to 11 EB II sites), while in the UWZ it was smoothly (from 7 EB I sites to 6 EB II sites) (figs. 2.14-2.15). This might be interpreted as kind of movements from the Middle Wadi az-Zarqa in the west to the upper part in the east.
4. The UWZ was almost abandoned during the Early Bronze III, except for one major site, Khirbet al-Batrawy (fig. 2.12). So the transition was very sharp in the UWZ, while in the Middle Wadi az-Zarqa there was no change between Early Bronze II and Early Bronze III (figs. 2.14-2.15).
5. Occupation during the Early Bronze IV in the Upper Wadi az-Zarqa increased comparing to the previous period (fig. 2.14), while in the Middle Wadi az-Zarqa the number of the EB IV sites decreased sharply (fig. 2.15).
6. The Middle Wadi az-Zarqa was more populated than the Upper Wadi az-Zarqa from Early Bronze I to Early Bronze III, while just in the Early Bronze IV the Upper Wadi az-Zarqa became more populated (figs. 2.10-2.13).

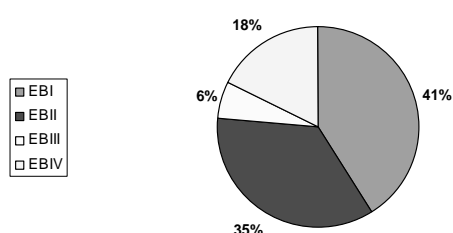


Fig. 2.8 - Percentages of Early Bronze Age sites by period in the Upper Wadi az-Zarqa.

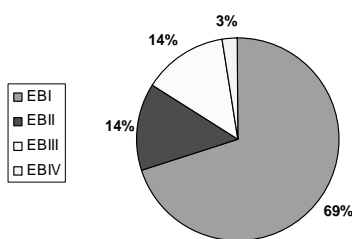


Fig. 2.9 - Percentages of Early Bronze Age sites by period in the Middle Wadi az-Zarqa.

³⁹ Gordon - Knauf 1987, 292.

⁴⁰ Hanbury-Tenison 1987, 135.

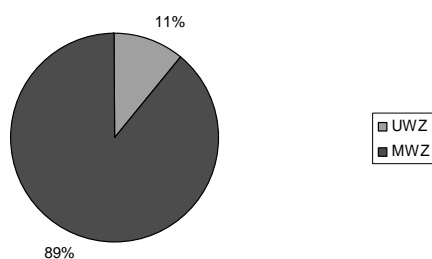


Fig. 2.10 - EB I sites in the Upper and Middle Wadi az-Zarqa.

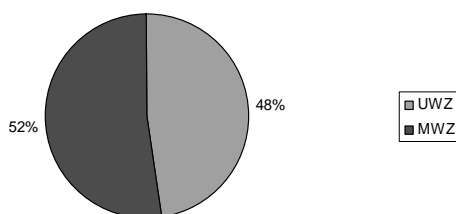


Fig. 2.11 - EB II sites in the Upper and Middle Wadi az-Zarqa.

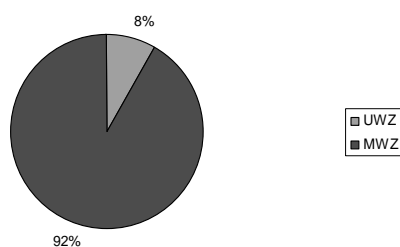


Fig. 2.12 - EB III sites in the Upper and Middle Wadi az-Zarqa.

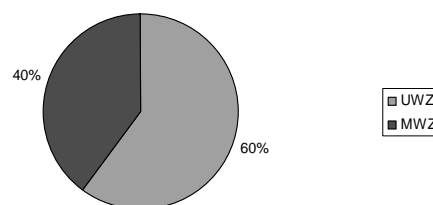


Fig. 2.13 - EB IV sites in the Upper and Middle Wadi az-Zarqa.

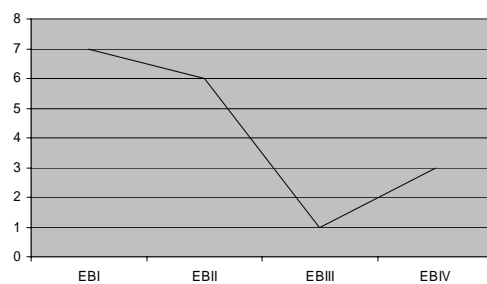


Fig. 2.14 - Number of Early Bronze Age sites in the Upper Wadi az-Zarqa.

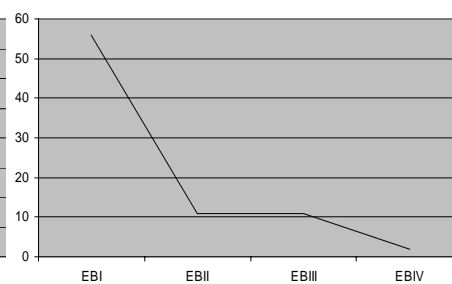


Fig. 2.15 - Number of Early Bronze Age sites in the Middle Wadi az-Zarqa.



Fig. 2.16 - Aerial Photograph showing the relation between Jneneh and Khirbet al-Batrawy.

Acknowledgements

I would like to thank Z. Kafafi for providing me valuable data related to the topic. For preparing the figures I thank B. Khrisat and for the language editing I would like to thank K. Connors.

3. Area A. The EB IV Village and the EB III Structures on the Acropolis [by Lorenzo Nigro]

Excavations in Area A started in the south-eastern side of Terrace I, where an emerging north-south alignment of stones (fig. 3.13)¹ suggested the existence of a wall delimitating the summit of the Acropolis, around 10 m east of Cairn I, located between the latter and the western side of Fence c (fig. 1.2). Five squares were opened in this sector, called Area A East², bringing to light a portion of a rural village belonging to Period Batrawy IV (Early Bronze IV; fig. 3.17) and some earlier structures (fig. 3.58). A second sector was then explored to the north-west of Cairn I, called Area A West (fig. 3.14), including two 7 x 4 m trenches (1+½ square)³, where a further portion of the same village was unearthed (fig. 3.33)⁴.

The Batrawy IV village excavated on the Acropolis (plan II) has provided a set of tools and pottery belonging to a single stratigraphic phase (§ 3.1.3.), and a quite good inventory of storage and cooking EB IV pottery wares (§ 3.3.), recovered in the domestic units and related installations (§ 3.2.). Below the EB IV occupation, a few portions of EB III structures and materials were unearthed, pertaining to more substantial buildings which occupied the Acropolis in Period Batrawy III (§ 3.4.)⁵.

3.1. *Stratigraphy* [by Maura Sala]

The stratigraphy of Area A is illustrated below; structures and finds from occupational layers of Phases 3 and 4 will be thoroughly described in §§ 3.2. and 3.4.

¹ This wall was named W.23 (§ 3.2.1.; figs. 3.16-3.17).

² Excavations in Area A East started in squares BnII18, BoII18 and BoII19 to the east and south-east of Cairn I, and were successively extended to squares BnIII19+BmII19, directly removing baulk BnIII19/BmII19.

³ Excavations in Area A West included the southern half of squares BiII15 and BjIII15, and squares BiII16 and BjII16; baulks BiII15/16 and BjII15/16 were removed at the end of the 2005 season.

⁴ Another sector of the Batrawy IV village was uncovered in Area B on the northern slope of the *khirbet*, just inside the collapsed EB III city-wall (§ 4.2.1.).

⁵ In Area A East, EB III structures were exposed in squares BoII18 and BoII19. In some spots they had been drastically dismantled, when the earliest EB IV building activities were carried out only in Area B, on the northern flank of the site, over the ruins of the EB III city-wall. In Area A West, a few EB III structures and materials were reached below the EB IV village (the publication of these layers will be accomplished after the completion of their excavation in the 2006 season, in the following report volume).

Four stratigraphic phases have been preliminarily distinguished in Area A (tab. 3.1), from the uppermost layer of humus (Phase 1) down to the deepest EB III layers so far reached (Phase 4), founded directly upon the bedrock.

Absolute Chronology	Archaeological Period	Site Period	Phases of Area A
3400-3000 BC	Early Bronze I	Batrawy I	-
3000-2700 BC	Early Bronze II	Batrawy II	-
2700-2450 BC	Early Bronze IIIA	Batrawy IIIa	Phase 5
2450-2300 BC	Early Bronze IIIB	Batrawy IIIb	Phase 4c-b
2300-2200 BC	Early Bronze IVA	Batrawy IVa	Phase 4a
2200-2000 BC	Early Bronze IVB	Batrawy IVb	Phase 3c-a
2000 BC-1900 AD	Later Periods	Batrawy V	Phase 2
1900-2005 AD	Contemporary frequentation	Batrawy VI	Phase 1

Tab. 3.1 - Archaeological periodization and stratigraphy of Area A.

3.1.1. Phase 1: Recent Periods and Ephemeral Frequentation of the Site

Phase 1 includes the topsoil (Activity 1a) as well as some traces of recent ephemeral frequentation of the *khirbet*, from the last centuries up to nowadays (Activity 1b), variously illustrated by different features (such as shepherds' fences, modern burials and plunder pits).

Activity 1a: Topsoil

The uppermost layer is represented by a shallow windblown sandy soil (F.0), with small and medium erratic stones (somewhat accumulated also from the collapsing of the two cairns built on the summit of Terrace I), plants roots, and a few scattered EB III-IV pottery sherds. Traces of recent bonfires were also detected on the surface. This layer, a natural accumulation of dust during the last centuries, was homogeneously distributed all over the excavated area, with a slight sloping from west to east in Area A East, and from east to west in Area A West, according to the geomorphology of the *khirbet* (figs. 3.13-3.14). It had an average thickness of 10-13 cm and covered directly the collapsed remains of the underlying EB IV structures.

Activity 1b: Contemporary Frequentation

Activity 1b is represented by various stratigraphic features produced by a discontinuous contemporary frequentation, such as several plunder pits and modern burials⁶.

⁶ A modern burial (D.93) was found in Area A West (§ 3.2.2.).

3.1.2. Phase 2: Later Building Activities

Phase 2 covers the time-span from the definitive desertion of the Early Bronze Age settlement up to modern periods, with frequentation and scattered building activities alternating to long periods of abandonment. Somewhat during this phase, the two cairns were erected on the summit of Terrace I (fig.1.9)⁷.

These activities have been very partially investigated only in Area A East, where a small portion of Cairn I was removed in the NW corner of square BmII19 (F.67). The Cairn was apparently set up just above the abandoned EB IV layers and structures. No useful material was retrieved for dating the stone heap.

3.1.3. Phase 3: Stratigraphy of Batrawy IV Village

Phase 3 includes all the stratigraphic units related to the Batrawy IV village, the last sedentary occupation of the *khirbet* (Early Bronze IVB, 2200-2000 BC; Period Batrawy IVb), from the terracing works carried out before its erection (Activity 3d), to its construction (Activity 3c) and use (Activity 3b), to its final abandonment (Activity 3a) at the very end of the 3rd millennium BC.

Activity 3a: Abandonment and Collapse of Batrawy IV Village

The Batrawy IV village was abandoned apparently without any traces of violent destruction, so that its structures remained exposed for many centuries to weather and pillage (such as that for the erection of the three cairns and later shepherds' fences).

An overall stratum of buff and friable sandy soil and stones of medium and small size is the result of the collapsing and prolonged abandonment of the ancient structures (Activity 3a); it filled in the ruins of domestic units and installations of the village (figs. 3.1-3.3). This layer (20-25 cm deep) was uniformly spread all over the squares excavated and was named F.1 and F.27 (east of W.23+W.5) in square BoII19, F.2 in square BnII18, F.21 in square BoII18, F.25 and F.49 in squares BnII19+ BmII19 in Area A East; F.77 in squares BjII15+BjII16 and F.95 in squares BiII15+BiII16 in Area A West. Animal bones, scattered pottery sherds of EB IV cooking and storage

⁷ This kind of stone-piled structures (cairns and tumuli) is frequent in northern Transjordanian highlands (as well as, for instance, in the western Negev highlands: Haiman 1992). In the Wadi az-Zarqa basin, they represent one of the most common archaeological features and type sites (Palumbo *et al.* 1996, 376, 380). Nevertheless, their dating as well as their function are still a matter of discussion, since they usually lack of diagnostic materials (Palumbo 1992, 45-46, 54-58).

wares⁸, as well as some domestic tools⁹ were retrieved in these fillings (pls. IV, XVI).



Fig. 3.1 - Area A East: the layer of collapsed stones F.2 in square BnI18 (Activity 3a), from north.

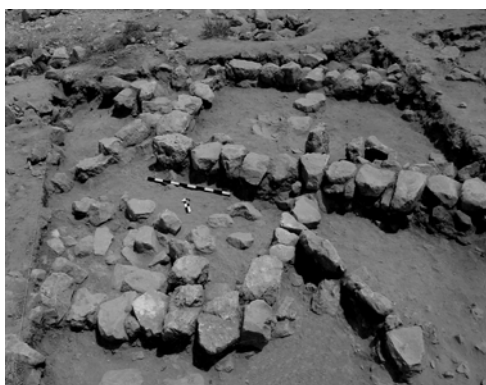
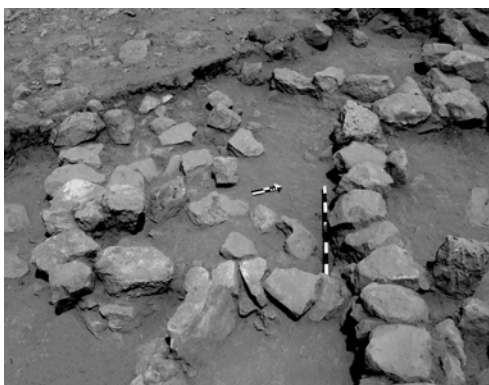


Fig. 3.2,a-b - Area A West: the layer of collapsed stones F.95 inside room L.70 in square BnI16 (Activity 3a), from south-east (a) and from south (b).

⁸ Such as some diagnostic EB IV envelope ledge handles (KB.05.A.2/3, KB.05.A.49/1, pl. IV; KB.05.A.27/2, KB.05.A.95/6), and combed decorated jars (KB.05.A.1/2, pl. IV; KB.05.A.95/10, KB.05.A.95/11, pl. XVI; fig. 3.4).

⁹ A stopper (inventory number: KB.05.A.22, pl. IV; on the stoppers see London 1991, 405-417), two limestone pestles (KB.05.A.15, pl. IV; KB.05.A.71), a lithic tool (KB.05.A.64), and a limestone weight (KB.05.A.76, pl. XVI).



Fig. 3.3 - Area A West: the layer of collapsed stones F.95 partially removed inside House L.20 (Activity 3a), from west.

In Area A West, two pits testify to the period of abandonment of the Batrawy IV buildings. They were identified in square BjlI16¹⁰, and cut the underlying EB IV-III layers: pit P.75 to the north, next to wall W.79, and pit P.97 in the south-central part of BjlI16. Their fills (F.99 and F.201) were composed of friable dark brownish sandy soil and small erratic stones, almost without pottery, except a few sherds resulting from the EB IV layers the pits were sunken through¹¹.

¹⁰ Pits P.75 and P.97 were dug in the forefront courtyard (L.30) of EB IV House L.20, after the abandonment of the building.

¹¹ Actually the attribution of these two pits to Activity 3a is questionable; they may, in fact, have been dug during Phase 2. However, since no material later than Period Batrawy IV was found in their filling, it is possible that they were cut into the ruins a short time after the collapse of the EB IV structures.

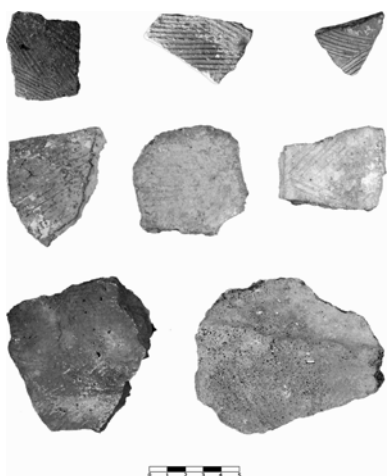


Fig. 3.4 - Fragments of EB IV pattern-combed jars from Activity 3a layers of collapse.

Activity 3b: Use of Batrawy IV Village

The use of the Batrawy IV village (Activity 3b) is represented by a shallow layer of buff and friable sandy soil with scattered pottery sherds and animal bones, lying just above floors of beaten earth of the Batrawy IV structures, as well as by some domestic installations, excavated immediately under the collapsed stones of Activity 3a.

Stratigraphic units related to Activity 3b were excavated in squares BnII18 and BnII9+BmII19 in Area A East, and in squares BjII15+BjII16 and BilII5+BilII16 in Area A West, where domestic houses and devices of the Batrawy IV village were brought to light¹². All structures belonged to a single constructive phase, which has been attributed more precisely to Period Batrawy IVb (Early Bronze IVb; see § 3.3. for pottery dating).

In Area A East, this activity was represented by stratigraphic units F.8a, F.6a, F.10a and F.12a respectively above the floor L.8b of courtyard L.8 and the floors L.6b, L.10b and L.12b of rooms L.6, L.10 and L.12 in square BnII18 (figs. 3.5-3.6); and by layers F.54a, F.56a, F.68a, F.72a, F.74a, F.76a, F.78a and F.82a respectively above floor L.54b of courtyard L.54, floors L.56b, L.68b, L.72b and L.74b+L.76b of units L.56, L.68, L.72 and L.74+L.76, and floors L.78b and L.82b of yards L.78 and L.82; and by the filling of reddish-brown sandy soil (F.53)¹³ inside the stone silos S.37, in squares BnII9+BmII19.

¹² The two easternmost squares in Area A East, BoII18 and BoII19, were, instead, exclusively occupied by terrace-structures supporting the Batrawy IV village belonging to Activity 3d (see below).

¹³ Unfortunately, this filling did give back just a few scattered pottery sherds and no diagnostic material related to the function of the installation itself.

In Area A West, the same activity was represented by stratigraphic units F.84 in lane L.40, F.88 and F.92 in courtyard L.30, F.94 above the floor of room L.50, and F.202 above the floor of room L.60 in BjlI15+BjlI16; F.210 above floor of room L.20, F.212 in courtyard L.100, F.218 in unit L.70, and F.222 to the north outside W.79 in square BjlI15+ BjlI16, as well as by materials related to domestic installations S.207, S.209 and bench B.214 inside House L.20 (§ 3.2.2.). Ceramic materials from the above mentioned fillings (§ 3.3.) seem to belong to the second stage of development of the northern Transjordanian EB IV horizon (Early Bronze IVB, 2200-2000 BC); this suggest that the houses were in use in the last century of the 3rd millennium BC. What, any more, has to be stressed is that a single phase of utilization has been detected so far in the Batrawy IV village in Area A.

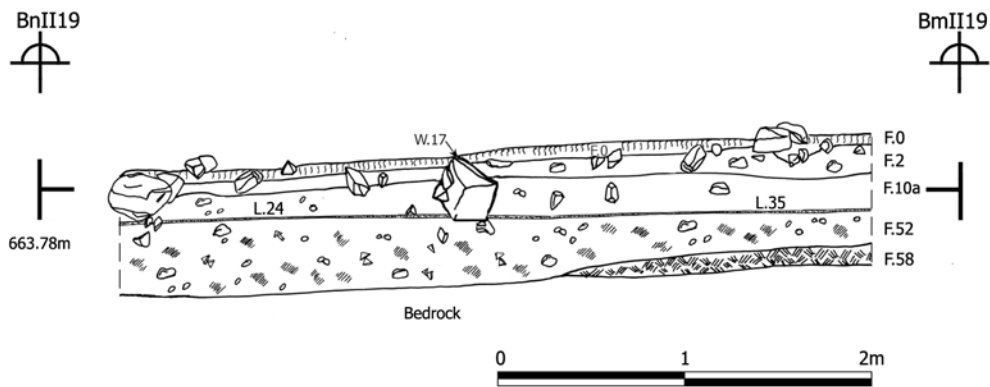


Fig. 3.5 - Southern section of square BnII18.

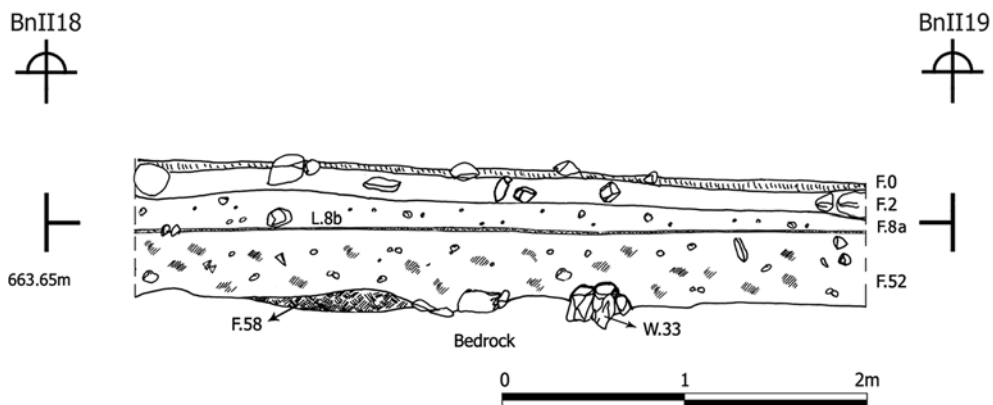


Fig. 3.6 - Eastern section of square BnII18.

Activity 3c: Construction of Batrawy IV Village

Activity 3c represents the erection of the Batrawy IV village on the Acropolis (plan II), carried out somewhat during the 22nd century BC, namely in Period Batrawy IVb, perhaps after a short period of abandonment of the site (Early Bronze IVA, 2300-2200 BC; Period Batrawy IVa; see tab. 1.1).

In Area A East, structures of the Batrawy IV village were represented in square BnII18 by courtyard L.8 to the north-east, and by rooms L.6, L.10, L.12, L.24 and lane L.35 to the west and to the south, delimited by walls W.7, W.9, W.11, W.13, W.15, W.17 and W.31; in squares BnII9+BmII19, they were represented by courtyard L.54, units L.56, L.57, L.68, L.72, L.74+L.76, and courtyards L.78 and L.82, delimited by walls W.3, W.41, W.45, W.51, W.55, W.59, W.61, W.65 and W.69, with installations silos S.37 in courtyard L.54 and bench B.63 in House L.76 (fig. 3.17).

In Area A West, Batrawy IV domestic units were: House L.20 with installations S.207, S.209 and bench B.214, delimited by walls W.79, W.81, W.83 and W.205; courtyards L.30 and L.100 respectively to the east and to the south of House L.20; lane L.40 to the north; the adjacent units L.70 delimited by walls W.211 and W.213, and L.80 delimited by walls W.217 and W.219, respectively to the south-west and west of House L.20; and Houses L.50 delimited by walls W.87 and W.89 to the north-east, and L.60 with threshold L.208 delimited by walls W.85 and W.203 to the south-east of the excavated area (fig. 3.33).

Activity 3d: Terracing Activities

The construction of Batrawy IV village was preceded by some terracing and levelling operations (Activity 3d), identified in the easternmost squares of Area A East (BoII18 and BoII19), carried out in order to regularize the natural slope of the *khirbet* and the underneath remains of the Batrawy III occupation. No chronological gap separates Activity 3d and Activity 3c, which are subsequent constructive phases.

In square BoII18, Activity 3d was represented by the north-south boundary wall W.23, built of a single row of fieldstones (fig. 3.16), and by the stratigraphic units F.26, leaning on the western side of W.23, and F.32, leaning on its eastern side (figs. 3.7-3.8). F.26 and F.32 were two fillings of sandy soil with small scattered stones, which levelled and terraced the eastern slope of the Acropolis and the remains of the underlying Batrawy III town. In both fillings, mostly EB IIIB and sporadic EB IV¹⁴ pottery

¹⁴ Such as the *amphoriskos* KB.05.A.26/1 (pl. VIII; fig. 3.9).

materials were found (pl. VIII), as well as three pierced sea-shells¹⁵, a flint blade¹⁶, and a stone weight¹⁷.

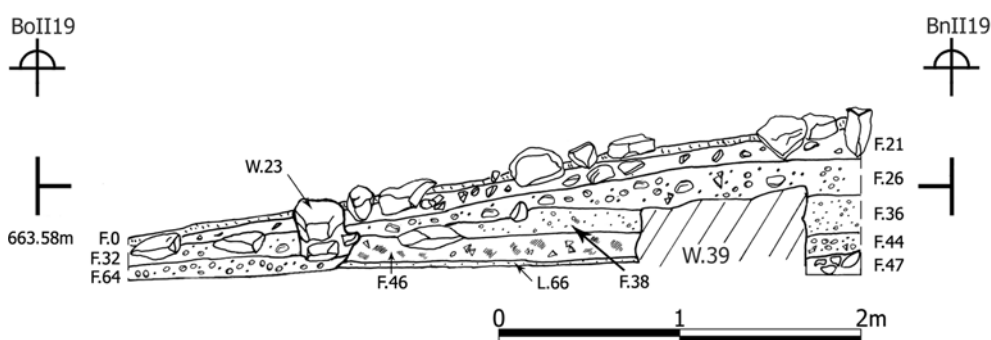


Fig. 3.7 - Southern section of square BoII18.

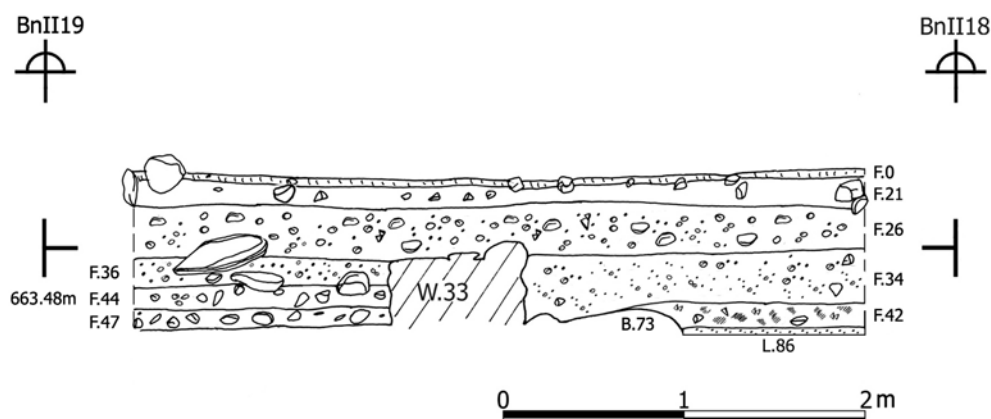


Fig. 3.8 - Western section of square BoII18.

In square BoII19, Activity 3d was represented by the southern end of W.23¹⁸, joint to the south to an underlying single-row terrace-wall north-west/south-east oriented (W.5; fig. 3.18); and by the remains of another sustaining wall, shifted 1 m inwards to the west (W.19), which showed the same north-south orientation of W.23, though preserved only in the cobble preparation for its foundation (figs. 3.19-3.21). The latter retained to the west a filling of friable sandy soil with small scattered stones (F.18; fig.

¹⁵ KB.05.A.29, KB.05.A.30, KB.05.A.36 (pl. VIII).

¹⁶ KB.05.A.34.

¹⁷ KB.05.A.33.

¹⁸ The southernmost prosecution of wall W.23 disappeared due to erosion.

3.12), which yielded mostly EB IIIB and sporadic EB IV¹⁹ pottery materials (pls. V-VI), as well as two Cananean blades²⁰, a flint blade (fig. 3.10)²¹ and débitages²², and a limestone pestle²³. On the eastern side of W.19 filling F.4, a similar layer of buff sandy soil, had accumulated covering underlying remains of the Batrawy III occupation (fig. 3.12); it yielded EB IIIB and EB IV²⁴ pottery sherds (pl. VII), as well as two flint blades (fig. 3.11)²⁵.



Fig. 3.9 - *Amphoriskos* KB.05.A.26/1.



Fig. 3.10 - Flint blade KB.05.A.25 from filing F.18.

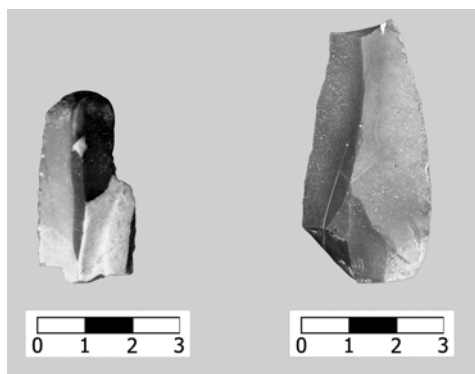


Fig. 3.11 - Flint blades KB.05.A.8 and KB.05.A.9 from filling F.4.

¹⁹ Such as the combed decorated fragments KB.05.A.18/21 (pl. V), KB.05.A.18/5 and KB.05.A.18/6 (pl. VI), and the envelope ledge handle KB.05.A.18/24 (pl. VI).

²⁰ KB.05.A.23 and KB.05.A.31 (pl. XV).

²¹ KB.05.A.25.

²² KB.05.A.16.

²³ KB.05.A.18.

²⁴ Such as the envelope ledge handles KB.05.A.4/10 and KB.05.A.4/12 (pl. VII).

²⁵ KB.05.A.8 and KB.05.A.9.

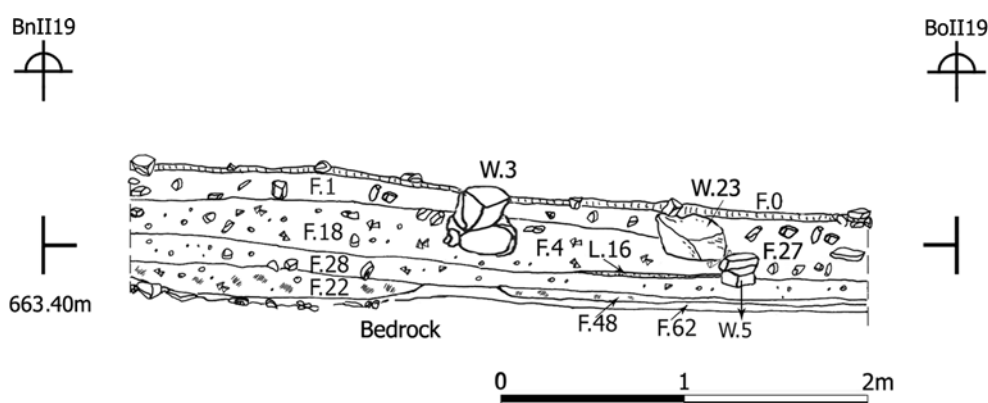


Fig. 3.12 - Northern section of square BoII19.

3.1.4. Phase 4: Stratigraphy of Batrawy III Structures

Phase 4 groups stratigraphic units, archaeological deposits and a few structures²⁶ related to the Batrawy IIIb occupation on the Acropolis, from its setting to its desertion, and investigated at the moment only in limited spots of Area A East, namely in squares BnII18, BoII18 and BoII19²⁷.

Activity 4a: Abandonment of the Ruins of Batrawy IIIb Town

Activity 4a is represented by layers of accumulation detected after the removal of part of the Batrawy IV village in squares BoII18 and BnII18²⁸. In BoII18, the abandonment of the Batrawy III settlement was represented by a homogenous filling of light reddish-brown sandy soil, distinguished in different archaeological deposits separated by the top of emerging Batrawy IIIb structures: F.34 north of wall W.33; F.36 inside walls W.33+W.39; F.38 east of wall W.39 (figs. 3.7-3.8). The eastern part of the square was, instead, covered by a layer (F.64) of buff sandy soil with numerous small erratic stones, which had cut also the underlying EB III layers and structures of the Batrawy III town (fig. 3.7). This filling yielded a good quantity of EB III pottery material (pl. XII), with fragments of Red Slip

²⁶ Building A1 with floor L.66 in BoII18, and the courtyard L.16 with bench B.14 in BoII19 (§ 3.4.).

²⁷ In squares BnII19+BmII19, as well as in Area A West, the structures of the EB IV village were not removed.

²⁸ These layers weren't removed at the moment of the erection of the Batrawy IV village, as, instead, probably happened with terracing and levelling activities in square BoII19.

Ware with pattern-burnished decoration²⁹, storage *pithoi* and jars with rope-like applied³⁰ and combed decoration³¹, and Simple Ware jars³².

In BnII18, the removal of the Batrawy IV structures showed all over the square a 0.50 m thick layer of dark greyish-brown friable sandy soil (F.52), with lenses of burning, ash and small and medium scattered stones (figs. 3.5-3.6). This layer was homogenously distributed within the limits of the square and seemed to represent a rubbish accumulation following the destruction and dismantlement of the Batrawy IIIb town.

Activity 4b: Destruction of Batrawy IIIb Town

The life of the Batrawy IIIb town was apparently brought to a sudden end by a fire and violent destruction, testified to by layers with burnt traces and ashes excavated in square BoII18.

In BoII18, a layer of sandy soil with lenses of ash (F.46) was excavated outside to the east and north-east of Building A1 (§ 3.4.1.; fig. 3.7). To the north of Building A1, the same activity was represented by filling F.42, a layer of ashy sandy soil with burnt traces and small scattered stones, pottery sherds and animal bones (fig. 3.8). Inside Building A1, this activity was represented by a layer of a buff sandy soil with lenses of ash and small fallen down stones (F.44), and by an underlying stratum of collapsed stones of small and medium size (F.47).

Activity 4c: Construction of Batrawy IIIb Structures

Batrawy IIIb structures have been detected at the moment only in squares BoII18, BnII18 and BoII19.

In BoII18, Activity 4c is illustrated by the corner of a building (W.33+W.39), named Building A1, with a bench (B.73) on its northern face and related floorings (L.66 to the east and L.86 to the north; § 3.4.1.)³³.

In BnII18, the badly preserved western prosecution of wall W.33 was identified, lying directly over the bedrock (§ 3.4.1).

In BoII19, the Batrawy IIIb occupation was represented by courtyard L.16, preserved in the eastern half of the square; the floor joined a working platform (B.14) uncovered in the south-eastern corner of BoII19 (§ 3.4.2.).

²⁹ KB.05.A.64/1 and KB.05.A.64/12.

³⁰ KB.05.A.64/10 (pl. XII).

³¹ KB.05.A.64/13 (pl. XII).

³² KB.05.A.64/2, KB.05.A.64/3, KB.05.A.64/7 (pl. XII), KB.05.A.64/14.

³³ Floor L.66 was cut in the eastern part of the square by filling F.64 of Activity 4a (see above).

3.1.5. Phase 5: Archaeological Deposits over the Bedrock

In Boli19, underneath courtyard L.16, a layer of brown sandy soil (F.28) was homogenously distributed all over square (fig. 3.12). Scattered EB III pottery sherds (pl. XIV) and a flint blade³⁴ were retrieved in this filling. This layer has been interpreted as a regularization of previous razed EB III structure.

Under F.28 an ashy layer with traces of fire and small scattered stones (F.22) was distinguished in the north-western corner of the square; it yielded scattered EB III pottery materials (pl. XIV) and can be interpreted as the result of the destruction of the Batrawy IIIa town (fig. 3.12). In the eastern half of the square, the same destruction horizon was represented by a layer of sandy soil with traces of fire and erratic stones (F.48). It also yielded some EB III pottery sherds (pl. XIV), animal bones and a flint blade³⁵.

Finally, beneath F.22 and F. 48, a thin homogeneous clayish layer (F.62) was identified all over the square, which provided scattered EB III pottery sherds (pl. XIV), which cannot be used for dating. This stratum lay directly over the bedrock and might even be attributed to an earlier phase. Bedrock was reached in this spot of the Acropolis at the elevation of 663.15 a.s.l. in the western part of the square and 662.80 a.s.l. in its eastern part (according to the natural slope of the *khirbet*).

A similar clayey layer (F.58) was excavated in square Bnli18 after the removal of F.52 and the bedrock was reached even in this spot of the Acropolis at the elevation of 663.20-663.10 a.s.l.

It seems clear that at the beginning of Period Batrawy III the Acropolis was cleared and regularized before setting a new series of buildings.

³⁴ KB.05.A.32.

³⁵ KB.05.A.42.



Fig. 3.13 - Area A East before the beginning of excavations in 2005.

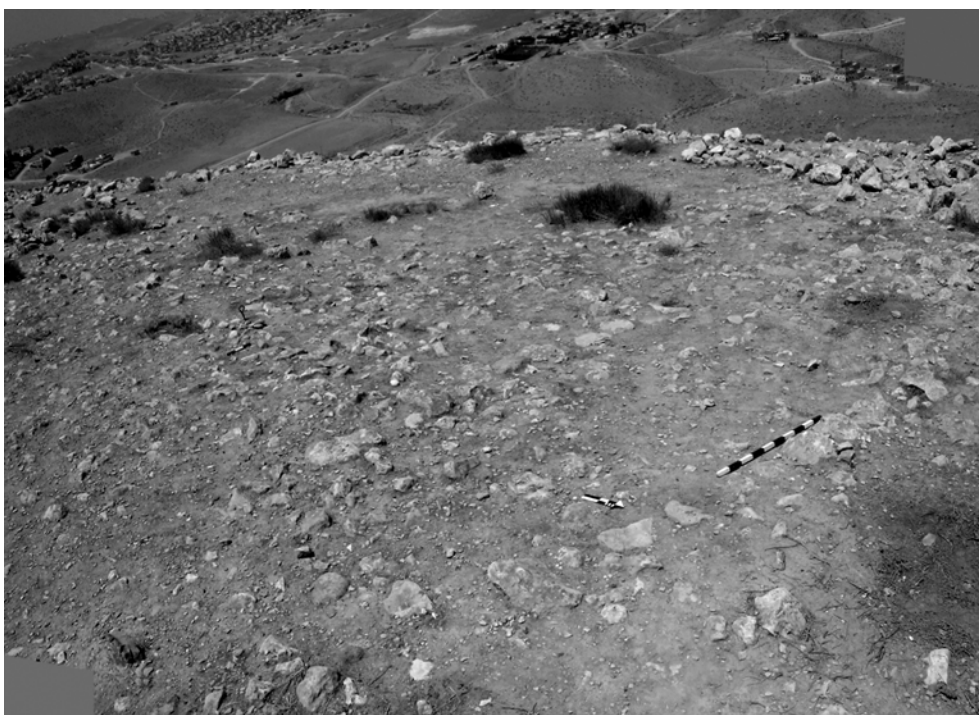


Fig. 3.14 - Area A West before the beginning of excavations in 2005.

3.2. Architecture & Finds: the Early Bronze IV Village on the Acropolis [by Lorenzo Nigro]

Extensive remains of a densely inhabited EB IV village were uncovered in two different compounds on the summit of the Acropolis (Areas A East and A West; plan II), belonging to a single constructive phase (§§ 1.3.3., 3.1.3.). The excavated portion of the village actually represented an extension of the original dwelling initially arisen just inside the collapsed northern city-wall of Period Batrawy III, in Area B (§ 4.2.1.)³⁶. It comprised at least six domestic units, consisting of a main rectangular room, opening towards an enclosed yard (sometimes shared with other units), and with various annexed structures (small storerooms, silos, platforms, benches), characterized by curvilinear walls. Houses and subsidiary structures were usually made of walls consisting of a single row of stones³⁷, and yielded an ordinary domestic inventory, including stone and flint tools, ceramics and other finds (especially noteworthy is the high frequency of faunal remains).

3.2.1. Area A East

The south-eastern quarter of the EB IV village on the summit of the Acropolis was investigated in Area A East (figs. 3.15, 3.17).

Here, a major feature was terrace-wall W.23 in square BoII18, which supported rubble fillings with scattered remains of the underlying occupation³⁸, and marked the eastern limit of the settled compound (fig. 3.16). It was north-south oriented and was made of a single row of large limestone field-stones. The southern prosecution of this terrace-wall in square BoII19 had disappeared due to erosion, but its outer stone foot was still preserved (W.5), marking a slight turn to the south-east (fig. 3.18). The latter also confirmed that both W.23 and its southern prolongation had a somewhat battering outer (eastern) face.

Another wall mainly preserved in its cobbled preparation (W.19), showing the same north-south orientation of W.23 and located 1 m to the west, possibly supported another boundary structure in a sub-phase today impossible to be reconstructed (figs. 3.19-3.21).

³⁶ Also in Area B a house of the Batrawy IV village with at least two superimposed constructive phases was brought to light (§ 4.2.1.), indicating that the village consisted of several clusters of domestic units displaced in various favourable spots of the site, with a more long and complex stratification of that area.

³⁷ Usually, the undressed stones were displaced with their longest side parallel to the walls; more substantial structures were made putting the stones across the width of the walls or, in very rare cases, with two adjoined courses of stones.

³⁸ Two regularized fillings, F.26 and F.32 (see above Activity 3d; § 3.1.3.).

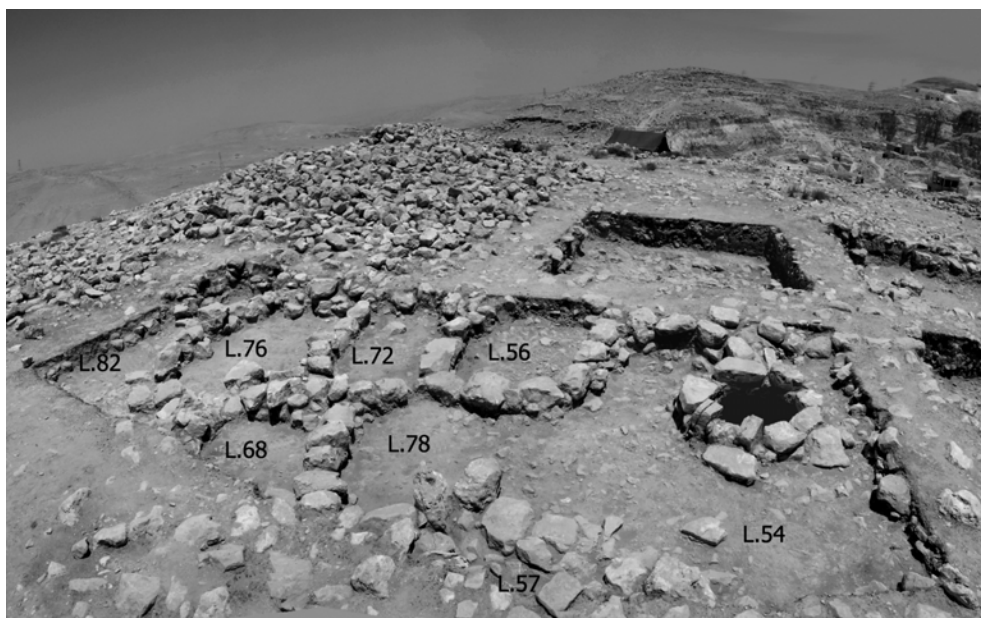


Fig. 3.15 - Domestic installations in the southern quarter of the Batrawy IV village in Area A East, from south-east.

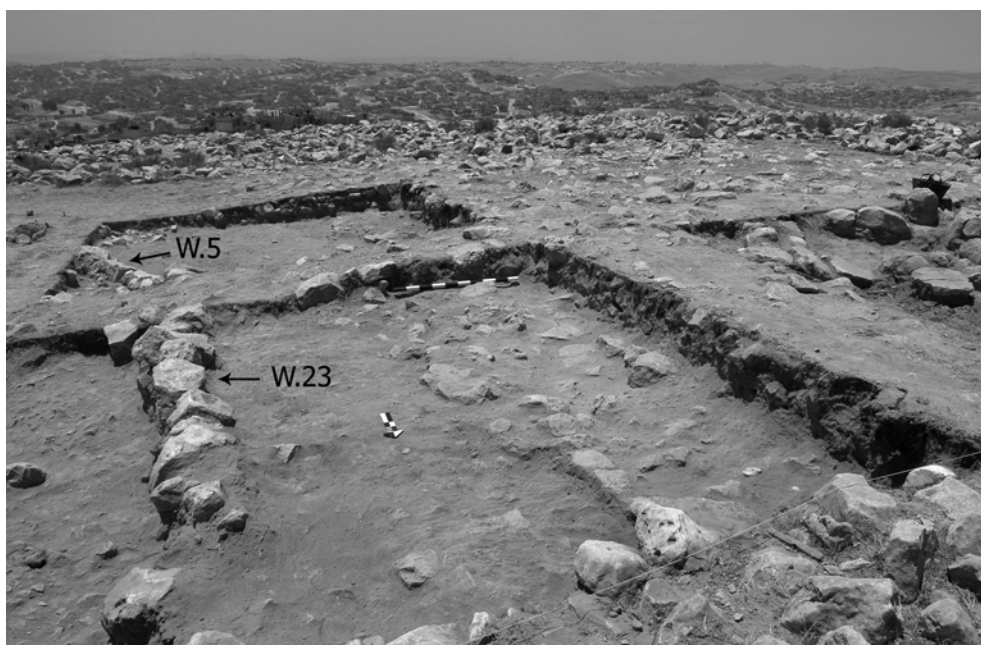


Fig. 3.16 - Terrace-wall W.23 in square Boli18, from north; in the left background (square Boli19), wall W.5 turning towards south-east.

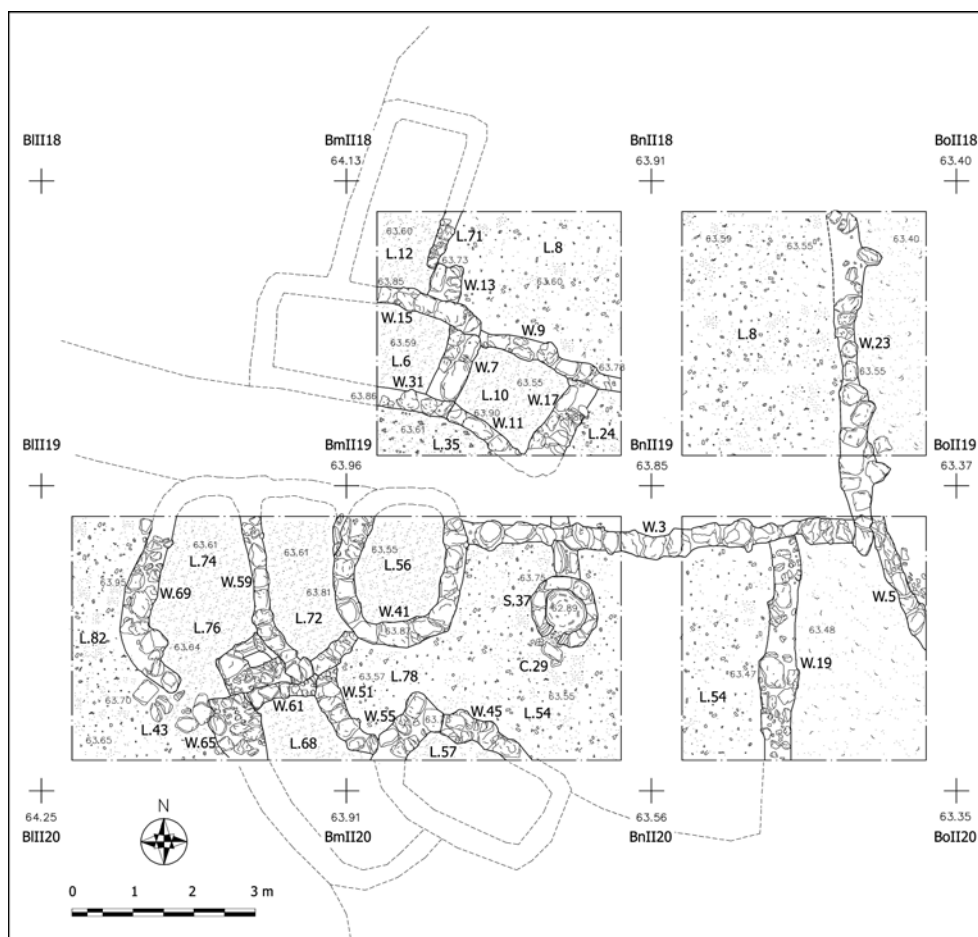


Fig. 3.17 - Plan of Batrawy IV structures in Area A East.

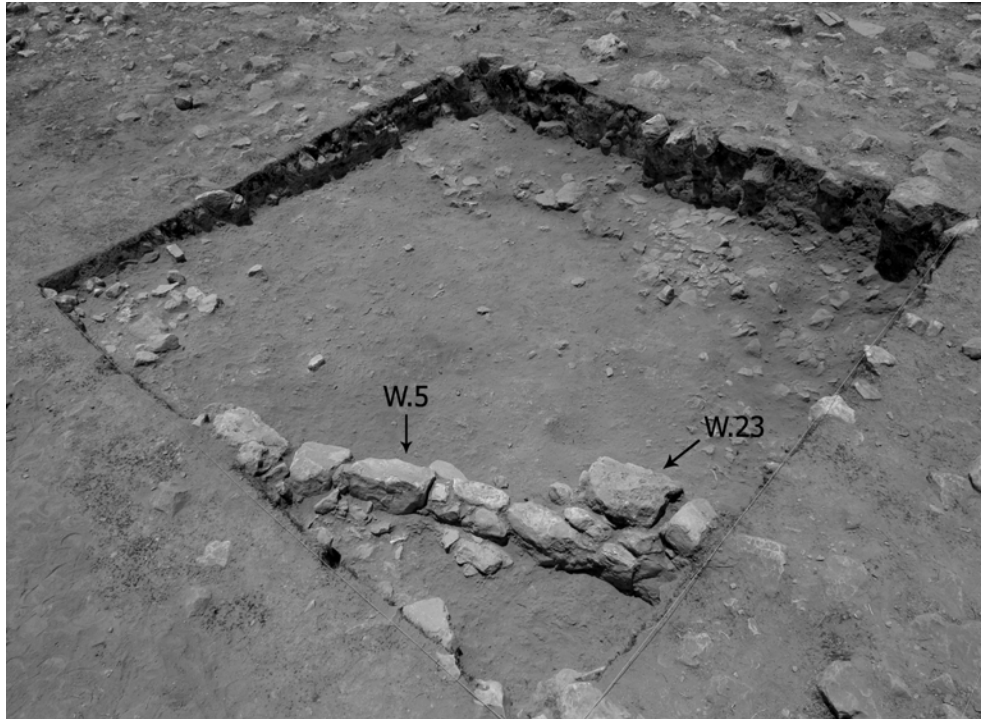


Fig. 3.18 - Terrace-wall W.23+W.5 in square Boll19, from north-east.

Phase 3 structures and floors just to the west of walls W.23 and W.19 were eroded and dismantled, and no other features were visible in squares Boll18 and Boll19 relating to the Batrawy IV village. The only preserved remain, just on the northern section of Boll19, was wall W.3, a 7 m long roughly rectilinear structure, which continued to the west in BnII19 with three superimposed courses of stones (fig. 3.21). It abutted to the east on the western face of wall W.23, while to the west it was connected with wall W.41, a structure delimiting a curvilinear storage device (L.56). Wall W.3 apparently delimited two different compounds, belonging to two separated domestic units. To the south there was a yard (L.54) with an extension (L.78) in between two structures (L.56 and L.57), while to the north a series of rooms were grouped on two sides (western and southern) of another courtyard (L.8). A lane run along wall W.3 on its northern side, crossing east-west three domestic compounds: one to the north in BnII18, with courtyard L.8 and House L.12; one to the south-west, with courtyard L.82 and House L.76+L.72; and one the south-east with courtyard L.54 and House L.57+L.68.

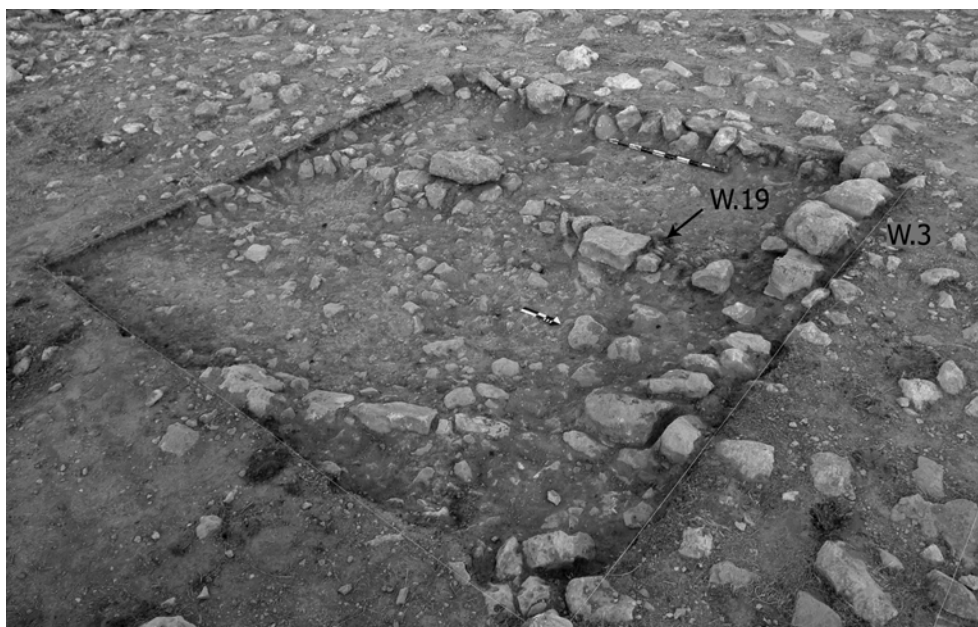


Fig. 3.19 - Wall W.19 in square BoII19, leaning on partition-wall W.3 on the northern limit of the square, from north-east.

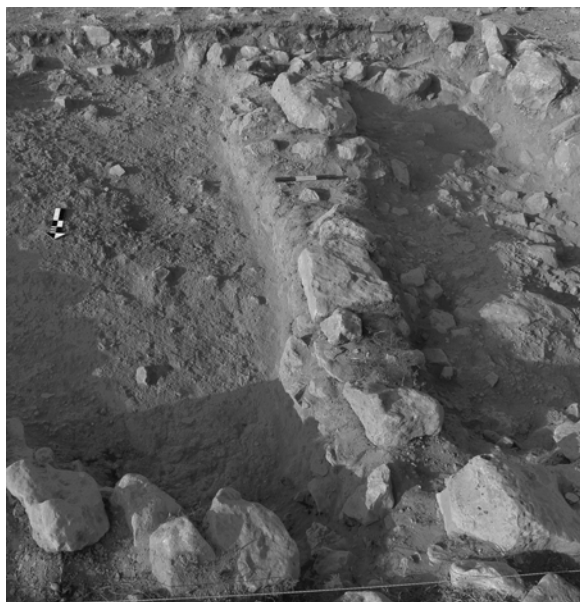


Fig. 3.20 - Wall W.19 leaning on partition-wall W.3, in the foreground; on the right, filling F.4, from north.



Fig. 3.21 - Wall W.19, from south; in the background, partition-wall W.3.

The Northern Domestic Unit: House L.6 and House L.12

The northern domestic flanked to the south by lane L.35 unit was partially excavated in the north-western corner of square BnII18, and included: a yard (L.8) paved with a layer of beaten earth with sparse limestone grits (L.8b); the south-western corner of a house (L.12), delimited by a major (two courses of stones wide) wall (W.13), with an opening indicated by the step of threshold (L.71); and a row of annexed small rooms (L.10, L.24; fig. 3.22), built against a second main house (L.6), to which the domestic unit was added.

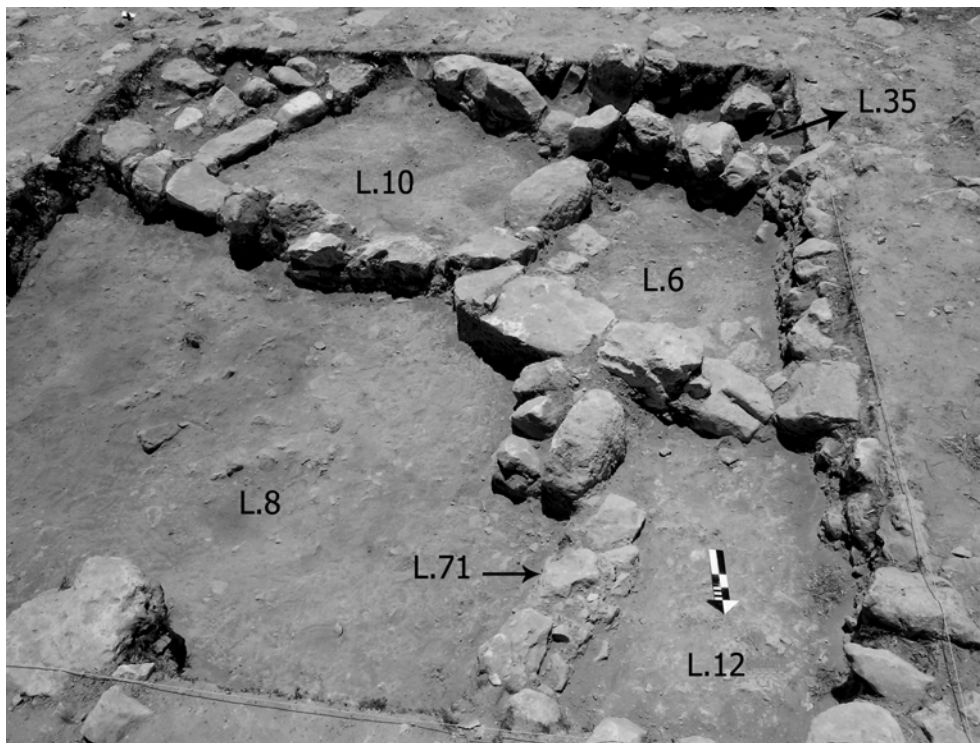


Fig . 3.22 - The northern domestic unit in square BnII18, from north.

The plan of House L.12 may be tentatively reconstructed as a rectangular one, being juxtaposed to the northern side of House L.6 and extending towards north and west, while storerooms and pens opened into yard L.8 to the east. Floor L.12b was carefully made of beaten earth and a few fragments of storage jar were found on it. Conversely, courtyard L.8 has provided a quite numerous set of materials (pl. IX), including three storage

jars (one hole-mouth)³⁹, two cooking pots⁴⁰, a vat, a jug, a bowl⁴¹, two Simple Ware jars (fig. 3.23)⁴², and a stone grinder⁴³; several animal bones were also found on it⁴⁴.

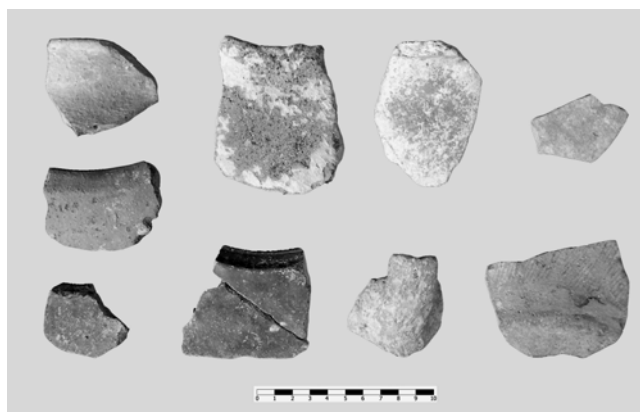


Fig. 3.23 - Selected pottery fragments from courtyard L.8.

Just south of House L.12, and structurally connected with it, there were two rooms (L.6 and L.10). The westernmost, L.6, was delimited by two walls made of big stones: wall W.15 to the north and W.7 to the east (fig. 3.24). As stated above, this suggested to interpret also this structure as a main domestic unit (House L.6), extended eastwards. A less robust wall (W.31), closed House L.6 to the south, possibly reconstructed at a certain moment when the subsidiary square room (L.10) was added to the east. Wall W.31, in fact, continued eastwards as the southern limit of room L.10, which is delimited to the north by another thin wall (W.9, also prosecuting to the east, and presumably delimitating a further rectangular house, L.24) and to the east by a double-row of stones wide wall (W.17). House L.6 can be reconstructed as an elongated rectangular unit⁴⁵, possibly connected to House L.12, or opened towards the lane running to the south of it (L.35), while L.10 seems a pen for animal herding⁴⁶, accessible from

³⁹ KB.05.A.8/2, KB.05.A.8/6, KB.05.A.8/3 (pl. IX).

⁴⁰ KB.05.A.8/4 and KB.05.A.8/5 (pl. IX).

⁴¹ KB.05.A.8/10 (pl. IX).

⁴² KB.05.A.8/1 (pl. IX) and KB.05.A.8/8.

⁴³ KB.05.A.12 (pl. IX).

⁴⁴ Sample KB.05.A.8.

⁴⁵ Inside room L.6 a cooking pot was found (KB.05.A.6/1, pl. IX).

⁴⁶ However, a few scattered pottery sherds belonging to storage jars (such as KB.05.A.10/1, KB.05.A.10/2, KB.05.A.10/3, pl. IX) and cooking pots were found in this room.

courtyard L.8. If this is the case, House L.6 and House L.12 seem to have been grouped respectively on their rear and lateral sides, but opening towards different open spaces (fig. 3.51).

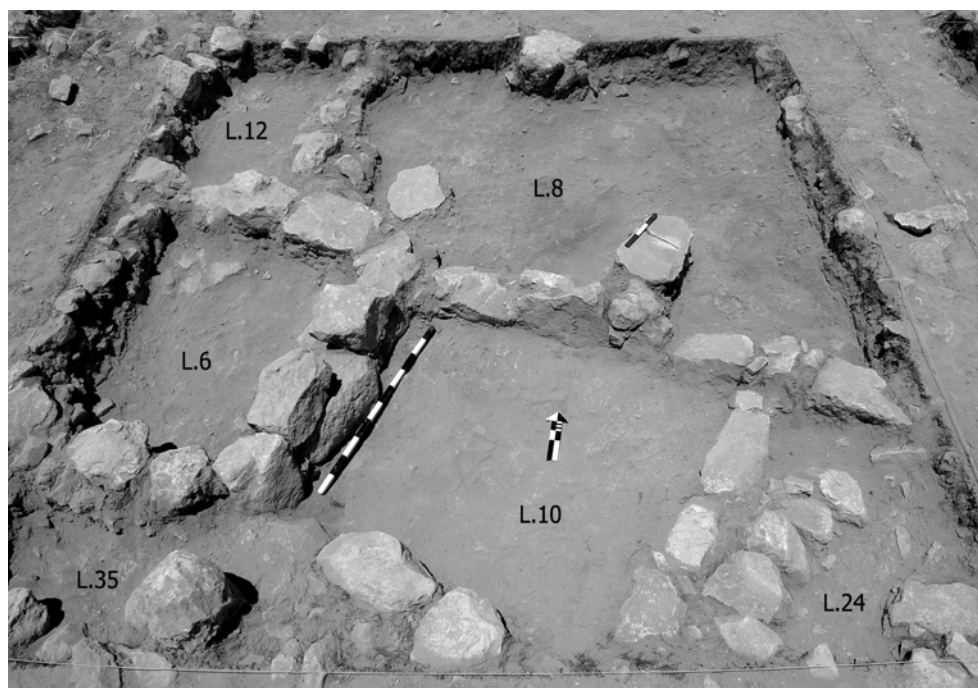


Fig. 3.24 - The northern domestic unit in square BnII18, from south.

The South-Eastern Domestic Unit

In the south-western sector of square BnII19 the corner of a rectangular structure (L.57), made of two rows of stones wide walls, possibly indicates the location of the domestic unit which yard L.54+L.78 belonged to, and that can be reconstructed as a roughly rectangular room too. The NW side-wall of this house was wall W.55, exceptionally consisting of two flanking rows of stones⁴⁷, while the front-wall W.45 was very badly preserved (fig. 3.25). In the courtyard, delimited by wall W.3 to the north and wall W.19 to the east, a circular silos (S.37), made of stone slabs, was sunk into the underlying layers down to the bedrock (662.89 a.s.l.), just aside wall W.3.

⁴⁷ This may be explained also considering the northern course of stones as belonging to wall W.51, a structure delimitating corridor L.78, while the southern half actually belonged to the domestic unit.

It has a diameter of 86 cm, and its opening consisted of a channel (C.29), flanked by two vertical limestone slabs (fig. 3.26), preceded by a third flat stone embedded in the floor in order to facilitate the filling and emptying of the storage installation (its upper cover was not preserved)⁴⁸. No remains of seeds or other agricultural products were found in the silos, thus suggesting that the village was abandoned and did not come at an end abruptly.

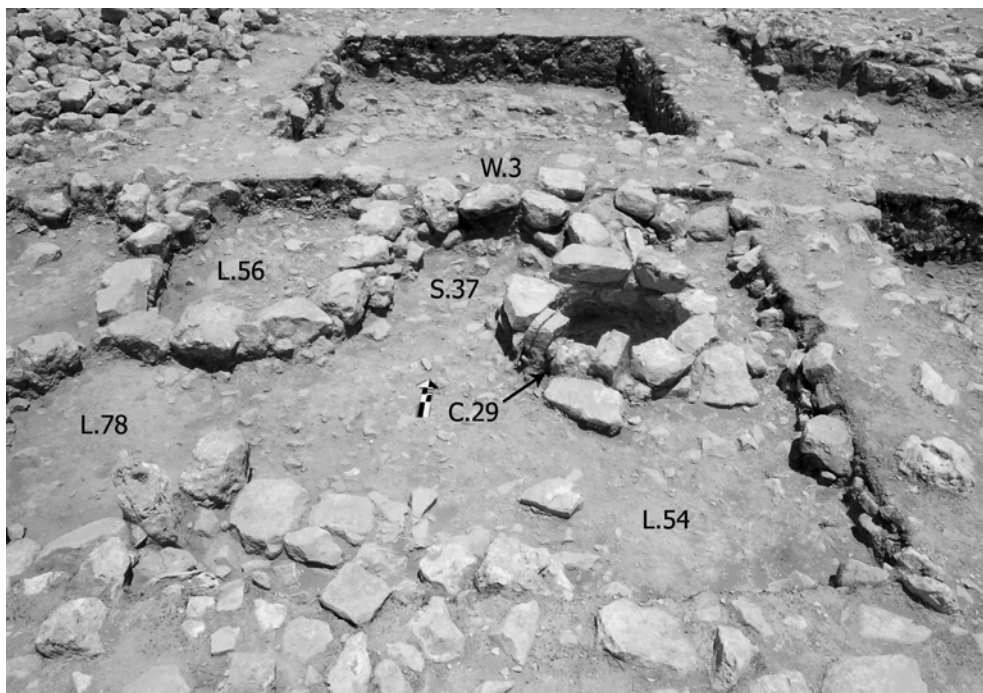
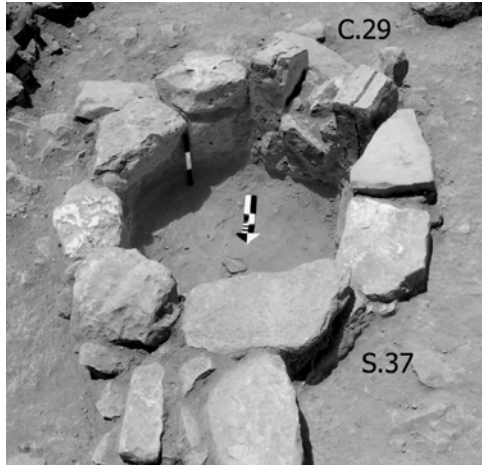


Fig. 3.25 - The courtyard (L.54) delimited by partition-wall W.3 to the north, with silos S.37 and the circular device L.56, from south.

In the north-western corner of courtyard L.54 there was a circular device (L.56), probably roofed by means of a mud-brick conic vault, which was approached through a corridor or an extension of the courtyard itself (L.78; fig. 3.27)⁴⁹.

⁴⁸ The silos was structurally connected to wall W.3 by a couple of long stones, which perhaps had a structural function.

⁴⁹ Actually, one cannot rule out the possibility that the entrance to the circular structure L.56 was to the north, in the unexcavated area (where the southern edge of Cairn I covers the whole sector).



Inside L.56 three cooking pots were found, as well as a spindle whorl⁵⁰, and various animal bones⁵¹, indicating that the structure, in spite of its small dimensions (2.0 x 1.2 m), was used as an ordinary domestic device⁵².

Fig. 3.26 - Circular silos S.37, from north; note the front opening through channel C.29 and the rear wall connecting the silos to partition-wall W.3.

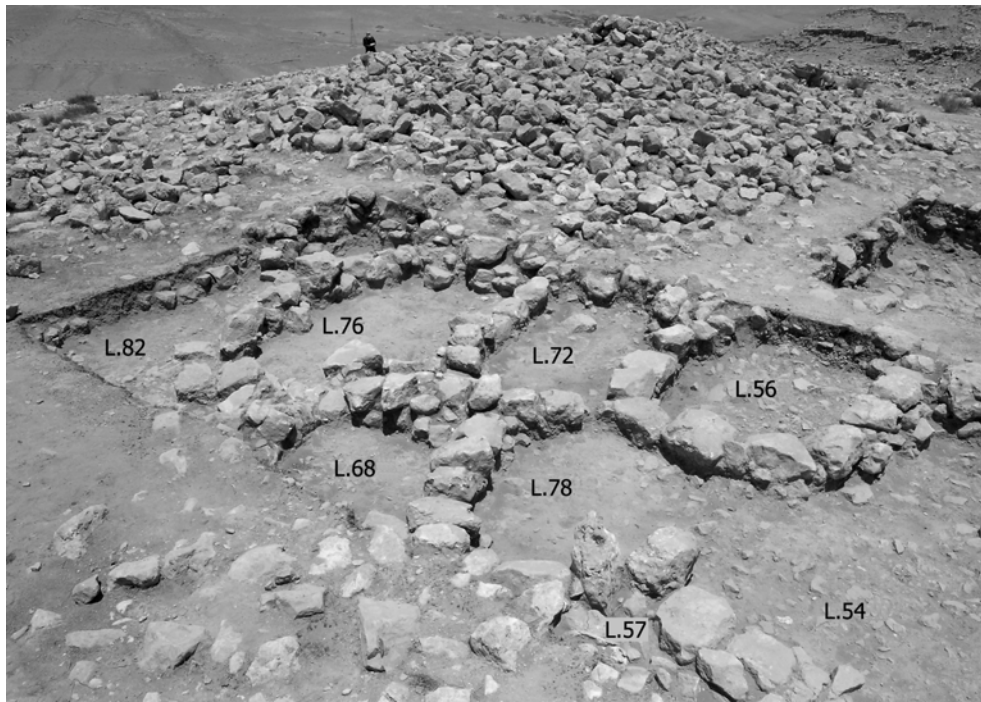


Fig. 3.27 - Installations in squares BnII19+BmIII19, from south-east.

⁵⁰ KB.05.A.49 (pl. X)

⁵¹ Sample KB.05.A.44.

⁵² One has to stress that functional differentiation among these domestic structures and devices, made possible mainly by their architecture, is rarely demonstrated by finds retrieved in them, except for some fixed installations.

Also in this case, the majority of finds from the house were retrieved in courtyard L.54 and in its extension L.78, including four fragmentary storage jars, two hole-mouth cooking pots and a few fragments of Metallic Ware jars (pl. X). Two stone blades⁵³ and several animal bones⁵⁴ perhaps testify to butcher activities which took place in the domestic compound.

The South-Western Domestic Unit

The south-western domestic unit was partially brought to light in square BmII19; its northern extension was not investigated because buried beneath Cairn I, while to the south it had been obliterated by erosion. The main house was composed of two juxtaposed rooms, the roughly rectangular room L.76+L.74 and the flanking device L.72, and by a third rectangular unit added to the south (L.68; fig. 3.28).

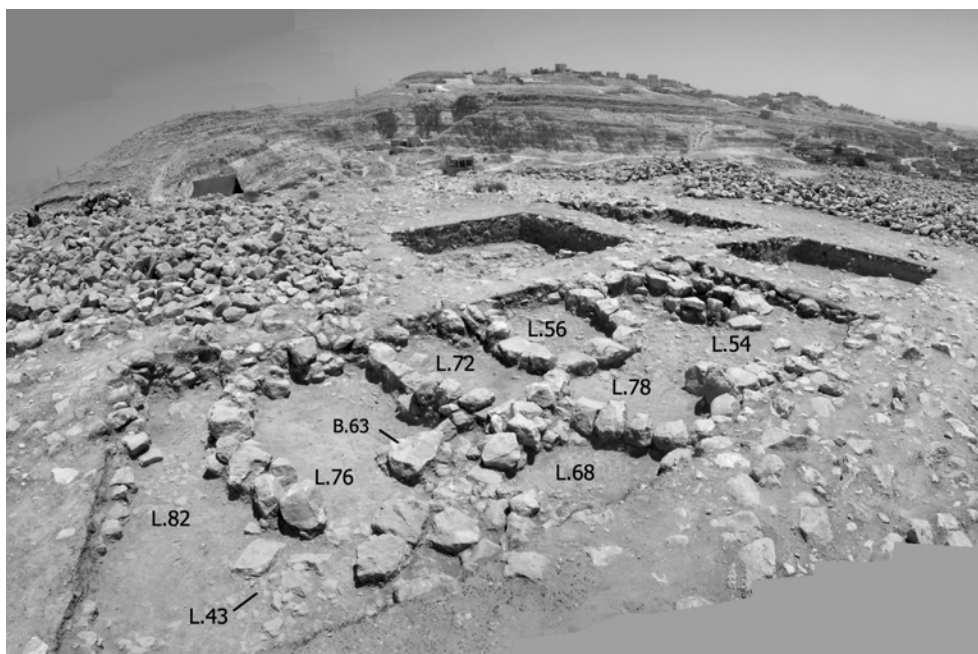


Fig. 3.28 - The south-western and south-eastern domestic units in squares BmII19+BnII19, from south-west.

The house opened towards south-west in a courtyard (L.82), paved with crushed limestone and beaten earth, through a door (L.43) approached by a step paved with a slab and two stones.

⁵³ A flint blade (KB.05.A.62) and a basalt tool (KB.05.A.43).

⁵⁴ Samples KB.05.A.29, KB.05.A.48, KB.05.A.51, KB.05.A.51.

One can also reconstruct in the area facing the entrance a slab-paved floor. Just inside room L.76, on the right, there was a raised stone platform (B.63), with a big flat stone in the corner and a circular hollow, possibly to host a storage jar or a vat (fig. 3.29)⁵⁵. Annexed device L.72, presumably was devoted to food preparation too, since a grinding stone was found in it (fig. 3.30)⁵⁶.

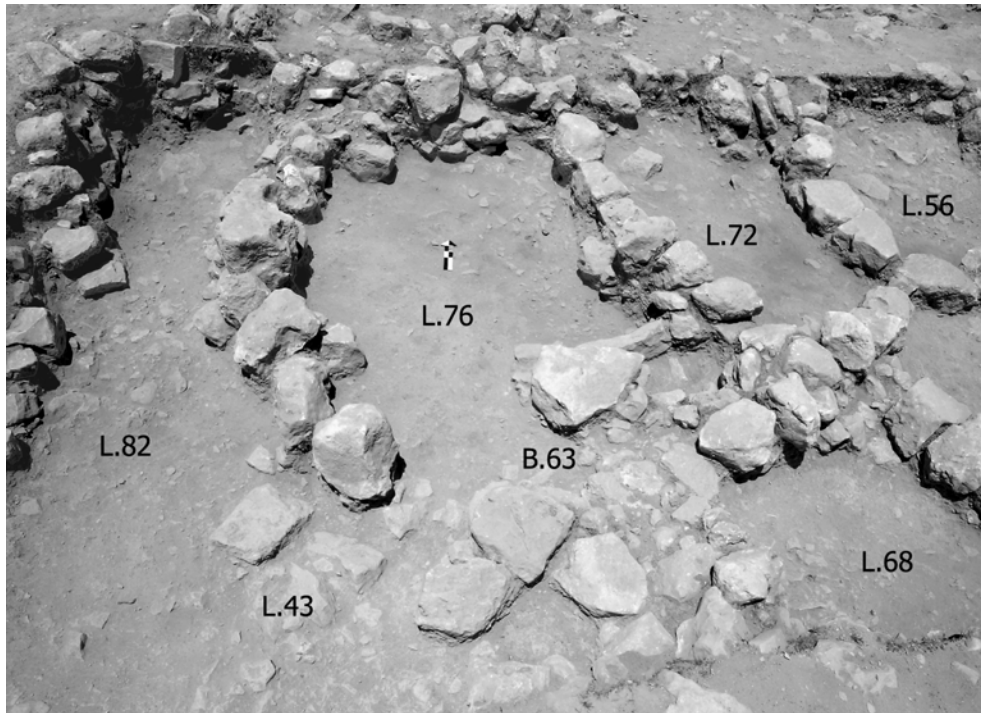


Fig. 3.29 - Room L.76 with bench B.63 opening on courtyard L.82, from south.



Fig. 3.30 - Grinding stone KB.05.A.50 retrieved in device L.72.

⁵⁵ A spindle whorl (KB.05.A.56, pl. X) was retrieved in room L.76.

⁵⁶ KB.05.A.50.

3.2.2. Area A West

In Area A West another portion of the Batrawy IV village, which represented the last settled occupation of the site, was excavated (figs. 3.31-3.33). Stone lined structures emerged on the ground (fig. 3.13) and were partially damaged by erosion, later robbers' pits and a modern burial (D.93). Their stratigraphic placement was indeed clear, and indicated that the summit of the Acropolis was occupied only in the last stage of Period Batrawy IV (Period Batrawy IVb, Early Bronze IVB, 2200-2000 BC).

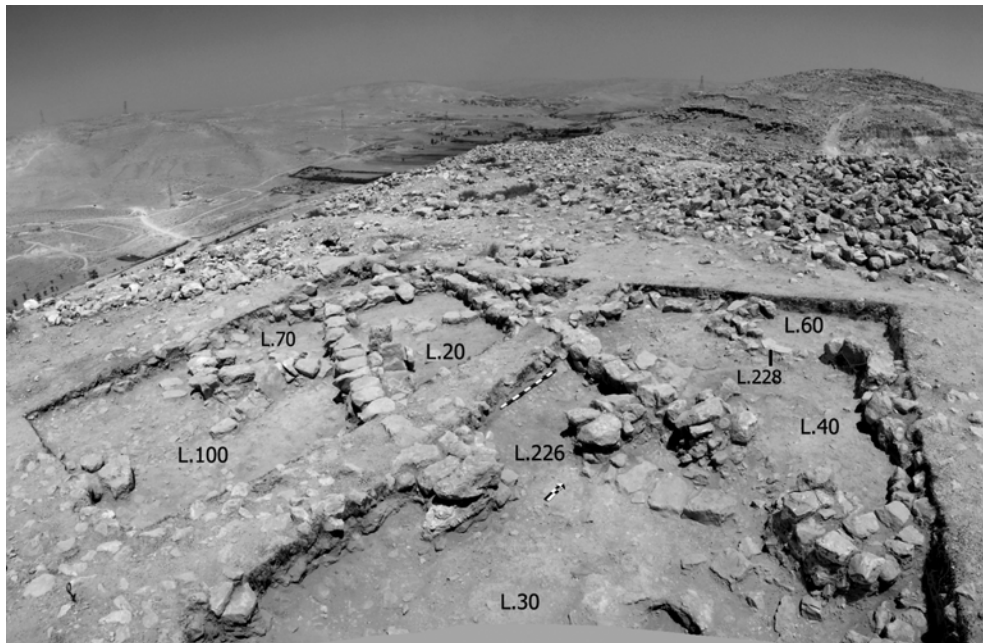


Fig. 3.31 - General view of Area A West with House L.20, from south-east.

The Central Domestic Unit L.20

A major domestic unit was uncovered in the middle of the excavated area, consisting of a rectangular (5.80 × 2.70 m) room (L.20), oriented south-east/north-west, with the entrance somewhat unusually located on the short side (L.226; figs. 3.31-3.34)⁵⁷. The southern jamb of the door had been reinforced with some stones, while the northern had been widened with the addition of an inner row of stones. The walls of L.20 were,

⁵⁷ This possibly indicates that House L.20 was built in an already settled compound and had to be linked directly with the other structures.

instead, made of large fieldstones displaced in a single line with their long side across the width of the wall⁵⁸. Inside the room, a triple installation abutted against the southern wall (W.81), consisting of two juxtaposed square cists (S.207, S.209), made of vertical limestone slabs, and of a third parallel stone to the west (fig. 3.35). One cist hosted a mortar⁵⁹, while the other was paved with two flat stones (fig. 3.36); the third one possibly served as stand for a vessel (a vat or a jar); the three installations all together probably were used a unique sequence of food production (from left to right, from grinding to pulping and mixing a foodstuff)⁶⁰. Finds from the collapse layer excavated within the house (F.210) may complete this picture: two storage jars, one hole-mouth jar, two medium-size Simple Ware jars (used as containers of food), and, of course, a grinding stone (fig. 3.37)⁶¹.

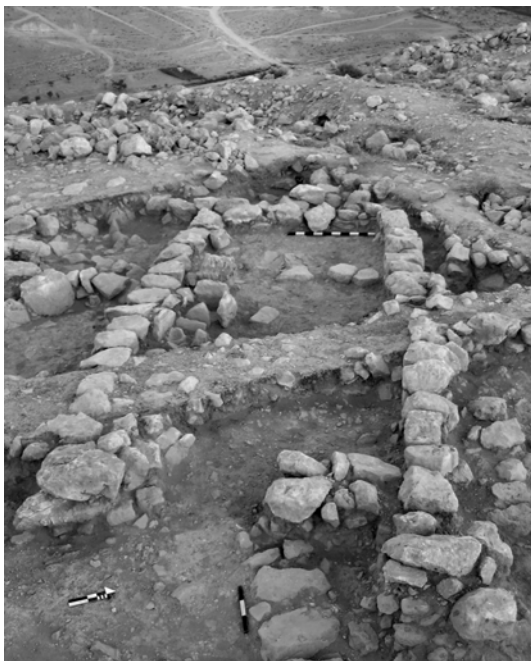


Fig. 3.32 - House L.20, from east.

⁵⁸ A general comparison for layout and building technique of House L.20 can be found in the domestic architecture of the EB IV sites of Khirbet Iskander (Richard - Boraas 1984, 70-74) and Tell Iktanu (Area A, phase 2: Prag 1991, fig. 1).

⁵⁹ Of the small type sometimes called "door-socket type", because of its similarity with such stone devices.

⁶⁰ No remains of seeds or other stuff were, however, found in or nearby the triple installation.

⁶¹ KB.05.A.78.

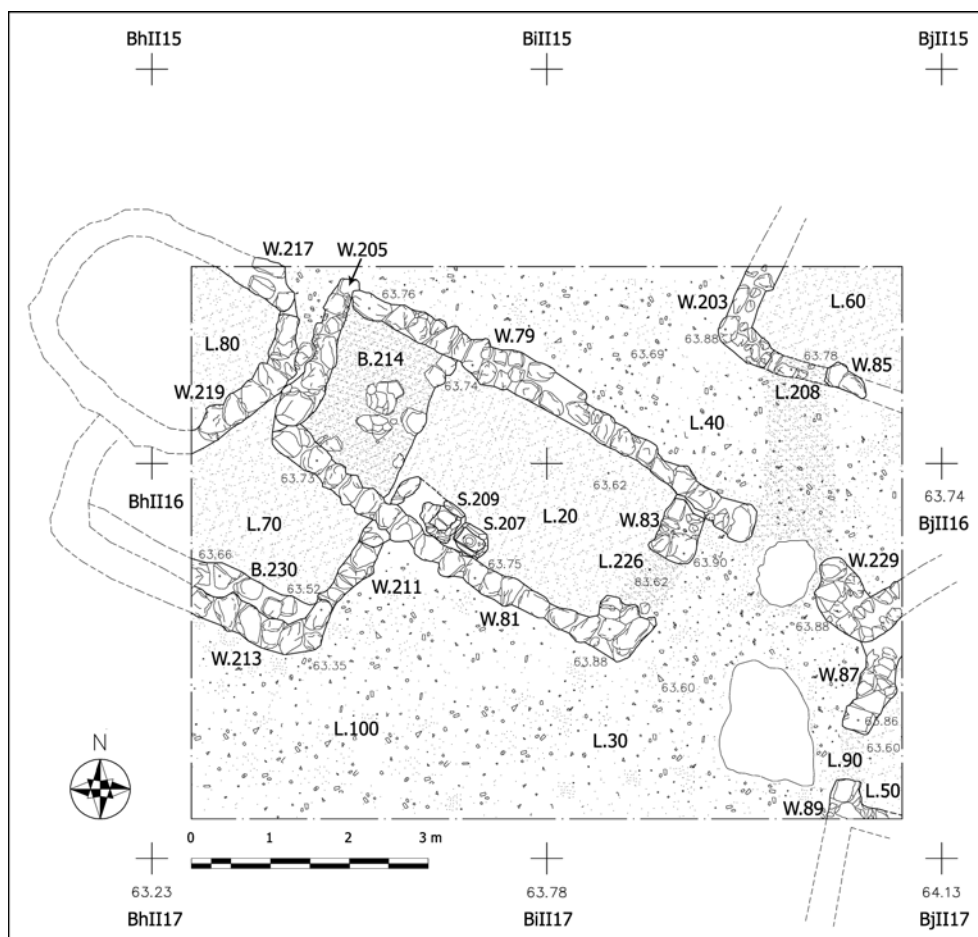


Fig. 3.33 - Plan of Batrawy IV structures in Area A West.



Fig. 3.34 - House L.20, from south.



Fig. 3.35 - The triple stone-cist installation against the southern wall W.81 in House L.20, from south-east.

Fig. 3.36 - The two juxtaposed square cists (S.207, S.209), abutting on southern wall W.81 in House L.20.



Fig. 3.37 - Grinding stone KB.05.A.78 retrieved in House L.20.

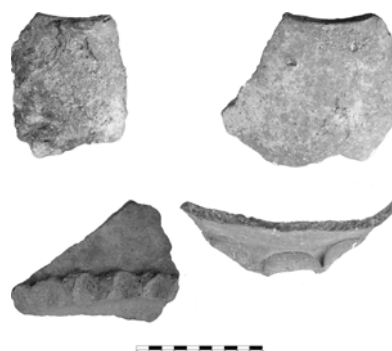


Fig. 3.38 - Selected pottery fragments from platform B.214.

The western part of L.20 was raised due to the presence of a platform (B.214) introduced by a stone-lined step (figs. 3.39-3.40). A big jar (for water?) was retrieved smashed over the platform, together with some fragmentary hole-mouth cooking pots and other storage jar fragments (pl. XVIII; fig. 3.38). Also these vessels probably are linked to food preparation performed in L.20. House L.20 represents the best preserved example of main domestic unit so far excavated of the EB IV rural dwelling on the Acropolis, and may give a clear hint at the reconstruction of the other various incomplete units unearthed in Area A East characterized by an irregularly elongated rectangular layout, as opposed to square or curvilinear plan, never exceeding 2.0 m, shown by annexed subsidiary structures.



Fig. 3.39 - Raised platform B.214 in the western part of House L.20, from west.

The Neighbouring Units

West of the rear wall (W.205) of House L.20, a round structure (W.219) abutted on it, apparently belonging to a curvilinear subsidiary device (L.80), delimited to the north by wall W.217 (a storeroom?).

South of L.20 there was a quite large courtyard (L.100), where a further structure (L.70) was adjoined to the south-western side of the house, being delimited to the south by a wall (W.213) with an adjoined reinforce (or a bench?) inside (B.230). The entrance to L.70 opened to the east was marked by a raised step (W.211) (figs. 3.41-3.42). The way the latter structure is adjoined to House L.20 recalls that of Houses L.6 and L.12 in Area A East, suggesting that domestic units had been progressively enlarged by juxtaposing new rooms.

The filling within L.70 (F.218) has provided a certain number of pottery shapes (pl. XVIII): two storage jars, a hole-mouth cooking pot, two medium-size Simple Ware jars.



Fig. 3.40 - Raised platform B.214 in the western part of House L.20, from east.

In front of the entrance to L.20, there was an open space (L.30), towards which two other houses opened, namely House L.50, located in the south-eastern corner of the excavated area⁶², accessible through an inner lane (L.40). In the central open space L.30, a limestone mortar⁶³ was embedded into the floor (fig. 3.43), perhaps in secondary use serving as base for a wooden post supporting a light cover in between the two doors (L.226, L.90) and passageway L.40.

⁶² Some fragmentary pots and jars were retrieved in filling F.202 within House L.60 (pl. XVII).

⁶³ KB.05.A.69. A comparison for this typology of limestone mortar can be found at Tell el-Umeiri (Platt 1989, fig. 20.11 [Object 152]; 1991, 248, figs. 10.11-14).

A basalt grinding stone with its grinder⁶⁴, together with fragmentary pots and jars with combed decoration⁶⁵, were found in the same area. A few meters to the south there was presumably a courtyard (L.100), where fragmentary pots and jars with combed decoration were retrieved⁶⁶.

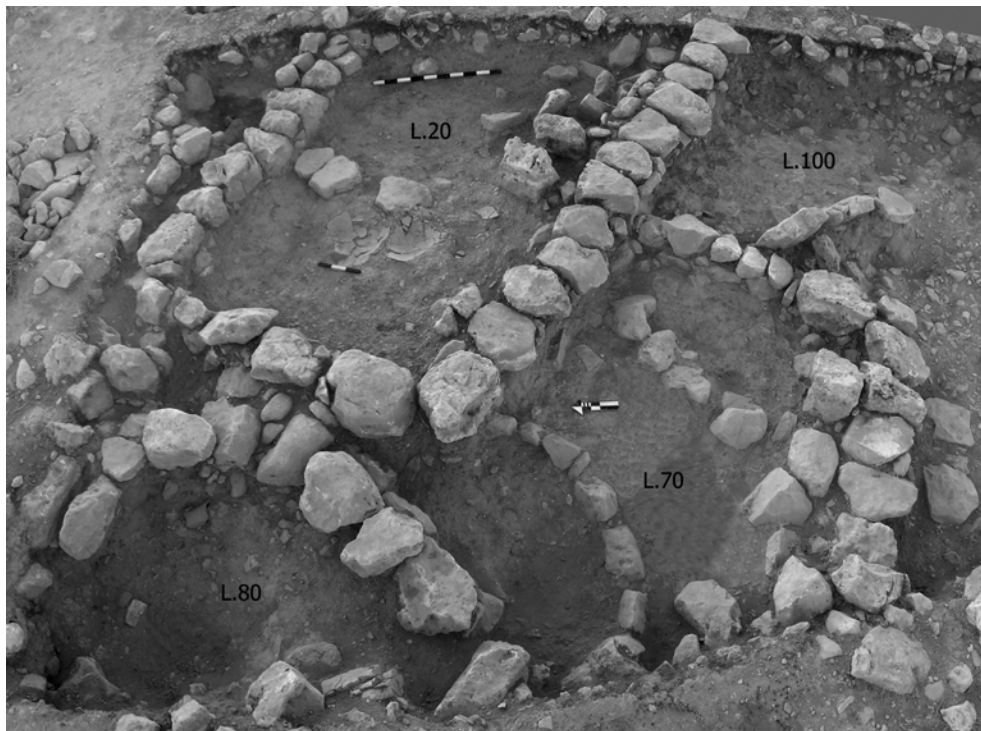


Fig. 3.41 - Room L.70 and circular device L.80, to the south-west and west of House L.20, from west (in room L.70 emerging circular installations of Period Batrawy III).

House L.50, the entrance of which (L.90) opened just in front of L.226 (figs. 3.44, 3.46-3.47), can be reconstructed as a rectangular unit, oriented NW-SE, according to the layout of House L.20 (see above).

⁶⁴ KB.05.A.57 and KB.05.A.63.

⁶⁵ These pottery fragments came from fillings F.88 and F.92 (pl. XVII). F.88 yielded some fragmentary storage jars and hole-mouth jars, as well as fragmentary cooking pots, one Simple Ware medium-size bowl (KB.05.A.88/4) and two Simple Ware jars, one with vertical neck (KB.05.A.88/2). F.92 yielded some fragments of both storage and cooking vessels.

⁶⁶ Filling F.212 (pl. XVIII).



Fig. 3.42 - Room L.70 and circular device L.80, to the south-west and west of House L.20, from south.



Fig. 3.43 - Limestone mortar KB.05.A.69.



In the north-eastern quadrant of square Bjl116 a more substantial wall (W.229) encircled another domestic compound including House L.60 (fig. 3.46). It curved forming the eastern jamb of the passageway (the western being constituted by a prolongation of the northern wall of House L.20), giving access to lane L.40 and to the house itself. The latter was delimited by a thin wall to the west (W.203) and by a quite disturbed structure to the south (W.85). Its entrance, however, was clearly identifiable, being marked

by a stone-paved threshold (L.208; figs. 3.45, 3.48). In the excavated portion of this house a grinding stone was found⁶⁷.

A set of domestic pottery vessels was also found in lane L.40 (pl. XVII; fig. 3.50), including at least four storage jars with pattern-combed⁶⁸, band-combed⁶⁹ and applied rope⁷⁰ decorations, two Simple Ware jars, some fragments of cooking pots, as well as a fragment of a Metallic Ware jar, together with a stone pestle⁷¹.

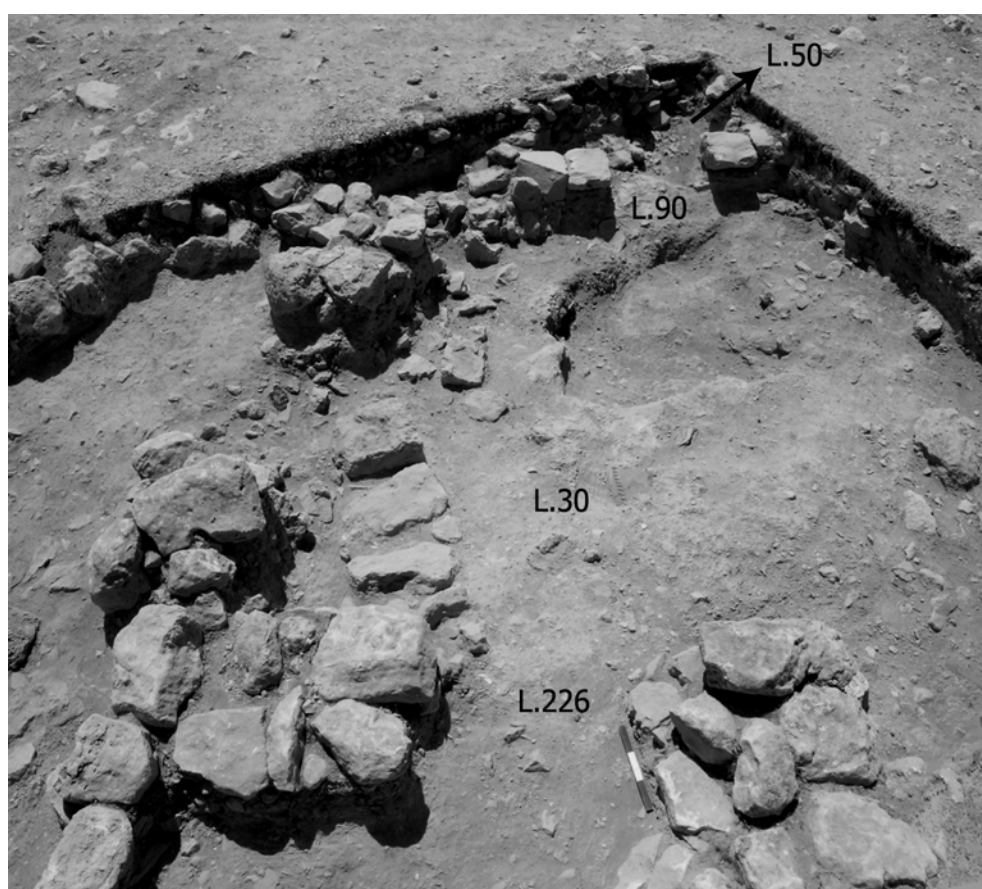


Fig. 3.44 - Entrance of House L.50 (L.90) in front of the entrance of House L.20 (L.226), from west.

⁶⁷ KB.05.A.68.

⁶⁸ KB.05.A.84/5 (pl. XVII).

⁶⁹ KB.05.A.84/3 (pl. XVII).

⁷⁰ KB.05.A.84/7 (pl. XVII).

⁷¹ KB.05.A.61.



Fig. 3.45 - Threshold L.208 of House L.60.

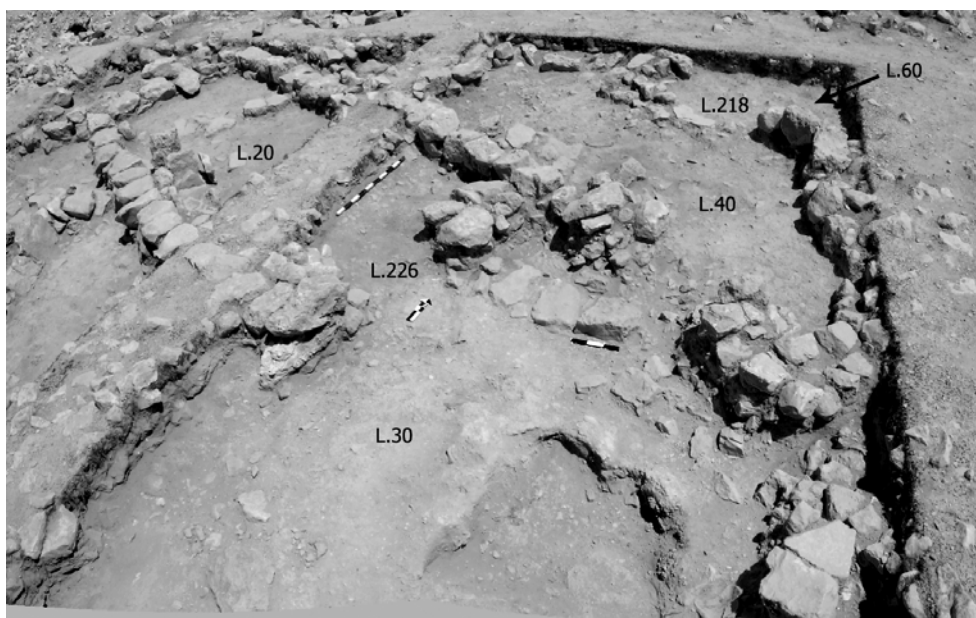


Fig. 3.46 - House L.20 and courtyard L.30, in the foreground; in the background, lane L.40 and House L.60, from south-east.



Fig. 3.47 - Entrance L.90 of House L.50, from west.



Fig. 3.48 - Entrance L.208 of House L.60 into lane L.40, from south-west.

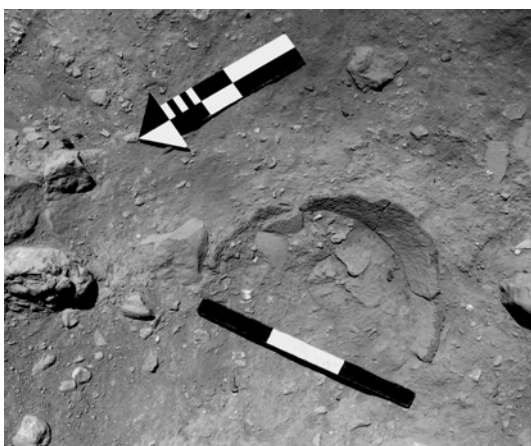


Fig. 3.49 - Storage jar fragments embedded in floor L.40.



Fig. 3.50 - Storage jars fragments with combed and applied rope decorations from lane L.40.

3.2.3. An Overall Picture of the Early Bronze IV Village of Khirbet al-Batrawy

The overall picture provided by Area A is that of a relatively small village spread over the site with clusters of houses concentrated in selected spots, such as the summit of the Acropolis, as well as inside the northern EB III fortification line (§ 4.2.1.).

Houses exhibited elongated rectangular plans and were flanked by courtyards and subsidiary structures (many of which curvilinear in plan; fig. 3.51). The life of the village, which shows a single major constructive phase, apparently during the later phase of Period Batrawy IV (some single architectural transformation did not affect the overall layout of the houses and do not indicate a major stratigraphic change), lasted maximum a century. A general principle in the layout of this portion of the village and its inner circulation is hardly distinguishable, even though some elements may be evoked: a firm limit to the east, represented by terrace-wall W.23+W.5, an overall dominating orientation of major houses along the north-west/south east axis (so that to contrast the dominant western wind); the agglutinant juxtaposition of houses and devices, with a labyrinth like circulation among them⁷². The latter may be explained surmising that the cluster of houses on the summit of the Acropolis was free from buildings all around, so one had to go around it to move from a house to another (the irregularity of buildings does not allow a roof-circulation, as supposed elsewhere).

From the architectural point of view, it is noteworthy that the houses were entirely made of unworked stones⁷³, usually displaced in only one row⁷⁴, whit small wooden posts employed in ceilings of major rectangular units, while circular or semicircular structures should have been covered with leafy branches and, in some cases, with corbelled stone or mud-brick vaults (this may also explain their restricted dimensions).

The material culture of the inhabitants of such a village shows a relatively limited inventory of pottery shapes and flints tools, including three broad types of storage jars (with flaring roped neck, hole-mouth, and of Metallic

⁷² A similar agglutinant juxtaposition of houses and devices can be outlined from the portion of the EB IV village exposed at Tell Iktanu (Area A, phase 2: Prag 1990, 119-121, fig. 2; 1991, fig. 1).

⁷³ The use of stones was the most easier, since they were immediately available in the ruins of the preceding city of Period Batrawy III.

⁷⁴ As well as in domestic architecture unearthed in other EB IV Transjordanian sites, such as Jebel er-Reheil (Palumbo *et al.* 1996, 399-400, figs. 24-25) or Tell Iktanu (phase 2: Prag 1991, fig. 1).

Ware production; § 3.3.), mainly devoted to store liquids (drink water, olive oil, possibly wine or bier), semi-liquids (ovine and pig fat), and dried fruits and beans; cooking pots; small Simple Ware jars; and a few open shapes among which vats, for mixing food, and bowls with thin profile.

Subsistence was assured by control and intense cultivation of the Wadi az-Zarqa banks and on an integrated breeding of various animals: mainly sheep and goats, and also pigs, bovines, as well as fishes from the river itself (the presence of dams derived from the river in side branches has been surmised, but it is very hard to be demonstrated).

As regards food preparation, noticeable is the frequent presence in the houses of the village of several installations, such as cists and fixed mortars, all related to cereals and beans grinding and pulping. Storage facilities are, instead, represented by silos sunk into the floor (usually reaching the bedrock), circular storerooms (where foodstuff was preserved in jars); benches for housing storage jars, both for food and water; and underground caves (fig. 1.13), which apparently were reused having been first arranged as reservoir in the preceding Period Batrawy III. The overall population of the village may be estimated between 150 and 200 people. The attestation of jar burials on the site (as at its south-western corner; § 1.1.2., figs. 1.11-1.12) points to a date late in Early Bronze IV for the settlement over the ruins of Batrawy III.

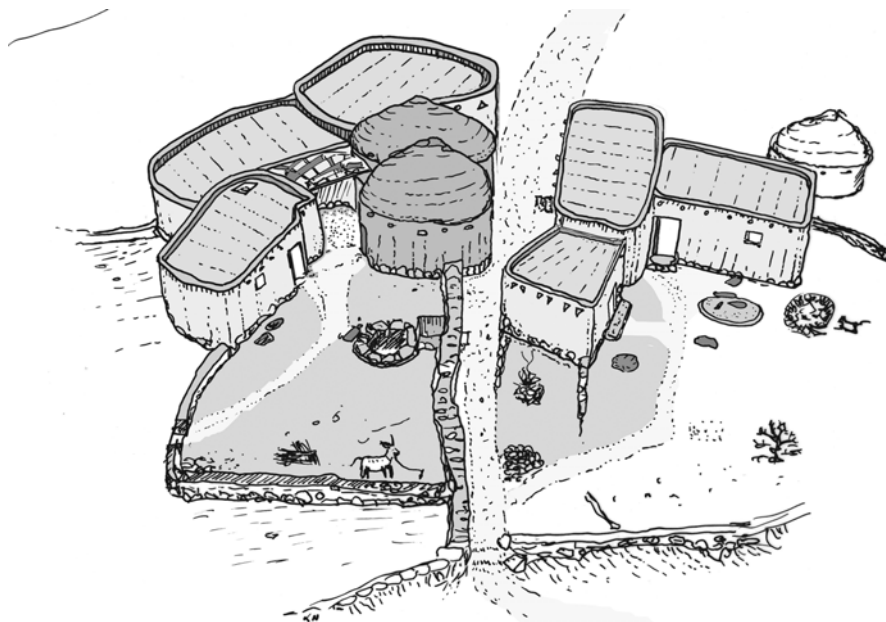


Fig. 3.51 - Reconstruction of Batrawy IV village in Area A East.

3.3. *Pottery from the Batrawy IV Village* [by Maura Sala]

The excavation of the Batrawy IV village on the Acropolis provided a quite ordinary ceramic assemblage from a homogenous stratigraphic phase⁷⁵, corresponding to the final stage of Transjordanian Early Bronze IV (Early Bronze IVB, ca. 2200-2000 BC).

3.3.1. Batrawy IV Pottery Productions

Domestic contexts unearthed yielded a rather restricted inventory of pottery productions⁷⁶, namely: Simple Ware, mainly including bowls and small and medium size jars; Storage Ware, including jars with flaring neck and simple everted rim and hole-mouth jars; Cooking Ware, including almost exclusively hole-mouth cooking pots; and a few fragments of a specialized Metallic Ware production.

Simple Ware

Simple Ware represents 18% of the domestic assemblage retrieved in the Batrawy IV village. It is distinguished by yellowish-red, light brown or grey fabrics, relatively fine-tempered with sand and limestone grits. Vessels were medium and medium-high fired, usually handmade with sometimes, in the case of jars, the necks and rims made on the wheel.

Simple Ware open shapes include by hemispherical bowls with pointed rim⁷⁷, and larger bowls with curved walls and inturned rounded rim⁷⁸; there are also a very few large open shapes, such as vats for food preparation and mixing activities.

Among closed shapes, Simple Ware jars can be distinguished into three main morphological groups: small and medium size jars with flaring or vertical neck and slightly everted (pointed) rim⁷⁹; small and medium size hole-mouth jars; and, finally, small jars with strongly everted rim⁸⁰. One specimen of *amphorisko*⁸¹, a diagnostic shape of the EB IV Palestinian pottery horizon usually found in tombs furnishings, was also retrieved.

⁷⁵ Pls. IV, IX-X, XVI-XVIII.

⁷⁶ The pottery assemblage of Batrawy IV includes both diagnostic fragments and a lot of undistinguishable sherds, retrieved in both the layers of collapsed stones which filled the EB IV structures, and the shallow archaeological deposits inside the rooms and devices of the village.

⁷⁷ KB.05.A.8/10 (pl. IX).

⁷⁸ KB.05.A.88/4 (pl. XVII).

⁷⁹ KB.05.A.1/1 (pl. IV), KB.05.A.8/1 (pl. IX), KB.05.A.88/2 (pl. XVII).

⁸⁰ Such as the specimen KB.05.A.218/1 (pl. XVIII).

⁸¹ KB.05.A.26/1 (pl. VIII; fig. 3.9).

The use of slip to refine the outer surface of vessels was just occasionally employed in this phase; while burnishing and polishing common in the preceding Batrawy III horizon are no more attested.

Storage Ware

Storage Ware represents 55% of the whole domestic pottery inventory, and includes both medium size jars for temporary storage and transportation, and big storage jars and *pithoi*.

Storage Ware employed medium coarse red, light red, reddish-brown and reddish-yellow fabrics, or pinkish-grey and grey ones, with gritty chalk, volcanic sand and limestone tempers of medium or medium-high frequency. Vessels were usually medium or medium-low fired, and almost exclusively handmade.

Batrawy IV Storage Ware vessels belong almost exclusively to two different broad morphological groups of jars: jars with flaring neck and everted rim⁸², sometimes characterized by rope-like applied decorations (fig. 3.52)⁸³, horizontal or irregular combing⁸⁴, descending from a classic EB III shape, and the distinctive combed decoration with horizontal and wavy bands⁸⁵ (fig. 3.53) typical of an advanced phase of the Palestinian Early Bronze IV (Early Bronze IVB, 2200-2000 BC)⁸⁶; and hole-mouth jars with flattened or slightly recessed rims (fig. 3.54)⁸⁷, with outer combing or thumb-indented decorations⁸⁸. There were also a few medium size jars with short rounded rim⁸⁹.

All types of storage jars had flat base, and often show a pair of the characteristic EB IV envelope ledge handles (fig. 3.55)⁹⁰.

⁸² Such as KB.05.A.95/4 (pl. XVI).

⁸³ Such as KB.05.A.18/6 (pl. VI), KB.05.A.10/2 (pl. IX), KB.05.A.84/7 (pl. XVII), KB.05.A.214/3 (pl. XVIII).

⁸⁴ Such as KB.05.A.1/2 (pl. IV), KB.05.A.8/6 (pl. IX), KB.05.A.10/3 (pl. IX), KB.05.A.95/10 and KB.05.A.95/11 (pl. XVI), KB.05.A.84/5 and KB.05.A.88/6 (pl. XVII).

⁸⁵ Such as KB.05.A.18/5 (pl. VI), KB.05.A.10/1 (pl. IX), KB.05.A.84/3 (pl. XVII).

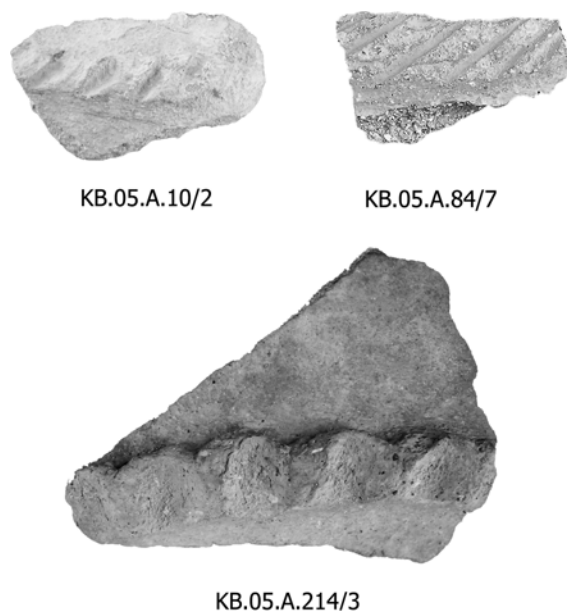
⁸⁶ Prag 1986, 62, 64-65; Nigro 1999, 48-52; 2003a, 131-134, 138-139.

⁸⁷ Such as KB.05.A.82/1 (pl. X), KB.05.A.88/1 and KB.05.A.202/1 (pl. XVII).

⁸⁸ Such as hole-mouth jar KB.05.A.18/21 from filling F.18 of Activity 3d (pl. V), showing a finger-impressed decoration around the rim, which finds parallels in EB IV specimens from Khirbet Ara'ir (Olàvarri 1969, fig. 3:1) and Tell Iktanu (Prag 1974, 90, fig. 7:7).

⁸⁹ Such as the specimen KB.05.A.8/2 (pl. IX).

⁹⁰ Such as KB.05.A.2/3 and KB.05.A.49/1 (pl. IV), KB.05.A.4/10 and KB.05.A.4/12 (pl. VII), KB.05.A.54/2 (pl. X), KB.05.A.212/6 and KB.05.A.214/2 (pl. XVIII). Palumbo *et al.* 1996, 410, fig. 35:9-10.

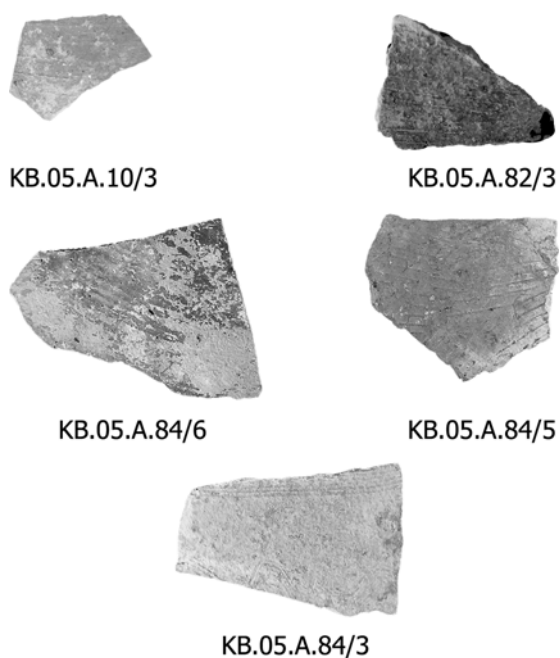


KB.05.A.10/2

KB.05.A.84/7

KB.05.A.214/3

Fig. 3.52 - Examples of rope-like applied decorations.



KB.05.A.10/3

KB.05.A.82/3

KB.05.A.84/6

KB.05.A.84/5

KB.05.A.84/3



Fig. 3.53 - Fragments of storage jars with horizontal, irregular and band-combed decorations.



Fig. 3.54 - Hole-mouth storage jars with flattened and slightly recessed rims.



**Fig. 3.55 -
Envelope ledge
handle
KB.05.A.214/2.**

The use of an outer (usually dark red) slip to strengthen and finish the walls of jars is very rarely attested to in this phase.

Cooking Ware

Cooking Ware represents 27% of the whole assemblage. This production employed mostly coarse reddish-brown, strong brown and dark grey fabrics, or red and yellowish-red ones, with gritty chalk, limestone and mica⁹¹ tempers of medium and high frequency. Vessels always handmade were fired at low or medium-low temperature.

Cooking Ware was mainly, if not exclusively, represented by hole-mouth pots, characterized by flattened⁹², slightly recessed (fig. 3.56)⁹³, or inner folded rims⁹⁴.

⁹¹ These mineral tempers mainly originated from sand of the riverbed of the wadi.

⁹² KB.05.A.1/3 and KB.05.A.1/4 (pl. IV), KB.05.A.8/5 (pl. IX).

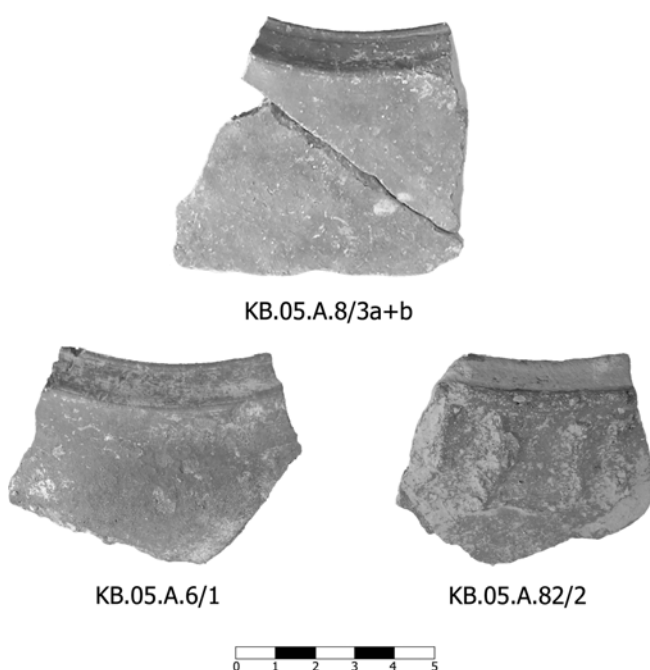


Fig. 3.56 - Hole-mouth cooking pots with slightly recessed rims.

Metallic Ware

A very few storage vessels⁹⁵ distinguished by a high firing and quite finer reddish yellow, light reddish-brown or grey fabric belong to Metallic Ware, again in continuity with a distinguished EB III production.

The shapes inventory included big-medium size jars with flaring neck, simple everted rim and flat base, sometimes showing also a combed decoration.

3.3.2. Distributive Analysis

As it concerns the pottery distribution among single domestic units of the Batrawy IV village⁹⁶, Simple Ware represents the 12.5-17.5% of each domestic assemblage; Storage Ware is averagely the 45-65%; while Cooking Ware represents the 38% in compound L.76+L.74+L.72+L.68+L.82, and the 20-25% in the other units.

⁹³ KB.05.A.6/1 and KB.05.A.8/3 (pl. IX), KB.05.A.82/2 (pl. X).

⁹⁴ KB.05.A.92/1 (pl. XVII), KB.05.A.95/14 (pl. XVI), KB.05.A.212/2 (pl. XVIII).

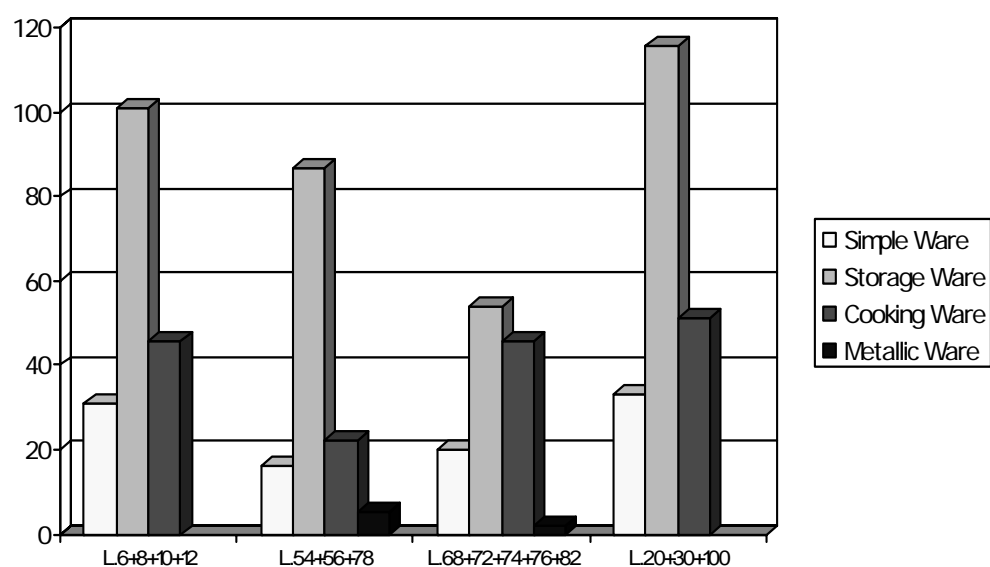
⁹⁵ Such as KB.05.A.54/1 (pl. X).

⁹⁶ That is, the northern domestic unit L.6+L.8+L.10+L.12, the south-eastern domestic unit L.57+L.54+L.78+L.56 and the south-western domestic unit L.76+L.74+L.72+L.68+L.82 in Area A East (§ 3.2.1.); and the central domestic unit L.20+L.30+L.100 in Area A West (§ 3.2.2.).

The only specialized production attested to in the Batrawy IV village inventory is Metallic Ware, though represented by a very few specimens.

Domestic Units	Simple Ware	Storage Ware	Cooking Ware	Metallic Ware
L.6+L.8+L.10+L.12 (Area A East)	31 fragms.	101 fragms.	46 fragms.	-
L.54+L.78+L.56 (Area A East)	16 fragms.	87 fragms.	22 fragms.	5 fragms.
L.76+L.74+L.72+L.68+L.82 (Area A East)	20 fragms.	54 fragms.	46 fragms.	2 fragms.
L.20+L.30+L.100 (Area A West)	33 fragms.	116 fragms.	51 fragms.	-

Tab. 3.1 - Table of distribution of each production per domestic unit.



Tab. 3.2 - Graphic of distribution of each production per domestic unit.

3.4. Architecture & Finds: the Early Bronze III Remains

[by Lorenzo Nigro]

Substantial structures and floors of Period Batrawy III (Early Bronze III) were brought to light on the Acropolis only in the easternmost squares of Area A East⁹⁷, where terrace walls W.23 and W.5 of Phase 3 had in some ways protected them by including their remains inside the filled up area they supported (figs. 3.16-3.18).

3.4.1. Building A1 in Squares BnII18 and BoII18

The north-eastern corner of a major structure, called Building A1, was uncovered in the western half of square BoII18 (figs. 3.57-3.58), and its prolongation was identified in the nearby square BnII18, although badly damaged in Phase 3 terracing activities.



Fig. 3.57 - Corner of Building A1 in square BoII18, from north.

⁹⁷ The Acropolis of Khirbet al-Batrawy was not a favourable spot for domestic dwelling, being directly exposed to violent western winds, which at that elevation in that region can be very vigorous. It is for this reason that, apparently, it was not fully occupied, and usually not in the beginning phase of each period of development of the site.

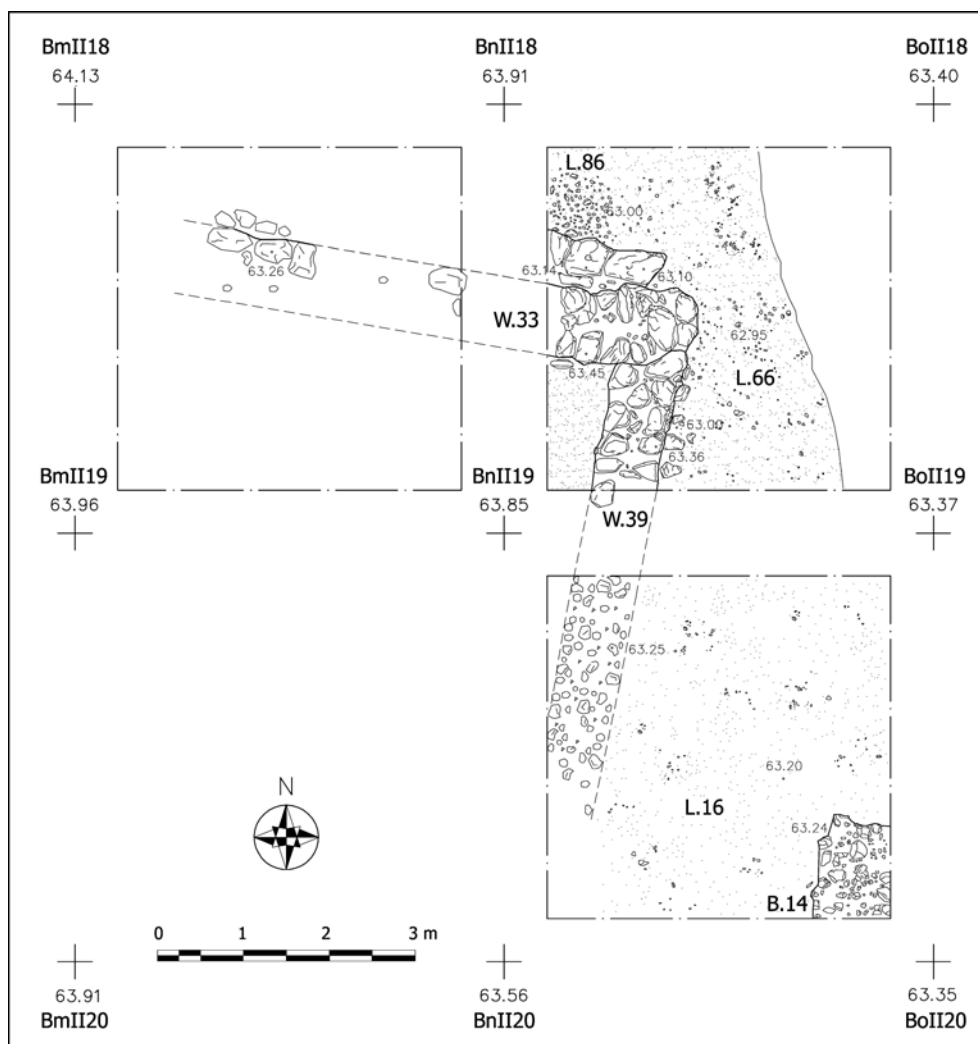


Fig. 3.58 - Plan of Batrawy III structures in Area A East.

The corner was constituted by two adjoined structures: a 1.0 m wide wall (W.33), built with big fieldstones tied up by medium and small size stones mixed with mud-mortar, east-west oriented; and a less wide (0.7 m) wall (W.39), stretching NNE-SSW, built with the same technique. In BoII18, walls W.33 and W.39 were preserved with two superimposed courses of stones (fig. 3.59), founded directly over the bedrock⁹⁸. In BnII18 wall W.33 was preserved just in a few stones, while in BoII19 the southern prolongation of wall W.39 appeared only at the level of the small stones in its foundation.



Fig. 3.59 - Corner W.33+W.39 of Building A1 with reinforcing bench (B.73) to the north in squares BoII18+BnII18, from east.

A distinguishing feature pointing at the monumentality of the structure was a buttress or a reinforcing bench (B.73)⁹⁹ abutting on the northern face of

⁹⁸ In this sector of Area A the bedrock has been exposed so far only in squares BoII19 and BnII18, where it is characterized by an irregular scaly surface, which in BnII18 was regularized to be used as foundation for the building activities.

⁹⁹ Buttress B.73 was made by three big fieldstones of similar height aligned against Wall W.33; a limestone chop was inserted in between the two structures in order to strengthen the structures connection.

wall W.33 at its bottom, and related with a fine limestone gritty flooring (L.86), perhaps the preparation of a platform or a bench (fig. 3.60). The upper face of the big stones of buttress B.73 showed a series of circular hollows (5 cm of diameter), pointing at an utilization of it as a working platform. Its structural relation with wall W.33 cannot, however, be underestimated, since the two are connected by medium size stones forming a unique reinforced foot of the wall at its corner.

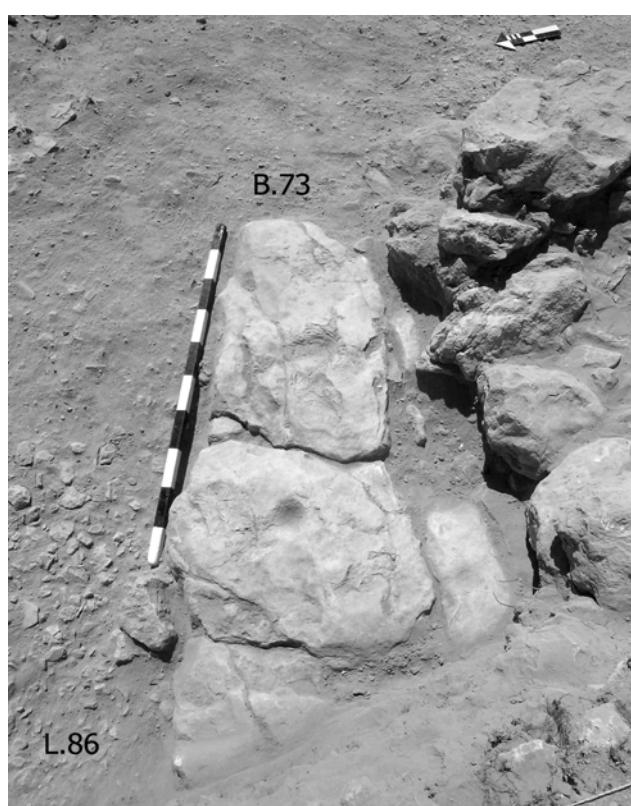


Fig. 3.60 - Bench B.73 with the adjoining limestone gritty floor L.86.

Floors related to wall W.33 and wall W.39 were exposed both inside (west) and outside (east) the building. Inside the corner, there was a rubble filling (F.44), and below it a layer of small stones (F.47), perhaps belonging to the flooring of the room (fig. 3.61). Scattered EB III pottery sherds and a few animal bones were retrieved in these fillings.

Outside, there was a homogenous floor of beaten earth with marl chops (L.66), cut to the west by an intentional filling (F.64) accumulated after the Phase 4 destruction. Alongside the eastern bottom of wall W.39 a series of small size stones protected the wall foot and connected it with the floor,

thus indicating that the two features had been built together (fig. 3.59). The destruction layer east of W.33+W.39 (F.46) above floor L.66 provided a relatively large quantity of ceramic materials (around 270 fragments), mainly belonging to at least eight storage jars of the type with flaring neck, with rope-like decorations (often applied at the bottom of the neck; pl. XIII; fig. 3.62), which suggests the presence of a storeroom in the nearby.



Fig. 3.61 - Corner W.33+W.39 of Building A1 with layer of stones F.47 inside.

North of W.33+B.73 the occupational layers referable to the use of Building A1 (F.34 and F.42) gave back some fifty ceramic fragments (pl. XII), some attributable to three more storage jars. In this sector, also the presence of animal bones was noticeable¹⁰⁰, especially in the lowest burnt layer of ashes (F.42) covering floor L.86. The buttressed corner formed by walls W.33+W.39 testify to the existence of a major building at the south eastern sector of the Acropolis¹⁰¹, possibly opened towards the south-west

¹⁰⁰ Sample KB.05.A.43.

¹⁰¹ Contemporary buildings showing a comparable building technique have been unearthed in EB III Transjordanian sites, as, for instance, Tell el-Handaquq South (domestic units of phases I-IV: Chesson 1998, 22-27, figs. 2-5) and Tell el-'Umeiri

(if one hypothesizes that the rear wall was that reinforced on its outer side; i.e. W.33). Other architectural relics of such a building have not yet been reached in the other squares of Area A East because of the presence of later Batrawy IV dwellings, except for square BnII18, which was instead dug down to the bedrock, and where wall W.33 and related filling were almost fully removed, presumably during the razing activities carried out before the setting of the EB IV settlement (Phase 3c; § 3.2.1.).



Fig. 3.62 - Fragments of storage jars with rope-like applied decorations from floor L.66.

3.4.2. Batrawy III Remains in Square Boll19: Courtyard L.16

In square Boll19, at the south-eastern edge of the Acropolis in Area A East, Batrawy III occupational layers were reached east of the badly preserved prolongation of W.39, where terrace-wall W.5 had made possible the preservation of a floor (L.16), consisting of compacted layers of beaten soil with chalk inclusions. A working platform (B.14), made of small stones, pebbles, and fragmentary mud-bricks was uncovered partly concealed in the sections at the south-eastern corner of the square (figs. 3.63-3.65); it was connected with floor L.16 and was covered by the intentional filling (F.4) accumulated after the Phase 4 abandonment. Two flint blades¹⁰² were found on this platform (figs. 3.66-3.67), which was presumably devoted to food preparation; one Cananean blade¹⁰³ and three more flint blades¹⁰⁴ were retrieved on the adjacent floor L.16 (figs. 3.68-3.69). Courtyard L.16 was directly connected with L.66 (east of Building A1), even though it

(Field D, Compound of phase 4: Harrison 1997b, 161-169, figs. 5.11-5.13; Building B of phase 5: Harrison 2000, 138, figs. 5.1, 5.24; Building A of phases 7-6, also for the skilfully use of the bedrock in the construction of the building: Harrison 2000, 99-100, figs. 5.6-5.7, 5.16).

¹⁰² KB.05.A.6 and KB.05.A.11.

¹⁰³ KB.05.A.5 (pl. XV).

¹⁰⁴ KB.05.A.10, KB.05.A.13, KB.05.A.24.

seems to represent the latest refurbishing of the open space, not preserved in square BnII18.

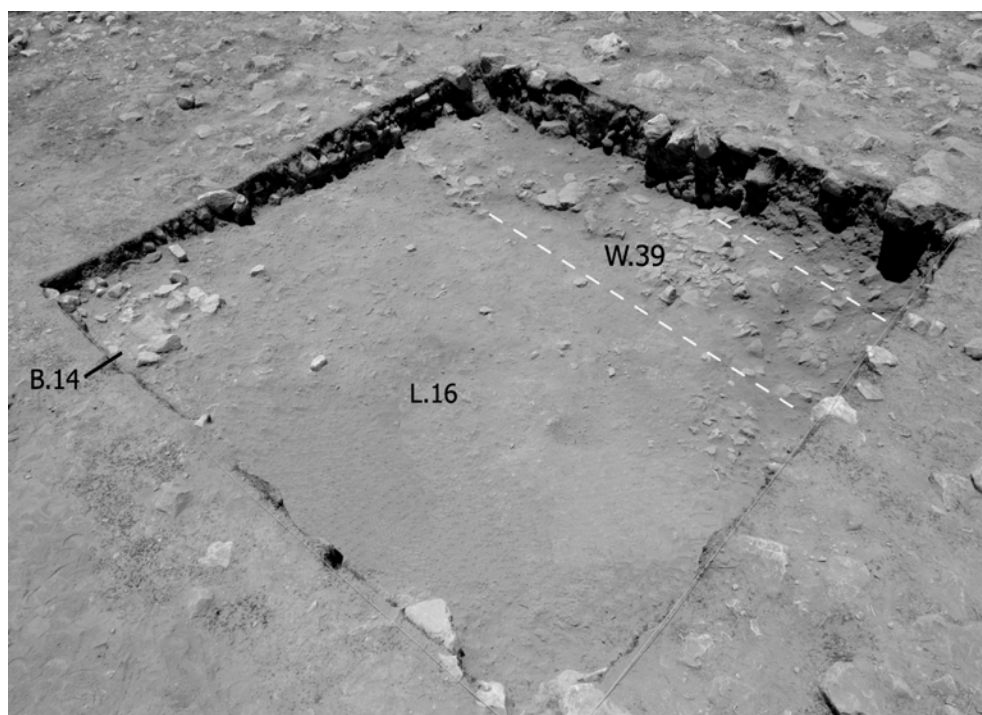


Fig. 3.63 - Courtyard L.16 with working platform B.14 in the south-eastern corner of square BnII19, from north-east.



Fig. 3.64 - Working platform B.14 in courtyard L.16, from north.

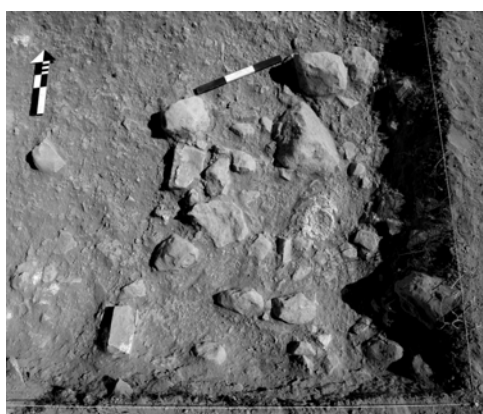


Fig. 3.65 - Working platform B.14 in courtyard L.16, from south.



Fig. 3.66 - Flint blades KB.05.A.6 and KB.05.A.11 found on platform B.14, from north.



Fig. 3.67 - Flint blades KB.05.A.6 and KB.05.A.11 from platform B.14.



Fig. 3.68 - Flint blades retrieved in courtyard L.16.

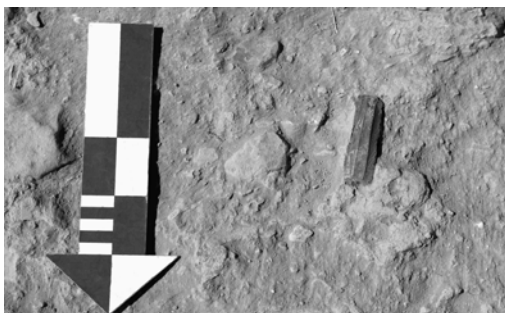


Fig. 3.69 - Cananean blade KB.05.A.5 retrieved in courtyard L.16.

LIST OF POTTERY, OBJECTS AND SAMPLES BY CONTEXTS

Area A

F.1

Pottery: Storage Ware: 2 jars, 13 frags. uns.¹
 Cooking Ware: 2 hole-mouth pots, 8 frags. uns.
 Simple Ware: 1 jar, 16 frags. uns.
 Objects: 1 Stopper (KB.05.A.22)
 Samples: Animal Bones (KB.05.A.9)
 Plate: IV

F.2

Pottery: Storage Ware: 1 jar, 1 envelope ledge handle, 6 frags. uns.
 Simple Ware: 10 frags. uns.
 Plate: IV

F.4

Pottery: Storage Ware: 4 jars, 2 hole-mouth jars, 2 envelope ledge handles, 15 frags. uns.
 Cooking Ware: 3 hole-mouth pots, 1 vat, 15 frags. uns.
 Simple Ware: 18 frags. uns.
 Specialized Production: 1 Metallic Ware fragm.
 Lithics: 2 Flint Blades (KB.05.A.8, KB.05.A.9)
 Samples: Animal Bones (KB.05.A.1, KB.05.A.3, KB.05.A.6)
 Plate: VII

F.6a

Pottery: Storage Ware: 4 frags. uns.
 Cooking Ware: 1 hole-mouth pot
 Plate: IX

F.8a

Pottery: Storage Ware: 2 jars, 1 hole-mouth jar, 77 frags. uns.
 Cooking Ware: 2 hole-mouth pots, 1 vat, 35 frags. uns.
 Simple Ware: 1 bowl, 1 jug, 2 jars, 4 frags. uns.
 Tools: 1 Pestle (KB.05.A.12)
 Samples: Animal Bones (KB.05.A.8)
 Plate: IX

F.10a

Pottery: Storage Ware: 2 jars, 5 frags. uns.
 Cooking Ware: 7 frags. uns.
 Simple Ware: 1 jar, 22 frags. uns.
 Samples: Animal Bones (KB.05.A.7)
 Plate: IX

F.12a

Pottery: Storage Ware: 10 frags. uns.

B.14

Lithics: 2 Flint Blades (KB.05.A.6, KB.05.A.11)
 Samples: Animal Bones (KB.05.A.5)

F.16

Pottery: Storage Ware: 7 frags. uns.
 Lithics: 1 Cananean Blade (KB.05.A.5), 3 Flint Blades (KB.05.A.10, KB.05.A.13, KB.05.A.24)
 Plate: XV

F.18

Pottery: Storage Ware: 1 *pithos*, 9 jars, 1 hole-mouth jar, 1 spout, 112 frags. uns.
 Cooking Ware: 1 hole-mouth pot, 6 pots, 29 frags. uns.
 Simple Ware: 6 jars, 1 envelope ledge handle, 13 frags. uns.
 Specialized Production: 2 Simple Painted frags.

Lithics: 2 Cananean Blades (KB.05.A.23, KB.05.A.31), 2 Flint Tools (KB.05.A.16, KB.05.A.25)

Objects: 1 Weight (KB.05.A.18)

Samples: Animal Bones (KB.05.A.2, KB.05.A.13)
 Plates: V, VI, XV

F.21

Pottery: Storage Ware: 17 jars, 4 hole-mouth jars, 1 pushed-up ledge handle
 Cooking Ware: 3 hole-mouth pots, 13 frags. uns.
 Simple Ware: 2 jars, 2 frags. uns.
 Tools: 1 Pestle (KB.05.A.15)

Samples: Animal Bones (KB.05.A.4, KB.05.A.14)

Plate: IV

F.22

Pottery: Storage Ware: 1 jar, 8 frags. uns.
 Cooking Ware: 3 frags. uns.
 Simple Ware: 1 jar

Samples: Animal Bones (KB.05.A.15, KB.05.A.27)
 Plate: XIV

F.25

Pottery: Storage Ware: 16 frags. uns.
 Cooking Ware: 1 hole-mouth pot, 11 frags. uns.

F.26

Pottery: Storage Ware: 1 *pithos*, 2 jars, 96 frags. uns.
 Cooking Ware: 1 pot, 2 hole-mouth pots, 10 frags. uns.
 Simple Ware: 1 *amphoriskos*, 2 jars, 2 hole-mouth jars, 1 fragm. uns.

Lithics: 1 Flint Blade (KB.05.A.34)

Objects: 3 Pierced Shells (KB.05.A.29, KB.05.A.30, KB.05.A.36), 1 Stone Weight (KB.05.A.33)

Samples: Animal Bones (KB.05.A.16, KB.05.A.24)
 Plate: VIII

¹ Fragm. = fragment; frags. = fragments; uns. = unselected.

F.27

Pottery: Storage Ware: 1 jar, 1 envelope ledge handle, 18 fragsms. uns.

F.28

Pottery: Storage Ware: 1 jar, 34 fragsms. uns.
Cooking Ware: 8 fragsms. uns.
Simple Ware: 1 jar, 1 fragm. uns.

Lithics: 1 Flint Blade (KB.05.A.32)

Samples: Animal Bones (KB.05.A.23)

Plate: XIV

F.32

Pottery: Storage Ware: 14 fragsms. uns.
Cooking Ware: 5 fragsms. uns.
Simple Ware: 5 fragsms. uns.

F.34

Pottery: Storage Ware: 3 jars, 42 fragsms. uns.
Samples: Animal Bones (KB.05.A.17, KB.05.A.25)
Plate: XII

F.36

Pottery: Storage Ware: 1 jar, 6 fragsms. uns.
Plate: XII

F.42

Pottery: Storage Ware: 14 fragsms. uns.
Samples: Animal Bones (KB.05.A.43)

F.44

Pottery: Storage Ware: 8 fragsms. uns.
Simple Ware: 7 fragsms. uns.

F.46

Pottery: Storage Ware: 8 jars, 263 fragsms. uns.
Cooking Ware: 1 pot
Simple Ware: 1 jar, 1 fragm. uns.
Samples: Animal Bones (KB.05.A.37)
Plate: XIII

F.48

Pottery: Storage Ware: 2 jars, 38 fragsms. uns.
Cooking Ware: 3 fragsms. uns.
Simple Ware: 1 jar, 6 fragsms. uns.
Lithics: 1 Flint Blade (KB.05.A.42)
Samples: Animal bones (KB.05.A.38)
Plate: XIV

F.49

Pottery: Storage Ware: 1 envelope ledge handle, 4 fragsms. uns.
Cooking Ware: 1 hole-mouth pot, 4 fragsms. uns.
Simple Ware: 2 fragsms. uns.
Plate: IV

F.52

Pottery: Storage Ware: 1 *pithos*, 6 jars, 3 hole-mouth jars, 2 envelope ledge handles, 166 fragsms. uns.
Cooking Ware: 1 pot, 1 hole-mouth pot, 2 fragsms. uns.
Simple Ware: 1 jug, 1 jar, 1 hole-mouth jar, 1 fragm. uns.
Objects: 1 Pierced Shell (KB.05.A.38)
Samples: Animal Bones (KB.05.A.30, KB.05.A.40), Charcoal (KB.05.A.35)
Plate: XI

F.53

Pottery: Storage Ware: 23 fragsms. uns.
Cooking Ware: 4 fragsms. uns.

Samples: Animal Bones (KB.05.A.42)

F.54a

Pottery: Storage Ware: 2 jars, 1 envelope ledge handle, 41 fragsms. uns.
Cooking Ware: 1 hole-mouth pot, 7 fragsms. uns.
Simple Ware: 2 jars, 5 fragsms. uns.
Specialized Production: 4 Metallic Ware fragsms.

Lithics: 1 Flint Blade (KB.05.A.62)

Tools: 1 Basalt Tool (KB.05.A.43)

Samples: Animal Bones (KB.05.A.29, KB.05.A.48, KB.05.A.51)

Plate: X

F.56a

Pottery: Storage Ware: 37 fragsms. uns.
Cooking Ware: 3 hole-mouth pots
Simple Ware: 8 fragsms. uns.

Objects: 1 Spindle Whorl (KB.05.A.49)

Samples: Animal Bones (KB.05.A.44)

Plate: X

F.58

Pottery: Storage Ware: 4 jars, 1 hole-mouth-jar, 28 fragsms. uns.
Cooking Ware: 2 pots, 1 hole-mouth pot
Specialized Production: 1 Red Polished fragm.

Samples: Animal Bones (KB.05.A.34)

Plate: XIV

F.62

Pottery: Storage Ware: 5 jars, 43 fragsms. uns.
Cooking Ware: 1 pot, 1 hole-mouth pot, 2 fragsms. uns.
Simple Ware: 1 bowl, 7 jars

Samples: Animal Bones (KB.05.A.28, KB.05.A.39)

Plate: XIV

F.64

Pottery: Storage Ware: 1 *pithos*, 6 jars, 11 fragsms. uns.
Cooking Ware: 14 fragsms. uns.
Simple Ware: 3 jars, 1 hole-mouth jar, 2 fragsms. uns.
Specialized Production: 2 Red Burnished fragsms., 1 Pattern-Burnished fragm.

Samples: Animal Bones (KB.05.A.46)

Plate: XII

F.68a

Pottery: Storage Ware: 2 jars, 4 fragsms. uns.
Cooking Ware: 15 fragsms. uns.
Simple Ware: 6 fragsms. uns.

Samples: Animal Bones (KB.05.A.47, KB.05.A.60)

F.72a

Pottery: Storage Ware: 2 envelope ledge handles, 23 fragsms. uns.
Cooking Ware: 13 fragsms. uns.
Simple Ware: 1 jar, 10 fragsms. uns.

Tools: 1 Grinding Stone (KB.05.A.50)
 Samples: Animal Bones (KB.05.A.49, KB.05.A.50)

F.76a

Pottery: Storage Ware: 8 fragsms. uns.
 Objects: 1 Spindle Whorl (KB.05.A.56)
 Plate: X

F.77

Pottery: Storage Ware: 2 hole-mouth jars, 49 fragsms. uns.
 Simple Ware: 1 bowl, 13 fragsms. uns.

Lithics: 1 Flint Tool (KB.05.A.64)

Samples: Animal Bones (KB.05.A.58, KB.05.A.62)

F.78a

Pottery: Storage Ware: 2 jars, 4 fragsms. uns.
 Cooking Ware: 1 pot, 1 hole-mouth pot, 9 fragsms. uns.
 Simple Ware: 1 jar
 Specialized Production: 1 Metallic Ware fragm.

Samples: Animal Bones (KB.05.A.51)

F.82a

Pottery: Storage Ware: 1 jar, 1 hole-mouth jar, 13 fragsms. uns.
 Cooking Ware: 1 hole-mouth pot, 17 fragsms. uns.
 Simple Ware: 3 fragsms. uns.
 Specialized Production: 2 Metallic Ware fragsms.

Samples: Animal Bones (KB.05.A.52, KB.05.A.57)

Plate: X

F.84

Pottery: Storage Ware: 4 jars, 1 envelope ledge handle, 6 fragsms. uns.
 Cooking Ware: 9 fragsms. uns.
 Simple Ware: 2 jars, 14 fragsms. uns.
 Specialized Production: 1 Metallic Ware fragm.

Tools: 1 Pestle (KB.05.A.61)

Samples: Animal Bones (KB.05.A.59)

Plate: XVII

F.88

Pottery: Storage Ware: 1 jar, 1 hole-mouth jar, 28 fragsms. uns.
 Cooking Ware: 1 hole-mouth pot, 30 fragsms. uns.
 Simple Ware: 1 bowl, 2 jars, 10 fragsms. uns.

Tools: 1 Mortar (KB.05.A.69), 2 Grinding Stones (KB.05.A.57, KB.05.A.63)

Samples: Animal Bones (KB.05.A.75)

Plate: XVII

F.92

Pottery: Storage Ware: 4 fragsms. uns.
 Cooking Ware: 1 hole-mouth pot, 4 fragsms. uns.

Simple Ware: 3 fragsms. uns.

Plate: XVII

F.94

Pottery: Storage Ware: 2 fragsms. uns.
 Cooking Ware: 3 fragsms. uns.

F.95

Pottery: Storage Ware: 8 jars, 1 envelope ledge handle, 49 fragsms. uns.
 Cooking Ware: 1 hole-mouth pot, 22 fragsms. uns.
 Simple Ware: 3 jars, 10 fragsms. uns.
 Specialized Production: 1 Red Slip fragm.

Tools: 1 Pestle (KB.05.A.71), 1 Stone Whorl (KB.05.A.76), 1 Grinding Stone (KB.05.A.75)

Plate: XVI

F.202

Pottery: Storage Ware: 1 jar, 1 hole-mouth jar, 4 fragsms. uns.
 Cooking Ware: 8 fragsms. uns.

Tools: 1 Grinding Stone (KB.05.A.68)

Samples: Animal Bones (KB.05.A.71)

Plate: XVIII

F.210

Pottery: Storage Ware: 2 jars, 1 hole-mouth jar, 6 fragsms. uns.
 Simple Ware: 2 jars

Tools: 1 Pestle (KB.05.A.78)

Samples: Animal Bones (KB.05.A.81)

F.212

Pottery: Storage Ware: 5 jars, 2 hole-mouth jars, 14 fragsms. uns.
 Cooking Ware: 2 pots, 2 hole-mouth pots
 Simple Ware: 1 jar, 2 fragsms. uns.

Samples: Animal Bones (KB.05.A.96)

Plate: XVIII

B.214

Pottery: Storage Ware: 3 jars, 1 envelope ledge handle, 48 fragsms. uns.
 Cooking Ware: 11 fragsms. uns.
 Simple Ware: 12 fragsms. uns.

Plate: XVIII

F.218

Pottery: Storage Ware: 2 jars, 5 fragsms. uns.
 Cooking Ware: 1 hole-mouth pot, 3 fragsms. uns.
 Simple Ware: 2 jars, 3 fragsms. uns.
 Specialized Production: 1 Metallic Ware fragm.

Plate: XVIII

F.222

Pottery: Storage Ware: 2 fragsms. uns.
 Cooking Ware: 2 fragsms. uns.
 Simple Ware: 1 fragm. uns.

AREA A

CATALOGUE OF POTTERY AND SMALL FINDS

Pl. IV - Small Finds and Pottery from Area A East, fillings F.1, F.2, F.21, F.49 (Activity 3a)

KB.05.A.22, stopper. Context: BoII19, F.1. State of preservation: fragmentary. Material: pottery. Technique of manufacture: handmade. Material colour: 2.5YR6/6 (light red). Diameter: max. 4.9 cm, min. 4 cm; width: 1 cm. Description: roughly rounded-shaped stopper. Dating: EB IVB. Bibliography: London 1991, 405-417; Genz 2002, pl. 139:8.

KB.05.A.15, pestle. Context: BoII18, F.21. State of preservation: complete. Material: limestone. Technique of manufacture: sculpture. Material colour: 7.5YR8/2 (pinkish white). Height: 8.4 cm; length: 6 cm; width: 5.2 cm. Description: oval-shaped pestle. Dating: EB IVB.

KB.05.A.1/4, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR4/0 (dark gray). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Diameter: 16 cm ca.; rim width: 1 cm; wall width: 1 cm. Description: hole-mouth pot with flattened rim. Dating: EB IVB.

KB.05.A.1/3, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR4/4 (reddish brown). Temper/inclusions: mineral (white grits); dimension: medium; frequency: medium-high. Diameter: 18 cm ca.; wall width: 1 cm. Description: hole-mouth pot with flattened rim. Dating: EB IVB.

KB.05.A.1/2, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR8/4 (pink). Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: outer combed. Wall width: 0.9 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. IV:5.

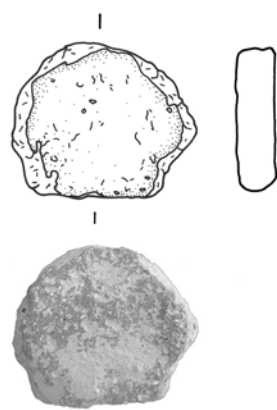
KB.05.A.1/1, jar. Class: Simple Ware. State of preservation: neck, shoulder. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/6 (yellowish red). Temper/inclusions: mineral; dimension: small; frequency: medium. Wall width: 1.1 cm. Dating: EB IVB. Bibliography: Kenyon - Holland 1982, fig. 98:5.

KB.05.A.1/5, jar. Class: Storage Ware. State of preservation: wall, base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/4 (reddish brown). Temper/inclusions: mineral; dimension: small, large; frequency: medium. Wall width: 1.2+ cm; base width: 1.2+ cm. Dating: EB IVB.

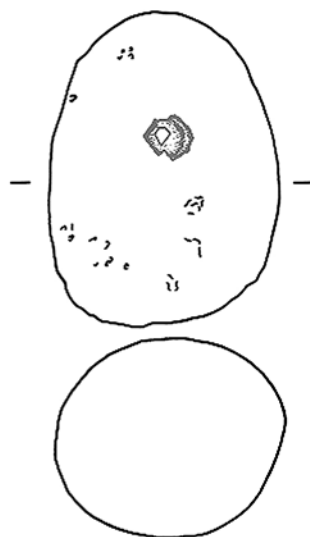
KB.05.A.2/3, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5Y5/0 (gray)+2.5YR5/8 (red). Temper/inclusion: mineral; dimension: medium-small; frequency: high. Wall width: 0.7 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

KB.05.A.21/13, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR5/0 (gray). Temper/inclusions: mineral (white grits); dimension: small; frequency: medium. Wall width: 1.2 cm. Description: pushed-up ledge handle. Dating: EB III. Bibliography: Amiran 1969, pl. 8:16-19.

KB.05.A.49/1, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 1 FOR GLEY 5/N (gray). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium. Wall width: 0.8 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.



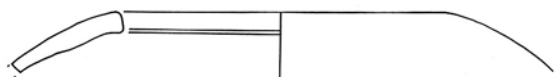
KB.05.A.22 (1:2)



KB.05.A.15 (1:2)



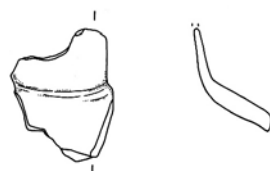
KB.05.A.1/4



KB.05.A.1/3



KB.05.A.1/2



KB.05.A.1/1



KB.05.A.1/5



KB.05.A.2/3



KB.05.A.21/13



KB.05.A.49/1

Pl. V - Pottery from Area A East, square BoII 19, filling F.18 (Activity 3d)

KB.05.A.18/2, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR4/2 (dark grayish brown). Temper/inclusions: mineral; dimension: medium; frequency: medium. Diameter: n.r.; rim width: 0.9 cm; wall width: 0.9 cm. Description: small jar with everted rim. Dating: EB IIIB. Bibliography: Genz 2002, pl. 65:11; Daviau 1991, fig. 6.22:12.

KB.05.A.18/3, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 2.5Y5/1 (gray)+2.5 YR6/8 (light red). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: medium. Diameter: 10 cm; rim width: 0.6 cm; wall width: 0.8 cm. Description: jar with vertical neck and rounded rim. Dating: EB IIIB.

KB.05.A.18/17, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 2.5YR6/8 (light red)+2 FOR GLEY 6/5PB (bluish gray). Temper/inclusions: mineral; dimension: small, medium-small; frequency: medium. Diameter: 14 cm; rim width: 0.7 cm; wall width: 0.7 cm. Description: jar with flaring neck and slightly everted rounded rim. Dating: EB IIIB.

KB.05.A.18/19, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10YR4/1 (dark gray). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium. Diameter: n.r.; rim width: 0.7 cm; wall width: 0.8 cm. Description: jar with vertical neck and slightly everted rounded rim. Dating: EB IIIB.

KB.05.A.18/4, *pithos*. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR6/6 (light red). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Diameter: n.r.; rim width: 1.7 cm; wall width: 1.3 cm. Description: *pithos* with vertical neck and everted folded rim. Dating: EB IIIB. Bibliography: Genz 2002, pl. 42:9.

KB.05.A.18/18, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 10YR6/6 (brownish yellow). Decoration: incised (one central incision over the rim). Diameter: n.r.; rim width: 0.9 cm; wall width: 1.2 cm. Description: jar with vertical neck and slightly everted flat rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 61:5.

KB.05.A.18/23, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/4 (reddish brown)+10YR4/1 (dark gray). Temper/inclusions: mineral (white grits), vegetal; dimension: medium; frequency: medium-high. Diameter: n.r.; rim width: 1.2 cm; wall width: 1.1 cm. Description: hole-mouth pot with flattened inturned rim. Dating: EB IVB.

KB.05.A.18/21, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: medium. Decoration: outer combed, impressed (around the rim). Diameter: 16 cm; rim width: 1.3 cm; wall width: 0.8 cm. Description: hole-mouth jar with thickened slightly recessed rim. Dating: EB IVB. Bibliography: Olàvarri 1969, fig. 3:1; Prag 1974, 90, fig. 7:7, for the decoration typology.

KB.05.A.18/29, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR6/1 (gray)+5YR6/4 (light brown). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Wall width: 0.8 cm; base width: 0.8 cm. Dating: EB IVB.



KB.05.A.18/2



KB.05.A.18/3



KB.05.A.18/17



KB.05.A.18/19



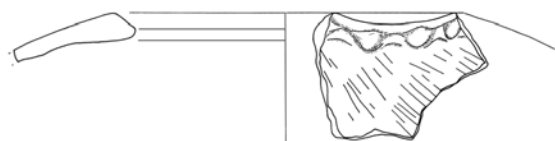
KB.05.A.18/4



KB.05.A.18/18



KB.05.A.18/23



KB.05.A.18/21



KB.05.A.18/29

Pl. VI - Pottery from Area A East, square Boll 19, filling F.18 (Activity 3d)

KB.05.A.18/1, jar. Class: Storage Ware. State of preservation: spout. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR6/4 (light brown). Temper/inclusions: mineral; dimension: small, medium; frequency: medium-high. Wall width: 0.9 cm. Dating: EB III.

KB.05.A.18/5, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR 6/4 (light brown). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: high. Decoration: outer band-combed. Wall width: 0.7 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. III:14.

KB.05.A.18/6, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: wheel. Firing: medium. Fabric colour: 2.5Y5/2 (grayish brown). Temper/inclusions: mineral; dimension: medium, medium-small; frequency: medium. Decoration: outer combed. Wall width: 1.2 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. IV:5.

KB.05.A.18/7, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Decoration: incised. Wall width: 0.8 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. III:15.

KB.05.A.18/8, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5 YR8/4 (pink). Temper/inclusions: mineral; dimension: medium, medium-large; frequency: medium-high. Decoration: outer combed, incised. Wall width: 0.7 cm. Dating: EB IVB.

KB.05.A.18/9, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10 YR 8/2 (very pale brown). Temper/inclusions: mineral; dimension: small, large; frequency: medium. Decoration: outer combed. Wall width: 0.7 cm. Dating: EB IVB.

KB.05.A.18/10, pot. Class: Cooking Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5Y4/0 (dark gray). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium. Decoration: outer combed. Wall width: 0.8 cm. Dating: EB IVB.

KB.05.A.18/13, pot. Class: Cooking Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR5/6 (strong brown)+7.5YR4/2 (brown). Temper/inclusions: mineral; dimension: medium, medium-small; frequency: medium. Decoration: outer combed. Wall width: 1 cm. Dating: EB IVB.

KB.05.A.18/15, jar. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5Y4/1 (dark gray). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: medium-high. Decoration: painted (10YR5/1 gray). Wall width: 1 cm. Dating: EB III.

KB.05.A.18/16, jar. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR7/8 (reddish yellow)+10YR5/1 (gray). Temper/inclusions: mineral (white grits), vegetal; dimension: medium-small; frequency: medium-high. Decoration: painted (2.5Y5/1 gray). Wall width: 0.8 cm. Dating: EB III.

KB.05.A.18/20, *pithos*. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5Y6/1 (gray). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium. Diameter: n.r.; rim width: 1.6 cm; wall width: 1.3 cm. Description: *pithos* with everted folded rim. Dating: EB III. Bibliography: Genz 2002, pl. 11:12.

KB.05.A.18/24, jar. Class: Simple Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR7/3 (very pale brown)+10YR6/1 (gray). Temper/inclusions: mineral; dimension: medium; frequency: medium. Wall width: 0.7 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.



KB.05.A.18/1



KB.05.A.18/5



KB.05.A.18/6



KB.05.A.18/7



KB.05.A.18/8



KB.05.A.18/9



KB.05.A.18/10



KB.05.A.18/13



KB.05.A.18/15



KB.05.A.18/16



KB.05.A.18/20



KB.05.A.18/24

Pl. VII - Pottery from Area A East, square BoII19, filling F.4 (Activity 3d)

KB.05.A.4/3, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR4/6 (strong brown). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: 18 cm; rim width: 0.9 cm; wall width: 1 cm. Description: hole-mouth pot with plain rounded rim. Dating: EB IIIB.

KB.05.A.4/7, hole-mouth jar. Class: Storage Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/6 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Diameter: 18 cm; rim width: 1.4 cm; wall width: 1.1 cm. Description: hole-mouth jar with recessed rim. Dating: EB IIIB. Bibliography: Prag 1974, fig. 3:17; Herr 1989, fig. 19.1:8.

KB.05.A.4/5, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/6 (yellowish red). Temper/inclusions: mineral (white grits); dimension: medium; frequency: medium. Diameter: 20 cm; rim width: 1.4 cm; wall width: 1 cm. Description: hole-mouth pot with flattened inner stepped rim. Dating: EB IIIB.

KB.05.A.4/6, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/6 (yellowish red). Temper/inclusions: mineral; dimension: small-medium, medium; frequency: medium. Diameter: 20 cm; rim width: 1.5 cm; wall width: 1.1 cm. Description: hole-mouth pot with recessed inner stepped rim. Dating: EB IIIB. Bibliography: Prag 1974, fig. 3:18.

KB.05.A.4/9, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/1 (gray)+5YR7/6 (reddish yellow). Temper/inclusions: mineral; dimension: medium; frequency: medium. Wall width: 0.8 cm; base width: 0.7 cm. Dating: EB IIIB.

KB.05.A.4/10, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10YR6/1 (gray)+7.5YR7/4 (pink). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Wall width: 0.7 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

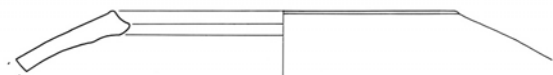
KB.05.A.4/12, jar. Class: Storage Ware. State of preservation: wall, handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR4/0 (dark gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Wall width: 0.8 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

KB.05.A.4/2, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR7/6 (reddish yellow). Temper/inclusions: mineral; dimension: small-medium; frequency: medium. Decoration: incised. Wall width: 0.5 cm. Dating: EB IIIB.

KB.05.A.4/11, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR7/6 (reddish yellow). Temper/inclusions: mineral; dimension: medium, medium-small; frequency: high. Decoration: applied (rope decoration). Wall width: 1.1 cm. Dating: EB III.



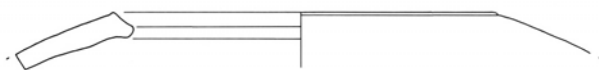
KB.05.A.4/3



KB.05.A.4/7



KB.05.A.4/5



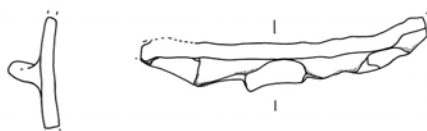
KB.05.A.4/6



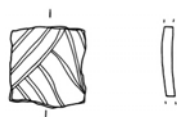
KB.05.A.4/9



KB.05.A.4/10



KB.05.A.4/12



KB.05.A.4/2



KB.05.A.4/11

Pl. VIII - Pottery from Area A East, square BoI18, filling F.26 (Activity 3d)

KB.05.A.29, pierced shell. Context: BoI18, F.26. State of preservation: complete. Material: shell. Material colour: 10R8/2 (pinkish white). Diameter: 3.2 cm. Description: shell pierced at the hinge. Dating: EB III. Bibliography: Marchetti - Nigro eds. 2000, 33, fig. 1:42; Nigro 2006c, 14, fig. 16.

KB.05.A.30, pierced shell. Context: BoI18, F.26. State of preservation: almost complete. Material: shell. Material colour: 10R8/2 (pinkish white). Diameter: 3.4 cm. Description: shell pierced at the hinge. Dating: EB III. Bibliography: Marchetti - Nigro eds. 2000, 33, fig. 1:42; Nigro 2006c, 14, fig. 16.

KB.05.A.36, pierced shell. Context: BoI18, F.26. State of preservation: fragmentary. Material: shell. Material colour: 2.5YR8/1 (white). Height: 3.6 cm; length: 5.2 cm. Description: shell pierced at the hinge. Dating: EB III. Bibliography: Marchetti - Nigro eds. 2000, 33, fig. 1:42; Nigro 2006c, 14, fig. 16.

KB.05.A.26/1, *amphoriskos*. Class: Simple Ware. State of preservation: upper part. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR4/3 (reddish brown). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium. Diameter: 5 cm; rim width: 0.65 cm; wall width: 0.6 cm. Description: *amphoriskos* with short flaring neck and everted rim. Dating: EB IVB.

KB.05.A.26/2, jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: rim, neck. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: 16 cm; rim width: 1.1 cm; wall width: 1.5 cm. Description: jar with slightly everted pointed rim. Dating: EB IIIB. Bibliography: Genz 2002, pl. 91:8.

KB.05.A.26/7, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR6/6 (light red). Temper/inclusions: mineral; dimension: medium, medium-small; frequency: medium-high. Diameter: 16 cm; rim width: 0.85 cm; wall width: 0.85 cm. Description: jar with everted rim. Dating: EB IIIB. Bibliography: Genz 2002, pl. 51:6.

KB.05.A.26/11, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR6/8 (light red). Temper/inclusions: mineral; dimension: medium, large; frequency: high. Diameter: n.r.; rim width: 1.1 cm; wall width: 1.2 cm. Description: jar with short neck and strongly everted rim. Dating: EB IIIB. Bibliography: Genz 2002: pls. 47:1, 95:1.

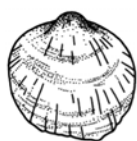
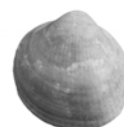
KB.05.A.26/9, hole-mouth jar. Class: Simple Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 1 FOR GLEY5/N (gray)+5YR6/8 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: small, medium; frequency: medium. Decoration: incised (outer notched decoration below the rim). Diameter: n.r.; rim width: 0.7 cm; wall width: 0.6 cm. Description: hole-mouth jar with flattened slightly recessed rim. Dating: EB IIIB. Kenyon - Holland 1982, fig. 100:10.

KB.05.A.26/3, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: low. Fabric colour: 7.5YR4/1 (dark gray). Temper/inclusions: mineral (white grits); dimension: medium; frequency: medium-high. Diameter: 16 cm; rim width: 1.2 cm; wall width: 0.8 cm. Description: hole-mouth pot with flattened rim. Dating: EB IIIB.

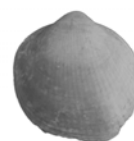
KB.05.A.26/10, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: low. Fabric colour: 5YR4/4 (reddish brown). Temper/inclusions: mineral (white grits); dimension: medium, medium-large; frequency: high. Diameter: 16 cm; rim width: 1.2 cm; wall width: 0.7 cm. Description: hole-mouth pot with flattened slightly recessed rim. Dating: EB IIIB.



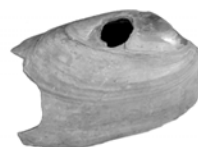
KB.05.A.29 (1:2)



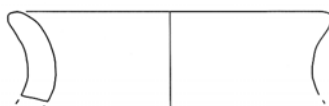
KB.05.A.30 (1:2)



KB.05.A.36 (1:2)



KB.05.A.26/1



KB.05.A.26/2



KB.05.A.26/7



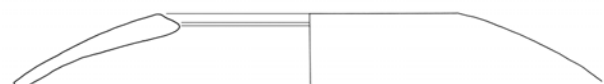
KB.05.A.26/11



KB.05.A.26/9



KB.05.A.26/3



KB.05.A.26/10

Pl. IX - Small Finds and Pottery from Houses L.6 and L.10, and Courtyard L.8 in Area A East, square BnI18 (Activity 3b)

KB.05.A.12, grinder. Context: BnI18, F.8a. State of preservation: complete. Material: limestone. Technique of manufacture: sculpture. Material colour: 5YR8/2 (pinkish white). Height: 6.4 cm; length: 8 cm; width: 2.7 cm. Description: oval-shaped grinder. Dating: EB IVB.

KB.05.A.8/10, bowl. Class: Simple Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR6/4 (light brown)+2.5Y6/0 (gray). Temper/inclusions: mineral (white grits); dimension: medium-small; frequency: medium. Diameter: 10 cm; rim width: 0.5 cm; wall width: 0.8 cm. Description: bowl with curved walls and pointed rim. Dating: EB IVB. Bibliography: Kenyon - Holland 1982, fig. 94:23.

KB.05.A.8/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR6/4 (light yellowish brown). Temper/inclusions: mineral; dimension: medium, medium-small; frequency: medium-high. Diameter: 11 cm; rim width: 0.5 cm; wall width: 0.7 cm. Description: jar with slightly everted rim. Dating: EB IVB.

KB.05.A.8/2, jar. Class: Storage Ware. State of preservation: rim, neck, shoulder. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR3/2 (dark brown)+1 FOR GLEY3/N (very dark gray). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: n.r.; rim width: 0.8 cm; wall width: 1 cm. Description: jar with short rounded rim. Dating: EB IVB.

KB.05.A.6/1 hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR4/6 (red). Temper/inclusions: mineral (white grits); dimension: medium, large; frequency: medium. Diameter: 13 cm; rim width: 1.5 cm. Description: hole-mouth pot with slightly recessed inner rounded rim. Dating: EB IVB. Bibliography: Herr 1989, fig. 19.1:7.

KB.05.A.8/3, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR4/6 (red). Temper/inclusions: mineral (white grits); dimension: small, medium; frequency: medium. Diameter: 15 cm; rim width: 1.6 cm; wall width: 1.2 cm. Description: hole-mouth pot with slightly recessed inner rounded rim. Dating: EB IVB.

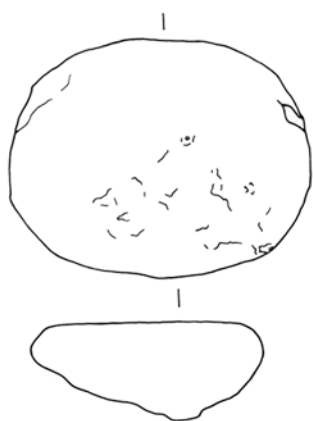
KB.05.A.8/5, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 1 FOR GLEY 3/N (very dark gray)+5YR4/3 (reddish brown). Temper/inclusions: mineral; dimension: medium; frequency: medium. Diameter: n.r.; rim width: 1 cm; wall width: 0.9 cm. Description: hole-mouth pot with flattened rim. Dating: EB IVB.

KB.05.A.8/4, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR4/6 (red). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Diameter: 19 cm; rim width: 0.6-1.1 cm; wall width: 1 cm. Description: hole-mouth pot with rounded pointed rim. Dating: EB IVB.

KB.05.A.8/6, jar. Class: Storage Ware. State of preservation: wall, base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2 FOR GLEY 4/10B (dark bluish gray). Temper/inclusions: mineral; dimension: small, medium-large; frequency: medium. Decoration: outer combed. Wall width: 0.9 cm. base width: 1.3 cm. Dating: EB IVB.

KB.05.A.10/1, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR6/2 (pinkish gray)+7.5YR6/0 (gray). Temper/inclusions: mineral; dimension: small, medium-small; frequency: medium. Decoration: outer band-combed. Wall width: 0.5 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. III:14.

KB.05.A.10/2, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR4/4 (reddish brown)+7.5YR6/1 (gray). Temper/inclusions: mineral; dimension: medium, medium-large; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.5 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. V:4, for the decoration typology.



KB.05.A.12 (1:2)



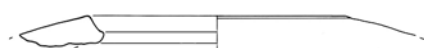
KB.05.A.8/10



KB.05.A.8/1



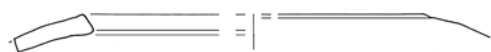
KB.05.A.8/2



KB.05.A.6/1



KB.05.A.8/3



KB.05.A.8/5



KB.05.A.8/4



KB.05.A.8/6



KB.05.A.10/1



KB.05.A.10/2



KB.05.A.10/3

[Pl. IX]

KB.05.A.10/3, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2 FOR GLEY 5/5PB (bluish gray)+2.5YR6/8 (light red). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Decoration: outer combed. Wall width: 0.8 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. IV:5.

Pl. X - Small Finds and Pottery from House L.76, Device L.56, and Courtyards L.54 and L.82 in Area A East, squares BmII19+BnII19 (Activity 3b)

KB.05.A.49, spindle whorl. Context: BmII19, F.56a. State of preservation: half. Material: pottery. Technique of manufacture: handmade. Material colour: 7.5YR7/3 (pink). Diameter: 4.4 cm; width: 0.8 cm. Description: rounded spindle whorl with central hole 0.8 cm of diameter. Dating: EB IVB. Bibliography: Genz 2002, pl. 139:4-7, 9-10.

KB.05.A.56, spindle whorl. Context: BmII19, F.76a. State of preservation: half. Material: pottery. Technique of manufacture: handmade. Material colour: 2.5Y6/8 (light red). Diameter: 4.8 cm; width: 0.8 cm. Description: rounded spindle whorl with central hole 0.8 cm of diameter. Dating: EB IVB. Bibliography: Genz 2002, pl. 139:4-7, 9-10.

KB.05.A.82/1, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR6/6 (reddish yellow). Temper/inclusions: mineral (white grits), vegetal; dimension: small, medium; frequency: medium. Diameter: n.r.; rim width: 1.3 cm; wall width: 1.3 cm. Description: hole-mouth jar with flattened rim. Dating: EB IVB.

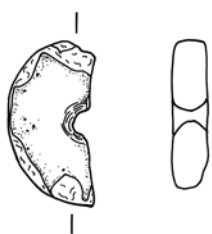
KB.05.A.82/2, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR5/4 (reddish brown). Temper/inclusions: mineral; dimension: small, medium; frequency: medium-high. Diameter: n.r.; rim width: 1.6 cm; wall width: 1 cm. Description: hole-mouth pot with flattened slightly recessed rim. Dating: EB IVB. Bibliography: Cleveland 1960: fig. 14:19.

KB.05.A.54/8, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR4/6 (red). Temper/inclusions: mineral (white grits), vegetal; dimension: small, medium; frequency: medium. Diameter: 20 cm; rim width: 0.8 cm; wall width: 0.9 cm. Description: hole-mouth pot with plain rim. Dating: EB IVB.

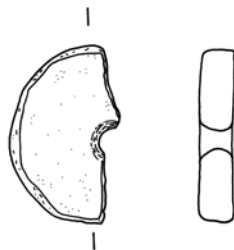
KB.05.A.54/1, jar. Class: Metallic Ware. State of preservation: wall, base. Technique of manufacture: handmade. Firing: high. Fabric colour: 1 FOR GLEY5/N (gray). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium. Wall width: 0.8 cm; base width: 1 cm. Dating: EB IVB.

KB.05.A.54/7, jar. Class: Storage Ware. State of preservation: wall, rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR6/8 (light red)+1 FOR GLEY5/N (gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Wall width: 1 cm; base width: 0.9 cm. Dating: EB IVB.

KB.05.A.54/2, jar. Class: Storage Ware. State of preservation: wall, handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium. Wall width: 0.7 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.



KB.05.A.49 (1:2)



KB.05.A.56 (1:2)



KB.05.A.82/1



KB.05.A.82/2



KB.05.A.54/8



KB.05.A.54/1



KB.05.A.54/7



KB.05.A.54/2

Pl. XI - Small Finds and Pottery from Area A East, square BnI18, filling F.52 (Activity 4a)

KB.05.A.38, pierced shell. Context: BnI18, F.52. State of preservation: fragmentary. Material: shell. Material colour: 2.5YR8/3 (pink). Diameter: 1.7 cm. Dating: EB III. Bibliography: Marchetti - Nigro eds. 2000, 33, fig. 1:42; Nigro 2006c, 14, fig. 16.

KB.05.A.52/5, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10R6/8 (light red)+2.5Y6/2 (light brownish gray). Temper/inclusions: mineral (white grits); dimension: medium-large, medium; frequency: high. Diameter: 20 cm; rim width: 1.5 cm; wall width: 1 cm. Description: *pithos* with everted folded rim. Dating: EB IIIB. Bibliography: Genz 2002, pls. 10:6, 17:6, 126:1.

KB.05.A.52/1, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR7/8 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: medium-large; frequency: medium. Diameter: 11 cm; rim width: 0.8 cm; wall width: 0.5 cm. Description: hole-mouth jar with thickened rounded rim. Dating: EB IIIB.

KB.05.A.52/4, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR5/4 (brown) to 10YR5/1 (gray). Temper: mineral (white grits). Diameter: 18 cm; rim width: 1.5 cm; wall width: 1.3 cm. Description: hole-mouth pot with flattened recessed rim. Dating: EB IIIB. Bibliography: Herr 1989, fig. 19.1:8.

KB.05.A.52/6, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR6/4 (light brown)+1 FOR GLEY4/N (dark gray). Temper/inclusions: mineral (white grits), vegetal; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 1.5 cm; wall width: 1.5 cm. Description: hole-mouth jar with flattened rim. Dating: EB IIIB.

KB.05.A.52/7, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/6 (light red). Temper/inclusions: mineral, vegetal; dimension: medium-small, medium; frequency: medium-high. Diameter: 20 cm; rim width: 0.9 cm; wall width: 1 cm. Description: hole-mouth jar with plain rim. Dating: EB IIIB.

KB.05.A.52/3, jug. Class: Simple Ware. State of preservation: wall, base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR7/4 (pink). Temper/inclusions: mineral (white grits), vegetal; dimension: medium; frequency: medium. Wall width: 0.7 cm. Dating: EB IIIB.

KB.05.A.52/13, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR7/4 (pink). Temper/inclusions: mineral, vegetal; dimension: medium, small; frequency: medium. Wall width: 0.6-0.8 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

KB.05.A.52/16a+b, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/4 (light reddish brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.6 cm. Dating: EB IIIB.



KB.05.A.38 (1:2)



KB.05.A.52/5



KB.05.A.52/1



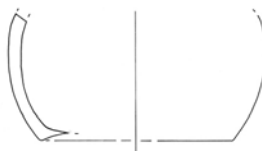
KB.05.A.52/4



KB.05.A.52/6



KB.05.A.52/7



KB.05.A.52/3



KB.05.A.52/13



KB.05.A.52/16a+b

Pl. XII - Pottery from Area A East, square Bo118, fillings F.34, F.36, F.64 (Activity 4a)

KB.05.A.36/1. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: low. Fabric colour: 2.5YR5/8 (red). Temper/inclusions: mineral; dimension: large; frequency: high. Height: 10.7+ cm. Description: loop handle. Dating: EB III.

KB.05.A.34/2, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: wheel. Firing: medium-high. Fabric colour: 7.5YR6/6 (reddish yellow). Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: incised. Wall width: 0.75 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. III:11, 14.

KB.05.A.64/1. Class: Red Burnished Ware. State of preservation: wall. Technique of manufacture: wheel. Firing: medium. Fabric colour: 7.5YR5/4 (brown). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium-high. Surface treatment: outer red slip (10YR5/4 weak red). Decoration: outer net-burnish. Wall width: 0.8 cm. Dating: EB III.

KB.05.A.64/12. Class: Red Burnished Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 1 FOR GLEY5/N (gray). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium. Surface treatment: outer slip (5YR5/4 reddish brown). Decoration: outer pattern-burnish. Wall width: 0.6 cm. Dating: EB III.

KB.05.A.64/3, jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: wheel. Firing: medium. Fabric colour: 7.5YR 8/4 (pink). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Diameter: n.r.; rim width: 0.7 cm; wall width: 0.8 cm. Description: jar with slightly everted pointed rim. Dating: EB III. Bibliography: Genz 2002, pls. 16:11, 51:5.

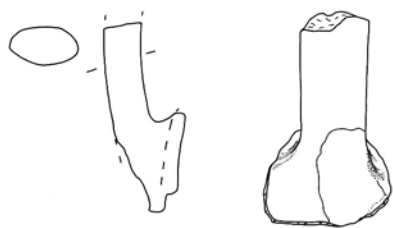
KB.05.A.64/7, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow)+10YR7/4 (very pale brown). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: medium-high. Diameter: n.r.; rim width: 1 cm; wall width: 1.1 cm. Description: jar with vertical neck and slightly everted rim. Dating: EB III. Bibliography: Genz 2002, pl. 51:5.

KB.05.A.64/6, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR6/8 (light red)+10YR7/4 (very pale brown). Temper/inclusions: mineral (white grits); dimension: large; frequency: medium-high. Diameter: n.r.; rim width: 1.1 cm; wall width: 1.1 cm. Description: *pithos* with flaring neck and rim with triangular section. Dating: EB III. Bibliography: Genz 2002, pl. 5:2, 40:10, 107:13; Daviau 1991, fig. 6.21:3.

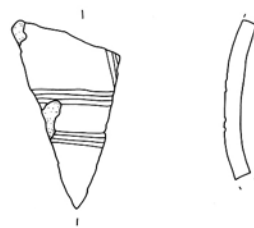
KB.05.A.64/2, hole-mouth jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral (white grits); dimension: small, medium; frequency: medium-high. Decoration: incised (notched decoration below the rim). Diameter: n.r.; rim width: 1 cm; wall width: 0.8 cm. Description: hole-mouth jar with flattened inturned rim. Dating: EB III.

KB.05.A.64/10, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 1 FOR GLEY4/N (dark gray). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.2 cm. Dating: EB III.

KB.05.A.64/13, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 1 FOR GLEY5/N (gray). Temper/inclusions: mineral, vegetal; dimension: medium-small, medium; frequency: medium. Decoration: outer combed. Wall width: 0.7 cm. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. IV:2.



KB.05.A.36/1



KB.05.A.34/2



KB.05.A.64/1



KB.05.A.64/12



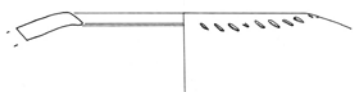
KB.05.A.64/3



KB.05.A.64/7



KB.05.A.64/6



KB.05.A.64/2



KB.05.A.64/10



KB.05.A.64/13

Pl. XIII - Pottery from Area A East, square BoII18, filling F.46 (Activity 4b)

KB.05.A.46/2, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 25YR5/8 (red). Temper/inclusions: mineral (white grits); dimension: medium-small; frequency: medium. Wall width: 0.8 cm. Description: pushed-up ledge handle. Dating: EB III. Bibliography: Amiran 1969, pl. 8:16-19.

KB.05.A.46/5, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral (white grits), vegetal; dimension: medium-large; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.1 cm. Dating: EB IIIB.

KB.05.A.46/6, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR5/2 (grayish brown). Temper/inclusions: mineral; dimension: large; frequency: high. Decoration: applied (rope decoration). Wall width: 1.2 cm. Dating: EB IIIB.

KB.05.A.46/8, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral (white grits), vegetal; dimension: medium, medium-low; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.2 cm. Dating: EB IIIB.

KB.05.A.46/9, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral (white grits), vegetal; dimension: medium; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.2 cm. Dating: EB IIIB.

KB.05.A.46/10, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2 FOR GLEY4/10B (dark bluish gray)+2.5YR6/6 (light red). Temper/inclusions: mineral; dimension: medium, large; frequency: medium. Decoration: applied (rope decoration). Wall width: 1.2 cm. Dating: EB IIIB.

KB.05.A.46/1, jar. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR5/8 (red)+2 FOR GLEY5/5B (bluish gray). Temper/inclusions: mineral (white grits), vegetal; dimension: medium; frequency: medium-high. Wall width: 0.8-0.9 cm; base width: 0.8-0.9 cm. Dating: EB IIIB.



KB.05.A.46/2



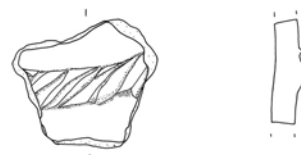
KB.05.A.46/5



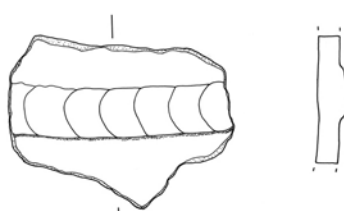
KB.05.A.46/6



KB.05.A.46/8



KB.05.A.46/9



KB.05.A.46/10



KB.05.A.46/1

Pl. XIV - Pottery from Area A East, square BoII19, fillings F.22, F.28, F.58, F.62 (Phase 5)

KB.05.A.22/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 1 FOR GLEY4/N (dark gray)+7.5YB 5/4 (brown). Temper/inclusions: mineral; dimension: medium-small, small; frequency: medium. Decoration: outer combed. Diameter: 10 cm; rim width: 0.5 cm; wall width: 0.6 cm. Description: jar with flaring neck and everted rim. Dating: EB III. Bibliography: Genz 2002, pl. 65:1.

KB.05.A.28/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 5YR7/4 (pink). Temper/inclusions: mineral; dimension: small, medium; frequency: medium-high. Diameter: 11 cm; rim width: 0.6 cm; wall width: 0.9 cm. Description: jar with vertical neck and everted rim. Dating: EB III. Bibliography: Genz 2002, pl. 49:2; Harrison 1997b, fig. 5.26:1.

KB.05.A.48/1, jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: wheel. Firing: medium-high. Fabric colour: 7.5YR6/4 (light brown). Temper/inclusions: mineral (gritty chalk), vegetal; dimension: medium; frequency: medium. Diameter: n.r.; rim width: 0.6 cm; wall width: 0.8 cm. Description: jar with everted rim. Dating: EB III. Bibliography: Genz 2002, pl. 64:6.

KB.05.A.22/2, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 1 FOR GLEY4/N (dark gray)+7.5YB5/4 (brown). Temper/inclusions: mineral; dimension: medium-small, small; frequency: medium. Decoration: outer combed. Wall width: 0.9 cm. Dating: EB III.

KB.05.A.28/2, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: slightly sandwich, 10R6/8 (light red)+7.5YR8/4 (pink). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.4 cm. Dating: EB III.

KB.05.A.48/3, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10YR8/2 (very pale brown). Temper/inclusions: mineral, vegetal; dimension: medium; frequency: medium. Decoration: outer combed. Wall width: 0.9 cm. Dating: EB III.

KB.05.A.62/6, bowl. Class: Simple Ware. State of preservation: rim. Technique of manufacture: wheel. Firing: medium. Fabric colour: slightly sandwich, 1 FOR GLEY4/N (dark gray)+2.5Y6/2 (light brownish gray). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: 26 cm; rim width: 1.2 cm; wall width: 1 cm. Description: bowl with curved wall and rounded rim. Dating: EB III. Bibliography: Kenyon - Holland 1982, fig. 71:10-11.

KB.05.A.62/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: sandwich, 7.5YR7/6 (reddish yellow)+2.5Y6/1 (gray). Temper/inclusions: mineral, vegetal; dimension: medium-small, medium-large; frequency: medium-high. Diameter: 11 cm ca.; rim width: 0.5 cm; wall width: 0.6 cm. Description: jar with everted and outer slightly ridged rim. Dating: EB III.

KB.05.A.62/2, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium. Decoration: incised. Diameter: n.r.; rim width: 0.6 cm; wall width: 0.7 cm. Description: jar with slightly everted rim and outer vertical incised decoration on the shoulder. Dating: EB III.

KB.05.A.62/7, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR5/6 (red). Temper/inclusions: mineral; dimension: small, medium-large; frequency: medium-high. Diameter: 18 cm; rim width: 0.9 cm. Description: hole-mouth pot with plain rim. Dating: EB III.



KB.05.A.22/1



KB.05.A.28/1



KB.05.A.48/1



KB.05.A.22/2



KB.05.A.28/2



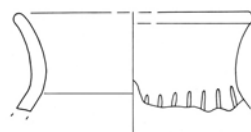
KB.05.A.48/3



KB.05.A.62/6



KB.05.A.62/1



KB.05.A.62/2



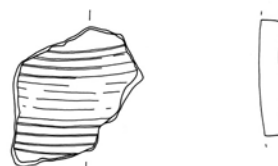
KB.05.A.62/7



KB.05.A.58/6



KB.05.A.62/12



KB.05.A.58/5

[Pl. XIV]

KB.05.A.58/6, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR5/4 (reddish brown). Temper/inclusions: mineral (gritty chalk); dimension: medium-small, medium; frequency: medium-high. Diameter: n.r.; rim width: 1.3 cm; wall width: 0.8 cm. Description: hole-mouth pot with flattened outer ridged and inner folded rim. Dating: EB IIIB.

KB.05.A.62/12, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5Y5/2 (grayish brown). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium. Decoration: applied (rope decoration). Wall width: 1 cm. Dating: EB IIIB.

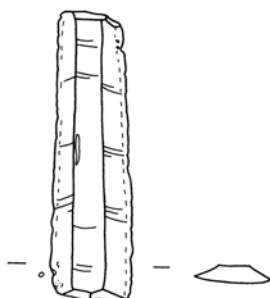
KB.05.A.58/5, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR5/0 (gray). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Decoration: outer combed. Wall width: 1.1 cm. Dating: EB IIIB.

Pl. XV - Cananean Blades from Area A East

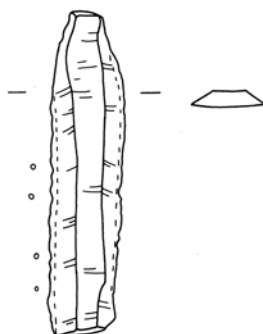
KB.05.A.5, Cananean blade. Context: BoII19, L.16. State of preservation: fragmentary. Material: flint. Technique of manufacture: chipped. Material colour: 5YR5/2 (reddish gray). Height: 7.6 cm; length: max. 2.1 cm, min. 1.6 cm; width: 0.4 cm. Description: flint blade with trapezoidal section and 2 dorsal ridges. Dating: EB IIIB.

KB.05.A.23, Cananean blade. Context: BoII19, F.18. State of preservation: fragmentary. Material: flint. Technique of manufacture: chipped. Material colour: 5YR5/2 (reddish gray). Height: 8.5 cm; length: 2 cm; width: 0.5 cm. Description: flint blade with trapezoidal section and 2 dorsal ridges. Dating: EB IIIB.

KB.05.A.31, Cananean blade. Context: BoII19, F.18. State of preservation: fragmentary. Material: flint. Technique of manufacture: chipped. Material colour: 5YR5/2 (pinkish gray). Height: 11.6 cm; length: 3 cm; width: 0.6 cm. Description: flint blade with trapezoidal section and 2 dorsal ridges. Dating: EB IVB.



KB.05.A.5 (1:2)



KB.05.A.23 (1:2)



KB.05.A.31 (1:2)



Pl. XVI - Small Finds and Pottery from Area A West, squares Bil115+Bil116, filling F.95 (Activity 3a)

KB.05.A.76, stone weight. Context: Bil116, F.95. State of preservation: fragmentary. Material: limestone. Technique of manufacture: sculpture. Material colour: 2.5Y7/3 (pale yellow). Height: 3.3 cm; length: 5.4 cm;; width: 2 cm. Dating: EB IVB. Bibliography: Palumbo 1990, fig. 59:1, 6.

KB.05.A.95/4, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR5/8 (red). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: 18 cm; rim width: 0.9 cm; wall width: 1.3 cm. Description: jar with flaring neck and everted pointed rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 98:3.

KB.05.A.95/14, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/4 (light reddish brown). Temper/inclusions: mineral; frequency: medium-high. Diameter: n.r.; rim width: 1.7 cm; wall width: 1.5 cm. Description: hole-mouth pot with flattened inner folded rim. Dating: EB IVB.

KB.05.A.95/10, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR7/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium. Decoration: outer combed. Wall width: 0.9 cm. Dating: EB IVB. Bibliography: Falconer - Magness-Gardiner 1984, fig. 12:15; Olàvarri 1969, pl. IV:2.

KB.05.A.95/11, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 1 FOR GLEY5/N (gray). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium. Decoration: outer combed. Wall width: 0.65 cm. Dating: EB IVB.

2006

Area A

147



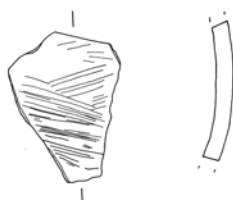
KB.05.A.76 (1:2)



KB.05.A.95/4



KB.05.A.95/14



KB.05.A.95/10



KB.05.A.95/11

Pl. XVII - Pottery from Courtyard L.30 (F.88, F.92), Lane L.40 (F.84) and House L.60 (F.202) in Area A West, squares BjII15+BjII16 (Activity 3b)

KB.05.A.88/4, bowl. Class: Simple Ware. State of preservation: rim, wall. Technique of manufacture: wheel. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow)+1 FOR GLEY6/N (gray). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Diameter: n.r.; rim width: 1 cm; wall width: 1 cm. Description: bowl with curved walls and inturned rounded rim. Dating: EB IVB. Bibliography: Prag 1974, fig. 4:13; Rast - Schaub 2003: fig. 13.5:29.

KB.05.A.88/2, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium-high. Fabric colour: 2.5Y6/1 (gray). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium. Diameter: 9 cm; rim width: 0.45 cm; wall width: 0.7 cm. Description: jar with vertical neck and slightly everted pointed rim. Dating: EB IVB. Bibliography: Kenyon - Holland 1982, fig. 98:16.

KB.05.A.88/1, hole-mouth jar. Class: Storage Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR6/3 (pale brown). Temper/inclusions: mineral, vegetal; dimension: small, large; frequency: medium. Surface treatment: outer smooth. Diameter: 18 cm; rim width: 1.3 cm; wall width: 1 cm. Description: hole-mouth jar with thickened slightly recessed rim. Dating: EB IVB. Bibliography: Herr 1989, fig. 19.1:7-8.

KB.05.A.92/1, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR4/6 (strong brown). Temper/inclusions: mineral, vegetal; dimension: small, medium; frequency: medium-high. Diameter: 14 cm; rim width: 1.1 cm; wall width: 0.7 cm. Description: hole-mouth pot with flattened inner stepped rim with rounded lip and an outer slight ridge. Dating: EB IVB.

KB.05.A.202/1, hole-mouth jar. Class: Storage Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR6/6 (light red)+10YR6/3 (pale brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Diameter: 16 cm; rim width: 1.2 cm; wall width: 0.9 cm. Description: hole-mouth jar with slightly recessed rim. Dating: EB IVB.

KB.05.A.202/2, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/1 (gray). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium-high. Wall width: 0.7+ cm. Dating: EB IVB.

KB.05.A.88/6, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR5/4 (brown)+10YR5/1 (gray). Temper/inclusions: mineral; dimension: small, large; frequency: medium. Wall width: 1 cm. Decoration: outer combed. Dating: EB IVB.

KB.05.A.84/7, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: low. Fabric colour: 2.5YR6/6 (light red). Temper/inclusions: mineral (white grits); dimension: medium, medium-large; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1 cm. Dating: EB IVB.

KB.05.A.84/3, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR6/8 (light red)+2 FOR GLEY5/5PB (bluish gray). Temper/inclusions: mineral; dimension: small, medium; frequency: medium. Decoration: outer wavy and band-combed. Wall width: 0.6 cm. Dating: EB IVB. Bibliography: Olávarri 1969, pl. III:10, 13, 16.

KB.05.A.84/2, jar. Class: Simple Ware. State of preservation: neck, shoulder. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR5/6 (yellowish red)+7.5YR5/1 (gray). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium. Decoration: incised (at the base of the neck). Wall width: 0.8 cm. Dating: EB IVB. Bibliography: Kenyon - Holland 1982, fig. 97:5, 8.



KB.05.A.88/4



KB.05.A.88/2



KB.05.A.88/1



KB.05.A.92/1



KB.05.A.202/1



KB.05.A.202/2



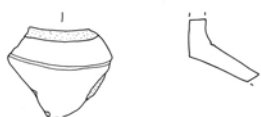
KB.05.A.88/6



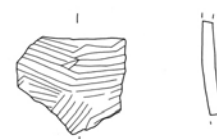
KB.05.A.84/7



KB.05.A.84/3



KB.05.A.84/2



KB.05.A.84/5

[Pl. XVII]

KB.05.A.84/5, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR5/6 (yellowish red)+10YR5/1 (gray) Temper/inclusions: mineral; dimension: medium, medium-small; frequency: medium. Decoration: outer combed. Wall width: 0.5 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. IV:2.

Pl. XVIII - Pottery from platform B.214 in House L.20, Courtyard L.100 (F.212) and Room L.70 (F.218) in Area A West, squares Bill15+Bill16 (Activity 3b)

KB.05.A.218/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR7/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium. Diameter: 8 cm; rim width: 1.3 cm; wall width: 1 cm. Description: jar with strongly everted rim. Dating: EB IVB.

KB.05.A.212/2, hole-mouth pot. Class: Cooking Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/6 (red). Temper/inclusions: mineral, vegetal; dimension: medium, medium-small; frequency: medium-high. Diameter: 17 cm; rim width: 1.1 cm; wall width: 1 cm. Description: hole-mouth pot with flattened inner folded rim. Dating: EB IVB.

KB.05.A.212/3, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: medium, medium-small; frequency: medium. Diameter: n.r.; rim width: 1.3 cm; wall width: 0.9 cm. Description: hole-mouth jar with thickened rounded rim. Dating: EB IVB.

KB.05.A.212/4, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR5/6 (red). Temper/inclusions: mineral; dimension: small, medium-small; frequency: medium. Diameter: 14 cm; rim width: 0.9 cm; wall width: 0.75 cm. Description: hole-mouth jar with flattened inner folded rim. Dating: EB IVB.

KB.05.A.218/5 hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 1 FOR GLEY5/N (gray). Temper/inclusions: mineral, vegetal; dimension: small, medium-small; frequency: medium-high. Diameter: n.r.; rim width: 0.9 cm; wall width: 1.1 cm. Description: hole-mouth pot with rounded rim. Dating: EB IVB.

KB.05.A.212/1, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: small, medium; frequency: medium. Wall width: 1.2 cm; base width: 1.2 cm. Dating: EB IVB.

KB.05.A.212/6, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 7.5YR8/3 (pink). Temper/inclusions: mineral; dimension: small, medium-small; frequency: medium. Wall width: 0.6 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

KB.05.A.214/2, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 1 FOR GLEY4/N (dark gray)+10R5/8 (red). Temper/inclusions: mineral (white grits), vegetal; dimension: small, medium, medium-large; frequency: medium-high. Wall width: 0.8 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

KB.05.A.212/7, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 1 FOR GLEY6/N (gray). Temper/inclusions: mineral, vegetal; dimension: medium, large; frequency: medium. Dating: EB IVB.

KB.05.A.214/3, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR7/4 (very pale brown). Temper/inclusions: mineral, vegetal; frequency: medium. Decoration: applied (rope decoration i). Wall width: 0.9 cm. Dating: EB IVB. Bibliography: Falconer - Magness-Gardiner 1984, fig. 12:8-10.



KB.05.A.218/1



KB.05.A.212/2



KB.05.A.212/3



KB.05.A.212/4



KB.05.A.218/5



KB.05.A.212/1



KB.05.A.212/6



KB.05.A.214/2



KB.05.A.212/7



KB.05.A.214/3

4. Area B. The Northern Fortification [by Lorenzo Nigro]

Excavations in Area B started inside the northern edge of the *khirbet*, where its outskirts turn in correspondence of the less steep access to the hill (figs. 4.1-4.2), in the area where the location of a city-gate through the city-wall seemed plausible. Two goals were fixed in the first season: to explore the emerging city-wall (fig. 4.3), with its superstructures collapsed northwards on the slope of the hill, and the area just inside it, where, due to the preserved elevation of the latter, a considerable horizontally stratified portion of the town appeared to have been protected by erosion. Square BqII8 was, thus, chosen as starting point on this flat area inside the town, while two trenches were dug on the city-wall, one across its width, including squares BpII6+BqII6 and BpII7+BqII7¹, and the other along its outer face in squares BrII7+BslII7 (plans III-IV).



Fig. 4.1 - Squares opened in Area B on the northern slope of the *khirbet* in season 2005, from north.

¹ Due to the thickness of the city-wall, the areas actually excavated resulted to be the south-eastern quarter of square BpII6 and the southern half of BqII6 to the north of the wall, and the eastern half of BpII7 and square BqII7 to the south of it. The baulks in between these squares were removed at the end of the season for the sake of a better visibility of the city-wall.



Fig. 4.2 - The northern slope of Khirbet al-Batrawy before the opening of Area B, from south-east.



Fig. 4.3 - The emerging city-wall on the northern slope of Khirbet al-Batrawy before the opening of Area B, from west.

4.1. *Stratigraphy* [by Andrea Polcaro]

Four stratigraphic phases have been provisionally excavated in Area B (fig. 4.18), from the uppermost layer of humus (Phase 1) to the earliest layers related to the use of the EB III city-wall so far exposed in the first season (Phase 4).

Absolute Chronology	Archaeological Period	Site Period	Phases of Area B
3400-3000 BC	Early Bronze I	Batrawy I	-
3000-2700 BC	Early Bronze II	Batrawy II	Phase 5 (unexcavated)
2700-2450 BC	Early Bronze IIIA	Batrawy IIIa	Phase 4b-a
2450-2300 BC	Early Bronze IIIB	Batrawy IIIB	Phase 3c-a
2300-2200 BC	Early Bronze IVA	Batrawy IVa	Phase 2d
2200-2000 BC	Early Bronze IVB	Batrawy IVb	Phase 2c-a
2000 BC-1900 AD	Later Periods	Batrawy V	-
1900-2005 AD	Contemporary frequentation	Batrawy VI	Phase 1

Tab. 4.1 - Archaeological periodization and stratigraphy of Area B.

4.1.1. Phase 1: Abandonment

Phase 1 illustrates a long period of abandonment, during which erosion and windblown activities accumulated a stratum of dust with sparse remains of plant roots (F.0), homogeneously distributed all over the excavated area. Four Cananean blades², a pierced shell³ and a stone socket⁴ were retrieved in this layer.

4.1.2. Phase 2: the EB IV Layers of Occupation

Phase 2 includes the archaeological deposits and structures related to the Early Bronze IV, which, at a preliminary scrutiny, consisted of several structural phases, only the last of which was so far exposed.

Activity 2a: Abandonment of Batrawy IV Structures

Activity 2a corresponds to the desertion of the EB IV structures in the area, detected only in trench BpII7+BqII7 and in square BqII8 (inside the EB III city-wall), where it was represented respectively by filling F.102 and filling F.114.

² KB.05.B.17, KB.05.B.20 (pl. XIX), KB.05.B.27, KB.05.B.39.

³ KB.05.B.35 (pl. XIX).

⁴ KB.05.B.1.

F.102, excavated in trench BpII7+BqII7 in between wall W.109 (Activity 3c) and city-wall W.105 (Activity 4b), consisted of a very dusty soil with scattered limestone gravel and small stones (figs. 4.4-4.5)⁵.

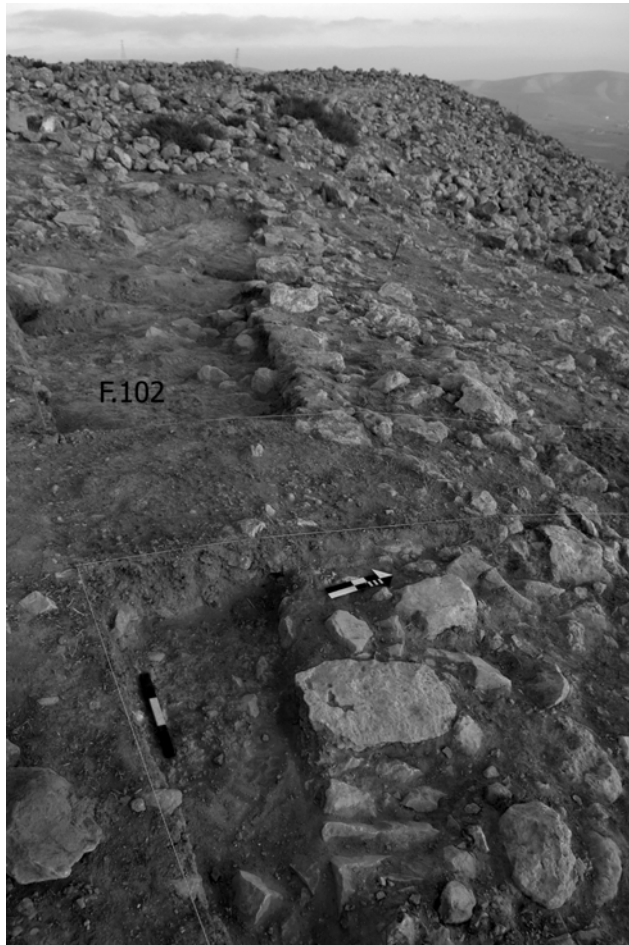


Fig. 4.4 - Filling F.102 excavated in trench BpII7+BqII7, from east.

F.114 in square BqII8 consisted of layer of buff sandy soil with stones of medium and large dimensions, coming from the collapse of wall W.117 (Activity 2c) and concentrated in the eastern part of the square (fig. 4.12).

⁵ A grinding stone (KB.05.B.28) and some lithic débitages (KB.05.B.19, KB.05.B.21, KB.05.B.26) were retrieved in this layer. Pottery included fragments of Simple and Storage Wares, and a few sherds of specialized productions, such as Simple Painted (KB.05.B.102/2, KB.05.B.102/10, KB.05.B.102/11, KB.05.B.102/8, pl. XX) and Red Polished Wares.

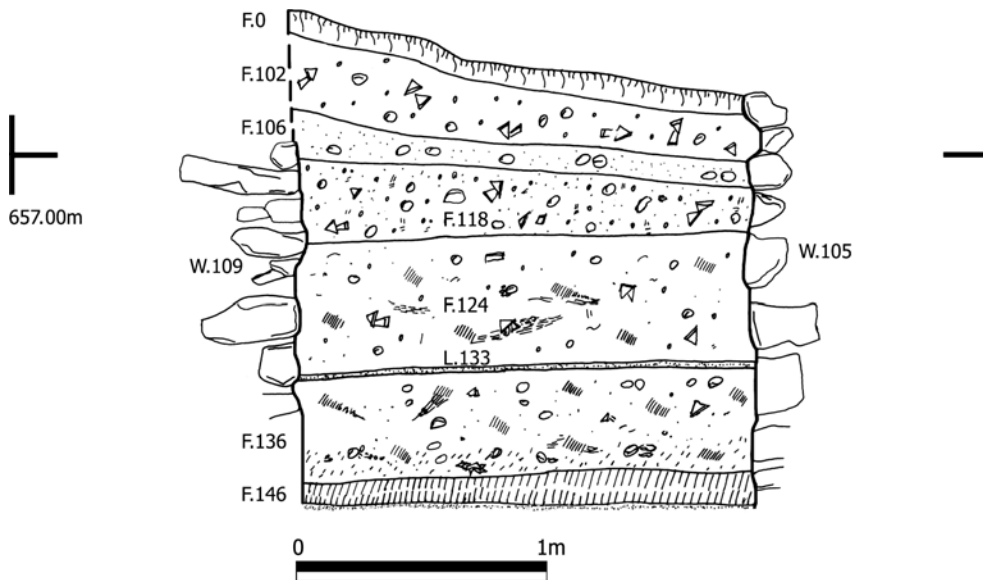


Fig. 4.5 - Western section of corridor in between inner wall W.109 (Activity 3c) and city-wall W.105 (Activity 4b) in trench BpII7+BqII7.

Activity 2b: Use of Batrawy IV Structures and Installations

Activity 2b corresponds to the use of the most recent EB IV structures excavated in square BqII18 and it is represented by a friable brown soil (F.108; fig. 4.12) with scattered stones, limestone grits, animal bones and sparse pottery sherds (pl. XXIII).

Activity 2c: Construction of Batrawy IV Structures and Installations

Activity 2c represents the construction of the latest EB IV structures and installations excavated in BqII18 (§ 4.2.1.): the corner of a massive building W.117 in the eastern part of the square, with a small stone-paved installation (S.127) on its inner side and a floor of beaten earth (L.122); wall W.125 in the north-western corner of the square; the semicircular stone-lined structure W.123 in the south-western corner, apparently associated with a very partially preserved stone-flagged pavement (L.152) in the open area to the west of W.117; and partition-wall W.119, in the southern section of the square, abutting on the eastern face of W.117.

Activity 2d: Pits inside the City-Wall

In trench BpII7+BqII7, two earlier semi-circular pits (P.129 and P.130) were excavated directly against the inner face of the city-wall (P.129 to the west, and P.130 to the east); the eastern pit P.130 was sealed by a heap of stones, named F.113 (§ 4.2.1.).

The fillings of these two pits (respectively F.126 and F.128) consisted of a dark ashy soil with scattered small and medium size stones; the eastern pit (F.128) was also replete of big stone⁶.

The existence of contemporary structures in BqII8 was visible in the section underneath W.117, after the removal of floor L.152.

4.1.3. Phase 3: Stratigraphy of Batrawy IIIB Fortification System

Phase 3 corresponds to the latest reconstruction and use (Activity 3c), and final destruction (Activity 3b) of the Batrawy III city-wall, before the definitive abandonment of the ruins of the EB III town (Activity 3a).

Activity 3a: Abandonment of Batrawy IIIB Fortification System

Activity 3a represents the desertion of the collapsed Batrawy IIIB (Early Bronze IIIB) city-wall and related structures excavated inside the town in square BqII8.

In the inner corridor in between wall W.109 and W.105, in trench BpII7+BqII7, the abandonment of the EB III fortification system was represented by fillings F.106 and F.118 (fig. 4.5): F.106 was a layer of windblown sandy soil with small stones and pottery sherds (pl. XXII), concentrated only in the western sector of the trench, and it covered a compacted stratum of sandy soil (F.118) with limestone grits, collapsed stones and scattered pottery sherds (pl. XXII) homogenously distributed in the trench (fig. 4.6). Both of them were cut by pits P.129 and P.130⁷.

On the outer side of the city-wall, the same activity was represented by strata of rolled stones of large and medium dimensions coming from the collapsing of the city-wall northwards: these fillings are F.107 in BrII7, F.110 in BsII7, and F.111 in BpII6+BqII6 (figs. 4.7-4.11)⁸.

⁶ Pottery from filling F.128 consisted mostly of Simple and Storage Ware (pl. XXI), but also some fragments of specialized production were recovered: one Red Polished sherd and three Simple Painted Ware fragments (such as KB.05.B.128/11, pl. XXI).

⁷ In both fillings F.106 and F.118, examples of specialized pottery productions were recovered, such as one Red Polished platter and some Simple Painted fragments (for instance KB.05.B.118/17, pl. XXII); these vases, as well as other pottery fragments retrieved date back from the Early Bronze IIIB (pl. XXII).

⁸ Beside Simple and Storage Ware fragments, with scattered EB IV sherds such as combed fragments (KB.05.B.110/3 and KB.05.B.110/4), both stratum F.110 and F.111 yielded a lot of fragments of EB III specialized production: in filling F.110 one Red Burnished fragment, three Red Polished jugs and one Simple Painted fragment (KB.05.B.110/5, pl. XXVI) were retrieved; in filling F.111 one Red Polished platter (KB.05.B.111/2, pl. XXVI) and two Red Polished jugs were found.



Fig. 4.6 - Fillings F.106 and F.118 excavated in trench BpII7+BqII7 in between city-wall W.105 (to the north, right) and wall W.109 (to the south, left), from east.



Fig. 4.7,a-b - Layers of collapsed stones F.107 and F.110 of Activity 3a in trench BrII7+BslI7, from west (a) and east (b).



Fig. 4.8 - Filling F.102 in trench BpII7+BqII7 inside the city-wall, and layers of collapsed stones F.107 and F.110 of Activity 3a in trench BrII7+BsII7 outside the city-wall, from south-west.

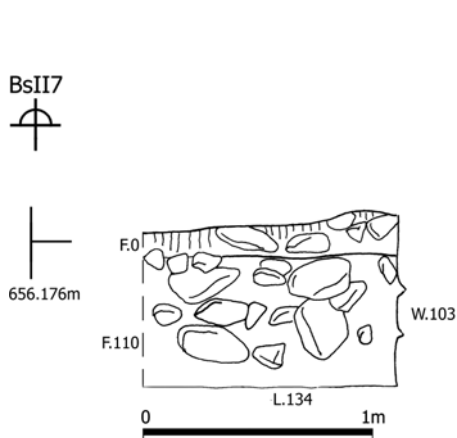


Fig. 4.9 - Eastern section of trench BrII7+BsII7.

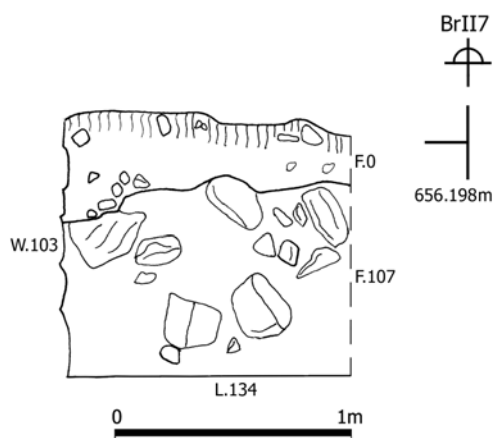


Fig. 4.10 - Western section of trench BrII7+BsII7.

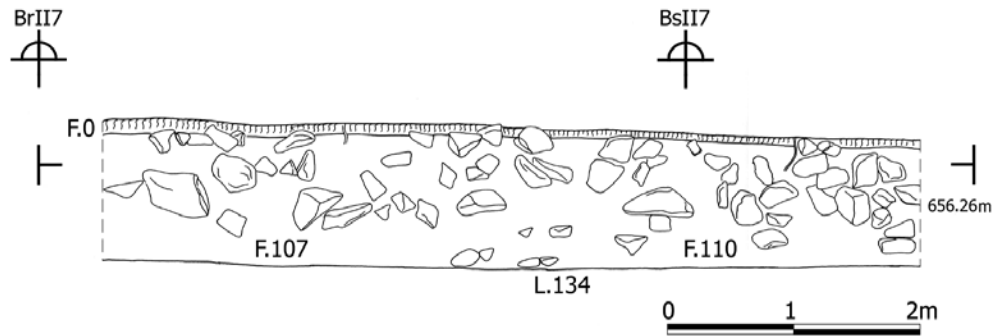


Fig. 4.11 - Northern section of trench BrII7+BsII7.

In BqII8, Activity 3a was represented by a layer of brownish sandy soil (F.120; fig. 4.12) with small stones and a few pottery sherds (fig. 4.13), excavated directly after the removal of the EB IV structures⁹. In the south-western corner of the square, the same activity was represented by filling F.137, a concentration of collapsed stones of medium size excavated after the removal of the circular structure W.123; while in the north-western corner, it was represented by a heap of stones collapsed from wall W.109, named F.131.

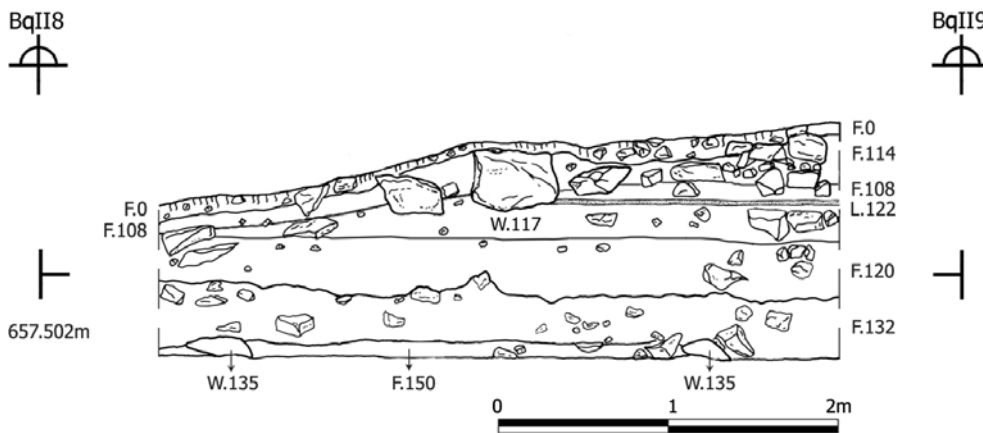


Fig. 4.12 - Eastern section of square BqII8.

⁹ A grinding stone (KB.05.B.47; fig. 4.14) and a spindle whorl (KB.05.B.48) were retrieved in this stratum, as well as some pottery fragments of specialized productions (three Red Polished and three Simple Painted fragments) and scattered animal bones.

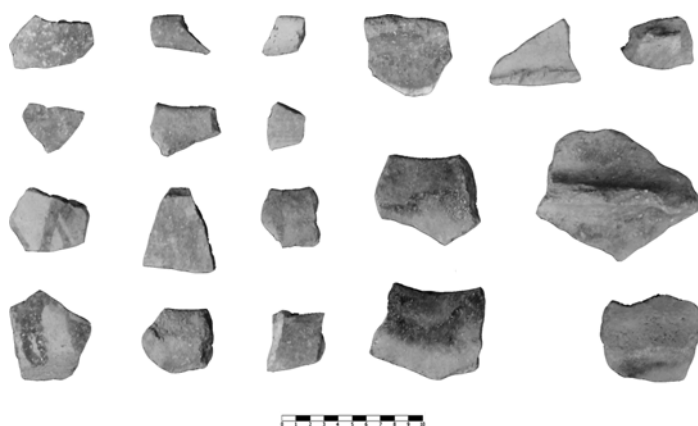


Fig. 4.13 - Pottery fragments from filling F.120.



Fig. 4.14 - Grinding stone KB.05.B.47 from filling F.120.

Activity 3b: Destruction of Batrawy IIIb Fortification System

A layer of soft soil (F. 124) with sparse charcoals, lens of ashes, and numerous limestone grits (remains of mortar or plaster employed in ceilings), directly lying on floor L.133 of Activity 3c, represented the last destruction of the EB III fortification system in the inner trench BpII7+BqII7 (figs. 4.5, 4.15).

Outside the city-wall, in trench BpII6+BqII6, a thin layer of soil (F.112) with small scattered stones and pottery fragments (pl. XXVI) was accumulated under the collapsed stones, lying over the pavement of street L.134, and representing the last use of this floor before the destruction (figs. 4.16-4.17).

In BqII8, Activity 3b was, instead, represented by a layer of compacted soil with limestone grits, small stones and traces of ash and carbons, homogeneously excavated all over the square (F.132); and by filling F.150, a layer of reddish-brown soil with small carbons (fig. 4.12) accumulated inside the semi-circular installation W.135 (Activity 3c).

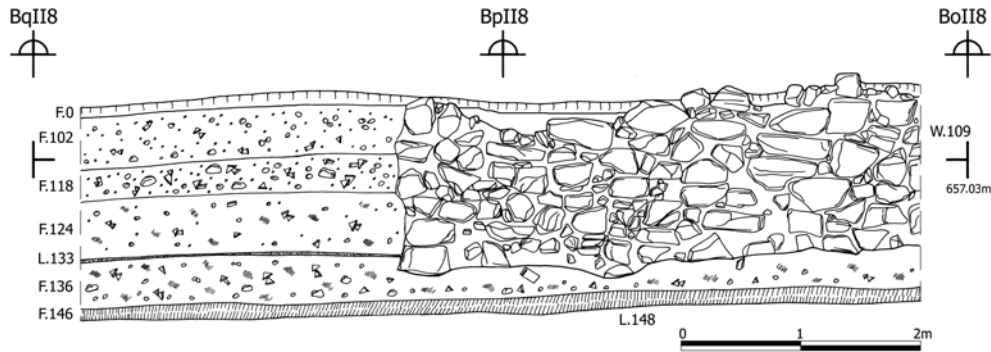


Fig. 4.15 - Southern section of trench BpII7+BqII7.

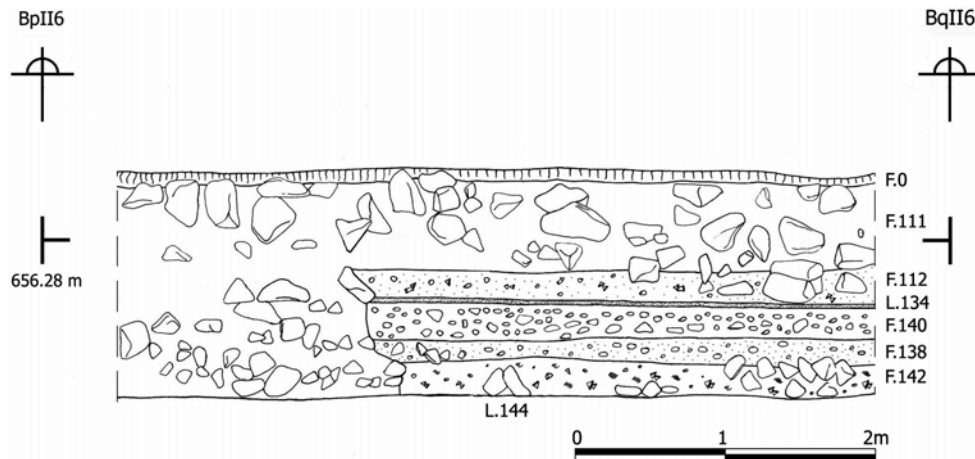


Fig. 4.16 - Northern section of trench BpII6+BqII6.

Activity 3c: Reconstruction of the City-Wall in Period Batrawy IIIb

Activity 3c represents the last reconstruction of the Batrawy III fortification system, as well as of the structures excavated inside the city-wall in square BqII18.

Inside the city-wall in between wall W.109 and wall W.105a¹⁰, in trench BpII7+BqII7, this phase was represented by the floor L.133 (fig. 4.15),

¹⁰ The stratigraphy of the city-wall has been preliminarily established distinguishing three main constructive phases corresponding respectively to Activities 3c, 4b and Phase 5 (the latter has not yet been fully investigated). All sections of the city-wall have thus been named according to such a sequence, with different letters: for example, the most recent reconstruction of its inner face in Activity 3c was called W.105a; the previous constructive phase (Activity 4b), which is represented by the

which, if from the one side (north) was the latest floor associated with the city-wall (W.105a), from the other (south) was the earliest original floor connected with W.109. The latter (and the building which it presumably belonged to) was in fact erected in Activity 3c.

Outside the city-wall, in both trenches BpII6+BqII6 and BrII7+BslII7, the last reconstruction of the city-wall was associated with street L.134, laid over preparation F.140.

As it concerns the city-wall itself, its last constructive phase included walls W.103a+W.104a in BpII6+BqII6, and walls W.101a+W.115a in BrII7+BslII7¹¹.

In square BqII8, this activity was represented by wall W.139, prosecuting on the same alignment of W.109 and abutting on the semicircular installation W.135. The latter surely belongs to Phase 3; however, it seems somewhat earlier than W.139 (further investigations to the east are needed to clarify this point).

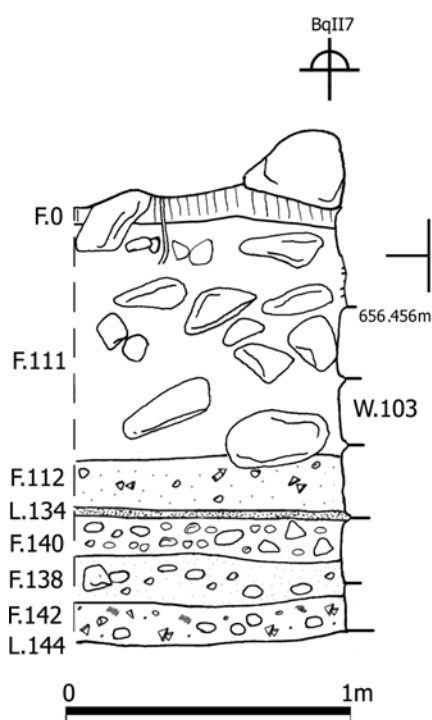


Fig. 4.17 - Eastern section of trench BpII6+BqII6.

middle courses of the same wall, was called W.105b, and the lowest courses belonging to the earliest original building phase (Phase 5) were called W.105c.

¹¹ For the architectural phases of the city-wall and their denominations see above note 9.

4.1.4. Phase 4: Stratigraphy of Batrawy IIIa Fortification System

Phase 4 illustrates the earliest use so far identified of the city-wall (Activity 4b) and its sudden end, testified to by a destruction layer (Activity 4a), very well visible in the fillings inside the town.

Activity 4a: Destruction of Batrawy IIIa Fortification System

The destruction layer of Period Batrawy IIIa was clearly identified in the corridor in between wall W.109 and wall W.105 inside the city-wall. Here, an upper stratum (F.136) of sandy soil with dense ashy lenses and fragmentary limestone chops from the city-wall outer courses revetment, covered a layer (F.146), 15 cm high, basically composed of compacted charcoal and ash with reddish lenses of fired plaster and mud-bricks fragments (figs. 4.5, 4.15).

Outside the city-wall, in BpII6+BqII6, the same activity was represented by two layers: filling F.138, consisting of grey sand with small and medium size stones; and an underlying layer of reddish clayish soil (F.142) derived from mud-bricks consumption, with ashy lenses (figs. 4.16-4.17), both including a few scattered pottery sherds (pl. XXX).

Activity 4b: First Utilization of Batrawy IIIa Fortification System

Activity 4b represents the earliest utilization of Batrawy IIIa fortification system reached so far.

In trench BpII7+BqII7, it consisted of the inner face of Batrawy III city-wall W.105b and the earliest floor exposed inside the town, L.148. The latter pavement L.148 and the overlaying destruction layer F.146 were covered by the foundation of wall W.109, thus demonstrating that the latter was built at the beginning of Phase 3.

Outside of the city-wall, in the trench BpII6+BqII6, Phase 4 was represented by the outer face of city-wall (W.103b) and by the earliest floor (L.144) of the street flanking the city-wall, directly lying on the bedrock.

The existence of an earliest phase, preceding Phase 4, was nonetheless suggested by the city-wall lowest foundation courses, which were made of big limestone boulders adapted to the bedrock, possibly reemployed in phase 4, when a major refurbishing of the defensive structures took place (§ 4.2.2.).

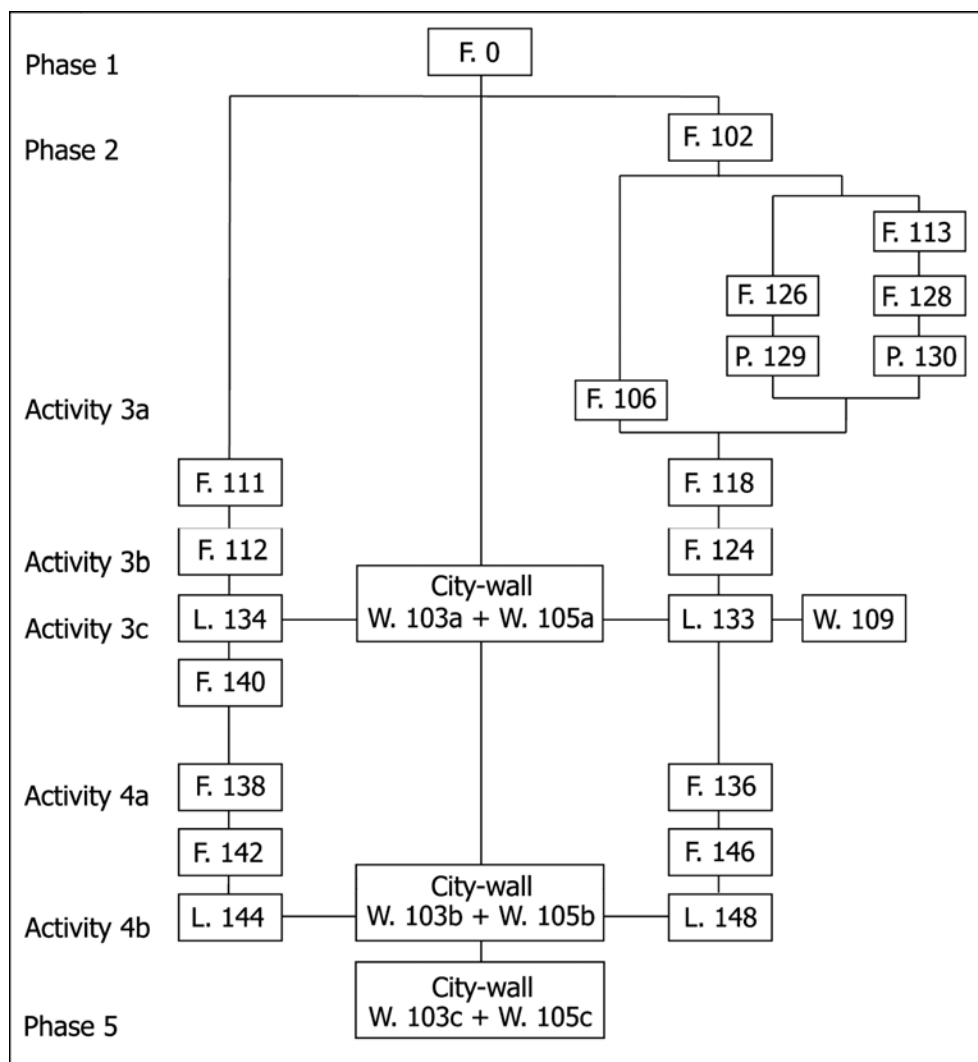


Fig. 4.18 - Matrix of Area B (trenches BpII6+BqII6 + BpII7+BqII7).

4.2. *Architecture & Finds* [by Lorenzo Nigro]

4.2.1. The Northern Quarter of Batrawy IV Village

Excavations inside the city-wall on the northern side of the site brought to light in squares BqII7 and BqII8 (Phase 2) some structures of the Batrawy IV village, built directly over the ruins of the Batrawy III town (fig. 4.19).

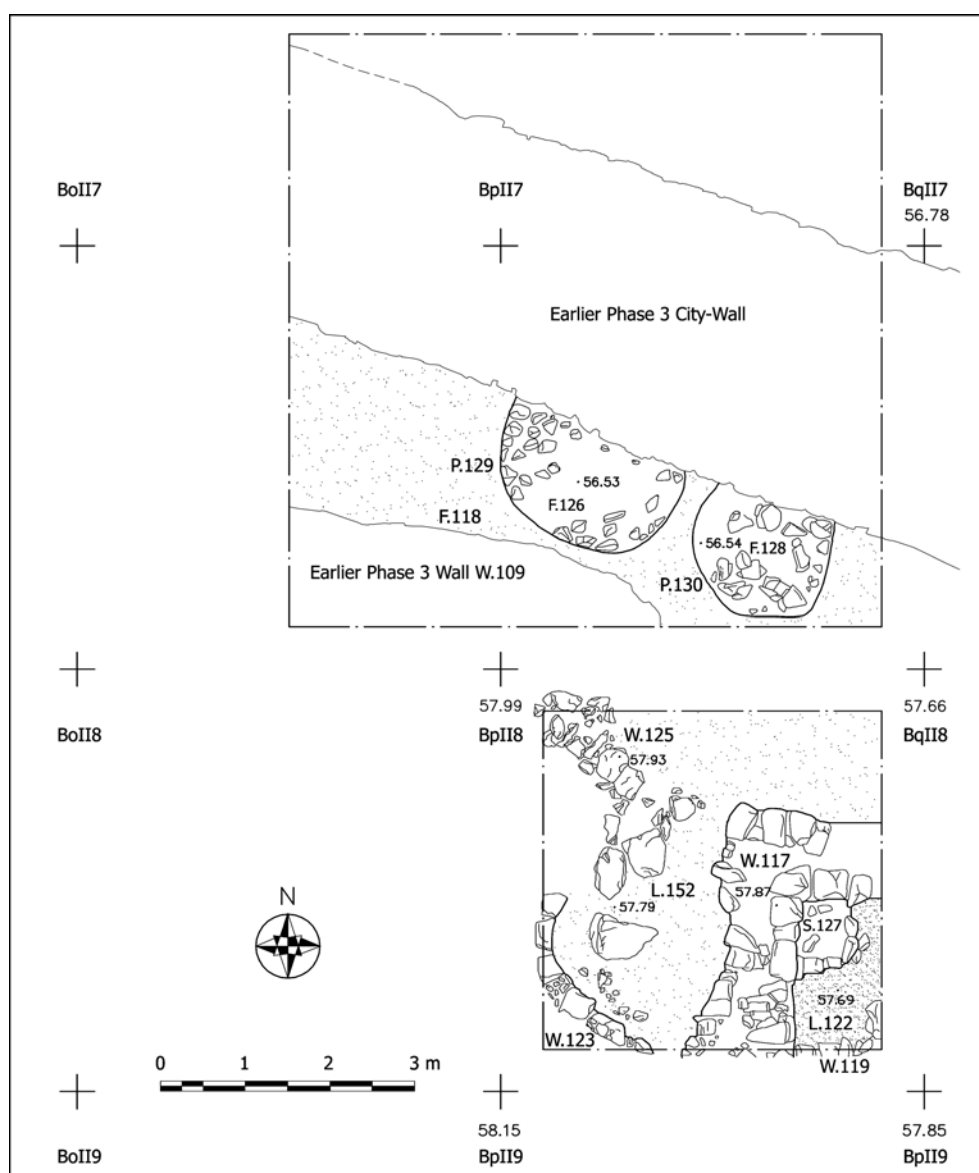


Fig. 4.19 - Plan of Phase 2 structures in Area B.

Pits Against the Inner Face of the City-Wall

In square BqII7, the abandonment (Activity 3a) and destruction (Activity 3b) layers inside city-wall W.105 were cut by two semicircular pits (P.130 and P.129) abutting directly against the inner face of the city-wall itself, apparently to be used as refuse pits (fig. 4.20).



Fig. 4.20 - Pits P.130 (to the east, in the foreground) and P.129 (to the west, in the background) cut against the inner face of Period Batrawy III city-wall, from east.

Pit P.130 had a roughly pentagonal shape, and its inner filling (F.128) provided a distinguished set of materials (pls. XIX, XXI), the majority of which actually belong to the Batrawy III layers cut by the pit itself; namely, a grinding stone¹², a fragment of arsenical copper¹³ and a fragmentary clay figurine¹⁴, probably representing the backside of an onager. Pit P.130 was closed with a heap of stones (F.113; fig. 4.21), and a second pit was cut just aside to the west of it, pit P.129. The latter had a slightly larger diameter and a more regular semicircular shape (fig. 4.22). Also the inner

¹² KB.05.B.55.

¹³ KB.05.B.65.

¹⁴ KB.05.B.51 (pl. XIX).

filling (F.126) of pit P.129 gave back a variety of materials largely belonging to the Batrawy III material culture horizon (pl. XXI), including some pottery fragments of EB III specialized productions (fig. 4.23)¹⁵, as well as a spindle whorl¹⁶. The pit was closed with a layer of cobbles as soon as the area of the city-wall was fully overlapped by Batrawy IV structures in Activity 2c.



Fig. 4.21 - The heap of stones F.113, which closed pit P.130, from south.



Fig. 4.22 - Pit P.129 (in the foreground) and pit P.130 (in the background), from west.

¹⁵ Two Red Polished jugs (KB.05.B.126/1, pl. XXI), one Red Burnished platter (KB.05.B.126/3, pl. XXI) and one Simple Painted bowl (KB.05.B.126/4, pl. XXI).

¹⁶ KB.05.B.59.



Fig. 4.23 - EB III pottery fragments of Red Bur-nished, Simple Painted, Red Polished and combed Wares from filling F.126.

Structures in Square BqII8

The corner of a presumably rectangular house has been brought to light in square BqII8, built over collapsed Batrawy III structures, and partly reemploying stones and blocks from them (figs. 4.19, 4.24).



Fig. 4.24 - The corner of the EB IV rectangular house (House L.122) and adjacent structures of Phase 2 in square BqII8, from south-east.

In the eastern half of the square, a major north-south wall (W.117) was built of regular blocks (possibly taken from previous buildings) in the inner lower courses. Its inner eastern face was lined with big stones, and ended to the north with a regular corner; the outer western face, conversely, was irregular¹⁷, with a slightly diverging orientation on the northern side, where the EB IV wall had been built according to an already existing alignment parallel to the inner face of the Batrawy III city-wall (that of Phase 3 wall W.139; see below). An uninterrupted series of superimposed structures north-west/south-east oriented has been detected in the northern half of BqII8, the most recent of which was Phase 2 wall W.125, made up of small and medium size stones in two flanking rows¹⁸, preserved up to two courses in the north-western sector of the square and also beyond its western limit (fig. 4.25). In the south-western quadrant of the square a semicircular stone-lined structure (W.123) delimited an area paved with big limestone slabs (L.152), lying on a rubble filling (fig. 4.26). Wall W.123 possibly abutted against wall W.125, while the entrance to the paved area should be from the north.

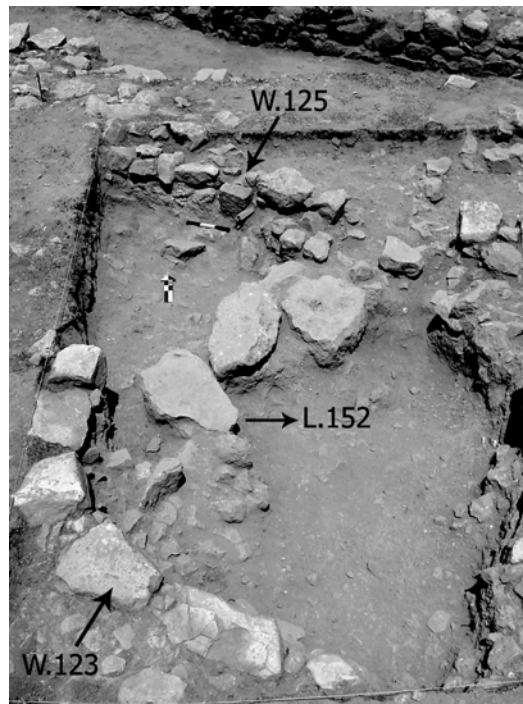


Fig. 4.25 - Semicircular stone-lined structure W.123 (in the foreground), slab-paved area L.152 (in the centre) and double rows wide wall W.125 (in the background) in square BqII8, from south.

¹⁷ On this side, the irregularity of wall W.117 was probably due to the addition of the semicircular structure W.123 with its adjoined slab-paved yard L.152.

¹⁸ For a comparison see the north-eastern unit in squares A14-15 in Area A at Tell Iktanu (Prag 1991, fig. 1).



Fig. 4.26 - Semicircular stone-lined structure W.123 and slab-paved area L.152, in the foreground; wall W.117 of House L.122, in the background, from west.

In the western and north-western sectors of the square, a filling of use (F.108) with sparse EB IV pottery sherds (pl. XXIII; fig. 4.27) has been excavated. Various tools were retrieved in this layer: three Cananean blades¹⁹ and a flint blade²⁰ (fig. 4.28), a stopper²¹, two spindle whorls²², and a grinding stone (fig. 4.29)²³.

¹⁹ KB.05.B.40, KB.05.B.45, KB.05.B.58.

²⁰ KB.05.B.41.

²¹ KB.05.B.44 (pl. XXIII).

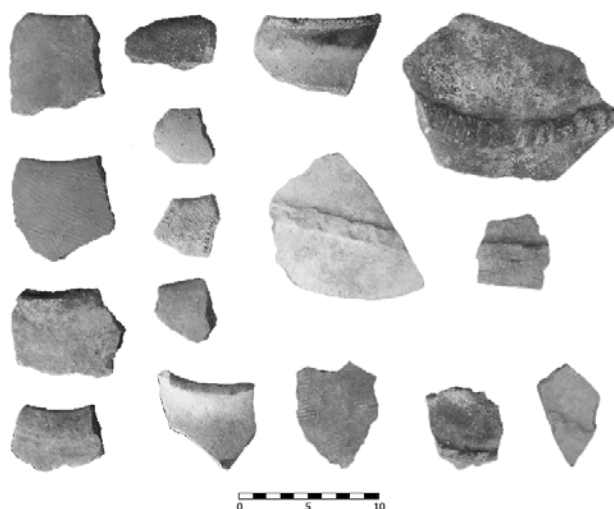
²² KB.05.B.60 and KB.05.B.72 (pl. XXIII).

²³ KB.05.B.54.

Wall W.117 was the western side of a rectangular house called House L.122, characterized by the presence of a rectangular installation (S.127) in its inner north-western corner. The latter was bordered by medium size stones set vertically into the floor and paved with small limestone slabs (fig. 4.30). To the south, just in the southern section of the square, a single row of stones of a partition-wall (W.119) east-west oriented was visible, abutting on the inner eastern face of W.117²⁴. House L.122 exhibited a floor of beaten earth, at some spots reinforced with flat stones.

Though excavated for a limited extension, House L.122 and its annexed semicircular structure testify to the presence of major domestic unit of the Batrawy IV village in this spot of the site²⁵. More convincingly, due to the dimension of wall W.117, to its direct structural connection with underlying collapsed buildings, and to the structures orientation coherent with the preceding Batrawy III city-wall, Area B, at the most suitable access to the cliff, appears to have been one of the original dwelling clusters of the EB IV village arisen on Khirbet al-Batrawy.

Fig. 4.27 - Various types of EB IV pottery sherds from filling F.108.



²⁴ In correspondence with this wall a large limestone boulder was set into W.117, in order to reinforce the structure where W.119 abutted on.

²⁵ A comparison for the layout and building technique of the EB IV house and adjacent structures excavated in square Bq118 can be found in the domestic architecture unearthed in other EB IV Transjordanian sites, such as Khirbet Iskander (Area B: Richard - Boraas 1984, 75-77, figs. 10-11), Jebel er-Reheil (Palumbo *et al.* 1996, 398, fig. 21) and Tell Iktanu (Prag 1990, 119-121, fig. 2; 1991, fig. 1).

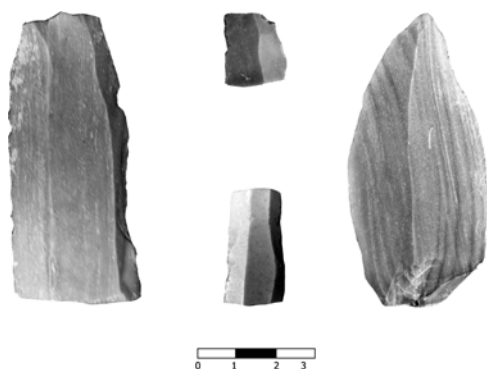


Fig. 4.28 - Flint blades from filling F.108.

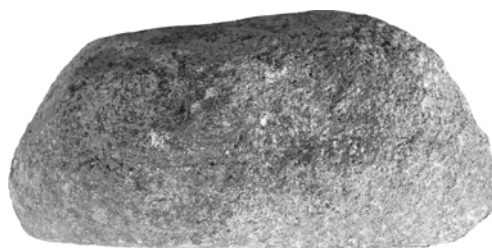


Fig. 4.29 - Grinding stone KB.05.B.54 from filling F.108.



Fig. 4.30 - The stone-paved installation (S.127) in the inner north-western corner of House L.122, from south-east.

4.2.2. The Northern City-Wall of Batrawy III (Early Bronze III)

The major focus of the 2005 season was on the excavation of the stone built city-wall of Period Batrawy III on the northern side of the site (plans III-IV). The exploration of the city-wall was carried out in three different trenches excavated across it: two comprised the core of the wall itself and structures and fillings outside it, respectively to the west in trench BpII6+BqII6 and to the east in trench BrII7+BslII7; the third one included the inner face of the wall and the structures south of it in trench BpII7+BqII7. The main defensive structure runs WNW-ESE in the western trenches (BpII6+BqII6 and BpII7+BqII7), and turns straight to the east in BrII7+BslII7 (fig. 4.31), apparently following a climbing street approaching a possible city-gate (which, however, should be outside the excavated area some meters to the west).



Fig. 4.31 - General view of the Batrawy III city-wall and structures excavated inside the town in square BqII8, from west.

The city-wall was a massive structure founded directly on the bedrock, made of large boulders of local limestone in the lower courses, of big stones on the outer faces, and of medium size stones in the inner body of the wall itself. On the outer side the lower part of the city-wall W.103 shows slightly battering faces made up with large boulders (fig. 4.32), while big stones were used in the upper courses, laid with their regular side

in the wall face, and fixed each other with limestone chops, cobbles and mud mortar inserted in between the stones with the aim of fastening them (fig. 4.33). The core of the wall was filled in with superimposed layers of middle-sized stones tied together by mud mortar and cobbles.



Fig. 4.32 - The foot of the city-wall (W.103) on the outer side in trench BpII6+BqII6, with slightly battering face made up with large boulders, from west.

The wall itself is 2.9-3.2 m wide (fig. 4.34), and it is preserved at certain spots with a height of more than 2 m. It was built in separated juxtaposed stretches (each around 6-8 m long), as it is evident in trench BrII7+BslII7, where a junction between two of such sectors (named wall W.103 to the west and wall W.101 to the east) is visible on the northern outer face of the city-wall (fig. 4.35). This feature is a building technique well-known from other contemporary defensive systems in Southern Levant²⁶, and it

²⁶ As it is attested to, for instance, by the city-walls of Tell el-Mutesellim (Loud 1948, 66, figs. 152-154, 391), Tell Ta'annek (Lapp 1969, 9, fig. 2), Khirbet Kerak (Maisler - Stekelis - Avi-Yonah 1952, 170-172, pl. 9), et-Tell (Area A: Marquet-Krause 1949, 17, erroneously considered a room inside the fortification; Callaway

was aimed mainly at standing out earthquake effects; moreover, it presumably corresponded to the wall portion attributed to a single team of workers during the construction²⁷. Several inner subsiding and collapsing of the upper part of the wall were detected, as well as some repair interventions, as confirmation of its long and complex life. Up to now excavations have illustrated the utilization of the city-wall in Phases 4 and 3, but they have not reached so far the earliest phases (foundation and use) of the defensive system.



Fig. 4.33 - Outer face of city-wall W.103 made up of big stones fixed with limestone chops, cobbles and mud mortar, from north-west.

As it regards the portion of the city-wall so far explored, a general refurbishing of the top of the structure on its outer faces seems to have occurred at the beginning of Phase 3, perhaps with the addition of wooden supports and chains (which left clear burnt traces on the stones of the wall), when the original inner partitions in separated wall sectors were obliterated. Such wooden supports were detected inside the city-wall in squares BpII7+BqII7, where a thick and compact layer of charcoal was found over floor L.148.

1980b, 113-114, figs. 75, 85), Tell es-Sultan (Kenyon 1957, 174-175, pl. 36; 1981, 100, 213, 262, 374, pls. 83a, 201; Nigro 2006a, 370-371), Bab edh-Dhra' (Rast - Schaub 2003, 280-283) and Numeira (Rast - Schaub 1980, 42, fig. 15).

²⁷ Wright 1985, 177; Nigro 2006a, 371-372.



Fig. 4.34 - General view of Batrawy III city-wall, from east.



Fig. 4.35 - Junction between two separated juxtaposed stretches of Batrawy III city-wall (wall W.101 to the east [left] and wall W.103 to the west [right]) in trench BrII7+BslI7, from north-west.

Phase 3 (Batrawy IIIb) City-Wall and Related Structures in Trench BpII7+BqII7 and Square BqII8 Inside the City-Wall

On the inner side of the city-wall, in trench BpII7+BqII7, the dig was carried on in the fillings in between the southern face of the city-wall (W.105) and a parallel structure (W.109), apparently belonging to a major building contemporary to the final use of the city-wall itself, called House L.122 (plan III)²⁸.



Fig. 4.36 - Fillings F.106 and F.118 excavated in trench BpII7+BqII7 in between city-wall W.105 and wall W.109, from south-west.

The inner face of the city-wall was initially exposed for a height of 0.8 m until the latest floor of use was uncovered, consisting of a pavement of crushed and beaten limestone (L.133). Materials from the filling lying over this floor (F.124; pl. XXVIII) belong to an advanced Batrawy III ceramic

²⁸ Upper layers in this filling consisted of windblown sandy soil (F.106, F.118), accumulated during a long period of abandonment (fig. 4.36), when the city-wall and wall W.109 gradually collapsed, causing an irregular accumulation of stones.

horizon, with some possible indicators of the late phase of this period (Early Bronze IIIB), like the inturned rim bowl with painted decoration (KB.05.B.124/1, pl. XXVIII)²⁹. L.133 was linked to both W.105 and W.109, thus appearing as the floor of the corridor when both structures, the city-wall in its latest phase and the building in front of it, were in use. As it regards wall W.109, this structure was examined only in its northern face for a length of 4.8 m (fig. 4.37); it is built with irregular medium size fieldstones alternating with more regular blocks, placed where the structure turns or in points subjected to support the ceilings of the building.

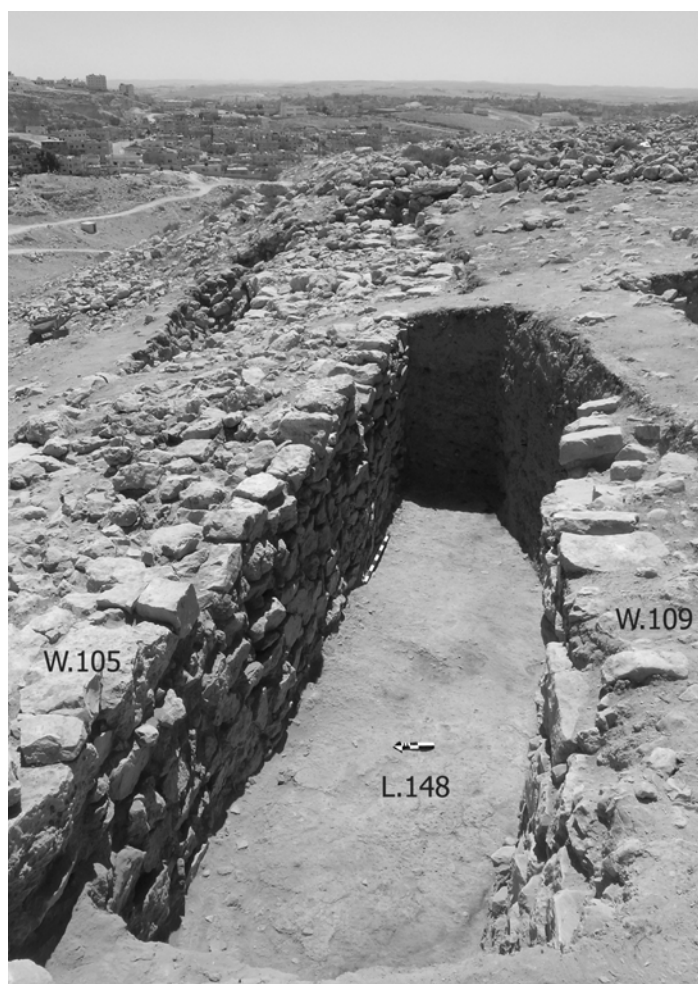


Fig. 4.37 - City-wall W.105 (to the left) and wall W.109 (to the right) in trench Bp117+Bq117, from west.

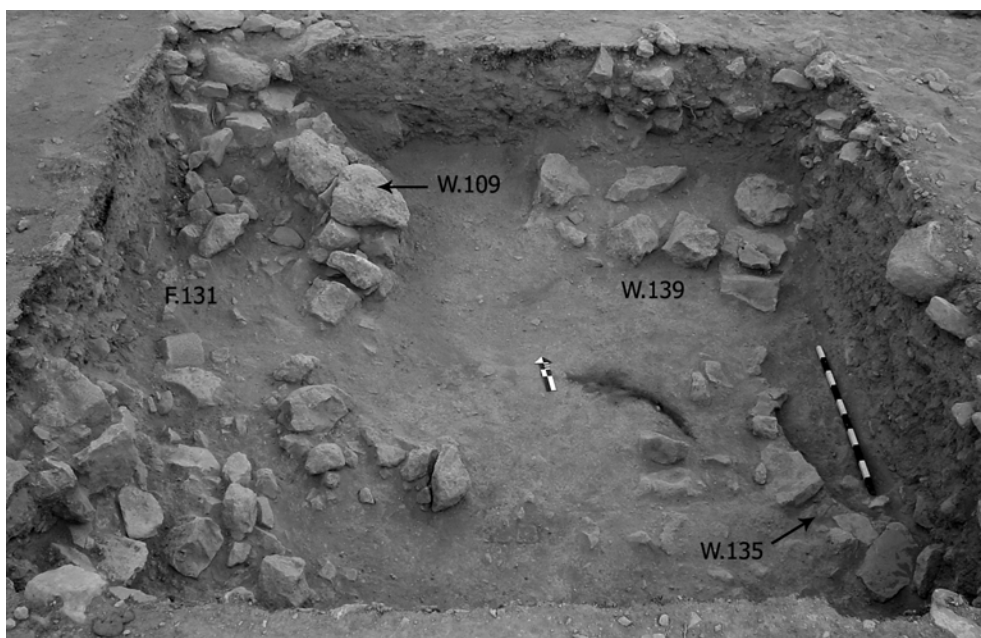
²⁹ In filling F.124 one fragmentary Red Polished jug was also retrieved, as well as scattered fragments of Simple, Storage and Cooking Wares (pl. XXVIII).

Wall W.109, due to an inner subsiding, was inclined towards the north (fig. 4.38), and its upper repaired structure partially collapsed in corridor L.133 (it is noteworthy that also the city-wall collapsed towards the north, so that corridor L.133 was filled in only with stones fallen down from W.109). The wall face is thus oblique and at its eastern end it turns somewhat southwards, so slightly diverging from the orientation parallel to the city-wall (see below square BqII8).



Fig. 4.38 - The northern face of wall W.109, from north-west; note the upper part of the structure inclined towards the north.

In square BqII8, wall W.109 was investigated in the north-western quadrant of the square, where a heap of collapsed stones (F.131) concealed its eastern end, where, presumably, an adjoining structure SSW-NNE oriented closed House L.122 on the eastern side (figs. 4.39-4.40). In the eastern half of square BqII8, two more structure were uncovered. A wall (W.139; a pier?), roughly aligned with wall W.109, shows the continuation of buildings inside the city-wall towards the east (fig. 4.41). Wall W.139 leaned on a circular silos (W.135), replete of carbonized seeds and ashes, and finely plastered inside with a thick mud mortar (fig. 4.42).



Figs. 4.39-4.40 - The heap of stones F.131 collapsed from wall W.109, from east (top) and from south (bottom), in square BqII8.



Fig. 4.41 - Wall W.139 and circular installation W.135, from south; note the burnt layer emerging near the north.

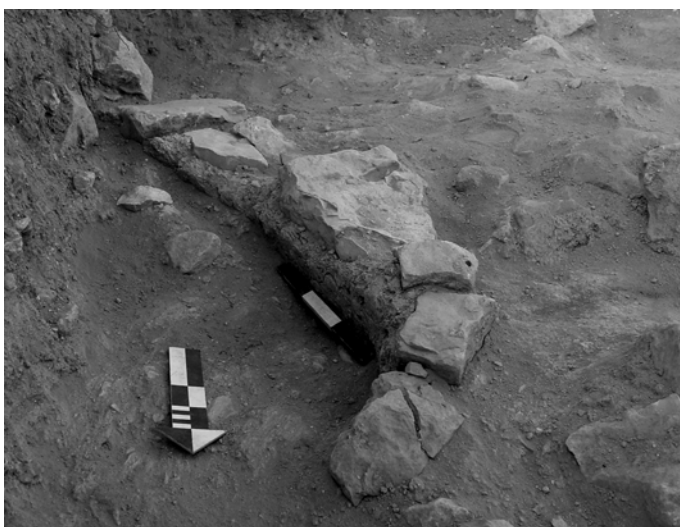


Fig. 4.42 - Inner revetment of silos W.135 made up of mud mortar with a lime finishing, from north.

The interpretation of such a structure as a silos is uncertain, since the excavated portion apparently represents just one third of the total diameter. No floor of this phase has been reached so far in square BqII8, but from filling F.132 numerous EB IIIB pottery fragments were recovered (pl. XXV)³⁰.

Phase 4 (Period Batrawy IIIa) City-Wall and Related Structures in Trench BpII7+BqII7

Coming back to the corridor north of wall W.109, underneath floor L.133, and sealed by it, there was a 0.20-0.45 m thick layer of destruction (F.136) consisting of brown earth with dense lenses of ashes and fragmentary limestone chops (fallen down from the outer face of the city-wall due to a fierce fire), with scattered pottery sherds of a typical EB III horizon (pl. XXVIII)³¹. In this stratum also a melting slag of copper was retrieved³².

Beneath F.136, the lowest layer of destruction consisted of a stratum of compacted charcoal and ash 10-15 cm thick (F.146; fig. 4.45), lying directly over a lime plastered floor (L.148; fig.4.48), belonging to a phase of the town brought to a sudden end by a violent conflagration (Phase 4; plan IV). Filling F.146 thus yielded a good set of stratified materials, including diagnostic pottery fragments (pl. XXIX), which included one Red Polished platter and three Red Polished jugs³³, one Red Burnished platter and one Red Burnished wall³⁴, two Simple Painted Ware fragments³⁵ (figs. 4.43-4.44), as well as some more objects: a Cananean blade (fig. 4.46)³⁶ and another fragment of copper (fig. 4.47)³⁷. Floor L.148 was made of grayish clay with a fine lime plastered surface; towards south the floor continues under wall W.109 (§ 4.1.4.); while to the north it does not reach wall

³⁰ Nonetheless, only one specimen of a specialized ware (a Simple Painted Ware fragment: KB.05.B.132/13, pl. XXV) was found. A stopper (KB.05.B.74) was retrieved in the same stratum.

³¹ Besides Simple Ware jars (such as KB.05.B.136/3 and KB.05.B.136/6, pl. XXVIII), storage *pithoi* (KB.05.B.136/5, pl. XXVIII) and cooking pots (KB.05.B.136/4, pl. XXVIII), two fragments of Simple Painted Ware (KB.05.B.136/1 and KB.05.B.136/2, pl. XXVIII) were retrieved.

³² KB.05.B.70. For a general presentation of the evidence of copper artefacts and metalworking in EB I-III contexts in Transjordan see Philip 2001, 212-214; Rast - Schaub 2003, chapt. 17; Nigro 2003b.

³³ KB.05.B.146/8, KB.05.B.146/7, KB.05.B.146/30 (pl. XXIX), KB.05.B.146/31.

³⁴ KB.05.B.146/1 (pl. XXIX) and KB.05.B.146/2.

³⁵ KB.05.B.146/3 and KB.05.B.146/15 (pl. XXIX).

³⁶ KB.05.B.79.

³⁷ KB.05.B.77.

W.105, the southern face of the city-wall, because of a regular cut along it (P.143; figs. 4.49-4.50). The latter presumably was practiced when the upper courses of the inner face of the city-wall were restored at the beginning of Phase 3 (Early Bronze IIIB).

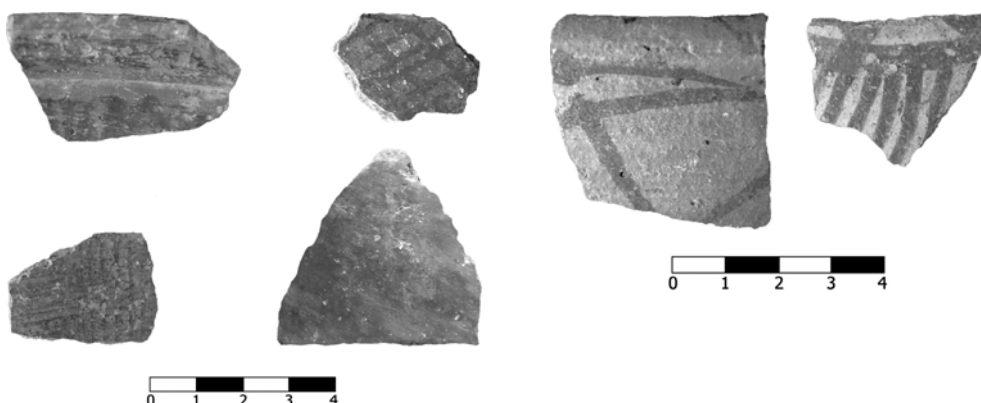


Fig. 4.43 - Fragments of Red Burnished and Red Polished Wares from filling F.146.

Fig. 4.44 - Fragments of Simple Painted Ware from filling F.146.

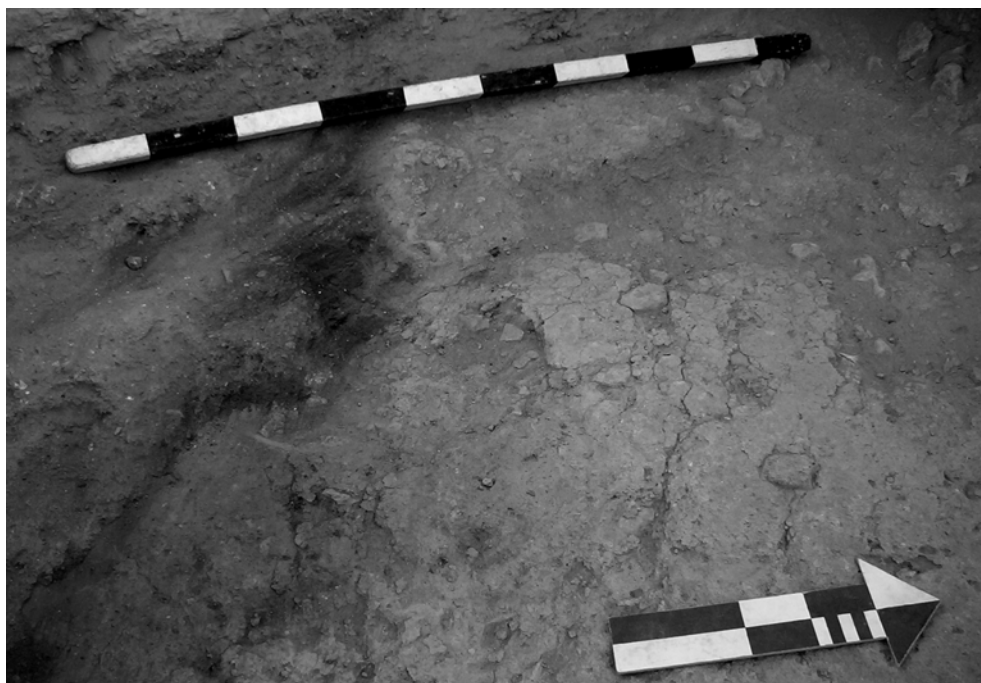
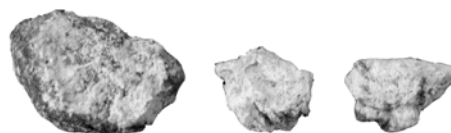


Fig. 4.45 - Stratum of destruction F.146 upon floor L.148.



**Fig. 4.46 - Cananean blade KB.05.B.79
from filling F.146.**



**Fig. 4.47 - Fragment of copper
KB.05.B.77 from filling F.146.**



Fig. 4.48 - Plastered floor L.148 in trench BpII7+ BqII7, from west.



Fig. 4.49 - Cut P.143 along the inner side of city-wall W.105, from west.



Fig. 4.50 - Cut P.143 along the inner side of city-wall W.105, from south-west.

Structures and Fillings Outside the City-Wall: the Western Trench

Structures and deposits outside the city-wall were investigated respectively in trenches BpII6+BqII6 (west) and BrII7+BsII7 (east). Huge heaps of collapsed stones were accumulated against the outer face of the city-wall, perhaps belonging also to other external structures added to the original defensive line. In the western trench BpII6+BqII6, the heap of collapsed stones (F.111) was higher and thicker than inside the city-wall, thus demonstrating that the latter felt down northwards; the largest boulders, fallen from the outer face of the wall, were found at the bottom of the heap, while small and medium size stones were on top. A very thin layer of soil (F.112) was accumulated under the stones and over the floor outside the city-wall, corroborating the observation that it felt abruptly northwards. Beneath F.111 and F.112 there was a floor of beaten earth (L.134), laid upon a thick preparation of limestone chops (F.140; figs. 4.51-4.52)³⁸, which presumably represents one major constructive phase (the last?) of the Batrawy III defences. The building technique of this pavement suggests that it should belong

to a passageway, and, thus, that a further line of defence did exist just to the north in the unexcavated area (this hypothesis is further supported by the observation of the collapse layer of stones on the northern section of the trench).



Fig. 4.51 - Preparation of limestone chops F.140 (Phase 3) in trench BpII6+BqII6, from east.

³⁸ The layer of small limestone chops was exposed for a too restricted area to establish if it actually represented a regularization of collapsed stones from a preceding (Phase 4) destruction, or a preparation for floor L.134.



Fig. 4.52 - Preparation of limestone chops F.140 (Phase 3) in trench BpII6+BqII6, from west.



Fig. 4.53 - Plastered floor L.144 (Phase 4) in trench BpII6+BqII6, from north-west.

Floor preparation F.140 sealed a grey sandy filling (F.138), apparently laid intentionally to fill up the area, which covered a packed stratum of reddish clayish soil (F.142), presumably resulting from the destruction of the outer revetment of the city-wall of Phase 4. This stratum yielded sparse Period Batrawy IIIa ceramic material (pl. XXX), and was laid upon a chalk gritty plastered floor (L.144), lying directly on the bedrock (figs. 4.53-4.54).



Fig. 4.54,a-b - Plastered floor L.144 (Phase 4) lying directly on the bedrock in trench Bp116+Bq116, from west.

Structures and Fillings Outside the City-Wall: the Eastern Trench

The same accumulation of layers of collapse stones and floors was recovered in the eastern trench (BrII7+BslII7), where again a heap of collapsed stones (F.107, F.110) covered the eastern prosecution of floor L.134, laid upon the preparation of limestone chops F.140 (fig. 4.55-4.56). On the northern side of the trench, the accumulation of stones was noticeable, and characterized by the presence of big blocks and boulders.

In the same trench, but on the opposite side of the city-wall against its inner face (W.121a), underneath some collapsed stones, an almost complete storage jar³⁹ was retrieved in a destruction layer named F.116 (Activity 3b).



Fig. 4.55 - Preparation of limestone chops F.140 (Phase 3) in trench BrII7+BslII7, from east.

³⁹ KB.05.B.116/2 (pl. XXVII).



Fig. 4.56 - Preparation of limestone chops F.140 (Phase 3) in trench BrII7+ BsII7, from west.

4.2.3. Layout and Stratigraphy of Batrawy III City-Wall

Excavations in Area B offered a stratigraphic anchorage to the major structure so far uncovered at Khirbet al-Batrawy, i.e. the stone-built city-wall fully encircling the town; and they possibly revealed the location of the main city-gate and of a public building inside the latter (fig. 4.57).

The overall plan and elevation of the city-wall brought to light in Area B show a very massive stone structure, with an articulated layout, including changes in orientation and offsets, depending both on the topography of the *khirbet* and on structural and defensive purposes⁴⁰.



Fig. 4.57 - General view of Area B with Batrawy III fortifications and structures of Phase 3 (inner wall W.109 and silos W.135) excavated in square BqII8, from west.

What at a first glance seems more significant is the inset of the wall in correspondence of a shallow depression in the northern side of the hill, suggesting that here a city-gate was located (fig. 4.58)⁴¹. Excavations have in fact exposed, just outside the city-wall, the flooring of a street presumably approaching an entrance located west of the explored area (this has been surmised because the street ascends from east to west).

The discovery of a major building (B1) inside the city-wall, moreover, may support this hypothesis.

As regards the architecture of the city-wall, its still standing basement and collapsed remains suggest that this structure was at least 6 m high, with

⁴⁰ See above pp. 175-178.

⁴¹ See above pp. 26-27, fig. 1.34.

battering faces and a simple coronation, where wood posts were employed in ceilings and balusters. Such a massive work, around 650 m long, with a varying width of 2.9-3.6 m, represents a major enterprise of the early urban community of Khirbet al-Batrawy. The erection and maintenance of the city-wall was a primary effort of the local government, and made also the site a central place in the Upper Wadi az-Zarqa Valley, assuring cantonal control and urban protection to the inhabitants of this district. Due to the extremely panoramic location of the site, the fortified town was, in fact, visibly at the centre the territory under its control.



Fig. 4.58 - General view of Batrawy III city-wall in Area B and the approaching pathway to the site from the northern saddle, from south-east.

Excavations in Area B confirmed that on the northern side of the town an outer fortification-line did exist, among which the huge rectangular bastion located just east of Area B has to be enlisted⁴², as well as another protruding structure still unexplored around 15 m west of the same area, possibly connected to an outer wall detected on the border of the north-

⁴² See above pp. 26-27, figs. 1.34-1.35.

western cliff (W.307)⁴³. The eastern bastion may be seen as a further indication in favour of a location of the city-gate in Area B, since it projects from the city-wall line, protecting the entrance passage, and contemporarily blocking the access to the eastern half of the site.

Actually, these projecting bastions or buttresses on the northern side of the town are preliminary seen as the last stage of development of the city fortifications, which on this side of the town grew from a single-line solid wall towards an articulated system of juxtaposed structures, thus testifying to an increasing need of defence during Early Bronze Age III, also suggested by the series of destruction layers, some with ashy deposits witnessing terrible conflagrations, which characterize the stratigraphy inside the city-wall. Nevertheless, vertical cracks and reparations visible on the faces of the city-wall, and huge heaps of collapsed stones against it, also point to earthquakes as recurrent events threatening urban achievements in Early Bronze Age Jordan. Whatever it was (a military attack or an earthquake), Khirbet al-Batrawy was crudely destroyed by fire at the end of Period Batrawy IIIB (Early Bronze IIIB), being deserted for a certain while, and then re-occupied in the last quarter of the 3rd millennium BC, as well as some other major EB III centres of Palestine and Transjordan: Tell el-Qadi⁴⁴, Tell Waqqas (Hazor)⁴⁵, Khirbet Kerak⁴⁶, Tell el-Mutesellim (Megiddo)⁴⁷, Tell el-Hosn (Beth Shan)⁴⁸ and Khirbet ez-Zeraqon⁴⁹ to the North; Tell Handaquq South⁵⁰ in the central Jordan Valley; Tell es-Sultan (Jericho)⁵¹, Feqeiques⁵², Lejjun⁵³ and Bab edh-Dhra'⁵⁴ to the South.

⁴³ See above p. 26, fig. 1.33.

⁴⁴ Biran 1994, 44-45.

⁴⁵ Ben-Tor *et al.* 1997, 194.

⁴⁶ Mazar 2006, 114.

⁴⁷ Loud 1948, pls. 8:2-4, 9:12-13, 20, 13:6-7, 15:14, 16, 18, 22, 16:16-18; Dunayevsky - Kempinski 1973, 172-173; Mazar 1992, 153-154.

⁴⁸ Mazar 2006.

⁴⁹ Palumbo 1990, 58.

⁵⁰ Chesson 1998.

⁵¹ Prag 1986, 65; Nigro 2003a; 2006c, 18-24.

⁵² Palumbo 1990, 100-101.

⁵³ Palumbo 1990, 101; Miller ed. 1991, 102-103.

⁵⁴ Rast - Schaub 2003, 398.

LIST OF POTTERY, OBJECTS AND SAMPLES BY CONTEXTS

Area B

Surface

Lithics: 4 Cananean Blades (KB.05.B.17, KB.05.B.20, KB.05.B.27, KB.05.B.39)

Objects: 1 Pierced Shell (KB.05.B.35), 1 Socket Stone (KB.05.B.1)

Plate: XIX

F.102

Pottery: Storage Ware: 21 jars, 4 hole-mouth jars, 1 envelope ledge handle, 65 frags. uns.¹

Cooking Ware: 1 pots, 1 hole-mouth pot, 92 frags. uns.

Simple Ware: 1 bowl, 3 jugs, 7 jars, 76 frags. uns.

Specialized Production: 1 Red Polished fragm., 7 Simple Painted frags.

Lithics: Débitages (KB.05.B.19, KB.05.B.21, KB.05.B.26)

Tools: 1 Grinding Stone (KB.05.B.28)

Samples: Animal Bones (KB.05.B.10, KB.05.B.11, KB.05.B.12)

Plate: XX

F.106

Pottery: Storage Ware: 2 *pithoi*, 7 jars, 2 hole-mouth jars, 58 frags. uns.

Cooking Ware: 2 pots, 29 frags. uns.

Simple Ware: 2 jars, 87 frags. uns.

Specialized Production: 1 Red Polished platter, 3 Simple Painted frags.

Samples: Animal Bones (KB.05.B.33)

Plate: XXII

F.107

Pottery: Storage Ware: 4 frags. uns.

Cooking Ware: 3 frags. uns.

Simple Ware: 10 frags. uns.

Samples: Animal Bones (KB.05.B.18)

F.108

Pottery: Storage Ware: 19 jars, 56 frags. uns.

Cooking Ware: 2 pots, 2 hole-mouth pots, 44 frags. uns.

Simple Ware: 1 bowl, 3 jars, 37 frags. uns.

Lithics: 3 Cananean Blades (KB.05.B.40, KB.05.B.45, KB.05.B.58), 1 Flint Blade (KB.05.B.41)

Tools: 1 Stopper (KB.05.B.44), 2 Spindle Whorls (KB.05.B.60, KB.05.B.72), 1 Grinding Stone (KB.05.B.54)

Samples: Animal Bones (KB.05.B.20, KB.05.B.41, KB.05.B.69)

Plates: XXIII, XXIV

F.110

Pottery: Storage Ware: 1 *pithos*, 4 jars, 1 hole-mouth jar, 16 frags. uns.

Cooking Ware: 7 frags. uns.

Simple Ware: 3 jugs, 2 jars, 24 frags. uns.

Specialized Production: 1 Red Burnished fragm., 3 Red Polished jugs, 1 Simple Painted frags.

Samples: Animal Bones (KB.05.B.53)

Plate: XXVI

F.111

Pottery: Storage Ware: 5 frags. uns.

Cooking Ware: 5 frags. uns.

Simple Ware: 1 *amphoriskos*, 1 jar, 12 frags. uns.

Specialized Production: 1 Red Polished platter, 2 Red Polished jugs

Samples: Animal Bones (KB.05.B.19)

Plate: XXVI

F.112

Pottery: Storage Ware: 1 *pithos*, 4 jars, 41 frags. uns.

Cooking Ware: 33 frags. uns.

Simple Ware: 1 bowl, 2 jugs, 18 frags. uns.

Samples: Animal Bones (KB.05.B.80)

Plate: XXVI

F.115

Pottery: Storage Ware: 2 frags. uns.

Cooking Ware: 2 frags. uns.

Simple Ware: 12 frags. uns.

F.116

Pottery: Storage Ware: 2 jars, 1 fragm. uns.

Cooking Ware: 2 frags. uns.

Simple Ware: 1 jar

Samples: Animal Bones (KB.05.B.31)

Plate: XXVII

W.117

Pottery: Storage Ware: 3 jars, 31 frags. uns.

Cooking Ware: 2 pots, 18 frags. uns.

Simple Ware: 7 frags. uns.

Samples: Animal Bones (KB.05.B.65)

F.118

Pottery: Storage Ware: 3 *pithoi*, 20 jars, 2 hole-mouth jars, 72 frags. uns.

Cooking Ware: 1 hole-mouth pot, 71 frags. uns.

Simple Ware: 1 jug, 2 jars, 79 frags. uns.

Specialized Production: 5 Simple Painted frags.

Samples: Animal Bones (KB.05.B.45)

Plate: XXII

¹ Fragm. = fragment; frags. = fragments; uns. = unselected.

F.120

Pottery: Storage Ware: 3 jars, 5 mouth jars, 1 pushed-up ledge handle, 8 frags. uns.
Cooking Ware: 15 frags. uns.
Simple Ware: 5 jars, 4 frags. uns.
Specialized Production: 3 Red Polished frags., 3 Simple Painted frags.
Tools: 1 Grinding Stone (KB.05.B.47)
Objects: 1 Spindle Whorl (KB.05.B.48)
Samples: Animal Bones (KB.05.B.66, KB.05.B.67, KB.05.B.70, KB.05.B.100)

F.124

Pottery: Storage Ware: 1 *pithos*, 2 hole-mouth jars, 1 pushed-up ledge handle, 22 frags. uns.
Cooking Ware: 1 hole-mouth pot, 21 frags. uns.
Simple Ware: 1 jug, 1 hole-mouth jar, 26 frags. uns.
Specialized Production: 1 Red Polished jug, 1 Simple Painted bowl
Samples: Animal Bones (KB.05.B.78, KB.05.B.79)
Plate: XXVIII

F.125

Pottery: Storage Ware: 1 *pithos*, 1 hole-mouth jar, 3 frags. uns.
Cooking Ware: 1 hole-mouth pot, 5 frags. uns.
Simple Ware: 1 platter, 12 frags. uns.

F.126

Pottery: Storage Ware: 6 jars, 2 hole-mouth jars, 1 pushed-up ledge handle, 91 frags. uns.
Cooking Ware: 48 frags. uns.
Simple Ware: 2 jars, 66 frags. uns.
Specialized Production: 2 Red Polished jugs, 1 Red Burnished platter, 1 Simple Painted bowl
Objects: 1 Spindle Whorl (KB.05.B.59)
Samples: Animal Bones (KB.05.B.68), Charcoal (KB.05.B.55), Seeds (KB.05.B.56)
Plate: XXI

F.128

Pottery: Storage Ware: 5 jars, 2 hole-mouth jars, 2 pushed-up ledge handles, 73 frags. uns.
Cooking Ware: 1 pot, 3 hole-mouth pots, 54 frags. uns.
Simple Ware: 2 jars, 51 frags. uns.
Specialized Production: 3 Simple Painted frags., 1 Red Polished fragm.
Tools: 1 Grinding Stone (KB.05.B.55)
Objects: 1 Clay Animal Figurine (KB.05.B.51), 1 Fragment of Bronze (KB.05.B.65)
Samples: Animal Bones (KB.05.B.64), Charcoal (KB.05.B.54)
Plates: XIX, XXI

F.132

Pottery: Storage Ware: 2 *pithoi*, 18 jars, 2 hole-mouth jars, 2 pushed-up ledge handles, 26 frags. uns.

Cooking Ware: 3 pots, 2 hole-mouth pots, 82 frags. uns.
Simple Ware: 23 frags. uns.
Specialized Production: 1 Simple Painted fragm.

Objects: 1 Stopper (KB.05.B.74)

Samples: Animal Bones (KB.05.B.82, KB.05.B.99)

Plate: XXV

L.133

Pottery: Storage Ware: 1 jar, 1 pushed-up ledge handle, 5 frags. uns.
Cooking Ware: 5 frags. uns.
Simple Ware: 1 jug, 4 frags. uns.
Samples: Animal Bones (KB.05.B.84, KB.05.B.87, KB.05.B.90, KB.05.B.91)

F.136

Pottery: Storage Ware: 1 *pithos*, 1 jar, 1 pushed-up ledge handle, 9 frags. uns.
Cooking Ware: 1 hole-mouth pot, 4 frags. uns.
Simple Ware: 2 jars, 6 frags. uns.
Specialized Production: 2 Simple Painted frags.

Objects: 1 Copper Melting Slag (KB.05.B.70)

Samples: Animal Bones (KB.05.B.86)

Plate: XXVIII

F.140

Pottery: Storage Ware: 2 jars, 2 hole-mouth jars, 1 pushed-up ledge handle, 41 frags. uns.
Cooking Ware: 1 pots, 2 hole-mouth pots
Simple Ware: 1 jar, 42 frags. uns.

Samples: Animal Bones (KB.05.B.95)

Plate: XXX

F.142

Pottery: Storage Ware: 4 jars, 2 hole-mouth jars, 58 frags. uns.
Cooking Ware: 28 frags. uns.
Simple Ware: 1 jug, 54 frags. uns.
Specialized Production: 5 Red Polished jugs

Samples: Animal Bones (KB.05.B.88, KB.05.B.93)

Plate: XXX

F.146

Pottery: Storage Ware: 5 jars, 1 hole-mouth jar, 3 pushed-up ledge handles, 43 frags. uns.
Cooking Ware: 8 hole-mouth pots, 38 frags. uns.
Simple Ware: 4 jugs/juglets, 2 jars, 12 frags. uns.
Specialized Production: 1 Red Polished platter, 3 Red Polished jugs, 1 Red Burnished platter, 1 Red Burnished fragm., 1 Simple Painted bowl, 1 Simple Painted fragm.

Lithics: 1 Cananean Blade (KB.05.B.79)

Objects: Fragments of Copper (KB.05.B.77)

Samples: Animal Bones (KB.05.B.83, KB.05.B.85, KB.05.B.92, KB.05.B.94)

Plate: XXIX

AREA B

CATALOGUE OF POTTERY AND SMALL FINDS

Pl. XIX - Small Finds from Area B

KB.05.B.35, pierced shell. Context: BqII8, Surface. State of preservation: fragmentary. Material: shell. Material colour: 2.5YR8/2 (pinkish white). Diameter: 3.2 cm. Description: shell pierced at the hinge. Dating: EB III. Bibliography: Marchetti - Nigro eds. 2000, 33, fig. 1:42; Nigro 2006c, 14, fig. 16.

KB.05.B.17, Cananean blade. Context: BqII7, Surface. State of preservation: fragmentary. Material: flint. Technique of manufacture: chipped. Material colour: 2.5YR4/1 (dark reddish gray). Height: 4 cm; length: 2.2 cm; width: 0.8 cm. Description: flint blade with trapezoidal section and 2 dorsal ridges. Dating: EB III.

KB.05.B.20, Cananean blade. Context: BpII7+BqII7, Surface. State of preservation: fragmentary. Material: flint. Technique of manufacture: chipped. Material colour: 7.5YR5/3 (brown). Height: 3.5 cm; length: 1.6 cm; width: 0.4 cm. Description: flint blade with trapezoidal section and 2 dorsal ridges. Dating: EB III.

KB.05.B.51, animal figurine (onager). Context: BpII7, F.128. State of preservation: fragmentary. Material: clay. Technique of manufacture: handmade. Height: 5.1 cm; length: 5.8 cm; width: 4 cm. Dating: EB III. Bibliography: for a general comparison with EB clay animal figurines see Loud 1948, pls. 244:2-13, 245:14; de Miroschedji *et al.* 1988, 85, pl. 46:3-13; Amiran *et al.* 1978, pl. 117.

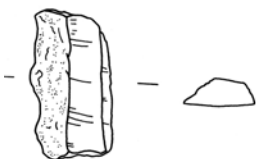
2006

Area B

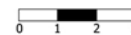
201



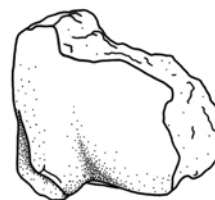
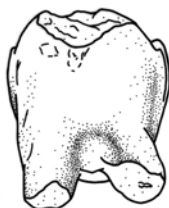
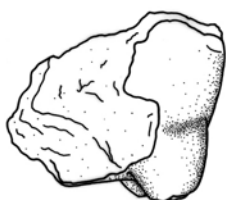
KB.05.B.35 (1:2)



KB.05.B.17 (1:2)



KB.05.B.20 (1:2)



KB.05.B.51 (1:2)



Pl. XX - Pottery from Area B, squares BpII7+BqII7, filling F.102 (Activity 2a)

KB.05.B.102/2. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R5/6 (red). Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: painted (crossing black bands). Wall width: 0.6 cm. Dating: EB III.

KB.05.B.102/10. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R6/3 (pale red). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Decoration: painted (one red band preserved). Wall width: 0.8 cm. Dating: EB III.

KB.05.B.102/11. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R5/3 (weak red). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Decoration: painted (crossing red bands). Wall width: 0.8 cm. Dating: EB III.

KB.05.B.102/13, jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/8 (red). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Diameter: n.r.; rim width: 0.6 cm; wall width: 0.8 cm. Dating: EB III. Bibliography: Kenyon - Holland 1982, fig. 61:5.

KB.05.B.102/12, jar. Class: Simple Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR5/3 (reddish brown). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Surface treatment: outer burnish. Diameter: n.r.; rim width: 0.5 cm; wall width: 0.7 cm. Dating: EB III. Bibliography: Genz 2002, pl. 73:3-4; Kenyon - Holland 1982, fig. 63:40.

KB.05.B.102/15, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R5/8 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: high. Diameter: 13 cm; rim width: 1.3 cm; wall width: 0.8 cm. Dating: EB III.

KB.05.B.102/17, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/2 (pale red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 1.2 cm; wall width: 1.1 cm. Dating: EB III.

KB.05.B.102/18, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR5/2 (pale red). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Diameter: n.r.; rim width: 1.3 cm; wall width: 1.5 cm. Dating: EB III.

KB.05.B.102/19, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR6/1 (reddish gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Diameter: n.r.; rim width: 1.2 cm; wall width: 1 cm. Dating: EB III.

KB.05.B.102/14, jug. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R5/1 (reddish gray). Temper/inclusions: vegetal (straw), mineral; dimension: small; frequency: medium-low. Wall width: 1.1 cm; base width: 6.3 cm. Description: stump base. Dating: EB IIIA.

KB.05.B.102/8, jar. Class: Simple Painted Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R5/B (weak red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Decoration: dribble-painted (red). Wall width: 1 cm; base width: 1.3 cm. Dating: EB III.

KB.05.B.102/23, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR7/1 (light gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Base width: 1.2 cm; wall width: 0.8 cm. Dating: EB III.



KB.05.B.102/2



KB.05.B.102/10



KB.05.B.102/11



KB.05.B.102/13



KB.05.B.102/12



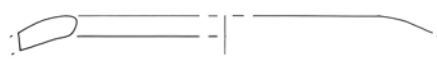
KB.05.B.102/15



KB.05.B.102/17



KB.05.B.102/18



KB.05.B.102/19



KB.05.B.102/14



KB.05.B.102/8



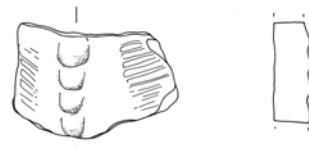
KB.05.B.102/23



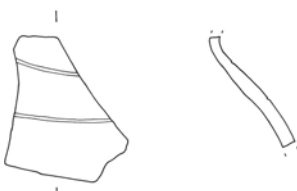
KB.05.B.102/27



KB.05.B.102/31



KB.05.B.102/32



KB.05.B.102/6



KB.05.B.102/20



KB.05.B.102/36

[Pl. XX]

KB.05.B.102/27, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10R5/8 (red). Temper/inclusions: mineral; dimension: small; frequency: medium. Wall width: 0.8 cm. Description: envelope ledge handle. Dating: EB IVB. Bibliography: Amiran 1969, pl. 8:21-22.

KB.05.B.102/31, jar. Class: Simple Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10R4/1 (dark reddish gray). Temper/inclusions: mineral; dimension: medium; frequency: medium. Decoration: incised. Wall width: 1 cm. Dating: EB IVB.

KB.05.B.102/32, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10R7/4 (pale red). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Decoration: outer combed, applied. Wall width: 1.5 cm. Dating: late EB III-early EB IV. Bibliography: Falconer - Magness-Gardiner 1984, fig. 12:8-10; Rast - Schaub 2003, 259, pl. 129:16; Braemer - Echallier 2004, fig. 566:C.604, C.576.

KB.05.B.102/6, jar. Class: Simple Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10R6/8 (light red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Decoration: incised. Wall width: 0.7 cm. Dating: EB IVB.

KB.05.B.102/20, jar. Class: Simple Ware. State of preservation: shoulder. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R7/4 (pale red). Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: incised (outer notched decoration below the neck). Wall width: 0.7 cm. Dating: EB IVB. Bibliography: Oren 1973, figs. 20:12, 21:1,6, 23:6-7; Falconer - Magness-Gardiner 1984, fig. 12:6; Kenyon - Holland 1982, figs. 97:9, 98:5.

KB.05.B.102/36, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/4 (light reddish brown). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Decoration: outer combed. Wall width: 0.8 cm. Dating: EB IVB. Bibliography: Falconer - Magness-Gardiner 1984, fig. 12:15; Olàvarri 1969, pl. IV:2.

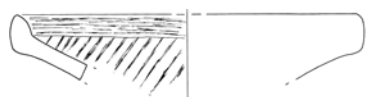
Pl. XXI - Pottery from Area B, squares BpII7+BqII7, fillings F.126 and F.128 (Activity 2d)

KB.05.B.126/3, platter. Class: Red Burnished Ware. State of preservation: rim, wall. Technique of manufacture: wheel. Fabric colour: 2.5YR5/1 (gray). Temper/inclusions: mineral; dimension: small; frequency: low. Surface treatment: inner slip (2.5YR4/4 reddish brown), inner burnish. Diameter: n.r.; rim width: 0.6 cm; wall width: 1 cm. Description: platter with straight walls and upright pointed rim. Dating: EB III. Bibliography: Genz 2002, pls. 10:8, 45:11, 102:6, 111:6.

KB.05.B.126/4, bowl. Class: Simple Painted Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: high. Fabric colour: 2.5YR6/2 (pale red). Temper/inclusions: mineral; dimension: small; frequency: medium. Surface treatment: inner slip (2.5YR4/8 red), inner radial-burnish. Decoration: outer paint (red). Diameter: n.r.; rim width: 0.4 cm; wall width: 0.6 cm. Description: bowl with curved wall and plain rim. Dating: EB III. Bibliography: Daviau 1991, figs. 6.23:19-20; 6.33:2-3, 5-6, 12-13 (for the outer painted decoration); Genz 2002, pl. 21:8, 111:3; Kenyon - Holland 1982, fig. 55:22.

KB.05.B.128/1, jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR4/1 (red)+2.5YR1/2 (weak red). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Diameter: 14 cm; rim width: 0.7 cm; wall width: 0.9 cm. Description: jar with flaring neck and slightly everted pointed rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 59:13.

KB.05.B.128/3, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR5/6 (strong brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-low. Diameter: n.r.; rim width: 1.2 cm; wall width: 0.9 cm. Description: hole-mouth pot with flattened inner ridged rim. Dating: EB III.



KB.05.B.126/3



KB.05.B.126/4



KB.05.B.128/1



KB.05.B.128/3



KB.05.B.128/2



KB.05.B.128/4



KB.05.B.126/6



KB.05.B.126/9



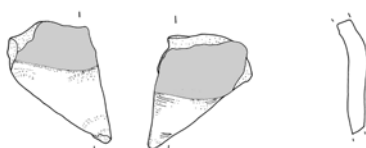
KB.05.B.128/19 a+b



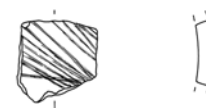
KB.05.B.128/9



KB.05.B.126/14



KB.05.B.128/11



KB.05.B.126/1

[Pl. XXI]

KB.05.B.128/2, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR4/8 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 1.3 cm; wall width: 1 cm. Description: hole-mouth jar with flattened rim. Dating: EB III.

KB.05.B.128/4, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 7.5YR5/6 (strong brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-low. Diameter: n.r.; rim width: 0.9 cm; wall width: 1 cm. Description: hole-mouth pot with flattened rim. Dating: EB III.

KB.05.B.126/6, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR4/2 (dark reddish gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 0.9 cm; wall width: 1 cm. Description: hole-mouth pot with outer ridged rim. Dating: EB III.

KB.05.B.126/9, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR7/2 (pinkish gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-low. Wall width: 0.7 cm; base width: 1 cm. Dating: EB III.

KB.05.B.128/19a+b, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: outer combed. Wall width: 1 cm; base width: 1 cm. Dating: EB III.

KB.05.B.128/9, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5Y/2 (pinkish gray). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium. Wall width: 1.1 cm. Description: pushed-up ledge handle. Dating: EB III. Bibliography: Amiran 1969, pl. 8:16-19.

KB.05.B.126/14. Class: Simple Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R4/8 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Wall width: 1.1 cm. Dating: EB III.

KB.05.B.128/11, jar. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: wheel. Firing: high. Fabric colour: 2.5YR5/1 (gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Surface treatment: inner and outer slip (2.5YR 6/6 light red). Decoration: inner and outer painted (one large red band preserved). Wall width: 1 cm. Dating: EB III.

KB.05.B.126/1. Class: Red Polished Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: high. Fabric colour: 2.5YR6/2 (pale red). Temper/inclusions: mineral; dimension: small; frequency: low. Surface treatment: outer slip (2.5YR5/8 red), outer polish. Wall width: 0.7 cm. Dating: EB III.

Pl. XXII - Pottery from Area B, squares BpII7+BqII7, fillings F.106 and F.118 (Activity 3a)

KB.05.B.106/1, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/1 (gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Diameter: n.r.; rim width: 1.7 cm; wall width: 1.3 cm. Description: *pithos* with everted folded rim. Dating: EB IIIB. Bibliography: Herr 1989, fig. 19.1:14.

KB.05.B.106/5 jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Fabric colour: 10R5/1 (reddish gray). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Diameter: 20 cm; rim width: 1.7 cm; wall width: 2.1 cm. Description: jar with slightly everted rim. Dating: EB IIIB.



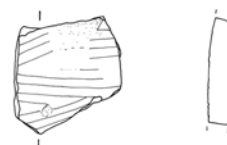
KB.05.B.106/1



KB.05.B.106/5



KB.05.B.106/2



KB.05.B.106/16



KB.05.B.118/1



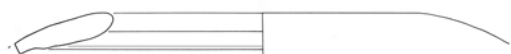
KB.05.B.118/6



KB.05.B.118/7



KB.05.B.118/9



KB.05.B.118/2



KB.05.B.118/3



KB.05.B.118/12



KB.05.B.118/17

[Pl. XXII]

KB.05.B.106/2, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 7.5YR5/1 (pinkish gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Diameter: n.r.; rim width: 0.8 cm; wall width: 1 cm. Description: hole-mouth jar with rounded rim. Dating: EB IIIB.

KB.05.B.106/16, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/1 (reddish gray). Temper/inclusions: mineral; dimension: medium-large; frequency: high. Decoration: outer combed. Wall width: 1 cm. Dating: EB IIIB.

KB.05.B.118/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR7/4 (light reddish brown). Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: incised. Diameter: 6 cm; rim width: 0.4 cm; wall width: 0.5 cm. Description: small jar with pointed rim. Dating: EB IIIB. Genz 2002, pl. 49:16.

KB.05.B.118/6, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR6/4 (light reddish brown). Temper/inclusions: mineral; dimension: medium; frequency: high. Diameter: n.r.; rim width: 0.8 cm; wall width: 0.9 cm. Description: jar with flaring neck and everted rim. Dating: EB IIIB.

KB.05.B.118/7, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: wheel. Firing: medium-high. Fabric colour: 5YR7/3 (pink). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 1.5 cm; wall width: 1.1 cm. Description: *pithos* with everted folded rim. Dating: EB IIIB. Bibliography: Herr 1989, fig. 19.1:14..

KB.05.B.118/9, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR7/4 (light reddish brown). Temper/inclusions: mineral; dimension: small; frequency: high. Diameter: n.r.; rim width: 1.3 cm; wall width: 1 cm. Description: *pithos* with slightly everted thickened rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 61:21.

KB.05.B.118/2, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10R5/1 (reddish gray). Temper/inclusions: mineral; dimension: medium; frequency: medium-high. Diameter: 16 cm ca.; rim width: 1.2 cm; wall width: 0.6 cm. Description: hole-mouth pot with thickened rounded rim. Dating: EB III.

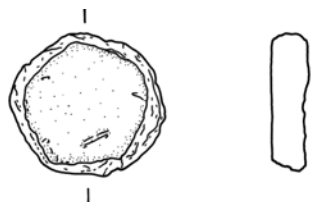
KB.05.B.118/3, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/6 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: 14 cm ca.; rim width: 1.1 cm; wall width: 1.1 cm. Description: hole-mouth jar with flattened rim. Dating: EB III.

KB.05.B.118/12, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/2 (weak red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Decoration: outer combed. Wall width: 1 cm; base width: 1 cm. Dating: EB IIIB.

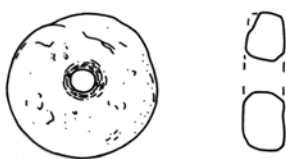
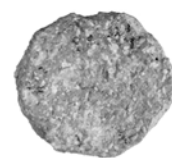
KB.05.B.118/17. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 7.5YR7/4 (pinkish gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Decoration: outer painted (black parallel bands). Wall width: 0.5 cm. Dating: EB III.

Pl. XXIII - Small Finds and Pottery from Area B, square BqII8, filling F.108 (Activity 2b)

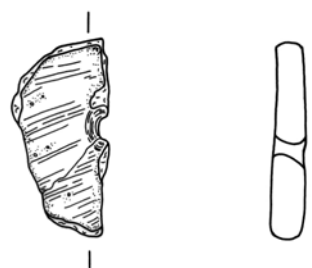
KB.05.B.44, rounded stopper. Context: BqII8, F.108. State of preservation: almost complete. Material: pottery. Technique of manufacture: handmade. Material colour: 2.5YR4/8 (red). Diameter: 4.2 cm; width: 0.8 cm. Bibliography: London 1991, 405-417; Genz 2002, pl. 139:8.



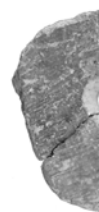
KB.05.B.44 (1:2)



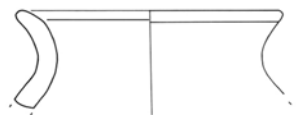
KB.05.B.60 (1:2)



KB.05.B.72 (1:2)



KB.05.B.108/3



KB.05.B.108/1



KB.05.B.108/6



KB.05.B.108/2



KB.05.B.108/4

[Pl. XXIII]

KB.05.B.60, spherical spindle whorl. Context: BqI18, F.108. State of preservation: complete. Material: pottery. Technique of manufacture: handmade. Material colour: 10YR5/1 (gray). Diameter: 4 cm; width: 1 cm.

KB.05.B.72, spindle whorl. Context: BqI18, F.108. State of preservation: half. Material: pottery. Technique of manufacture: handmade. Material colour: 7.5YR5/4 (brown). Diameter: 5.2 cm; width: 0.9 cm. Description: roughly rounded spindle whorl; central hole 0.7 cm of diameter. Bibliography: Genz 2002, pl. 139:4-7, 9-10.

KB.05.B.108/3, bowl. Class: Simple Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10YR6/3 (pale brown). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Diameter: n.r.; rim width: 0.6 cm; wall width: 1.2 cm. Description: shallow bowl with curved walls and pointed rim. Dating: EB II.

KB.05.B.108/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 2.5YR5/8 (red). Temper/inclusions: mineral (gritty basalt); dimension: small; frequency: medium. Diameter: 13 cm; rim width: 0.7 cm; wall width: 0.9-1.1 cm. Description: jar with flaring neck and everted rim. Dating: EB IVB.

KB.05.B.108/6, jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade, wheel. Firing: medium. Fabric colour: 7.5YR7/3 (pink). Temper/inclusions: mineral (gritty limestone); dimension: small; frequency: low. Diameter: 14 cm; rim width: 0.7 cm; wall width: 0.8. Description: jar with flaring neck and everted rim. Dating: EB IVB.

KB.05.B.108/2, hole-mouth jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR7/2 (light gray). Temper/inclusions: mineral (gritty limestone); dimension: medium-small; frequency: low. Diameter: n.r.; rim width: 0.6 cm. Description: hole-mouth jar with rounded rim. Dating: EB IVB.

KB.05.B.108/4, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR6/3 (light brown). Temper/inclusions: mineral; dimension: small; frequency: medium. Diameter: n.r.; rim width: 1.3 cm; wall width: 0.9 cm. Description: hole-mouth pot with flattened slightly recessed rim. Dating: EB IVB.

Pl. XXIV - Pottery from Area B, square BqI18, filling F.108 (Activity 2b)

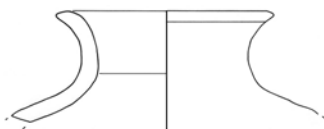
KB.05.B.108/8, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade, wheel. Firing: medium-low. Fabric colour: 7.5YR6/1 (gray). Temper/inclusions: mineral; frequency: medium-high. Diameter: 10 cm; rim width: 0.7 cm. Description: jar with flaring neck and everted rim. Dating: EB IVB.

KB.05.B.108/10, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/4 (light reddish brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-low. Decoration: outer combed. Diameter: 18 cm; rim width: 1 cm; wall width: 0.8-1 cm. Description: hole-mouth jar with flattened rim. Dating: EB IVB. Bibliography: Olàvarri 1969, pl. IV:2, for the combed decoration.

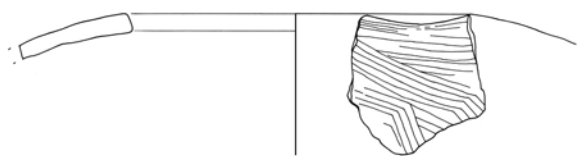
KB.05.B.108/13, jar. Class: Storage Ware. State of preservation: base. Technique of manufacture: handmade. Firing: low. Fabric colour: 2.5YR5/6 (red)+2.5YR6/0 (gray). Temper/inclusions: mineral; dimension: medium; frequency: low. Wall width: 0.8 cm; base width: 1.1 cm. Dating: EB IVB.

KB.05.B.108/23, pot. Class: Cooking Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 7.5YR5/2 (brown). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Dating: EB IVB.

KB.05.B.108/19, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR7/6 (yellow). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.5 cm. Dating: EB IVB. Bibliography: Falconer - Magness-Gardiner 1984, fig. 12:9-10.



KB.05.B.108/8



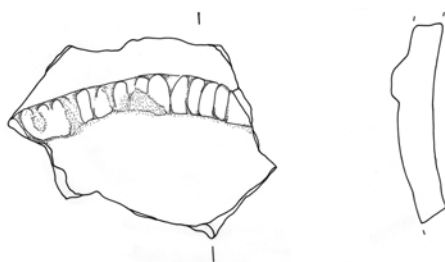
KB.05.B.108/10



KB.05.B.108/13



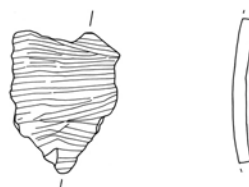
KB.05.B.108/23



KB.05.B.108/19



KB.05.B.108/25



KB.05.B.108/26

[Pl. XXIV]

KB.05.B.108/25, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade, wheel. Firing: medium-high. Fabric colour: 2.5YR4/0 (dark gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-low. Decoration: applied (rope decoration). Wall width: 1.6 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. V:4.

KB.05.B.108/26, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR5/1 (gray). Temper/inclusions: vegetal; dimension: small; frequency: low. Decoration: outer combed. Wall width: 1 cm. Dating: EB IVB. Bibliography: Olavarri 1969, pl. IV:2.

Pl. XXV - Pottery from Area B, square BqII8, filling F.132 (Activity 3b)

KB.05.B.132/4, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade, wheel. Firing: medium. Fabric colour: 5YR6/6 (reddish yellow)+7.5YR6/8 (reddish yellow). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium-low. Decoration: incised. Diameter: 12 cm; rim width: 0.6 cm; wall width: 0.7 cm. Description: jar with flaring neck and slightly everted rim. Dating: EB IIIB. Bibliography: Genz 2002, pl. 38:1.

KB.05.B.132/5, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade, wheel. Firing: medium-high. Fabric colour: 2.5YR6/1 (gray). Temper/inclusions: mineral; dimension: medium-large; frequency: medium-low. Diameter: n.r.; rim width: 0.5 cm; wall width: 0.7 cm. Description: jar with flaring neck and everted pointed rim. Dating: EB IIIB.

KB.05.B.132/1, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade, wheel. Firing: medium-low. Fabric colour: 7.5YR7/4 (pink)+7.5YR7/1 (light gray). Temper/inclusions: mineral; dimension: large; frequency: high. Surface treatment: outer slip (10YR4/8 red). Diameter: 20 cm; rim width: 1.5 cm; wall width: 1.3 cm. Description: jar with slightly everted folded rim. Dating: EB IIIB.

KB.05.B.132/2, jar. Class: Storage Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Fabric colour: 5YR6/1 (gray). Temper/inclusions: mineral. Diameter: 20 cm; rim width: 1.3 cm; wall width: 1.4 cm. Description: jar with triangular everted rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 62:17.

KB.05.B.132/6, hole-mouth jar. Class: Storage Ware. State of preservation: rim, neck, shoulder. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YR5/1 (gray)+5YR5/6 (yellowish red). Temper/inclusions: mineral (white grits); dimension: medium, medium-small; frequency: medium-high. Diameter: n.r.; rim width: 0.4 cm; wall width: 0.8 cm. Description: jar with short neck and everted pointed rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 67:7.

KB.05.B.132/7, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: low. Fabric colour: 10YR7/3 (very pale brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Diameter: n.r.; rim width: 1 cm; wall width: 1 cm. Description: hole-mouth pot with flattened rim. Dating: EB IIIB.

KB.05.B.132/12, pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/2 (reddish gray). Temper/inclusions: mineral; dimension: medium, large; frequency: medium-high. Diameter: n.r.; rim width: 0.8 cm. Description: hole-mouth pot with rounded rim. Dating: EB IIIB.

KB.05.B.132/14, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Fabric colour: 2.5YR6/1 (reddish gray). Temper/inclusions: mineral; dimension: medium; frequency: medium-low. Surface treatment: slip (cream). Wall width: 0.6 cm. Description: pushed-up ledge handle. Dating: EB II. Bibliography: Palumbo *et al.* 1996, fig. 34:11-12.

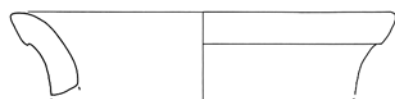
KB.05.B.132/15, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5 YR 6/6 (light red)+2.5YR5/6 (red). Temper/inclusions: mineral; dimension: medium, large; frequency: medium-low. Wall width: 0.7 cm. Dating: EB IIIB.



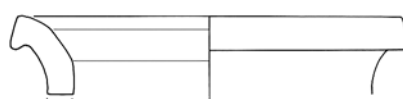
KB.05.B.132/4



KB.05.B.132/5



KB.05.B.132/1



KB.05.B.132/2



KB.05.B.132/6



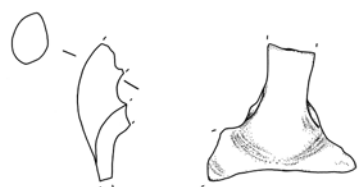
KB.05.B.132/7



KB.05.B.132/12



KB.05.B.132/14



KB.05.B.132/15



KB.05.B.132/13



KB.05.B.132/20



KB.05.B.132/17



KB.05.B.132/18

[Pl. XXV]

KB.05.B.132/13. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR8/2 (pinkish white). Temper/inclusions: mineral, vegetal; dimension: medium-small; frequency: medium-high. Surface treatment: slip (white). Decoration: painted (10R4/3 weak red). Wall width: 0.8 cm. Dating: EB IIIB.

KB.05.B.132/20, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR4/8 (red)+10YR6/1 (gray). Temper/inclusions: mineral; dimension: medium-large; frequency: medium-low. Decoration: applied (rope decoration). Wall width: 1.1 cm. Dating: EB IIIB.

KB.05.B.132/17, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10YR6/1 (gray). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Decoration: applied (rope decoration). Wall width: 1.3 cm. Dating: EB IIIB.

KB.05.B.132/18, jar. Class: Storage Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR7/1 (light reddish gray)+10R6/6 (light red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium. Decoration: applied (rope decoration). Wall width: 1 cm. Dating: EB IIIB.

Pl. XXVI - Pottery from Area B, squares BpII6+BqII6 and BrII7+BsII7, fillings F.110, F.111 (Activity 3a), F.112 (Activity 3b)

KB.05.B.111/2, platter. Class: Red Polished Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/2 (reddish gray). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Surface treatment: inner slip (red), inner polish. Diameter: 26 cm; rim width: 0.7 cm; wall width: 0.9 cm. Dating: EB IIIB. Bibliography: Genz 2002: pls. 45:6, 58:2, 103:9, 136:4; Kenyon - Holland 1982, fig. 49:23.

KB.05.B.112/1, bowl. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR6/2 (pinkish gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 0.6 cm; wall width: 1 cm. Dating: EB III. Bibliography: Genz 2002, pl. 43:4.

KB.05.B.110/1, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 5YR4/1 (dark gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Diameter: 8 cm; rim width: 0.5 cm; wall width: 0.5 cm. Dating: EB III.

KB.05.B.111/1, *amphoriskos*. Class: Simple Ware. State of preservation: handle, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 10R4/1 (dark reddish gray). Temper/inclusions: mineral; dimension: medium-small; frequency: high. Wall width: 0.6 cm. Dating: EB II.

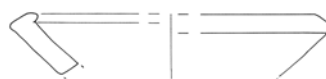
KB.05.B.112/2, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10R5/8 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 1.2 cm. Description: *pithos* with everted thickened rim. Dating: EB IIIB. Bibliography: Herr 1989, fig. 19.1:14.

KB.05.B.110/2, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 6R5/8 (red). Temper/inclusions: mineral; dimension: medium; frequency: high. Diameter: n.r.; rim width: 1.4 cm; wall width: 1.2 cm. Description: *pithos* with everted rim. Dating: EB IIIB. Bibliography: Kenyon - Holland 1982, fig. 62:17.

KB.05.B.112/3, jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5Y5/4 (reddish brown). Temper/inclusions: mineral; dimension: medium-small; frequency: high. Diameter: 22 cm; rim width: 1.7 cm; wall width: 1.3 cm. Description: jar with squared everted rim. Dating: EB IIIB. Bibliography: Herr 1989, fig. 19.1:15.



KB.05.B.111/2



KB.05.B.112/1



KB.05.B.110/1



KB.05.B.111/1



KB.05.B.112/2



KB.05.B.110/2



KB.05.B.112/3



KB.05.B.110/10



KB.05.B.111/3



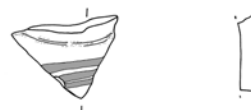
KB.05.B.112/6



KB.05.B.112/7



KB.05.B.110/11



KB.05.B.110/5

[Pl. XXVI]

KB.05.B.110/10, jug. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.3YR5/8 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Wall width: 0.8 cm; base width: 0.6 cm. Dating: EB III.

KB.05.B.111/3, jar. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10R6/2 (pale red). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Wall width: 0.6 cm; base width: 0.8 cm. Dating: EB III.

KB.05.B.112/6, jug. Class: Simple Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR4/1 (dark gray). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Wall width: 0.7 cm. Dating: EB III.

KB.05.B.112/7, jug. Class: Simple Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR3/2 (dark reddish brown). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Wall width: 0.7 cm. Dating: EB III.

KB.05.B.110/11, jug. Class: Simple Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR5/8 (red). Temper/inclusions: mineral; dimension: medium-small; frequency: high. Wall width: 1 cm. Dating: EB III.

KB.05.B.110/5, jar. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium. Fabric colour: 5YR6/2 (pale red). Temper/inclusions: mineral; dimension: small; frequency: low. Decoration: outer painted (parallel dark reddish bands). Wall width: 0.9 cm. Dating: EB III.

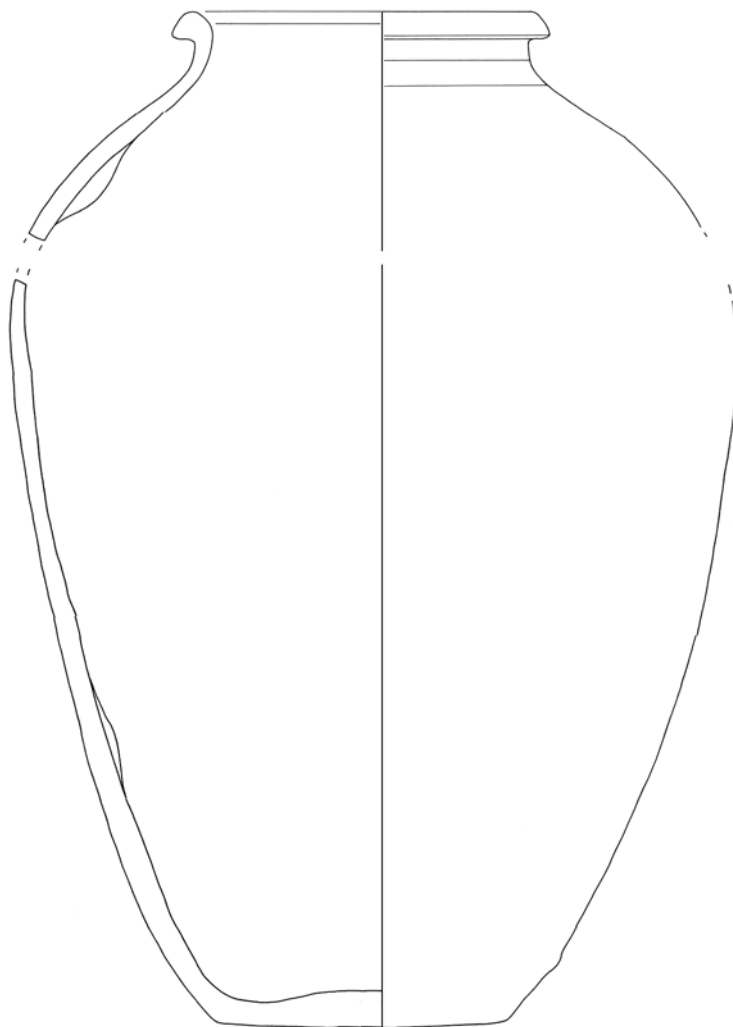
Pl. XXVII - Pottery from Area B, squares BrII7+BslI7, filling F.116 (Activity 3b)

KB.05.B.116/3, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: hand. Firing: medium. Fabric colour: 10R6/1 (reddish gray). Temper/inclusions: mineral; dimension: small; frequency: medium. Diameter: n.r.; rim width: 0.6 cm; wall width: 0.8 cm. Dating: EB IIIB. Bibliography: Daviau 1991, fig. .6.22:8; Genz 2002, pl. 49:2.

KB.05.B.116/2, jar. Class: Storage Ware. State of preservation: complete. Technique of manufacture: wheel. Firing: medium. Fabric colour: 7.5YR6/4 (light brown). Temper/inclusions: mineral (gritty limestone), vegetal; dimension: medium-large; frequency: medium. Diameter: 18.2 cm; rim width: 1.8 cm; wall width: 0.7-1.5 cm. Description: jar with flat base, short flaring neck and everted rim with triangular section. Dating: EB IIIB.



KB.05.B.116/3



KB.05.B.116/2

Pl. XXVIII - Pottery from Area B, squares BpII7+BqII7, fillings F.124 (Activity 3b) and F.136 (Activity 4a)

KB.05.B.124/1, bowl. Class: Simple Painted Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10R5/2 (weak red). Temper/inclusions: mineral; dimension: small; frequency: low. Decoration: outer painted (one red line preserved). Diameter: n.r.; rim width: 1.3 cm; wall width: 0.7 cm. Description: bowl with straight walls and flat inturned rim. Dating: EB III. Bibliography: Genz 2002, pls. 43:4, 77:8; Harrison 2000, fig. 5.22:9.

KB.05.B.124/3, hole-mouth jar. Class: Simple Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10R5/3 (weak red). Temper/inclusions: mineral; dimension: medium-small; frequency: low. Decoration: incised (outer vertical notches around the rim). Diameter: n.r.; rim width: 0.8 cm; wall width: 0.7 cm. Description: hole-mouth jar with flattened slightly inner folded rim. Dating: EB III. Bibliography: Daviau 1991, fig. 6..31:21, 24; Harrison 2000, fig. 5.19:19, 5.23:15, 16.

KB.05.B.124/4, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR4/8 (red). Temper/inclusions: mineral; dimension: medium, large; frequency: medium-high. Diameter: n.r.; rim width: 1 cm; wall width: 1.2 cm. Description: hole-mouth jar with flattened rim. Dating: EB III.

KB.05.B.124/6, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR5/4 (reddish brown). Temper/inclusions: mineral; dimension: medium-large; frequency: high. Diameter: 14 cm ca.; rim width: 1 cm; wall width: 0.7 cm. Description: hole-mouth pot with rounded thickened rim. Dating: EB III.

KB.05.B.124/7, jug. Class: Simple Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 7.5YR7/2 (pinkish gray). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Wall width: 0.8 cm. Dating: EB III.

KB.05.B.136/1. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR 4/8 (red). Temper/inclusions: mineral, vegetal; dimension: small; frequency: low. Decoration: outer painted (red crossing bands). Wall width: 0.6 cm. Dating: EB III.

KB.05.B.136/2. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: high. Fabric colour: 5YR6/3 (light reddish brown). Temper/inclusions: mineral, vegetal; dimension: small; frequency: low. Decoration: outer painted. Wall width: 0.5 cm. Dating: EB III.

KB.05.B.136/3, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium. Fabric colour: 10R5/8 (red)+10R4/1 (dark reddish gray). Temper/inclusions: mineral; dimension: small; frequency: medium-high. Diameter: n.r.; rim width: 0.7 cm; wall width: 0.9 cm. Description: small jar with flaring neck and everted rim. Dating: EB III. Bibliography: Daviau 1991, fig. .6.22:6.

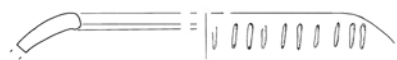
KB.05.B.136/5, *pithos*. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 7.5YRN/5 (gray). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: 24 cm ca.; rim width: 1.8 cm; wall width: 1 cm. Description: *pithos* with everted rim of triangular section. Dating: EB III. Bibliography: Kenyon - Holland 1982, fig. 62:17.

KB.05.B.136/4, hole-mouth pot. Class: Cooking Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR3/4 (dark reddish brown). Temper/inclusions: mineral; dimension: medium-small; frequency: medium-high. Diameter: n.r.; rim width: 1 cm; wall width: 0.8 cm. Description: hole-mouth pot with rounded rim. Dating: EB III.

KB.05.B.136/6, jar. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 10R6/8 (light red). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium-low. Surface treatment: outer slip (10R5/8 red). Base width: 1 cm. Dating: EB III.



KB.05.B.124/1



KB.05.B.124/3



KB.05.B.124/4



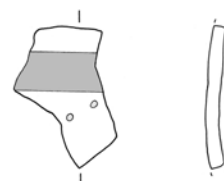
KB.05.B.124/6



KB.05.B.124/7



KB.05.B.136/1



KB.05.B.136/2



KB.05.B.136/3



KB.05.B.136/5



KB.05.B.136/4



KB.05.B.136/6

Pl. XXIX - Pottery from Area B, squares BpII7+BqII7, filling F.146 (Activity 4a)

KB.05.B.146/1. Class: Red Burnished Ware. State of preservation: wall. Technique of manufacture: wheel. Firing: medium. Fabric colour: 7.5YR5/1 (gray). Temper/inclusions: mineral, vegetal; dimension: small; frequency: medium-low. Surface treatment: outer slip (2.5YR4/2 weak red). Decoration: outer net-burnish. Wall width: 0.8 cm. Dating: EB IIIA.

KB.05.B.146/3. Class: Simple Painted Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR7/8 (light red). Surface treatment: outer slip (7.5YR7/3 pink). Decoration: outer painted (10R4/6 red). Wall width: 0.7 cm. Dating: EB IIIA.

KB.05.B.146/8, platter. Class: Red Polished Ware. State of preservation: rim. Technique of manufacture: wheel. Firing: medium. Fabric colour: 2 FOR GLEY5/5PB (bluish gray). Temper/inclusions: mineral (white grits), vegetal; dimension: small, medium-small; frequency: medium. Surface treatment: inner slip (2.5YR6/6 light red), inner polish. Diameter: n.r.; rim width: 0.6-1.2 cm; wall width: 0.9 cm. Description: platter with inturned pointed rim with triangular section. Dating: EB IIIA. Bibliography: Kenyon - Holland 1982, fig. 49:19.

KB.05.B.146/15, bowl. Class: Simple Painted Ware. State of preservation: rim. Technique of manufacture: wheel. Firing: medium-low. Fabric colour: 10R5/6 (red). Temper/inclusions: mineral, vegetal; dimension: small, medium; frequency: medium-high. Decoration: outer painted (2.5YR5/4 reddish brown). Diameter: n.r.; rim width: 0.7 cm; wall width: 0.7 cm. Description: bowl with inturned walls and inturned rim. Dating: EB IIIA. Bibliography: Genz 2002, pls. 1:5, 34:1, 42:2, 119:4.

KB.05.B.146/4, jar. Class: Simple Ware. State of preservation: rim, neck. Technique of manufacture: wheel. Firing: medium-high. Fabric colour: 7.5YR7/4 (pink)+2.5Y6/1 (gray). Surface treatment: outer slip (2.5YR4/6 red). Diameter: 11 cm; rim width: 0.8 cm; wall width: 1 cm. Description: jar with flaring neck and squared rim. Dating: EB IIIA. Bibliography: Genz 2002, pl. 135:10.

KB.05.B.146/5, juglet. Class: Simple Ware. State of preservation: wall, base. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR6/8 (light red). Wall width: 0.5 cm; base width: 0.9 cm. Dating: EB IIIA.

KB.05.B.146/6, juglet. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 7.5YR6/6 (reddish yellow). Temper/inclusions: mineral; dimension: small; frequency: medium-low. Wall width: 0.7 cm; base width: 0.6 cm. Dating: EB IIIA. Bibliography: Daviau 1991, fig. 6.24:10.

KB.05.B.146/7, jug. Class: Red Polished Ware. State of preservation: base. Technique of manufacture: wheel. Firing: medium. Fabric colour: 1 FOR GLEY5/N (gray). Temper/inclusions: mineral; dimension: small, medium-small; frequency: medium. Surface treatment: outer slip (5YR4/3 reddish brown), outer polish. Wall width: 1.1 cm; base width: 0.8 cm. Dating: EB IIIA.

KB.05.B.146/24, juglet. Class: Simple Ware. State of preservation: base. Technique of manufacture: handmade. Firing: medium. Fabric colour: 10YR8/3 (very pale brown). Temper/inclusions: mineral; dimension: medium; frequency: medium. Surface treatment: outer slip (5YR5/4 reddish brown). Wall width: 1 cm; base width: 1.1 cm. Dating: EB IIIA. Bibliography: Harrison 1997b, fig. 5.10:3.

KB.05.B.146/26, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2 FOR GLAY5/1 (bluish gray). Temper/inclusions: mineral, vegetal; dimension: small, medium; frequency: medium. Dating: EB IIIA.

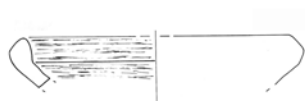
KB.05.B.146/30, jug. Class: Red Polished Ware. State of preservation: wall. Technique of manufacture: handmade. Firing: high. Fabric colour: 2 FOR GLEY6/1 (bluish gray). Temper/inclusions: mineral, vegetal; dimension: small, medium; frequency: medium. Surface treatment: outer slip (2.5YR4/4 reddish brown), outer polish. Wall width: 0.80 cm. Dating: EB IIIA.



KB.05.B.146/1



KB.05.B.146/3



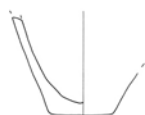
KB.05.B.146/8



KB.05.B.146/15



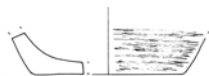
KB.05.B.146/4



KB.05.B.146/5



KB.05.B.146/6



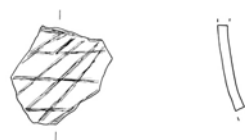
KB.05.B.146/7



KB.05.B.146/24



KB.05.B.146/26



KB.05.B.146/30

Pl. XXX - Pottery from Area B, squares BpII6+BqII6, filling F.140 (Activity 3c) and filling F.142 (Activity 4a)

KB.05.B.140/5, hole-mouth jar. Class: Storage Ware. State of preservation: rim, wall. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/2 (weak red). Temper/inclusions: mineral; dimension: medium-small; frequency: high. Diameter: 17 cm; rim width: 1.2 cm; wall width: 0.9 cm. Description: hole-mouth jar with flattened thickened rim. Dating: EB III.

KB.05.B.140/3, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium. Fabric colour: 2.5YR6/8 (light red). Temper/inclusions: mineral; dimension: medium-large; frequency: high. Diameter: 20 cm; rim width: 1.5 cm. Description: hole-mouth jar with flattened thickened rim. Dating: EB III.

KB.05.B.140/7, jar. Class: Storage Ware. State of preservation: base, wall. Technique of manufacture: handmade. Firing: medium-high. Fabric colour: 2.5YR5/8 (red)+2.5YRN/4 (dark gray). Temper/inclusions: mineral; dimension: medium-small; frequency: high. Wall width: 1.3 cm; base width: 1.8 cm. Dating: EB III.

KB.05.B.140/9, jar. Class: Storage Ware. State of preservation: handle. Technique of manufacture: handmade. Firing: low. Temper/inclusions: mineral; dimension: small. Description: pushed-up ledge handle. Dating: EB III. Bibliography: Amiran 1969, pl. 8:16-19.

KB.05.B.142/7, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 2.5YR5/8 (red). Temper/inclusions: mineral; dimension: medium-large; frequency: high. Surface treatment: outer slip (7.5YR7/6 reddish yellow). Diameter: n.r.; rim width: 1 cm; wall width: 1.1 cm. Description: hole-mouth jar with flattened rim. Dating: EB III.

KB.05.B.142/8, hole-mouth jar. Class: Storage Ware. State of preservation: rim. Technique of manufacture: handmade. Firing: medium-low. Fabric colour: 5YR6/4 (light reddish brown). Temper/inclusions: mineral; dimension: medium-large; frequency: high. Diameter: n.r.; rim width: 0.9 cm; wall width: 1.2 cm. Description: hole-mouth jar with pointed rim. Dating: EB III.



KB.05.B.140/5



KB.05.B.140/3



KB.05.B.140/7



KB.05.B.140/9



KB.05.B.142/7



KB.05.B.142/8

Bibliography

- AMIRAN, R.
 1969 *Ancient Pottery of the Holy Land*, Jerusalem 1969.
 1970 "The Beginnings of Urbanization in Canaan", in J.A. SANDER (ed.), *Near Eastern Archaeology in the Twentieth Century: Essays in Honor of Nelson Glueck*, Garden City, NY 1970, pp. 83-100.
- AMIRAN, R. *et al.*
 1978 *Early Arad. The Chalcolithic Settlement and Early Bronze City. I. First - Fifth Seasons of Excavations, 1962-1966* (Judean Desert Studies), Jerusalem 1978.
- AMIRAN, R. - ILAN, O.
 1996 *Early Arad. The Chalcolithic and Early Bronze IB Settlements and the Early Bronze II City: Architecture and Town Planning. II. Sixth to Eighteenth Seasons of Excavations, 1971-1978, 1980-1984* (Judean Desert Studies), Jerusalem 1996.
- BARTL, K. - AL-KHRAYSHEH, F. - EICHMANN, R.
 2001 "Palaeoenvironmental and Archaeological Studies in the Khanasiri Region/Northern Jordan. Preliminary Results of the Archaeological Survey 1999", in *Annual of the Department of Antiquities of Jordan* 45 (2001), pp. 119-134.
- BEN-TOR, A. *et al.*
 1997 *Hazor V. An Account of the Fifth Season of Excavation, 1968*, Jerusalem 1997.
- BIRAN, A.
 1994 *Biblical Dan*, Jerusalem 1994.
- BRAEMER, F. - ÉCHALLIER, J.-CL.
 2004 "Biens manufacturés: production et évolution des réseaux d'échange. B. Le matériel céramique", in F. BRAEMER - J.-CL. ÉCHALLIER - A. TARAQJI (eds.), *Khirbet al Umbashi. Villages et campements de pasteurs dans le "desert noir" (Syrie) à l'âge du Bronze. Travaux de la mission conjointe franco-syrienne 1991-1996* (Bibliothèque Archéologique et Historique - T. 171), Beyrouth 2004, pp. 296-335.
- BRAUN, E.
 1989 "Me'ona", in *Israel Exploration Journal* 39 (1989), pp. 96-98.
- CALLAWAY, J.A.
 1980a "Die Grabungen in Ai (et-Tell) 1964-1972", in *Antike Welt* 11 (1980), pp. 38-47.
 1980b *The Early Bronze Age Citadel and Lower City at Ai (et-Tell). Report of the Joint Archaeological Expedition at Ai (et-Tell). No. II* (ASOR Excavations Reports), Cambridge Mass. 1980.
- CANEVA, I. *et al.*
 2001 "The Wadi Az-Zarqa/Wadi Ad-Dulayl Archaeological Project. Report on the 1997 and 1999 Fieldwork Seasons", in *Annual of the Department of Antiquities of Jordan* 45 (2001), pp. 83-117.
- CHESSON, M.S.
 1998 "Preliminary Results of Excavations at Tell-el-Handaqq South (1993-1996)", in *Palestine Exploration Quarterly* 130 (1998), pp. 20-34.
- CHESSON, M.S. *et al.*

- 1995 "Tell es-Sukhne North: An Early Bronze Age II Site in Jordan", *Paléorient* 21/1 (1995), pp. 113-123.
- CLEVELAND, L.
1960 "The Excavation of the Conway High Place (Petra) and Soundings at Khirbet Ader", in *Annual of the American Schools of Oriental Research* XXXIV-XXXV for 1954-1956 (1960), Part II, pp. 53-97.
- DAVIAU, P.M.M.
1991 "Field D: The Lower Southern Terrace", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 2: The 1987 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1991, pp. 87-155.
- DUNAYEVSKY, I. - KEMPINSKI, A.
1973 "The Megiddo Temples", in *Zeitschrift des Deutschen Palästina Vereins* 89 (1973), pp. 161-187.
- ESSE, D.L.
1991 *Subsistence, Trade and Social Change in Early Bronze Age Palestine* (Studies in Ancient Oriental Civilizations 50), Chicago 1991.
- FALCONER, S.
1994 "The Development and Decline of Bronze Age Civilization in the Southern Levant: A Reassessment of Urbanism and Ruralism", in C. MATHERS - S. STODDART (eds.), *Development and Decline in the Mediterranean Bronze Age* (Sheffield Archaeological Monographs 8), Sheffield 1994, pp. 305-333.
- FALCONER, S.E. - MAGNESS-GARDINER, B.
1984 "Preliminary Report of the First Season of the Tell el-Hayyat Project", in *Bulletin of the American Schools of Oriental Research* 255 (1984), pp. 49-74.
- FINKELSTEIN, I. - GOPHNA, R.
1993 "Settlement, Demographic, and Economic Patterns in the Highland of Palestine in the Chalcolithic and Early Bronze Periods and the Beginning of Urbanism", in *Bulletin of the American Schools of Oriental Research* 289 (1993), pp. 1-22.
- FISHER, P.M.
2000 "The Early Bronze Age at Tell Abu al-Kharaz, Jordan Valley: A Study of Pottery Typology and Provenance, Radiocarbon Dates, and the Synchronization of Palestine and Egypt During Dynasty 0-2", in G. PHILIP - D. BAIRD (eds.), *Ceramics and Change in the Early Bronze Age of Southern Levant* (Levantine Archaeology 2), Sheffield 2000, pp. 201-232.
- GENZ, H.
2002 *Die frühbronzezeitliche Keramik von Khirbet ez-Zeraqon* (Abhandlungen des Deutschen Palästina-Vereins, Band 27,2), Wiesbaden 2002.
- GLUECK, N.
1939 *Exploration in Eastern Palestine, III* (Annual of the American Schools of Oriental Research XVIII-XIX), New Haven 1939.
1951 *Explorations in Eastern Palestine, IV* (Annual of the American Schools of Oriental Research XXV-XXVIII for 1945-1949), New Haven 1951.
- GOPHNA, R. - PORTUGALI, J.
1988 "Settlement and Demographic Processes in Israel's Coastal Plain from the Chalcolithic to the Middle Bronze Age", in *Bulletin of the American Schools of Oriental Research* 269 (1988), pp. 11-28.
- GORDON, R. - KNAUF, E.A.

- 1987 "Er-Rumman Survey 1985", in *Annual of the Department of Antiquities of Jordan* 31 (1987), pp. 289-298.
- GREENBERG, R.
2000 "Changes in Ceramic Production between Early Bronze Age II and III in Northern Israel, Based on Pottery of Tel Hazor and Tel Dan", in G. PHILIP - D. BAIRD (eds.), *Ceramics and Change in the Early Bronze Age of Southern Levant* (Levantine Archaeology 2), Sheffield 2000, pp. 183-200.
- HAIMAN, M.
1992 "Cairn Burials and Cairn Fields in the Negev", in *Bulletin of the American Schools of Oriental Research* 287 (1992), pp. 25-45.
- HANBURY-TENISON, J.W.
1987 "Jarash Region Survey 1984", in *Annual of the Department of Antiquities of Jordan* 31 (1987), pp. 129-157.
- HARRISON, T.P.
1997a "Shifting Patterns of Settlement in the Highland of Central Jordan during the Early Bronze Age", in *Bulletin of the American Schools of Oriental Research* 306 (1997), pp. 1-37.
1997b "Field D: The Lower Southern Terrace", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 3: The 1989 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1997, pp. 99-175.
2000 "Field D: The Lower Southern Terrace", in D.R. CLARK - L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 4: The 1992 Season at Tell el-'Umayri and Subsequent Studies*, Berrien Springs, MI 2000, pp. 95-154.
- HERR, L.G.
1989 "The Pottery", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 1: The 1984 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1989, pp. 299-354.
1991 "Pottery Typology and Chronology", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 2: The 1987 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1991, pp. 232-245.
- IBRAHIM, M.M. - DOUGLAS, K.
2004 "The Early Bronze Age Town of Khirbet ez-Zeraqon: Excavations, preservation and site management", in T.S. AKHASHEH (ed.), *First International Conference on Science and Technology in Archaeology and Conservation (August 12th-17th 2002, Jordan)*, Granada 2004, pp. 367-381.
- IBRAHIM, M.M. *et al.*
1976 "The East Jordan Valley Survey", in *Bulletin of the American Schools of Oriental Research* 222 (1976), pp. 41-46.
- INFRANCA, G.C.
1999 *Manuale di Restauro Archeologico*, Roma 1999.
- KAFABI, Z.
in press "Early Bronze Age I Settlers and Transhumance in the Wadi az-Zarqa Basin: Stations on the Way from the Jordan Valley to the Badia Region", in J.-CL. MARGUERON - P. DE MIROSCHEDJI - J.-P. THALMANN (eds.), *Proceedings of the Third International Congress on the Archaeology of the Ancient Near East, Paris 2002*, Paris in press.

KAFABI, Z. *et al.*

- 2000 "The Zarqa Valley in Jordan from Lower Paleolithic to Recent Times: Results of the 1993-1997 Campaigns", in P. MATTHIAE - A. ENEA - L. PEYRONEL - F. PINNOCK (eds.), *Proceedings of the First International Congress on the Archaeology of the Ancient Near East, Rome, May 18th-23rd 1998*, Rome 2000, pp. 699-711.

KEMPINSKI, A.

- 1992 "Fortifications, Public Buildings and Town Planning in the Early Bronze Age", in A. KEMPINSKI - R. REICH (eds.), *The Architecture of Ancient Israel. From the Prehistoric to the Persian Period*, Jerusalem, pp. 68-80.

KENYON, K.M.

- 1957 *Digging Up Jericho*, London 1957.
1981 *Excavations at Jericho. Volume Three. The Architecture and Stratigraphy of the Tell*, London 1981.

KENYON, K.M. - HOLLAND, TH.A.

- 1982 *Excavations at Jericho. Volume Four. The Pottery Type Series and Others Finds*, London 1982.

LAPP, P.W.

- 1969 "The 1968 Excavations at Tell Ta'anek", in *Bulletin of the American Schools of Oriental Research* 195 (1969), pp. 2-49.

LONDON, G.A.

- 1991 "Aspects of Early Bronze and Late Iron Age Ceramic Technology at Tell el-'Umeiri", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 2: The 1987 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1991, pp. 383-419.

LOUD, G.

- 1948 *Megiddo II. Seasons of 1935-39* (Oriental Institute Publication 62), Chicago 1948.

MAISLER, B. - STEKELIS, M. - AVI-YONAH, M.

- 1952 "The Excavations at Beth Yerah (Khirbet el-Kerak 1944-1946)", in *IEJ* 2 (1952), pp. 165-173.

MARCHETTI, N. - NIGRO, L. (eds.)

- 1998 *Scavi a Gerico, 1997. Relazione preliminare sulla prima campagna di scavi e prospezioni archeologiche a Tell es-Sultan, Palestina* (Quaderni di Gerico 1), Roma 1998.
2000 *Excavations at Jericho, 1998. Preliminary Report on the Second Season of Excavations and Surveys at Tell es-Sultan, Palestine* (Quaderni di Gerico 2), Roma 2000.

MARQUET-KRAUSE, J.

- 1949 *Les fouilles de 'Ai (et-Tell) 1933-1935. La résurrection d'une grande cité biblique* (BAH 45), Paris 1949.

MAZAR, A.

- 1992 *Archaeology of the Land of the Bible. 10000-586 B.C.E.*, New York 1992.
2006 "Tel Beth-Shean and the Fate of Mounds in the Intermediate Bronze Age", in S. GITIN - J.E. WRIGHT - J.P. DESSEL (eds.), *Confronting the Past. Archaeological and Historical Essays on Ancient Israel in Honor of William G. Dever*, Winona Lake, In. 2006, pp. 105-118.

MAZAR, A. *et al.*

- 2000 "The Early Bronze Age II-III at Tel Beth Shean: Preliminary Observations", in PHILIP - BAIRD (eds.), *Ceramics and Change in the Early Bronze Age of Southern Levant* (Levantine Archaeology 2), Sheffield 2000, pp. 255-278.
- MILLER, J.M. (ed.)
1991 *Archaeological Survey of the Kerak Plateau* (American Schools of Oriental Research Archaeological Reports), Atlanta 1991.
- DE MIROSCHEDJI, P.
1990 "The Early Bronze Age Fortifications at Tel Yarmut - An Interim Statement", in *Eretz Israel* 21 (1990), 48*-61*.
- DE MIROSCHEDJI, P. et al.
1988 *Yarmouth 1. Rapport sur les trois premières campagnes de fouilles à Tel Yarmouth (Israël) (1980-1982)* (Éditions Recherche sur les Civilisations, Mémoire 76), Paris 1988.
- MITTMANN, S.
1970 *Beiträge zur Siedlungs- und Territorialgeschichte des Nördlichen Ostjordanlandes*, Mainz 1970.
- 1994 "Eine Stadt der frühen Bronzezeit in Nordjordanien", in *Archäologie in Deutschland* 2 (April-Juni 1994), pp. 10-15.
- NIGRO, F.
1998 "Il Parco Archeologico per la conservazione e la valorizzazione di Tell es-Sultan, antica Gerico", in MARCHETTI - NIGRO (eds.) 1998, pp. 205-229.
- 2000 "The 1998 season at Tell es-Sultan: measures for protection and development of the site. A project for the ancient Jericho", in MARCHETTI - NIGRO (eds.) 2000, pp. 287-295.
- 2006 "Cultural Heritage Planning and Management for Development: the Palestinian Archaeological Park of the Jericho Oasis", in L. NIGRO - H. TAHA (eds.), *Tell es-Sultan/Jericho in the Context of the Jordan Valley: Site Management, Conservation and Sustainable Development. Proceedings of the International Workshop Held in Ariha 7th - 11th February 2005 by the Palestinian Department of Antiquities and Cultural Heritage - Ministry of Tourism and Antiquities, UNESCO Office - Ramallah, Rome "La Sapienza" University* (= Rome «La Sapienza» Studies on the Archaeology of Palestine & Transjordan, 2), Rome 2006, pp. 191-208.
- NIGRO, L.
1999 "Sei corredi tombali dalla Necropoli di Gerico ai Museo Vaticani", in *Bollettino dei Monumenti, Musei e Gallerie Pontificie* 19 (1999), pp. 6-52.
- 2003a "Tell es-Sultan in the Early Bronze Age IV (2300-2000 BC.). Settlement Vs Necropolis - A Stratigraphic Periodization", in *Contributi e Materiali di Archeologia Orientale* IX (2003), pp. 121-158.
- 2003b "Dal rame al bronzo (senza trascurare l'argento e l'oro). La metallurgia e la nascita delle città-stato in Siria e in Palestina nel III millennio a.C.", in G. CAPRIOTTI VITTOZZI (ed.), *L'Uomo, la pietra, i metalli. Tesori della terra dal Piceno al Mediterraneo (Catalogo della mostra, San Benedetto del Tronto, Palacongressi, 13 luglio - 3 novembre 2003)*, San Benedetto del Tronto, pp. 62-69.
- 2004 *Mozia - X. Rapporto preliminare della XXII campagna di scavi - 2002 condotta congiuntamente con il Servizio Beni Archeologici della Soprintendenza Regionale per i Beni Culturali e Ambientali di Trapani* (= Quaderni di Archeologia fenicio-punica, I), Roma 2004.

- 2006a "Sulle mura di Gerico. Le fortificazioni di Tell es-Sultan come indicatori della nascita e dello sviluppo della prima città di Gerico nel III millennio a.C.", in F. BAFFI - R. DOLCE. - S. MAZZONI - F. PINNOCK (eds.), *Ina Kibrāt Erbeti. Studi di Archeologia orientale dedicati a Paolo Matthiae*, Roma 2006, pp. 349-397.
- 2006b "Preliminary Report of the First Season of Excavations of Rome "La Sapienza" University at Khirbet al-Batrawy (Upper Wadi ez-Zarqa)", in *Annual of the Department of Jordan* 50 (2006), in press.
- 2006c "Results of the Italian-Palestinian Expedition to Tell es-Sultan: at the Dawn of Urbanization in Palestine", in L. NIGRO - H. TAHA (eds.), *Tell es-Sultan/Jericho in the Context of the Jordan Valley: Site Management, Conservation and Sustainable Development. Proceedings of the International Workshop Held in Ariha 7th - 11th February 2005 by the Palestinian Department of Antiquities and Cultural Heritage - Ministry of Tourism and Antiquities, UNESCO Office - Ramallah, Rome "La Sapienza" University (= Rome «La Sapienza» Studies on the Archaeology of Palestine & Transjordan, 2)*, Rome 2006, pp. 1-40.
- 2006d "Khirbet al-Batrawy: una città del Bronzo Antico tra il deserto basaltico e la Valle del Giordano", in *Scienze dell'Antichità* 13 (2006), in press.
- in press a "Khirbet al-Batrawy – Zarqa District. Urban Origins in the Wadi Zarqa", in *Munjazat* 2005, in press.
- in press b "Khirbet al-Batrawy – Zarqa District. Urban Origins in the Wadi Zarqa", in *Munjazat* 2006, in press.
- in press c "Preliminary Report of the First Season of Excavations of Rome "La Sapienza" University at Khirbet al-Batrawy (Upper Wadi az-Zarqa, Jordan)", in J.M. CORDOBA *et al.* (eds.), *Proceedings of the Fifth International Congress on the Archaeology of the Ancient Near East, Madrid, April 3rd-8th 2006*, Madrid in press.
- OLÀVARRI, E.
1969 "Fouilles à 'Arô'er sur l'Arnon", in *Revue Biblique* 76 (1969), pp. 230-259.
- OREN, E.D.
1973 *The Northern Cemetery at Beth Shean*, Leiden 1973.
- PALUMBO, G.
1990 *The Early Bronze Age IV in the Southern Levant. Settlement Patterns, Economy and Material Culture of a «Dark Age»* (Contributi e Materiali di Archeologia Orientale III), Rome 1990.
- 1992 "Monumenti megalitici nella regione del Wadi el-Yabis (Giordania settentrionale)", in *Contributi e Materiali di Archeologia Orientale* VI (1992), pp. 45-60.
- 2001 "The Early Bronze Age IV", in B. MacDonald - A. Russel - P. Bienkowski (eds.), *The Archaeology of Jordan*, Sheffield 2001, pp. 233-269.
- PALUMBO, G. (ed.)
1994 *JADIS, the Jordan Antiquities Database and Information System: a Summary of the Data*, Amman 1994.
- PALUMBO, G. - MABRY, J.
1988 "The 1987 Wadi el-Yabis Survey", in *Annual of the Department of Antiquities of Jordan* 32 (1988), pp. 275-305.
- PALUMBO, G. *et al.*
1990 "The Wadi el-Yabis Survey: Report on the 1989 Field Season", in *Annual of the Department of Antiquities of Jordan* 34 (1990), pp. 95-118.

- 1993 "The Wadi el-Yabis Survey and Excavation Project: Report on the 1992 Season", in *Annual of the Department of Antiquities of Jordan* 37 (1993), pp. 307-324.
- 1996 "The Wadi Az-Zarqa'/Wadi Adh-Dhulayl Excavations and Survey Project: Report on the October-November 1993 Fieldwork Season", in *Annual of the Department of Antiquities of Jordan* 40 (1996), pp. 375-426.
- 1997 "The Wadi Az-Zarqa'/Wadi Adh-Dhulayl Archaeological Project, Report on the 1996 Fieldwork Season", in *Annual of the Department of Antiquities of Jordan* 41 (1997), pp. 9-26.
- PHILIP, G.
2001 "The Early Bronze I-III Ages", in B. MACDONALD - A. RUSSEL - P. BIENKOWSKI (eds.), *The Archaeology of Jordan*, Sheffield 2001, pp. 163-232.
- PLATT, E.E.
1989 "Umeiri Objects", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 1: The 1984 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1989, pp. 355-366.
- 1991 "The Objects", in L.T. GERATY - L.G. HERR - Ø.S. LABIANCA - R.W. YOUNKER (eds.), *Madaba Plains Project 2: The 1987 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*, Berrien Springs, MI 1991, pp. 246-265.
- PRAG, K.
1974 "The Intermediate Early Bronze-Middle Bronze Age: An Interpretation of the Evidence from Transjordan, Syria and Lebanon", in *Levant* 6 (1974), pp. 69-116.
- 1986 "The Intermediate Early Bronze-Middle Bronze Age Sequences at Jericho and Tell Iktanu Reviewed", in *Bulletin of the American Schools of Oriental Research* 264 (1986), pp. 61-72.
- 1990 "Preliminary Report on the Excavations at Tell Iktanu, Jordan, 1989", in *Annual of the Department of Antiquities of Jordan* 34 (1990), pp. 119-130.
- 1991 "Preliminary Report on the Excavations at Tell Iktanu and Tell al-Hamman, Jordan, 1990", in *Levant* 23 (1991), pp. 55-66.
- RAST, W.E. - SCHAUB, R.TH.
1980 "Preliminary Report of the 1979 Expedition to the Dead Sea Plain, Jordan", in *Bulletin of the American Schools of Oriental Research* 240 (1980), pp. 21-61.
- 1989 *Bâb edh-Dhrâ': Excavations in the Cemetery directed by Paul W. Lapp (1965-67)* (Reports of the Expedition to the Dead Sea Plain, Jordan, Volume I), Winona Lake 1989.
- 2003 *Bâb edh-Dhrâ': Excavations at the Town Site (1975-1981). Part 1: Text, Part 2: Plates and Appendices* (Reports of the Expedition to the Dead Sea Plain, Jordan, Volume II), Winona Lake 2003.
- RICHARD, S.
2003 "The Early Bronze Age in the Southern Levant", in S. RICHARD (ed.), *Near Eastern Archaeology*, Winona Lake, In. 2003, pp. 286-302.
- RICHARD, S. - BORAAS, R.S.
1984 "Preliminary Report of the 1981-82 Seasons of the Expedition to Khirbet Iskander and its Vicinity", in *Bulletin of the American Schools of Oriental Research* 254 (1984), pp. 63-87.
- SEGER, J.D.
1989 "Some Provisional Correlations in EB III Stratigraphy in Southern Palestine", in P. DE MIROSCHEDJI (ed.), *L'Urbanisation de la Palestine à l'âge du Bronze*

- ancien. Bilan et perspectives des recherches actuelles. Actes du Colloque d'Emmaüs (20-24 octobre 1986)* (British Archaeological Reports, International Series 527), Oxford 1989, pp. 117-135.
- SIMMONS, A.H. - KAFABI, Z.
1988 "Preliminary Report on the 'Ain Ghazal Archaeological Survey, 1987", in *Annual of the Department of Antiquities of Jordan* 32 (1988), pp. 27-39.
- STAGER, L.E.
1992 "The Periodization of Palestine from Neolithic through Early Bronze Times", in R.W. EHRLICH (ed.), *Chronologies in Old World Archaeology* (Third edition), Chicago 1992, Volume I, pp. 22-41, Volume II, pp. 46-60.
- STRANGE, J.
1997 "Tall al-Fukhar 1990-1991: A Preliminary Report", in G. BISHE *et al.* (eds.), *Studies in the History and Archaeology of Jordan VI*, Amman 1997, pp. 399-406.
- WRIGHT, G.R.H.
1985 *Ancient Buildings in South Syria and Palestine* (Handbuch der Orientalistik 7), Leiden - Köln 1985.
- ZAYADINE, F.
1977-78 "Excavations on the Upper Citadel of Amman, Area A (1975 and 1977)", in *Annual of the Department of Antiquities of Jordan* 22 (1977-78), pp. 20-45.
- ZAYADINE, F. - NAJJAR, M. - GREENE, J.A.
1987 "Recent Excavations on the Citadel of Amman (Lower Terrace), A Preliminary Report", in *Annual of the Department of Antiquities of Jordan* 31 (1987), pp. 299-311.

**ACROSS THE DESERT AND THE STEPPE.
ANCIENT TRACKS FROM THE EASTERN EDGES OF THE AZ-ZARQA
AND AL-MAFRAQ DISTRICTS TO THE WESTERN FRINGES
OF THE BLACK DESERT OF JORDAN**

Maura Sala

1. Premise

Within the framework of the Pilot Project of archaeological investigations on the Early Bronze Age urban origins and development in the north-central Transjordanian region, in December 2004 Rome "La Sapienza" Expedition examined a series of selected sites from the eastern edges of the az-Zarqa and al-Mafraq districts to the western fringes of the Black Basalt Desert¹, in order to identify possible ancient tracks and commercial routes involved in the earliest urbanization processes of the late 4th and 3rd millennia BC, which connected the Syro-Arabic Desert with the central Transjordanian hills, and beside them with the Jordan Valley to the west.

The Early Bronze Age fortified site of Khirbet al-Batrawy, chosen as the key-site of the research, rose at a strategic spot of the ancient road network, on the eastern side of the Upper Wadi az-Zarqa (plan I)², which represented, with its perennial flowing of fresh water, a main point of arrival and canalization towards the west of the tracks which crossed east-west and north-south the semi-arid steppe and the Syro-Arabic Desert³.

Research activities were aimed, moreover, at the reconstruction of the ancient landscapes and at the location of settlements and outposts along the main routes crossing the region. This survey was, thus, not primarily aimed at the identification of unknown sites, but at checking the ceramic chronology and location of already known sites and water sources, with the aim of reconstructing the Early Bronze Age road network through the analysis of settlement patterns (see map 2 in this book).

¹ The survey, of which the present paper is a provisional account, was carried out by a team including Prof. Lorenzo Nigro, Director of the Expedition, Dr. Andrea Polcaro (GIS expert), the Author, and the DAJ Inspector of the al-Mafraq District, Mr. Nasser K. al-Khassawneh, thanks to the support of the General Director of the Department of Antiquities of Jordan, Dr. Fawwaz al-Khraysheh, who I deeply thank. I wish also to express my deep gratitude to Prof. L. Nigro for allowing me to publish data collected together.

² See §§ 0.1., 1.1.

³ Kafafi in press.

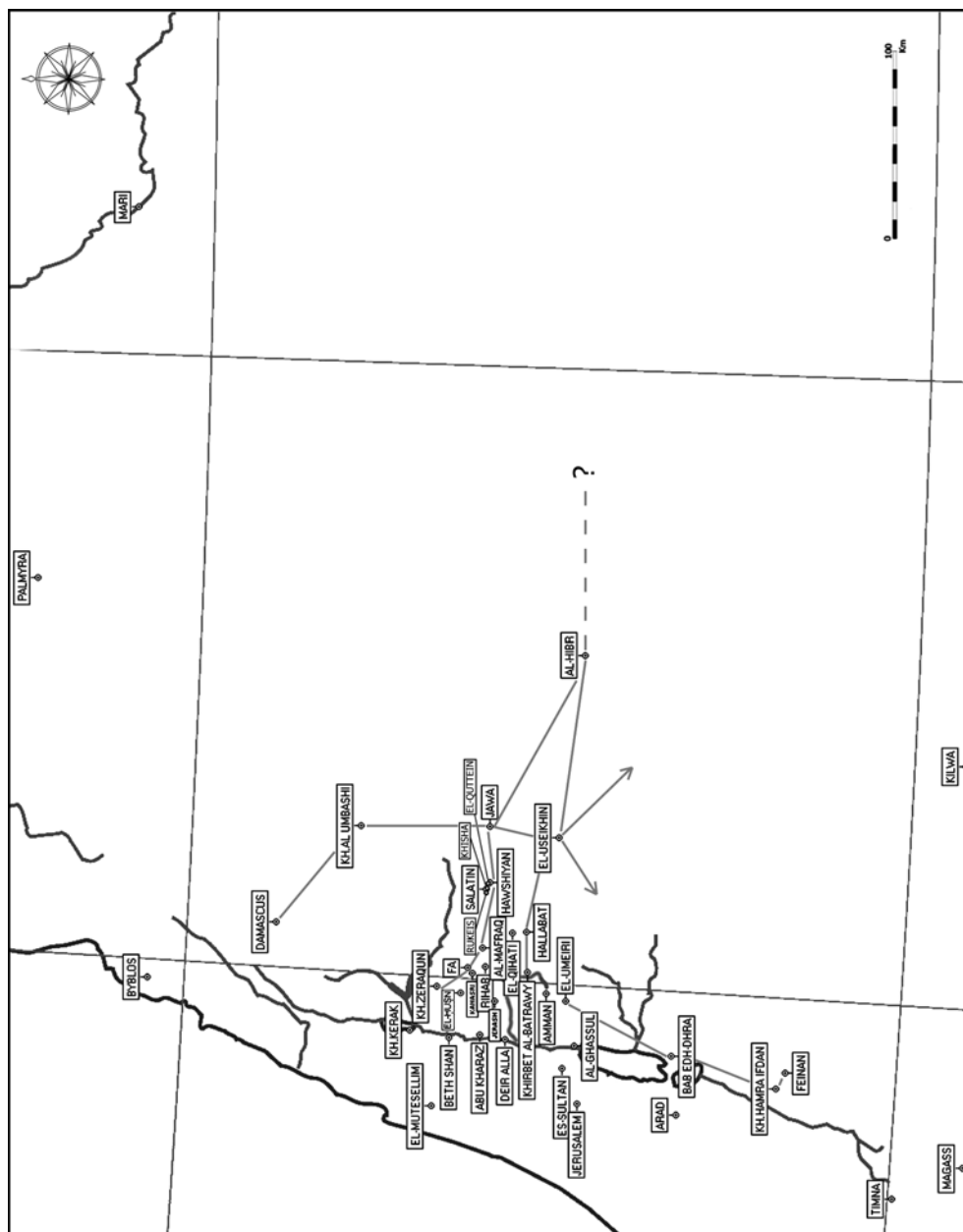


Fig. 1 - Map with Bronze and Iron Age sites visited in December 2004 along the ancient tracks across the al-Mafraq district and western fringes of the Black Basalt Desert (by A. Polcaro).

1.1. *Scope of the Research*

Recent years have seen an increasing interest towards the earliest urbanization in the peripheral semi-desert and desert areas of the Ancient Near East, where the rise of an early urban culture was the outcome of processes not only different, but sometimes also alternative from those flourished in the fertile lowlands of Mesopotamia and Egypt. These intensifying researches towards the steppe and the desert areas seem to show that differentiated paths towards the rise of an urban socio-economic organization were accomplished nearly contemporarily by different communities of the Ancient Near East, and that also the so-called "marginal and peripheral" areas of the Southern Levant envisaged successful, though not lasting, examples of proto-urban development in the second half of the 4th millennium BC (such as the well-known cases of Tuleilat el-Ghassul⁴ in the Jordan Valley, or the fortified towns of Jawa and Khirbet al Umbashi, both on the western border of the Black Basalt Desert; see below), before the spread of a fully developed urbanization at the beginning of the 3rd BC⁵. The identification of a series of late 4th-3rd millennium BC sites in the Hauran and Jebel Druz districts, as well as in the western fringes of the Basalt Desert, in the '90ies of the last century⁶, demonstrated that these areas, while peripheral in some respect, were indeed an integral part of the system of resources, exchanges and interacting relationships which produced the so-called "secondary" urban civilization of Southern Levant at the beginning of the 3rd millennium BC.⁷; and, thus, that they were actually not an "empty" space, but rather an alternative basin of human and environmental resources, where different adaptive strategies, complementary to those of the verdant lowlands⁸, were experimented.

The prosecution of the same kind of study in northern Transjordan has to face first of all the problem of chronological setting, since, concerning the Early Bronze Age, at least two different settlement patterns and road-networks were identified: one in the so-called proto-urban period (the second half of the 4th millennium BC, end of Chalcolithic and Early Bronze I), which

⁴ Bourke 2002.

⁵ Nigro in press.

⁶ Already in years 1984-1993, the systematic surveys carried out in the Hauran and Jebel Druz regions, and in the area of the western Basalt Desert between southern Syria and northern Jordan, produced a map of the Early Bronze Age sites in the region (Braemer 1984; 1988; 1993).

⁷ Fried 1967, 240-242; Esse 1989.

⁸ Helms 1982, 97-102, 107-109; Betts ed. 1991, 19-20.

bears evidence of tracks extending well within the desert, especially along the SE-NW direction; the second one in the more articulated system of Early Bronze II-III, with many roads across the steppe and a few tracks in the desert, which find a chain of points of arrival among some major sites located at the fringes between the steppe and the Transjordanian highlands, usually at the upper end of *uadiat* descending into the Jordan Valley; namely, in north-central Transjordan, the Wadi Yarmouk and the Wadi az-Zarqa. While the major northern route entering the Wadi Yarmouk can be quite reliably identified with that crossing the EB II-III and finding two main arrivals in the sites of Tell el-Ḥuṣṣ and Khirbet ez-Zeraqon, the central one, receiving both the north-eastern and the south-eastern tracks, ended in the Wadi az-Zarqa, and now finds in Khirbet al-Batrawy its strategic crossroad with a main north-south highway.

1.2. Previous Surveys in the Area

The region which Rome "La Sapienza" survey focused on in the north-eastern area of the Hashemite Kingdom of Jordan extends namely from the eastern edges of the az-Zarqa and al-Mafraq districts up to the EB I site of Jawa, in the so-called al-Harra region (fig. 2)⁹.

This region was first systematically explored by Nelson Glueck in years 1943-1944 during his general survey of Eastern Palestine¹⁰. After a preliminary journey from Mafraq to Kilwa in the Tubeiq Highlands in 1932, during which some sites along the desert border were visited and prehistoric rock-drawings recorded¹¹, Glueck moved from the al-Mafraq district through the western fringes of the Basalt Desert. He arrived up to the spring of 'Ain Jawa, though he did not identify at that time the nearby impressive EB I site of Jawa itself¹². During this survey, the widespread Nabatean-Roman and Byzantine occupations, which characterized the region along the desert border, were recognized¹³ (as following surveys would have well illustrated), thus indicating that stable settlement and organization in this area was possible in antiquity. But pre-classical, and namely Early Bronze Age occupation was very difficult to be detected, since in most of the cases it was attested to only by scattered pottery and flints remains, and flimsy architectural and archaeological stratifications.

⁹ For an environmental presentation of this region see Betts ed. 1998, 1-4.

¹⁰ Glueck 1951.

¹¹ Glueck 1933; Glueck *et al.* 1933.

¹² Glueck 1951, 30-31.

¹³ Glueck 1951, 2-34.

The northern Transjordanian region, from the Jordan River to the city of Mafraq (west-east), and from the Wadi Yarmouk to Wadi az-Zarqa (north-south), was then largely surveyed in the 1960ies by S. Mittmann on the behalf of the Evangelisch-theologischen Fakultät of the Tübingen University, who produced a detailed report and map of the settlement distribution in the region, above all for the later Roman, Byzantine and Arabic Periods¹⁴.

In recent years, more systematic surveys have been carried out and focused specifically on the semi-desert and peripheral areas in between the southern Syria and north-eastern Jordan, in order to outline the occupational history of these still partially known territories. Thus, a survey was carried out in years 1984-1993 in the Hauran and Jebel Druz regions¹⁵; and in the 1990ies other surveys were carried out also along the Wadi Rajil and Wadi al-'Ajib¹⁶. An Early Bronze Age occupation, or at least frequentation, has been identified at some sites in between the al-Mafraq district and the proto-urban site of Jawa, along the Wadi al-'Ajib close to the Syrian border, where the wadi floodplain is suitable for agriculture and rainfall is enough to allow dry farming¹⁷; as well as further to the north in southern Syria, as the significant case of Khirbet al Umbashi testifies to¹⁸. Some of these Early Bronze Age sites in the western Basalt Desert are, from west to east, Tell el-Qihati, Qasr el-Hallabat, Rukeis, Salatin, Karyat Khisha al-Sletin, Tell Umm el-Quttein, Hawshiyan (fig. 1)¹⁹.



Fig. 2 - General view of the Black Basalt Desert moving to Jawa.

¹⁴ Mittmann 1970.

¹⁵ Braemer 1984; 1988; 1993.

¹⁶ Betts *et al.* 1995; 1996.

¹⁷ Betts *et al.* 1995, 149-151; 1996.

¹⁸ Braemer 1984; 1988; 1993; Braemer - Échallier - Taraqji eds. 2004.

¹⁹ For a preliminary presentation of these sites see Palumbo ed. 1994; Betts *et al.* 1995; 1996.

2. The North-Eastern Track: Towards the al-Mafraq District and to the Black Desert

The first step (2004) of Rome "La Sapienza" Expedition seek for ancient tracks was north-east oriented, while the investigation towards the south was postponed in a future stage of the research.

The north-eastern route crossed the al-Mafraq province (fig. 3), an area just recently more systematically investigated²⁰, but still very partially known as it concerns its Early Bronze Age occupation; here, some major Bronze and Iron Ages multi-stratified sites were visited (Rihab, Tell Fa'). The survey continued then further east up to the Black Basalt Desert, where the EB I site of Jawa was reached (fig. 4).



Fig. 3 - General view of the al-Mafraq region from the site of Rihab, looking east.



Fig. 4 - General view of the Black Basalt Desert from Jawa.

²⁰ See, for instance, Bartl - al-Khraysheh - Eichmann 2001.

2.1. *Catalogue of Sites* (fig. 1)

Sama es-Sarhan

Extension: 250 dunams.

Elevation: +610 m a.s.l.

Periods: Iron Age(?) (pottery and flint scatter); Roman Period (pottery and flint scatter, village); Early Byzantine Period (pottery and flint scatter, village); Late Byzantine Period (pottery and flint scatter, village, church, monastery, tombstones, mosaics, Greek inscriptions; figs. 5-6); Umayyad Period (pottery and flint scatter, village); Mamluk Period (pottery and flint scatter, village, Arabic inscriptions); Ottoman Period (pottery and flint scatter, village); Islamic Period (mosque); modern village.

Bibliography: *JADIS* nr. 2620.003, p. 2.177; Mittmann 1970, 27, site nr. 55.



Fig. 5 - Byzantine tower at Sama es-Sarhan (2004).



Fig. 6 - Remains of the Byzantine settlement at Sama es-Sarhan (2004).

Rihab

Extension: 150 dunams.

Elevation: +885 m a.s.l.

Periods: Late Bronze Age (pottery and flint scatter); Iron Age (pottery and flint scatter); Roman Period (pottery and flint scatter, structures); Byzantine Period (pottery and flint scatter, structures); Late Byzantine Period (church, cisterns, mosaics, Greek inscriptions; fig. 7); Umayyad Period (pottery and flint scatter, mosque, birket); Abbasid Period (pottery and flint scatter); Mamluk Period (pottery and flint scatter); modern village; Latin and other unspecific period inscriptions.

Bibliography: *JADIS* nr. 2519.001, p. 2.174; Glueck 1951, 81, site nr. 246; Mittmann 1970, 120-212, site nr. 311.



Fig. 7 - Byzantine cisterns at Rihab.

Apparently, the occupation of Rihab spans from Middle Bronze III (tombs furnishings with painted wares on light slip) to the Roman-Byzantine and mediaeval Arabic Periods, while a modern village covers the remains of the ancient settlements (fig. 8)²¹. The site, which lies upon a prominent hill dominating the region towards the north and the east (fig. 3), was a fortified centre in Late Bronze and Iron Ages.



Fig. 8 - Bulldozer cut on the southern side of Rihab (2004).

²¹ The Expedition wish to thank the representative of the Department of Antiquities at the site of Rihab, Abdel Qader Alhousan, for providing information on the site. Some sparse Early Bronze Age materials in the local museum (among which a KKW bowl) may hint at an occupation of the site in this period, even though no stratigraphic evidence support this hypothesis.

Khanasiri

Extension: 8 dunams.

Elevation: +880 m a.s.l.

Periods: Late Roman Period (fortress with constructions of Herodium type and cisterns in the upper part of a completely isolated high rounded hill; fig. 9).

Bibliography: *JADIS* nr. 2419.011, p. 2.167; Glueck 1951, 90, site nr. 245; Bartl - al-Khraysheh - Eichmann 2001.



Fig. 9 - The isolated high rounded hill of Khanasiri (2004).

Tell Fa'

Extension: 63 dunams.

Elevation: +680 m a.s.l.

Periods: Iron Age (pottery and flint scatter); Hellenistic Period (pottery and flint scatter); Roman Period (pottery and flint scatter); Byzantine Period (pottery and flint scatter); Islamic Period (pottery and flint scatter); modern cemetery; unspecific period cisterns.

Bibliography: *JADIS* nr. 2520.003, p. 2.175; Glueck 1951: 93-95, site nr. 244.

The site lies on the top of an isolated rounded hill (fig. 10). As the site of Rihab and the surrounding region (fig. 11), Tell Fa' seems to have been intensively occupied from the Iron Age onwards, above all during the Roman-Byzantine and Islamic Periods, but scattered pottery sherds, as well as the morphology of the site itself, suggest a possible previous Middle and Late Bronze Age occupation (when the site could have been also fortified).



Fig. 10 - The site of Tell Fa', from west (2004).



Fig. 11 - General view of the al-Mafraq region from the site of Tell Fa', looking east (2004).

Rukeis

Extension: 12.5 dunams.

Elevation: +915 m a.s.l.

Periods: Early Bronze Age (open village, when the settlement was probably first established in the Early Bronze I)²²; Middle Bronze Age (pottery and flint scatter, fortified settlement; figs. 12-13)²³.

Bibliography: *JADIS* nr. 2919.004, p. 2.183; Betts *et al.* 1995; 1996; McLaren 2003: 20-26.

Salatin

Extension: -

Elevation: +955 m a.s.l.

Periods: Early Bronze Age (pottery and flint scatter); Iron Age (pottery and flint scatter); Nabataean Period (pottery and flint scatter); Roman Period

²² Betts *et al.* 1996, 33-38.

²³ Betts *et al.* 1995, 150, 155-164; McLaren 2003, 20-26.

(pottery and flint scatter); Early Byzantine Period (pottery and flint scatter); modern pottery and flint scatter; unspecific period structures.

Bibliography: *JADIS* nr. 3019.001, p. 2.184.



Fig. 12 - The tumbled down basalt fortifications at the site of Rukeis, in the Basalt Desert (2004).

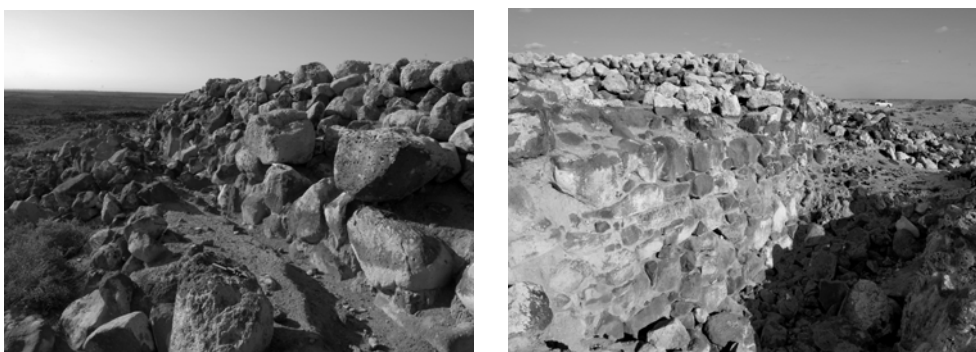


Fig. 13 - Basalt fortifications line at Rukeis (2004).

Qaryat Khisha al-Sletin

Extension: -

Elevation: +950 m a.s.l.

Periods: Early Bronze Age (pottery and flint scatter); modern pottery and flint scatter.

Bibliography: *JADIS* nr. 3019.008, p. 2.184; Betts *et al.* 1995, 150.

Tell Umm el-Quttein

Extension: -

Elevation: +975 m a.s.l.

Periods: Early Bronze Age (pottery and flint scatter); Middle Bronze Age (pottery and flint scatter); Iron Age (pottery and flint scatter); Nabataean

Period (inscriptions); Early Roman Period (pottery and flint scatter); Late Roman Period (pottery and flint scatter, village, road, milestone, Latin inscription); Early Byzantine Period (pottery and flint scatter); Late Byzantine Period (pottery and flint scatter, village, church, monastery, cisterns, tombstones, Greek inscriptions); Umayyad Period (pottery and flint scatter); Ayyubid/Mamluk Period (pottery and flint scatter); Ottoman Period (pottery and flint scatter); modern village; unspecific period caves, cisterns and water reservoir.

Bibliography: *JADIS* nr. 3019.009, p. 2.184; Glueck 1951, 24-25, site nr. 320; Mittmann 1970, 201-207.

Hawshiyan

Extension: -

Elevation: +978 m a.s.l.

Periods: Early Bronze Age (pottery and flint scatter); Iron Age (pottery and flint scatter); Roman Period (pottery and flint scatter); Byzantine Period (pottery and flint scatter); Ayyubid/Mamluk Period (pottery and flint scatter); Modern Period (pottery and flint scatter).

Bibliography: *JADIS* nr. 3019.002, p. 2.184.

Qasr el-Useikhin

Extension: -

Elevation: +600 m a.s.l.

Periods: Chalcolithic/EB I (flint scatter)²⁴; Early Roman Period (pottery and flint scatter); Late Roman Period (fortress); Late Byzantine Period (pottery and flint scatter).

Bibliography: *JADIS* nr. 3315.001, p. 2.188; Al-Khoury ed. 2003.

Jawa

Extension: 160 dunams.

Elevation: +1045 m a.s.l.

Periods: Natufian (flint scatter); Pre-Pottery and Pottery Neolithic Periods (kites); Early Bronze Age IA (fortified settlement²⁵: fortifications with

²⁴ Scattered materials attesting to an occupation in the surroundings dating back to the mid of the 4th millennium BC have been recently recorded: Al-Khoury ed. 2003, 154-172.

²⁵ The dating of the fortified settlement of Jawa to the Early Bronze IA is based on materials of the lithic and pottery inventories. The latter, in particular, finds parallels in the pottery assemblages of some EB I sites in northern Jordan and southern Syria, such as Tell Umm Hammad, Kataret es-Samra and Tell Handaqq

rounded towers, posterns and city-gates [figs. 14-15]²⁶, dwelling units²⁷ with a curvilinear plan²⁸; water system with channels, dams and reservoirs²⁹; Early Bronze Age IV/Middle Bronze Age I (fortress; rectangular dwelling units)³⁰; Iron Age (pottery and flint scatter); Roman Period (pottery and flint scatter, Greek inscriptions, Safaitic inscriptions); Byzantine Period (pottery and flint scatter, towers, Greek inscriptions); Abbasid Period (Arabic inscriptions); Kufic and Thamudic inscriptions; modern inscriptions; unspecific period animal pens, burial cairns and tumuli; unspecific period rock drawings.

Bibliography: *JADIS* nr. 3319.010, p. 2.189; Helms 1981; 1982; 1984; 1987a; 1987b; 1989a; 1989b; Betts ed. 1991; 1998.

The fortified settlement of Jawa was erected in the second half of the 4th millennium BC on a spur in the desert region of the Jordanian Badia, aside the deep and long Wadi Râjil, which descending from the Syrian highlands of the Jebel Druz crosses the central Transjordan hills up to the basin of Azraq, through the basaltic region of al-Harra. Jawa rose, thus, aside one of the most important inner tracks which connected Syria, and namely the fertile region of the Damascene Ghuta, to Transjordan; and aside one of the few east-west routes, which from the remote Syro-Arabic Desert (and, perhaps, behind it, from Mesopotamia) should introduce to the inner Transjordan hills and, further west, to the Jordan Valley.

North, and along the Wadi az-Zarqa Valley (Helms 1987a, 53-59, 77; Betts ed. 1991, 69-73); but also in the south at Bab edh-Dhra' and Tell es-Sultan.

²⁶ Betts ed. 1991, 30-35, 40-45.

²⁷ Betts ed. 1991, 35-38.

²⁸ As elsewhere detected in the Levantine domestic architecture of the second half of the 4th millennium BC: in many northern Palestinian sites, such as Yiftahel, Tel Teo, Meser, Tell el-Mutesellim, Tell esh-Shunah, Jebel Mutawwaq and Tell Um Hammad (Braun 1989); but also in the EB IA rural village at Tell es-Sultan (Nigro 2005, 23-32, 113-114, plan I); on the Levantine coast at Sidone-Dakerman (Saidah 1979) and in the Eneolithic settlement of Byblos (Dunand 1973, 217-233, 244-246); and, finally, in southern Syria at Khirbet al Umbashi (Braemer - Échallier 2004, 63-64).

²⁹ Helms 1982; Betts ed. 1991, 54; 105; Philip 2001, 184.

³⁰ Helms 1989b.

For its features and location Jawa appears as a main crossroad of the Early Bronze I tracks to the East: the one from the Ghuta to south-east, and the one from the al-Mafraq district to the desert.



Fig. 14 - View of the fortifications of the EB IA settlement of Jawa, realized in the characterized local black basalt stones (2004).



Fig. 15 - View of the fortifications of the upper city of Jawa; at the centre, the city-gate G1; in the right background, the artificial hydraulic basins P3 e P2 (2004).

Jawa was the major of the late 4th millennium sites in the western fringes of the Basalt Desert, at the easternmost end of the pathway reached during this survey: it represents one of the most noteworthy, though odd and short-lived examples of "incipient urbanization" in the peripheral areas of the Southern Levant³¹.

³¹ Helms 1984. The proto-urban organization of the site seems to be attested to also by the presence of possible status objects, such as stone mace-heads (Betts

The case of Jawa offers without any doubt a first and remarkable observatory to study the relationships between the desert and the sown, between the nomads and semi-nomads of the desert and the steppe, and the sedentary communities which flourished in the lowlands of the Ancient Near East during the pre-classical periods³²; and it offers an alternative point of view, that from the desert towards the fertile and settled areas, when evaluating the crucial historical processes, which led to the rise of the first urban culture in the Southern Levant.

Notwithstanding its impressive development during EB I, the fortified settlement of Jawa was abandoned in a few decades, without leaving apparently any trace in the region. The nature and the origins of the rise of this remote fortified settlement in the Jordan Basalt Desert are still a matter of investigation³³; but it might have represented a sort of outpost enucleated at the fringes of the desert, aside the edge between the sown and the desert, in order to control an important commercial track in the second half of the 4th millennium BC.

Recently, the enhancement of archaeological investigations also in the Basalt Desert of southern Syria have provided increasing evidences and first systematic data on the Early Bronze Age occupation also of this region³⁴. The most significant parallel for the proto-urban experience of Jawa is thus now offered precisely by the fortified settlement of Khirbet al Umbashi³⁵, risen at the end of the 4th millennium BC aside the Wadi Umbashi, in the basaltic area east of Jebel al 'Arab. As Jawa, Khirbet al Umbashi was located in a dry area; it was surrounded by a fortification system built in the characteristic local basalt stones³⁶, with rounded and squared towers, rectangular bastions, and a city-gate³⁷; and it was furnished with a hydraulic system, which ensured to the site the necessary water supply³⁸. Finally, as well as Jawa, also the fortified settlement of Khirbet al Umbashi came to end and was abandoned in a short time.

ed. 1991, 159-160), as well as by the use of stamp seals impressed on storage vessels (Helms 1987b, 41-44).

³² Rowton 1973.

³³ See, for instance, Helms 1982, 101-107.

³⁴ See, for instance, Braemer - Échallier - Taraqji eds. 2004

³⁵ Braemer - Échallier 2004.

³⁶ Braemer - Échallier 2004, 39-63.

³⁷ Braemer - Échallier 2004, 58, figs. 103-105.

³⁸ Braemer - Échallier 2004, 45-51.

3. Conclusions

Thanks to the increasing explorations in southern Syria and north-eastern Transjordan is now possible to sketch for the Early Bronze Age in the region a network of commercial tracks and cultural relationships which along a route not only north-south, but also east-west, from the Damascene Ghuta across the Hauran and Jebel Druz, up to the north-central Transjordanian hills and across the Basalt Desert, connected different areas with varying environmental, economic and human resources³⁹, and which should act a relevant role in the diversified processes of socio-economic development towards the rise of the earliest urban society in the Southern Levant.

The intensifying surveys in north-eastern Transjordan, from the eastern edges of the az-Zarqa and al-Mafraq districts to the western fringes of the Black Basalt Desert, have been showing in recent years that a significant occupation affected at the beginning of the Bronze Age also this "marginal and peripheral" area, presumably connected with the existence of a larger framework of commercial routes and relationships between the Northern Levant and Syria and Southern Palestine, on the one hand, and between the Jordan Valley and the Syro-Arabic Desert, on the other hand; relationships which should play a non irrelevant role in the rise, development and diffusion of the first urban culture in the Southern Levant, and that for this reason should be ever more investigated.

References

- AL-KHOURI, M. (ed.)
2003 *Il limes arabicus*, Roma 2003.
- BARTL, K. - AL-KHRAYSHEH, F. - EICHMANN, R.
2001 "Palaeoenvironmental and Archaeological Studies in the Khanasiri Region/Northern Jordan. Preliminary Results of the Archaeological Survey 1999", in *Annual of the Department of Antiquities of Jordan* 45 (2001), pp. 119-134.
- BETTS, A.V.G. (ed.)
1991 *Excavations at Jawa 1972-1986*, Edinburgh 1991.
1998 *The Harra and the Hamad. Excavations and Surveys in Eastern Jordan, Volume 1*, Sheffield 1998.
- BETTS, A.V.G. *et al.*
1995 "Archaeological Survey of the Wadi al-'Ajib, Mafraq District", in *Annual of the Department of Antiquities of Jordan* 39 (1995), pp. 149-168.

³⁹ These contacts are attested to also by parallels in pottery assemblages: Helms 1984, 19-21; Philip 2001, 204-205.

- 1996 "Studies of Bronze Age Occupation in the Wadi al- al-'Ajib, Southern Hauran", in *Levant* 28 (1996), pp. 27-39.
- BOURKE, S.J.
2002 "The Origins of Social Complexity in the Southern Levant: New Evidence from Teleilat Ghassul, Jordan", in *Palestine Exploration Quarterly* 134 (2002), pp. 2002, 2-27.
- BRAEMER, F.
1984 "Prospections archéologiques dans le Hawran (Syrie)", in *Syria* 61 (1984), pp. 219-250.
1988 "Prospections archéologiques dans le Hawran. II. Les réseaux de l'eau", in *Syria* 65 (1988), pp. 99-137.
1993 "Prospections archéologiques dans le Hawran (Syrie). III", in *Syria* 70 (1993), pp. 117-170.
- BRAEMER, F. - ÉCHALLIER, J.-CL.
2004 "Les ensembles construits du Bronze ancien I et II", in BRAEMER - ÉCHALLIER - TARAQJI (eds.) 2004, pp. 39-86.
- BRAEMER, F. - ÉCHALLIER, J.-CL. - TARAQJI, A. (eds.)
2004 *Khirbet al Umbashi. Villages et campements de pasteurs dans le "désert noir" (Syrie) à l'âge du Bronze. Travaux de la mission conjointe franco-syrienne 1991-1996* (Bibliothèque Archéologique et Historique - T. 171), Beyrouth 2004.
- BRAUN, E.
1989 "The Problem of the Apsidal House: New Aspects of Early Bronze Age I Domestic Architecture in Israel, Jordan and Lebanon", in *Palestine Exploration Quarterly* 121 (1989), pp. 1-43.
- DUNAND, M.
1973 *Fouilles de Byblos. Tome V. L'architecture, les tombes, le matériel domestique, des origines néolithiques à l'avènement urbain*, Paris 1973.
- ESSE, D.L.
1989 "Secondary State Formation and Collapse in Early Bronze Age Palestine", in P. DE MIROSCHEJ (ed.), *L'urbanisation de la Palestine à l'âge du Bronze ancien. Bilan et perspectives des recherches actuelles. Actes du Colloque d'Emmaüs (20-24 octobre 1986)* (British Archaeological Reports, International Series 527), Oxford 1989, pp. 81-95.
- FRIED, M.
1967 *Evolution of Political Society*, New York 1967.
- GLUECK, N.
1933 "From Dr. Glueck's Report on His Explorations in Eastern Palestina", in *Bulletin of the American Schools of Oriental Research* 50 (1933), pp. 8-11.
1951 *Explorations in Eastern Palestine, IV, Part I (Annual of the American Schools of Oriental Research XXV-XXVIII)*, New Haven 1951.
- GLUECK, N. et al.
1933 "Prehistoric Rock-Drawings in Transjordan", in *American Journal of Archaeology* 37 (1933), pp. 381-387
- HELMS, S.W.
1981 *Jawa: Lost City of the Black Desert*, London 1981.
1982 "Paleo-Beduin and Transmigrant Urbanism", in A. HADIDI (ed.), *Studies in the History and Archaeology of Jordan I*, Amman 1982, pp. 97-112.

- 1984 "The Land behind Damascus: Urbanism during the 4th millennium in Syria/Palestine", in T. KHALIDI (ed.), *Land Tenure and Social Transformation in the Near East*, Beirut 1984, pp. 15-31.
- 1987a "Jawa, Tell Umm Hammad and the EBI/Late Chalcolithic Landscape", in *Levant* 19 (1987), pp. 49-81.
- 1987b "A Question of Economic Control during the Proto-Historical Era of Palestine/Transjordan", in A. HADIDI (ed.), *Studies in the History and Archaeology of Jordan III*, Amman 1987, pp. 41-51.
- 1989a "Jawa", in D. HOMÈS-FREDERICQ - J.B. HENNESSY (eds.), *Archaeology of Jordan II 1/2. Field Reports, Surveys and Sites* (Akkadica Supplementum VII-VIII), Leuven 1989, pp. 310-316.
- 1989b "Jawa at the Beginning of the Middle Bronze Age", in *Levant* 21 (1989), pp. 141-168.
- KAFABI, Z.
in press "Early Bronze Age I Settlers and Transhumance in the Wadi az-Zarqa Basin: Stations on the Way from the Jordan Valley to the Badia Region", in J.-CL. MARGUERON - P. DE MIROSCHEDJI - J.-P. THALMANN (eds.), *Proceedings of the Third International Congress on the Archaeology of the Ancient Near East, Paris 2002*, Paris in press.
- MCLAREN, B.P.
2003 *The Military Architecture of Jordan During the Middle Bronze Age: New evidence from Pella and Rukeis* (British Archaeological Reports, International Series 1202), Oxford 2003.
- MITTMANN, S.
1970 *Beiträge zur Siedlungs- und Territorialgeschichte des Nördlichen Ostjordanlandes*, Mainz 1970.
- NIGRO, L.
2005 *Tell es-Sultan/Gerico alle soglie della prima urbanizzazione: il villaggio e la necropoli del Bronzo Antico I (3300-3000 a.C.)* (Rome "La Sapienza" Studies on the Archaeology of Palestine & Transjordan, 1), Roma 2005.
- in press *From Jawa to Jericho. Alternative Tracks to Early Urbanization in South-Eastern Levant* (Rome "La Sapienza" Studies on the Archaeology of Palestine & Transjordan, 7), Rome in press.
- PALUMBO, G. (ed.)
1994 *JADIS, the Jordan Antiquities Database and Information System: a Summary of the Data*, Amman 1994.
- PHILIP, G.
2001 "The Early Bronze I-III Ages", in B. MACDONALD - A. RUSSEL - P. BIENKOWSKI (eds.), *The Archaeology of Jordan*, Sheffield 2001, pp. 163-232.
- ROWTON, M.B.
1973 "Urban Autonomy in the Nomadic Environment", in *Journal of Near Eastern Studies* 32 (1973), pp. 201-215.
- SAIDAH, R.
1979 "Fouilles de Sidon-Dakerman: l'agglomération chalcolithique", in *Berytus* 27 (1979), pp. 29-55.

GEOARCHAEOLOGICAL INVESTIGATIONS AT KHIRBET AL-BATRAWY

Bilal R. Khrisat*

The fortified settlement of Khirbet al-Batrawy is situated within the northern highlands geomorphologic province on the top of a limestone *plateau*, where the main physiographical unites are the moderate and high rocky and desert hills, adjacent to the Wadi az-Zarqa, and within the up-throw of the major geologic Amman-Hallabat Fault Zone. The settlement is elevating about 665 m AMSL. It raises from the surrounding landscape about 100 m in the north-eastern part and more than 150 m in its south-western part at the bank of the Wadi az-Zarqa. The Wadi az-Zarqa is branched by several lateral wadis running mainly westward from the central Eastern Jordan Ridge (fig. 1). Human occupation in Upper Wadi az-Zarqa shows evidence of continuous cultural occupations; geomorphic evidence indicates that some climatic changes and other human factors have led to migration and abandonment of several sites and sub-drainage systems of the wadi itself¹. The study area belongs to semi-arid climate marginal Mediterranean-type climate, characterized by a hot and dry summer and cool winter with short transitional seasons predominating in the northern, central and western parts of the region, while the eastern and southern parts of the study area have a semi-arid to arid climate especially in moving to the east. Winter begins around mid-November and summer begins around the end of May. Rainfall occurs mainly during the winter months with an average annual rainfall of about 160 mm, which are strictly falling during the winter months (fig. 2). The falling rainwater flows into the narrow and relatively deep rocky drainage pattern. Temperature also varies across the study area, and generally the average daily temperatures for January range from about 7 to 11 degrees Celsius (°C), whereas, in summer, the average temperature is about 24 °C. The original steppic vegetation is scarce at present and the surviving green pockets of the destroyed natural vegetation suggest a kind of overstress conditions and deterioration of the green cover in the area that could have resulted due to long and extensive overgrazing and agricultural activities along the Zarqa river banks. At this stage of our study we have not come across clear evidence for the water management in the EB city. However, the presence of the Wadi az-Zarqa in the site vicinity must have provided a perennial water source.

* Department of Conservation Science, The Hashemite University, Zarqa.

¹ Baubron *et al.* 1985; Parenti *et al.* 1997.

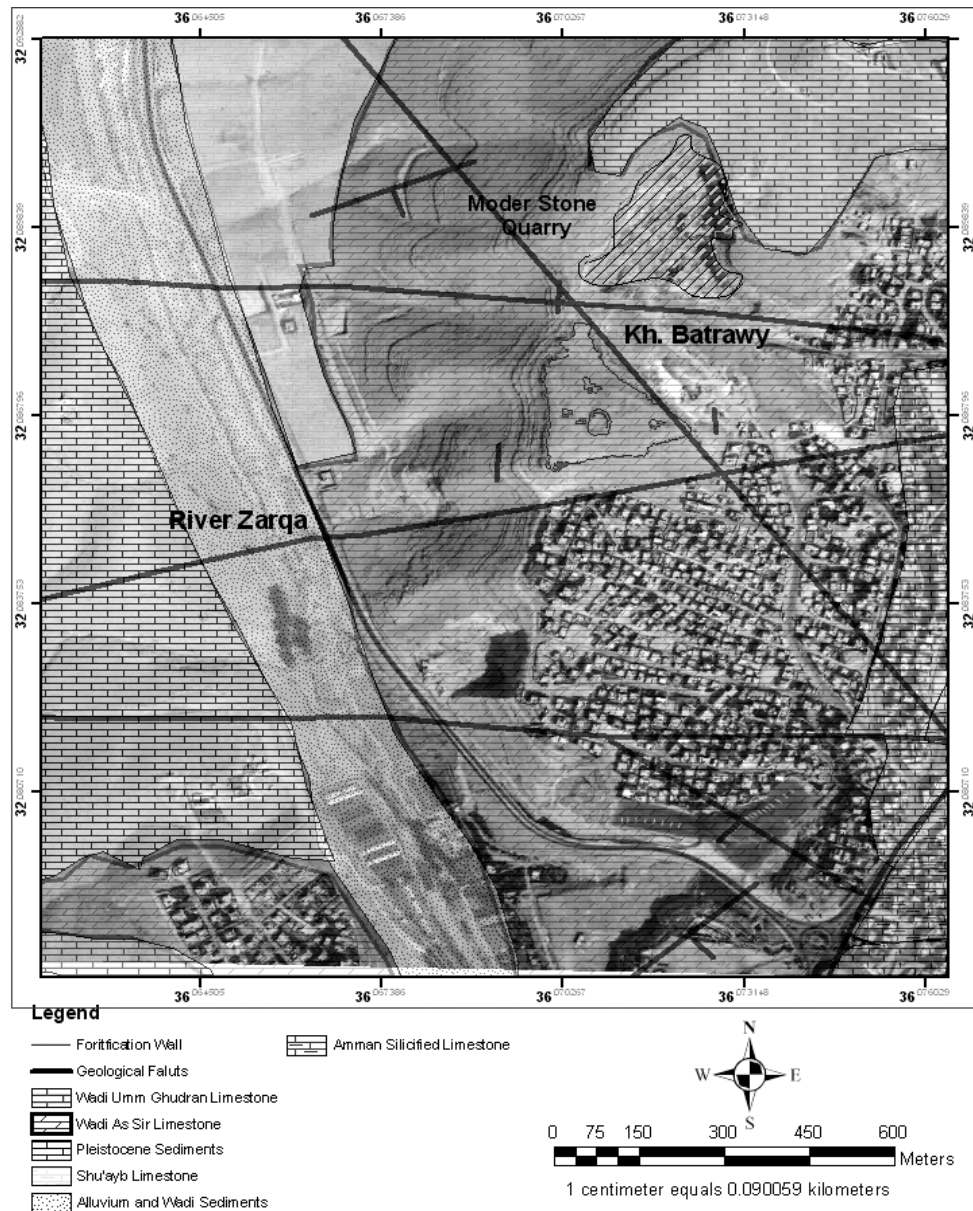


Fig. 1 - Geological and geomorphic map of the site of Khirbet al-Batrawy.

Some of the cavities within the limestone formation must have served as good storage features for water with some modification. Such cavities can be seen in the western part of the city (fig. 3; see also above p. 12, figs. 1.13-1.14).

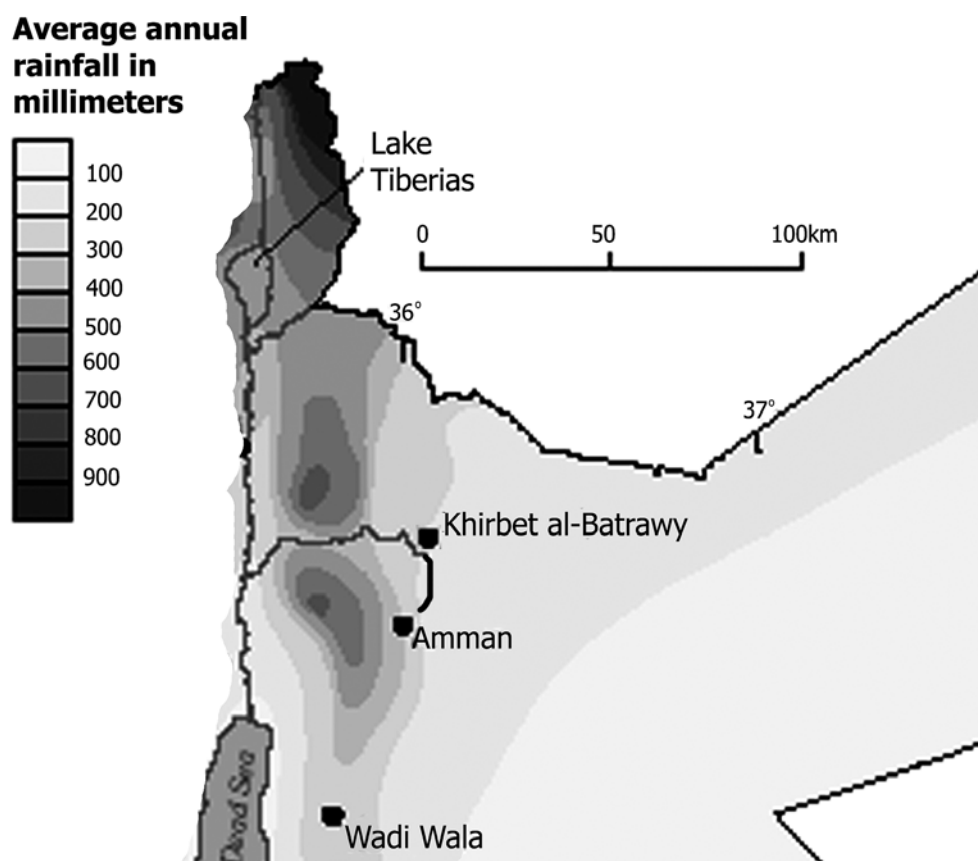


Fig. 2 - Isomap showing the location of the study area in regards to the average rainfall distribution.

Further investigations need to be made in this direction supported with the upcoming evidence from the excavations to give more explanation to this part of the EB city.

Geologically, the exposed limestone formations display layering on many different scales, ranging from few centimetres thin clay layers in a hand specimen to massive layers that crop out along the north eastern part of the site *plateau* side. The limestone formation exposed in the site is mainly belong to the Hummar, Shua'yb and Wadi As Sir formations². Layering within the limestone formation reflects many different sedimentation processes but with common characteristics. These parallel strata in the limestone inherited the gentle, flat-lying surface that might reflect the

² Abu Qudaira 2004.

character of their original depositional environments. The exposed limestone formations are made of thick-bedded to massive limestone in the middle and lower parts of the formation, sometimes interbedded with chert veins and fossiliferous beds (fig. 4).



Fig. 3 - Large excavated cave found in the north-western part of the city, which could have been use as a water body storage.

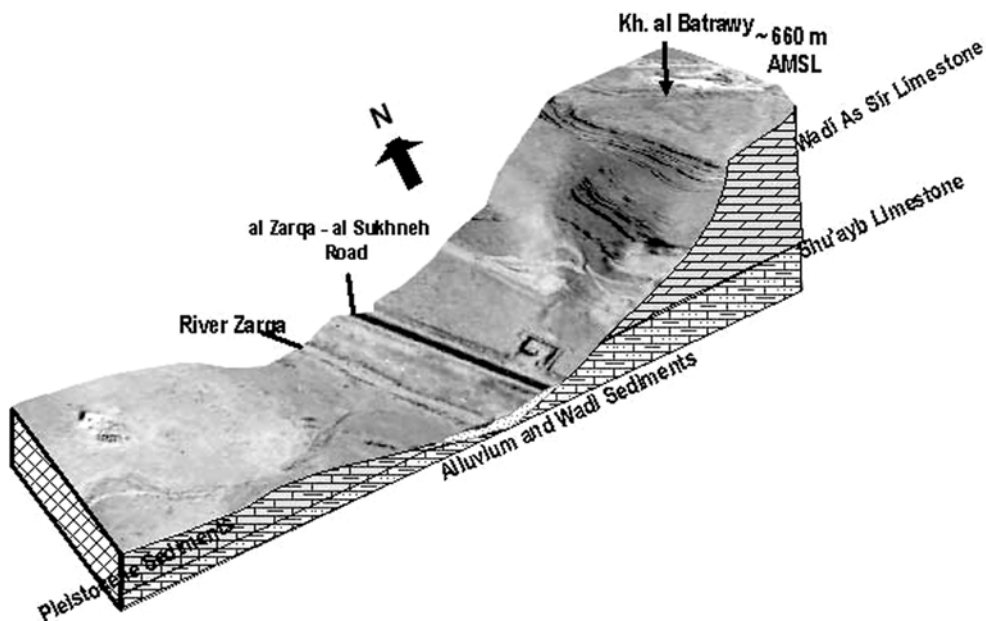


Fig. 4 - Schematic section (NE/SW) through the Early Bronze Age city environment showing the general topography and the different geological formations.

A clear section of the local lithology is well represented at the deserted modern stone quarry sections in the north and north-eastern parts of the site. A generalized map of the geology of the research area is provided in figure 1. On the other hand, the upper appearance of the limestone formation is made of blocky limestone with sedimentary structures known as desiccation cracks and characterized by vertical and horizontal joints network system developed due to structural deformation of the limestone. The orientations of the joint system in the *plateau* suggest the dominance of the NE-SW direction (figs. 5-6,a); this might help in looking for the subsurface features at that direction, especially water cisterns and tombs. Furthermore, the structural characteristics of the uppermost layers, apart from being useful tools for interpretation of ancient environmental settings of the limestone, were utilized by the local inhabitants to easily detach limestone blocks for the constructions in the site. This is also evident from the blocks preparation at the site, where very less workmanship and finishing can be observed on the building blocks, such as the one in the fortification wall (fig. 6,b)³. The limestone forms a distinctive geomorphologic unit with step slopes and cliffs of batched grey-weathering colours limestone intercalated locally with soft marly-limestone and marl. The interbedded marlstone occurs as a hardened rock consisting of a mixture of clay, mud, sand, and an abundance of calcareous material, mostly shell material (fig. 4). It sometimes exposes as erosional cavities along the slopes and in the wadi beds. These deposits have been sampled for the clay analysis. The presence of fragments of the local chert within the pottery clay suggests a local production of pottery; however, by waiting for results of the scientific analyses of both the pottery and clay sources, as well as in the absence of any pottery kilns or any production units at this stage of the research, this suggestion will be based completely in the visual assessment of the available clay and the recovered pottery from the excavations. Further sampling and study will be conducted in the coming seasons for more detail analyses of the raw materials used by the site settlers and reliable data for interpretation. The study of the landscape and land use of the site supported by the recovered cultural materials from the excavations will shed more light in understanding how the Early Bronze Age inhabitants fitted into and viewed their surroundings. It is also equally important to know how the settlers designed and utilized their landscapes, which often reflected their lifestyles and socioeconomic patterns more accurately.

³ See above § 4.2.2.

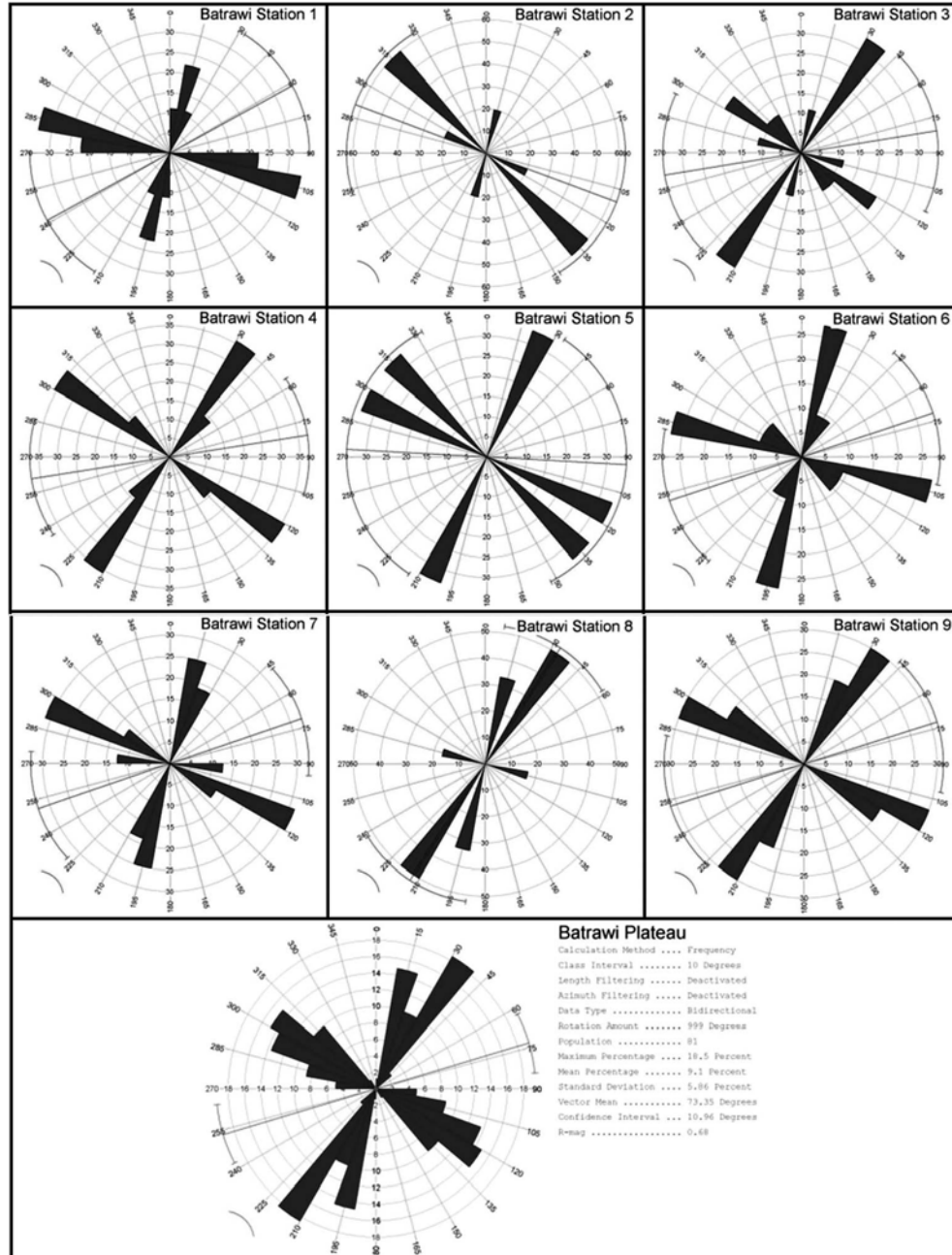


Fig. 5 - Rose diagram summarizing the joint system characteristic of Khirbet al-Batrawy plateau.



Fig. 6,a - Desiccation cracks and vertical and horizontal joints network.



Fig. 6,b - Easily detached limestone blocks used in the construction of the city-wall of Khirbet al-Batrawy.

In a macro level, the study area is geomorphologically marginal and erosional in nature, dissecting the limestone formation by the Wadi az-Zarqa and its catchments tributaries. This resulted in erosional landscape dominantly represented by steep and rounded striped hills of Upper Cretaceous limestone. These hills sometimes elevating in their maximum to about 880 m at the western part of the study area.

Viewing the site from the north-western side, the EB city is situated on the top of a nearly flat *plateau* gently sloping toward northeast at about 5°. The *plateau* has a commanding view in the north-west, west, south-west and south directions. The surface of the *plateau* is interrupted with many gently dissecting channels draining to the north-eastern side of the *plateau* (fig. 7). The *plateau* is an isolated one except in the north-western part of the settlement, where it is connected through a ridge by another elevated series of *plateaus*. This ridge is the only easy natural accessibility to the city and it could have been used by the settlers as the main pathway to access the settlement⁴. In most of its directions and sides, the city *plateau* is characterized by steep irregular slope broken into steps-like features. The intersecting of the nearly horizontal bedding plane of the limestone formation with the perpendicular vertical joint system at slopes surface have resulted in rough slopes interrupted with vertical cuts that break the slope into several ridges forming steps-like landscape surface, which have not only stabilized the *plateau* slopes but also makes the *plateau* slope serve as an ascending natural defence in climbing into the site (fig. 7).

⁴ See above § 1.2.1., fig. 1.18.

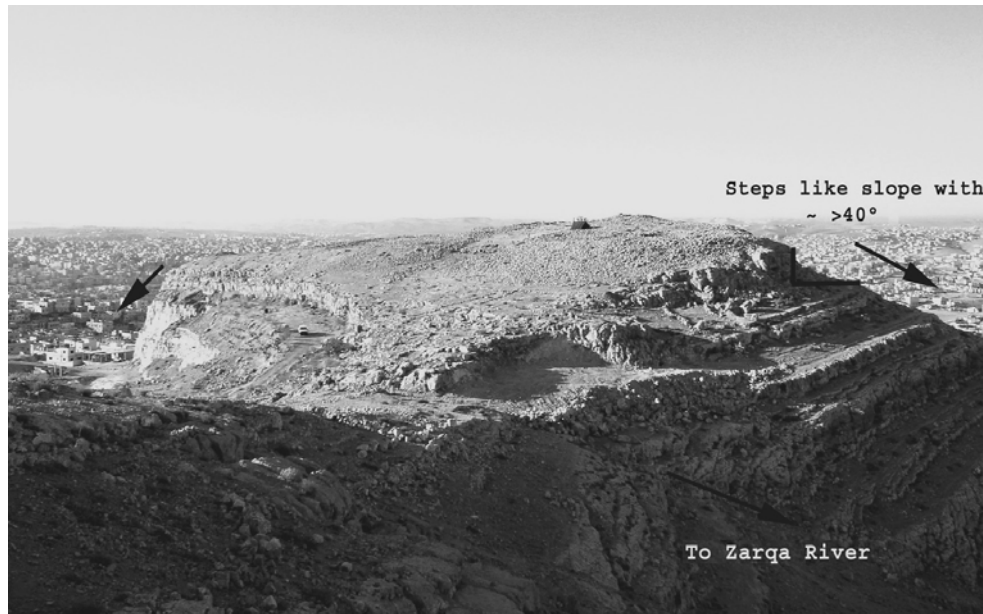


Fig. 7 - The city located in a commanded view and steps-like slope with ~ >40° slope.

Remarkable stone hillocks are dominating the eastern sector of the settlement *plateau*. These small stone hillocks accumulations are formed by the collapse of limestone architectural blocks. The presence of these accumulations of stone masonry at this part of city is logical evidence that might indicate the collapsed of a huge architectural structure (fig. 8). This also might indicate the importance of this part of the city for the inhabitants and support the natural accessibility point to the city. Although most of the used stones are made of limestone, objects made of basalt, chert, granite and sandstone have been retrieved. The exposed outcrops within 3 km diameter from the site are made of limestone, hence the provenances for other raw material need to be mapped and sampled.

Though erosion is the characteristic geomorphologic process in the study area, at the base of the many vertical fissures of joint system of the limestone formation, many depositional localities and lenses of clayey marl have developed. Some of these localities in the vicinity of the site were investigated and sampled for provenance analyses of the pottery and clay artifacts of the settlement. The growth of plants within these fillings is an easy indicator for their locations. The natural clays which are found in the vicinity of the site show some amount of chert micro flakes and broken fossils, which are the product of the local limestone weathering.

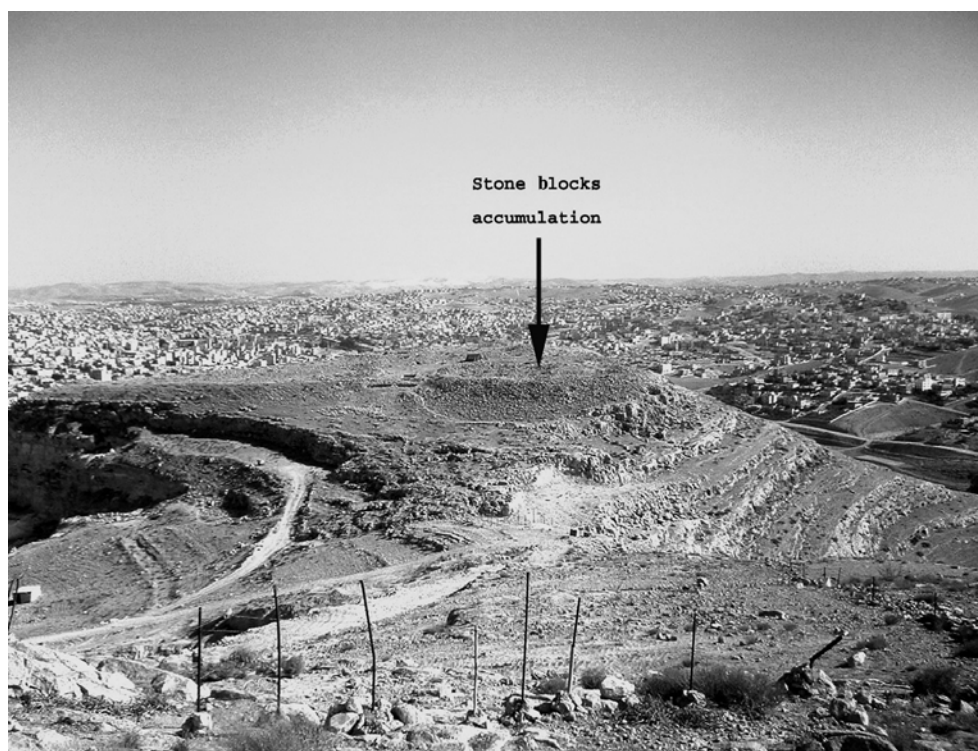


Fig. 8 - Stone blocks accumulation at the north-western part of the site.

In the next season we hope to conduct intensive systematic survey and sampling of the exciting raw materials around the site. Remote sensing and GIS tools will be used to locate and map the sources of the different raw materials available to the site and the different human modifications of the surrounding landscape which are potential for the site location.

The preliminary survey has already identified several locations in the south-western and north-western slopes of the settlement and along and near the bed of the Wadi az-Zarqa. These locations are different in size and include terraces, hill slopes and stone exposures and accumulations, possibly exploited for agricultural purposes during the site occupation.

One of the remarkable land use of the site is the presence of large stone quarry nearby (fig. 0.4). Fortunately, this quarry was deserted few years back, but erased some of the north-eastern part of the site *plateau* and the southern part of the northern *plateau*. From the reconstruction of the *plateau* slope from the quarry remaining parts, it is clear that the slope in the north-eastern part of the *plateau* was very steep and broken as the one

on the western side of the *plateau* (fig. 9), which suggests a natural defensive morphology of the *plateau* at this side of the *plateau* too.

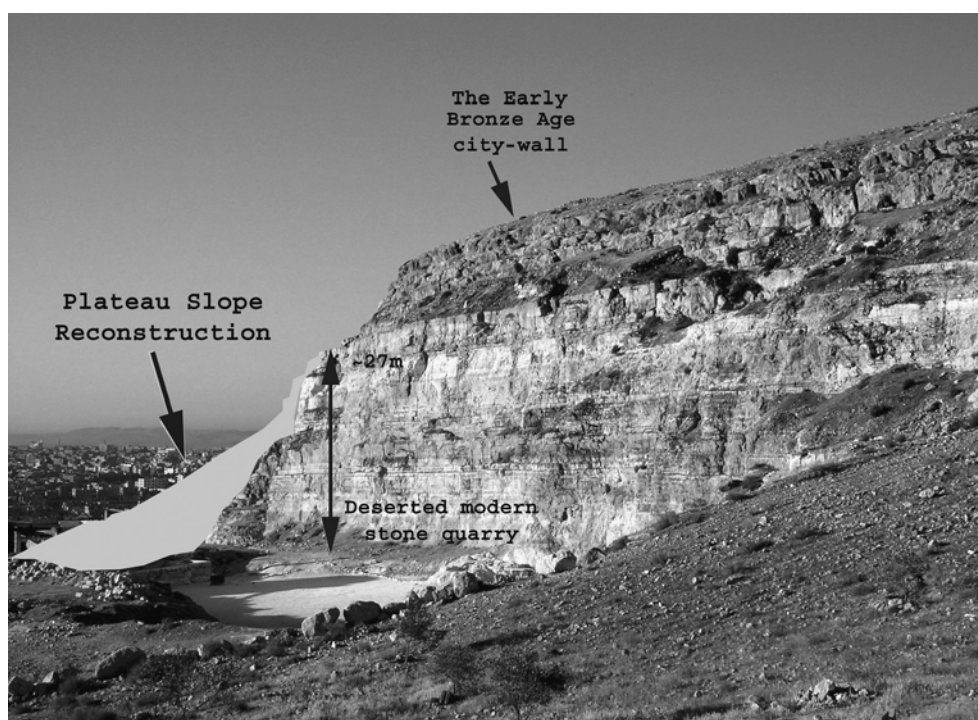


Fig. 9 - Reconstruction of the quarried part of the *plateau* based on the original remains of the *plateau* seen at the left hand of the picture.

Future Geoarchaeological Work

The preliminary results we are presenting at this point of research clearly point to a more detail geoarchaeological investigations in the micro and macro levels of the site.

Promising archaeological evidence has been recovered from the site, at the present state of knowledge a major Early Bronze Age centre in the valley; decoding the different sub-phases of its palaeo-environmental history is, thus, the goal of future geoarchaeological work.

By means of most significantly defined short-terms geoarchaeological research steps, we hope to generate permanent records of the different geo-related materials and analyses of the site; to understand how the site relates spatially to its surrounding natural and cultural environment; to define settlement pattern and communication of the different human

groups in the area; to test proposed development models and conservation strategies of the site; and, finally, to help and facilitate monitoring and management of the site itself⁵.

Hence, the primary task of our geoarchaeological future work in the site will be both a contextual analysis at the micro scale and the identification of behaviourally meaningful site.

References

- ABU QUDAIRA, M.
2004 *The Geology of Zarqa Area, Map Sheet No. 3254-III, Natural Resource Authority, Geological Directorate, Geological Mapping Division, Bulletin 58, Amman 2004.*
- BAUBRON, J.C. - BESANÇON, J. - COPELAND, L. - HOURSE, F. - MACAIRE, J.J. - SANLAVILLE, P.
1985 "Évolution de la moyenne vallée du Zarqa (Jordanie) au Néogène et au Quaternaire", in *Revue de Géologie Dynamique et de Géographie Physique* 26/3 (1985), pp. 213-234.
- BESANÇON, J. - HOURS, F.
1985 "Prehistory and Geomorphology in Northern Jordan: a Preliminary Outline", in A. HADIDI (ed.), *Studies in the History and Archaeology of Jordan II*, Amman 1985, pp. 59-66.
- PARENTI, F. - AL-SHIYAB, A.H. - SANTUCCI, E. - KAFABI, Z. - PALUMBO, G. - GUERIN, C.
1997 "Early Acheulean Stone Tools and Fossil Faunas from the Upper Zarqa Valley, Jordanian Plateau", in H.G.K. GEBEL - G.O. ROLLEFSON - Z. KAFABI (eds.), *Prehistory of Jordan II, Perspectives from 1997* (Studies in Early Near Eastern Production, Subsistence and Environment 4), Berlin 1997, pp. 7-22.

⁵ See Premise §§ 0.1., 0.3.

ROME «LA SAPIENZA»



EXPEDITION TO PALESTINE & JORDAN

Finito di stampare nel mese di dicembre 2006
Presso la Tipografia SK7 – Roma

Per ordinare una copia – to order a copy:

www.lasapienzatojordan.it

® «La Sapienza» Expedition to Palestine and Jordan