

PRELIMINARY REPORT OF THE THIRD SEASON OF EXCAVATIONS OF ROME “LA SAPIENZA” UNIVERSITY AT KHIRBAT AL-BATRĀWĪ (UPPER WĀDĪ AZ-ZARQĀ’)

*L. Nigro, M. Sala, A. Polcaro**

Introduction (L. Nigro)

Rome “La Sapienza” University Expedition to Jordan¹ continued its research activities in year 2007 (Nigro 2007c) carrying on a survey in the Upper Wādī az-Zarqā’ basin and systematic restorations at the previously almost unexplored Early Bronze Age site of Khirbat al-Batrāwī². Excavations were supported by Rome “La Sapienza” University, the Italian Ministry of Foreign Affairs, and the Italian Ministry of University and Scientific Research³. The third season of survey and restorations took place in May-June 2007 and was made possible thanks to the strong help of the Department of Antiquities of Jordan⁴.

The 2007 season was mainly devoted to the study of the settlement variations in Upper Wādī az-Zarqā’ throughout the Early Bronze Age (**Fig. 1**), the period during which the fortified town of Khirbat al-Batrāwī flourished. This

site, due to its state of preservation, with almost negligible superimpositions later than the Early Bronze Age and no previous excavations, offers, in fact, an extraordinary opportunity for a detailed study of the rise, growth and collapse of early urbanism in this district of Jordan during the 3rd millennium BC⁵, as well as for the investigation of the inner spatial organization and hierarchy of its territory.

During the third season⁶, excavations and restorations were focused on Areas B North (§ 2.2), B South (§ 2.3) and F (§ 2.1), respectively located at the middle of the northern line of fortifications (Area B North and B South; fig. 2), and on the easternmost terrace of the site (Area F). A major goal of the third season was the systematic restoration of the EB II-III city-wall and of the city-gate opening in it (**Fig. 3**).

The survey of Upper Wādī az-Zarqā’ was carried out in three different sectors: the area

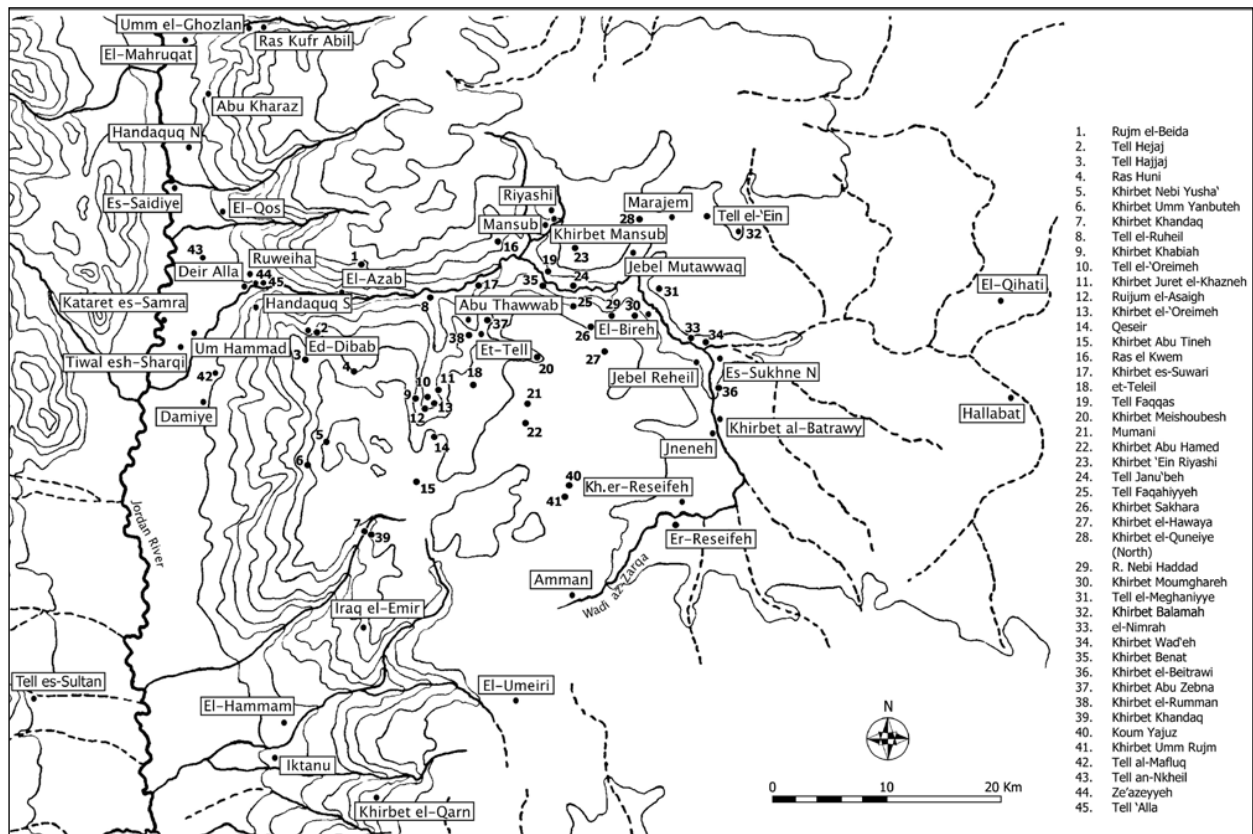
* Rome “La Sapienza” University. L. Nigro wrote §§ 1-3, 6, M. Sala wrote § 4, A. Polcaro wrote § 5.

1. Rome “La Sapienza” team during the third season included: L. Nigro, Director; M. Sala, Supervisor of Areas F and B South; A. Polcaro, Supervisor of Area B North; E. Gallo, A. Di Michele, V. Tumolo (draughtsperson). The representative of the Department of Antiquities, who gave helpful collaboration on the field to the Expedition, was Inspector Romel Ghayib.
2. Lat. 32°05’ N, Long. 36°04’ E; JADIS site n. 2516.011, p. 2.172 (Nigro 2006a: 233-235, fig. 1; Nigro ed. 2006: 9-22, maps 1-6, plan I).
3. The Author would also like to thank the Italian Embassy in ‘Amman, in the persons of H.E. Gianfranco Giorgolo, Ambassador of Italy, and Dr. Emanuele Manzitti for their cooperation, and the Italian Ministry of Foreign Affairs – General Directorate for Cultural Promotion and Cooperation, Office V.
4. The Expedition wishes to express his deepest thank to Dr. Fawwaz al-Khraysheh, General Director of Department of Antiquities of Jordan, for his invaluable support, as well as to the Academic Authorities of Rome “La Sapienza” University, the Vice-Rector, Prof. Paolo

Matthiae, the Dean of the Faculty of Humanistic Sciences, Prof. Roberto Antonelli, the Director of the Department of Historical, Archaeological and Anthropological Sciences of Antiquity, Prof. Gilda Bartoloni, who strongly sustained the Expedition.

5. Nigro 2006a: 229-230; Nigro ed. 2006: iii-vii.

6. In the previous seasons (Nigro 2006a; 2006b; 2007a; 2007b; Nigro ed. 2006; 2008), the main chronological, topographical and architectural pinpoints of the site were fixed (Nigro 2006a: 233-236; Nigro ed. 2006: 9-36, fig. 1.2; Nigro 2007a: 346-347, tab. 1), and five areas were opened respectively on the Acropolis (Area A; Nigro 2006a: 236-240; Nigro ed. 2006: 63-102, plan II; Nigro 2007a: 347-349), on the northern slope (Area B North and B South; Nigro 2006a: 240-246; Nigro ed. 2006: 153-196, plans III-IV; Nigro 2007a: 349-354), in the north-western and south-western corners (respectively Area C [Nigro ed. 2006: 25-27, figs. 1.27-1.31] and Area D [Nigro ed. 2006: 32-33, figs. 1.38-1.41; Nigro 2007a: 355-357]), on the southern side (Area E; Nigro 2007a: 357-358) and on the easternmost terrace of the khirbat (Area F; Nigro ed. 2006: 22, fig. 1.25; Nigro 2007a: 358-359).



1. Map of Early Bronze Age sites in the Wādī az-Zarqā' Valley.



2. General view of the site of Khirbat al-Batrāwī with the restored EB II-III city-wall and the EB II city-gate, from north (2007).

around the sources of the river, in the Amman surroundings; the area just south of Batrāwī, at the ford of the river; and the area north of Batrāwī, including Tall as-Sukhna North up to Tall al-Bira.

Further to the north, EB I villages on the northern bank of the Middle Wādī az-Zarqā' (Manṣūb, Khirbat Manṣūb, Riyāshī, Marājim, Tall al-'Ayn) and probably grouped around the major religious centre of Jabal al-Muṭawwaq

(Hanbury-Tenison 1987: 132; Fernández-Tresguerrez Velasco 2004, 2005; Douglas 2006: 51-52) were visited: most of them appeared to be definitely abandoned at the beginning of the III millennium BC, without any EB II centre taking their place (Douglas 2006: 52-54), the population probability moving down to the Jordan Valley, where a series of settlements may have benefited from these arrivals⁷, or climbing the valley in the opposite direction, attracted by

7. Tall as-Sa'idiyyah, Tall al-Qaws, Dayr 'Allā, Katārat as-Samrā, Tall Handāquq South, Tall Umm Ḥammād,

Tall al-Mafluq.



3. The restored EB II city-gate L.160, from north.

the urban formation which was taking place in the Upper Wādī az-Zarqā', namely at the site of Khirbat al-Batrāwī (Nigro in press, § 2).

To the west, the edges of Batrāwī dominion were reached, up to the site of at-Tall, which probably controlled the area of a bordering realm.

Work at the Site (L. Nigro)

Works at the site of Khirbat al-Batrāwī were concentrated in Areas F, B North and B South, with the aim of continuing the exploration of the EB II-III Broad-Room Temple in Area F and of the EB II city-gate and EB II-III city-walls in Areas B North and B South.

Area F – the EB II-III Broad-Room Temple

In Area F, the exploration of the broad-room temple continued on the western side of the sacred building and in its forecourt. The excavation of the western side of the cella showed that it was erected in Period Batrāwī II (Early Bronze II), by cutting and regularizing a berm in the bedrock, against which the side wall of the building leaned on. Within the cella, a pillar base was identified in the western half, possibly belonging to the earliest phase of use of the building, while the exact limits of the niche facing the entrance and provided with cup-marks were fixed and the whole device was brought to light.

In the forecourt, excavation focused on circular platform S.510. This cult installation, which was a typical one in Early Bronze II-III Levant-



4. Circular platform S.510 in the forecourt of Temple L.500, from west.

ine sacred areas⁸, had a diameter of 2.5m and a stone in the middle with a round hollow (**Fig. 4**), a shallow circular cup-mark, similar to those visible on the steps leading on the top of the round Altar 4017 at Megiddo (Finkelstein and Ussishkin 2000: 71, fig. 3.50).

Area B North – the EB II City-Gate

In Area B North, the street running outside the main wall (W. 103)⁹ and leading to the EB II city-gate (L.160; Nigro 2007a: 352, figs. 10-11) was further exposed, showing its EB IIIA floor (L.144a) continuing in between city-wall W.103 and outer wall W.155 (Nigro 2007a: 349-350, fig. 8) towards the west beyond the blocked gate (**Fig. 5**)¹⁰, as well as the rubble filling (F.178) in between the outer wall (W.155) and the scarp-wall W.165 adjoined to the latter in Early Bronze IIIB in order to strengthen it (Nigro 2007a: 351, fig. 7)¹¹.

Restoration works at the main city-gate (L.160) allowed us to clarify many details of this structure. On the outer side, both jambs of the gate were reinforced by big boulders set in the wall at its base and in the upper courses of the piers. The lowest course of irregular limestone blocks slightly protruded in order to strengthen the base of the two sides of the gate. A step marked the entrance to the passageway, with a stone abutting off in the corner, in order to protect the turning point (**Fig. 6**). The east-

8. See for instance: Altar 4017 at Tall al-Mutasallim/Megiddo (Loud 1948: 70, 73-76, figs. 164-165; Sala 2007: 214-219); circular platform i0.1 in the sacred area of Khirbat az-Zayraqūn (Genz 2002: 94-96, fig. 2; Sala 2007: 243-244), and the semicircular platform (*locus* 13) in Field XII at Bāb adh-Dhrā' (Rast and

Schaub 2003: 321-332; Sala 2007: 288).

9. Nigro 2006a: 243-245; Nigro ed. 2006: 188-190, figs. 4.53-4.54, plan IV; Nigro 2007a: 349-351.

10. In squares BoII5+BoII6.

11. In squares BnII4+BoII4+BnII5+BoII5.



5. Plastered floor L.144 in between EB II-III main city-wall W.103 and EB IIIA outer wall W.155, from east.



6. Particular of the big boulders abutting off from the main city-wall foot on the western side of EB II city-gate L.160, from north.

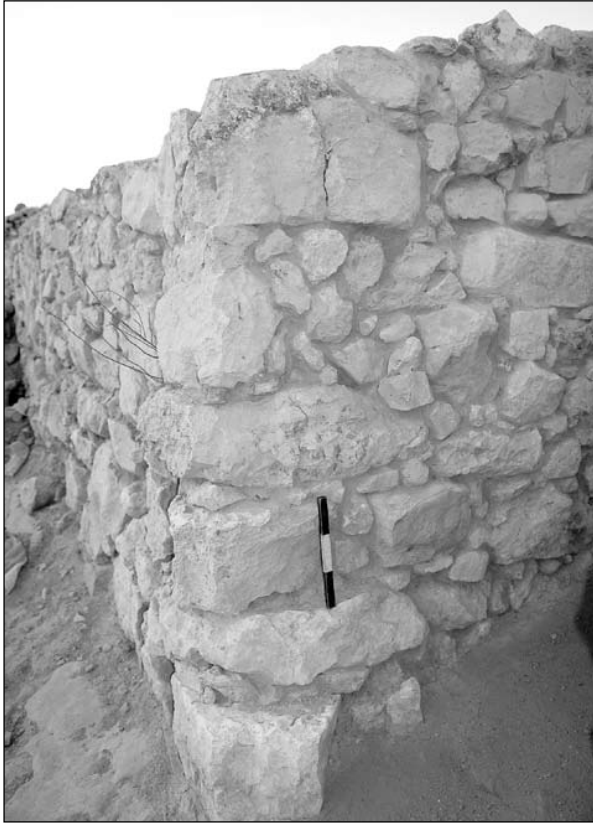
ern jamb showed the setting for the monolithic capstone which surmounted the passage on the outer side, while inside it was roofed with wooden beams, the location of which was made visible by a burnt trace on the inner side of the gate. Since cracks were visible on both jambs corresponding to the monolithic capstone (**Fig. 7**), it seems plausible that this was crushed and collapsed when a strong earthquake brought to a sudden end the life of the EB II city, as also attested to in other parts of the site.

Area B South – the EB III Layers Inside the City-Wall

Inside the main city-wall, excavations were concentrated in squares BqII8+BrII8, in between city-wall W.105+W.121 and wall W.409, showing that this structure continued eastwards, following the same slightly diverging orientation of the inner face of the city-wall. A stratigraphic section between wall W.121 and wall W.409 was cut, showing a long EB III sequence (**Fig. 8**).

Restorations of the City-Wall

A further stretch of the main city-wall including the gate and part of the structure west of it was carefully restored with antique-like mortar, after a special treatment of the stones (**Fig. 9**), up to the maximum preserved height (2.3m to



7. Particular of the eastern jamb of EB II city-gate L.160 with the cracks of the earthquake which brought to the end the EB II city.



9. The western stretch of the main city-wall W.103 with city-gate L.160 restored in 2007 season.

the west, and around 1.8-2.0m in the area of the gate)¹². Restorations also allowed us to better distinguish the successive constructive phases and related building techniques of the wall itself. The earliest city-wall was supported by a 2.0-2.5m high stone base, with a mud-brick tapering superstructure, around 6m high, crowned by wooden ceilings and mud-brick parapet (there are no data for establishing the shape of this parapet). The wall was built in juxtaposed



8. Particular of EB IIIB walls W.109 (to the right) and W.409 (to the left), inside the EB II-III main city-wall W.105+W.121, from north-west.

12. In the meantime a large amount of collapsed and erratic stones were removed from the site, in order to enhance the readability of the urban topography and

to facilitate the widening of excavations in the next seasons.

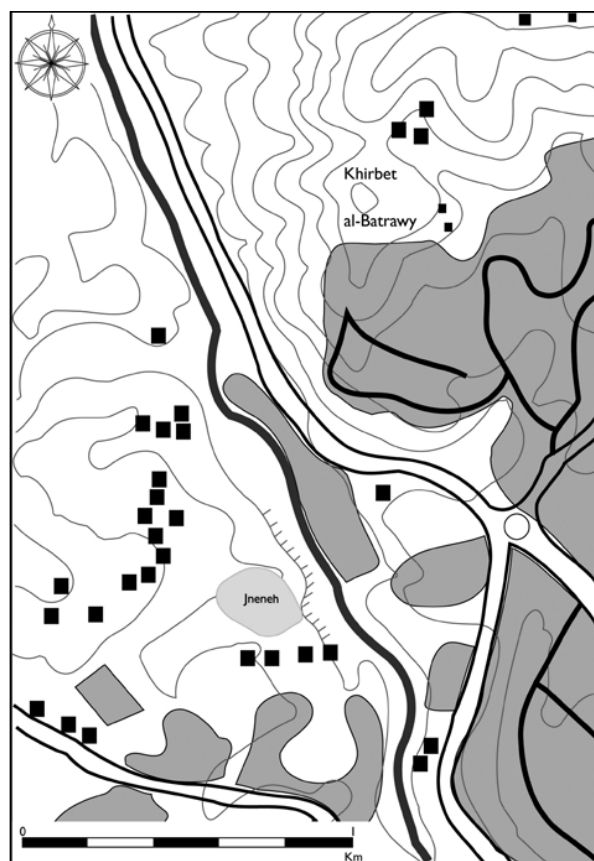
independent sections around 8m long¹³, which were intermingled when the stone basement was repaired and rebuilt at the beginning of the Early Bronze III, after the ruinous collapse of the end of the EB II city. The main wall at that time was entirely rebuilt with stones, the big ones employed in the outer and inner faces, and an inner filling of irregular stones laid in superimposed layers. On the inner side of the wall a series of stone slabs fixed into the wall were steps supporting a wooden staircase (W.181; Nigro 2007a: 350, fig. 9).

Thanks to the restorations the Batrāwī city-wall stands as one of the best preserved monuments of this kind in Southern Levant, and testifies to the achievements of the local community during the Early Bronze Age.

Survey of the Site Surroundings (L. Nigro)

A systematic survey of the hills and the quarters of the modern city surrounding Khirbat al-Batrāwī was carried out with the specific aim of identifying the ancient paths connecting the Early Bronze Age town to the underlying river and to locate the ford in the river banks. This was located just north of a rocky spur which narrowed the river banks and hosted the site of Junayna (JADIS n. 2516.016; Nigro ed. 2006, fig. 1.4, maps 4-5), south of Batrāwī (Figs. 10-11). A new examination of pottery on the surface of the latter site demonstrated that it was occupied not only in the Iron Age II-III, as already known (JADIS: 2.172), but also in the Early Bronze I (Douglas 2006: 50-51, fig. 2.16). The discovery of a series of “cup-marks” (Fig. 12) and rock-cut mortars on the rocky spur dominating the river near this site corroborated this hypothesis, suggesting that the EB I settlement was abandoned when the people moved to the hilltop site in the Early Bronze II, founding the fortified town of Khirbat al-Batrāwī.

If Junayna probably provided the bulk of the inhabitants of Batrāwī, other groups apparently participated in this process coming from other abandoned EB I hamlets of Upper and Middle Wādī az-Zarqā’, including also those north of the turn of the river to the West near Jabal Muṭawwaq, which were also the object of the 2007 survey (see below § 4). Moreover, the



10. Topographical map of the surroundings of Khirbat al-Batrāwī and Junayna.

growing centre possibly attracted also semi-nomad population into a more stable life, acting as a catalyst of people and exchanges.

A central role within these “urban” dynamics (Synecism and Catalysis; Nigro in press: § 2) was probably played by the temple erected on the easternmost terrace of the site, overlooking the tracks from the steppe and the desert, which with its traditional plan (still retaining the broad-room typology of Chalcolithic and Early Bronze I), possibly had inherited the function of central cult place, previously performed by the temple of Jabal al-Muṭawwaq (Fernández-Tresguerrez Velasco 2004).

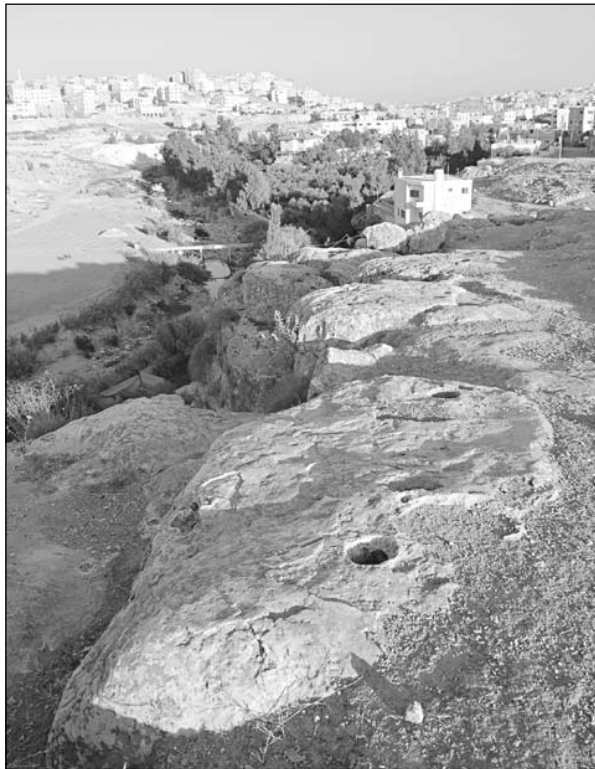
The survey of the site surroundings also allowed us to fix the limits of the territory under the city of Batrāwī control (Fig. 13). To the south the main pinpoints were two wadis flowing into the Wādī az-Zarqā’, where some hamlets were located in the Early Bronze Age. The southernmost limit was of course the major set-

13. Nigro 2006a: 243; Nigro ed. 2006: 175-177; Nigro

2007a: 352.



11. General view of the site of *Junayna* on the western side of *Wādī az-Zarqā'*, south of *Khirbat al-Batrāwī*.



12. Cup-marks excavated on the rocky spur of *Junayna*.

tlement of *Khirbat ar-Ruṣayfah*¹⁴, where a consistent EB II-III occupation was documented. North of *Batrāwī* the *Wādī az-Zarqā'* becomes narrower and around 1km before the junction with *Wādī aḏ-Ḍulayl* there was the site of *Tall*

as-Sukhna North, which was a relatively big rural village within the *Batrāwī* countryside, lying on the eastern bank of the river. To the north, after a turn of the river, a larger site, *Tall al-Bira*, stood up on the western bank on top of a basalt hill, possibly marking the northern limit of the *Batrāwī* district. The latter was crossed east-west by a valley, which allowed one to shortcut the road to the *Jordan Valley*, and which crossed the western hilly portion of the district, where olive tree cultivation was extended (in the surrounding of the sites of *Massarraḥ*¹⁵ and up to *at-Tall* to the west; **Fig. 1**).

Survey of the Upper and Middle *Wādī az-Zarqā'* (M. Sala)

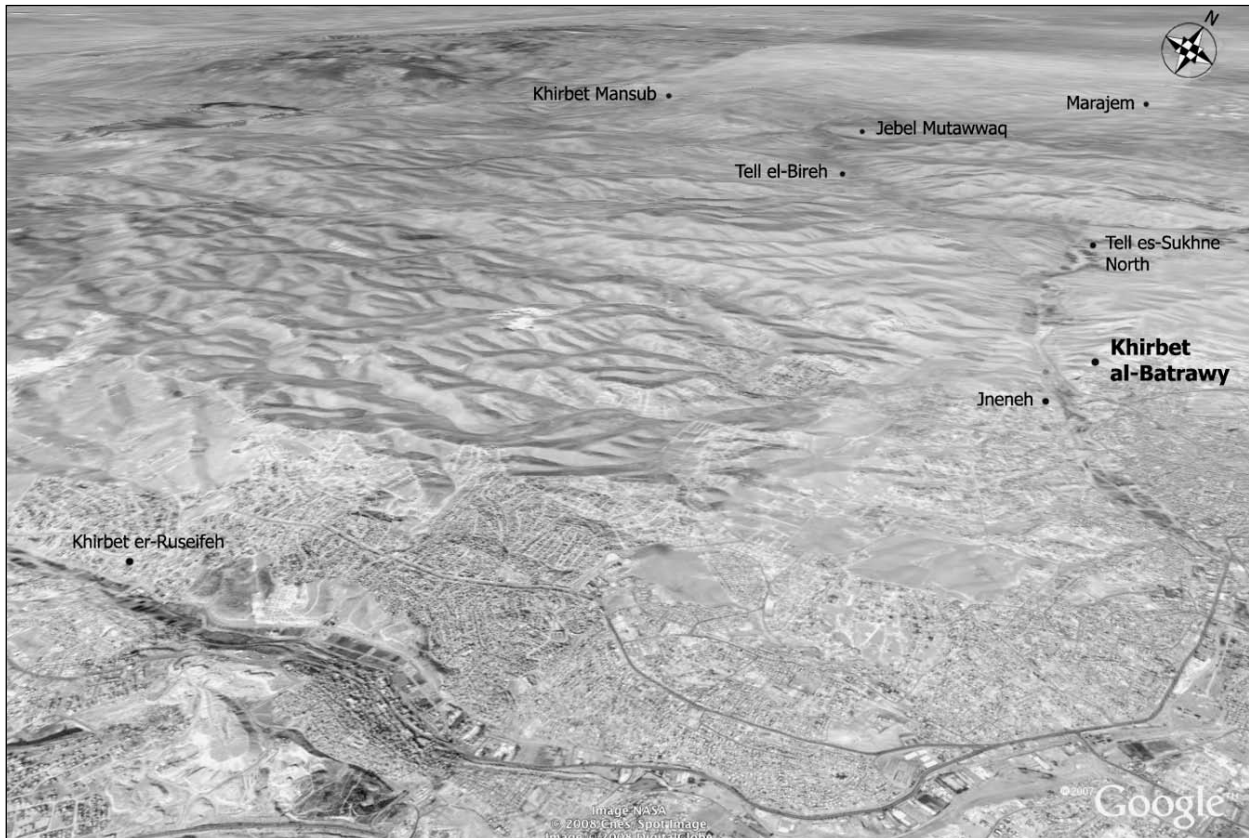
Within the framework of the “Pilot Project of Archaeological Excavations and Restorations at *Khirbat al-Batrāwī*, Upper *Wādī az-Zarqā'* Valley”, a survey was carried out in the 2007 season from south to north in Upper and Middle *Wādī az-Zarqā'*, mainly focusing on Early Bronze Age sites, in order to both outline the trends and shifting of early urban developments in the Upper *Wādī az-Zarqā'* Valley in the late IV-III millennium BC, and to check the edges and extension of the territory under *Batrāwī* control within the turn towards the west described by the *az-Zarqā'* river (**Fig. 13**).

Examined sites were all already known, and

14. Excavations at *Khirbat ar-Ruṣayfah* have been carried out by the Department of Antiquities of Jordan under the direction of Mr Romil Ghayib.

15. JADIS n. 2317.021. This Roman and Byzantine site, excavated by the Department of Antiquities of Jordan

under the direction of Mr Romil Ghayib, has also provided some sparse Early Bronze Age remains, suggesting that it supplied, with its olive trees, oaks and pines, basic resources (olive oil and wood) for the major urban sites as *Khirbat al-Batrāwī*.



13. Aerial view of the ancient territory under Batrawi control, inside the big turn towards west of the az-Zarqa' river.

have been selected among those of sure or possible Bronze Age occupation within a radius of 25km from Khirbat al-Batrawi, and north of the junction with Wadi ad-Dulayl up to the EB I sites on the right side of the river (Fig. 14).

At the beginning of the Early Bronze Age the Upper Wadi az-Zarqa' attracted new groups of semi-nomads gradually settling in encampments, hamlets and villages along both banks of the river and on the hills surrounding it (Kafafi in press). EB I rural villages were distributed along the river banks from its sources (Douglas 2006: 50-51) down to the big turn towards the west, where some big sites, such as Marajim, Mansub, Khirbat Mansub and Riyashi, were grouped around the major religious centre of Jabal al-Mutawwaq. These sites of the Middle Wadi az-Zarqa' were concentrated on its north bank, while in Upper Wadi az-Zarqa' hamlets and villages were almost regularly distributed in the valley. In the transition from the Early Bronze I to the Early Bronze II most of EB I sites in the Middle Wadi az-Zarqa' were abandoned, while

in the Upper Wadi az-Zarqa' a syncretic process brought to the foundation of the fortified centre of Batrawi, inducing also other groups of semi-nomads to settle both in the town itself and in the rural villages under its control, such as Khirbat ar-Rusayfah, Tall as-Sukhna North and Tall al-Bira (see above § 3).

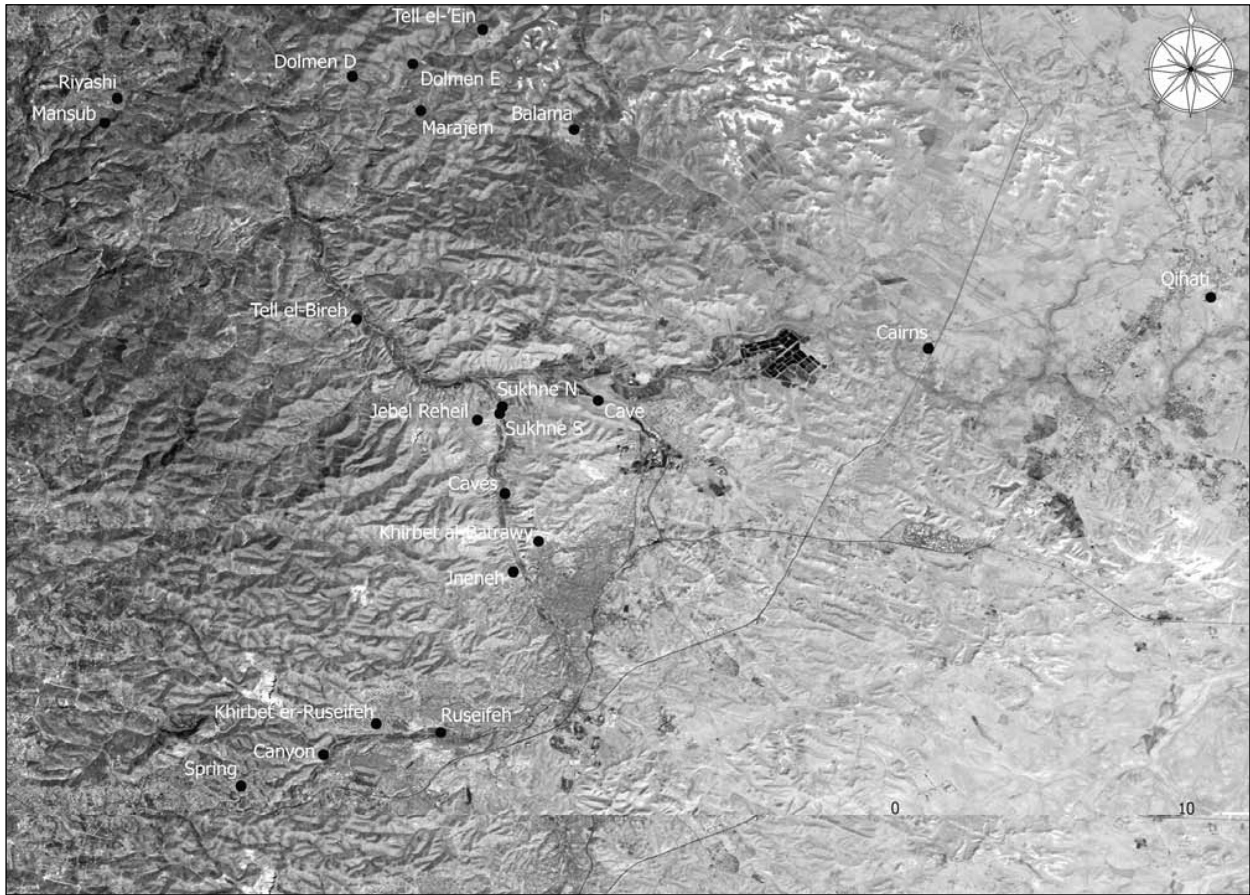
Catalogue of the Surveyed Site

From south to north, the visited Early Bronze Age sites were the following:

Khirbat ar-Ruseifah (JADIS n. 2415.076): the site (Fig. 15) was visited in the 1930s by N. Glueck (Glueck 1939: 206-207, site 261), who recognized an extensive Early Bronze Age occupation in the area. Heavily threatened nowadays by modern urban expansion, Khirbat ar-Rusayfah has been drastically damaged by bulldozer cuts which reduced its dimensions to almost one fifth of its original extension (probably up to 10 ha.; Nigro ed. 2006: 5, note 4). It had substantial occupations in the Early Bronze Age II-III¹⁶ and Middle Bronze III/Late Bronze I: a MB III/LB I

16. A 2m thick wall was deemed by the excavator a forti-

fication line of the Early Bronze III.



14. The area and sites surveyed by Rome “La Sapienza” Expedition in 2007.

monumental building (possibly a governor’s residency), which provided a rich set of materials (*pithoi*, jars, jugs and painted vessels), hints at the role of central place for this town in the az-Zarqā’/ar-Ruṣayfah district during the II millennium BC, when the city of Batrāwī was definitively deserted. The site shows also substantial Roman and Byzantine occupations.

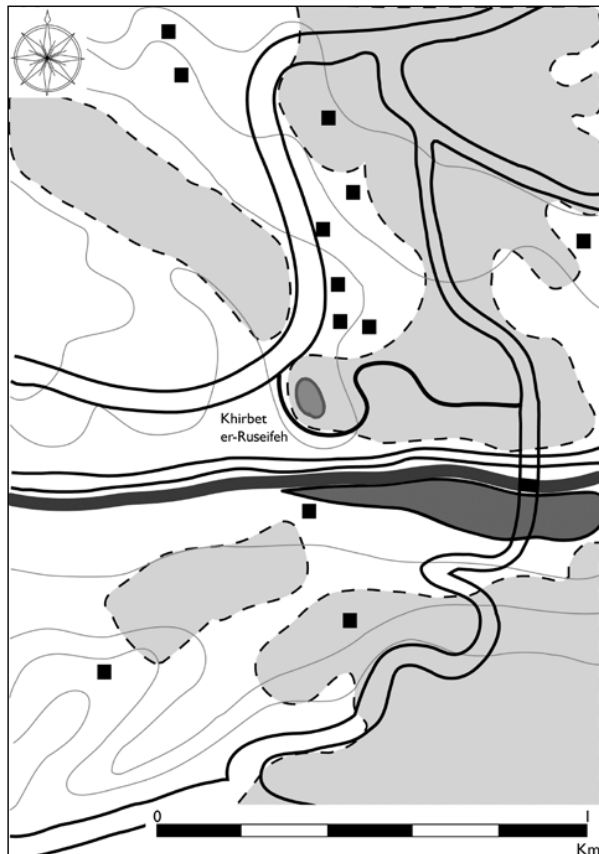
Tell es-Sukhne South (JADIS n. 2517.002): the site (**Fig. 16**) has a major MB II-III occupation (around 1 ha.), followed by an Iron Age I-III occupation and a Roman-Byzantine small farm along the eastern bank of the river (Glueck 1939: 212, site 316).

Tell es-Sukhne North (JADIS n. 2517.027): the site (**Figs. 16-17**) lies on the eastern bank of the Wādī az-Zarqā’, around 1km from the junction with Wādī ad-Ḍulayl, and it was already surveyed in the 1990s, when a cylindrical seal impression was also found (Chesson *et al.* 1995; Palumbo *et al.* 1996: 385-386, 401-403, tab. 6; Palumbo *et al.* 1997: 14; Nigro ed. 2006: 4, note

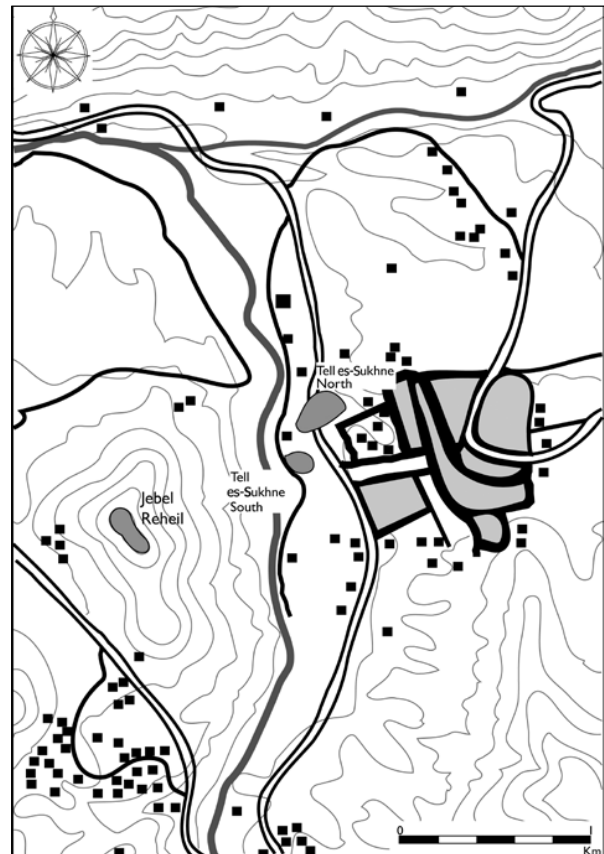
2). The new visit by Rome “La Sapienza” Expedition has checked the chronology of the site, which represented a substantial EBII-III A rural village in the Batrāwī countryside (**Fig. 18**).

Tell el-Bireh (JADIS n. 2417.021): one of the main sites visited along the western bank of the Wādī az-Zarqā’ was Tall al-Bira (Glueck 1939: 213-214, site 320; Nigro ed. 2006: 4, note 2), on a basalt spur overlooking a turn of the river (**Fig. 19**). EB II pottery sherds collected during the survey (**Fig. 20**) hint at the presence of a rural village underneath later more massive occupations and fortifications, possibly integrated in the Batrāwī territorial system, like Tall as-Sukhna North. The site has had a continuous occupation in most recent periods, mainly Hellenistic, Roman, Byzantine and Umayyad (also Iron Age II-III is perhaps present), hosting a fortress in Roman and Byzantine periods.

Khirbat Mansub (JADIS n. 2318.019): the site (**Fig. 21**) represents one of the EB I villages on the northern bank of Middle Wādī az-Zarqā’.



15. Topographical map of Khirbat ar-Ruṣayfah and its surroundings.



16. Topographical map of Jabal ar-Ruḥayl, Tall as-Sukhna South, Tall as-Sukhna North and their surroundings.



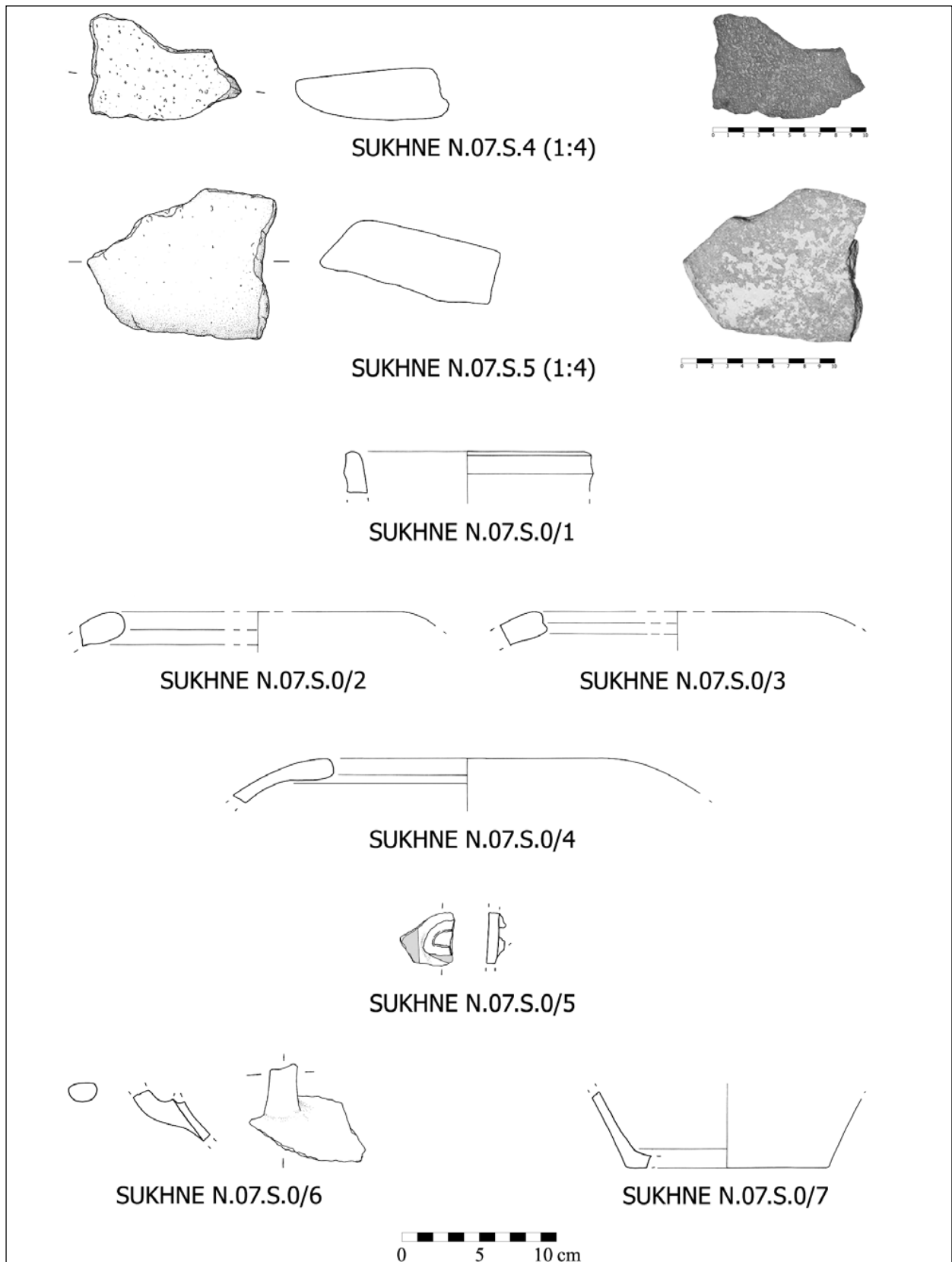
17. General view from south of the site of Tall as-Sukhna North, nowadays crossed by bulldozer cuts.

Already visited by N. Glueck (Glueck 1951: 87, site 265), it was surveyed in 1984 by J.W. Hanbury-Tenison, who recognized its substantial EB I occupation (Hanbury-Tenison 1987: 155, site 18). Some cup-marks detected in the bed-rock during the recent Rome “La Sapienza” survey (**Fig. 22**) may be ascribed to this proto-urban occupation. After the main EB I occupation, Khirbat Maṣṣūb was probably frequented in the Middle Bronze and Iron Ages, and then, more substantially, in the late Roman and By-

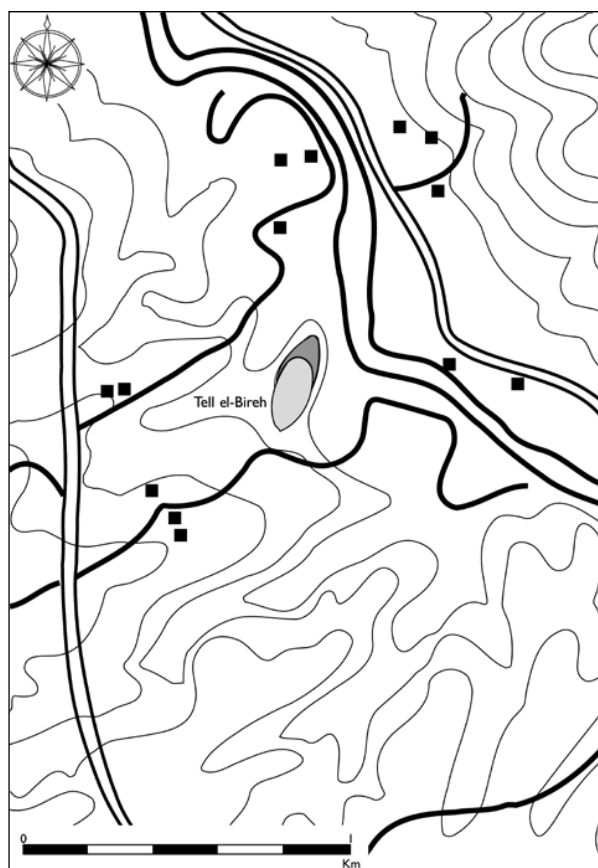
zantine periods (**Fig. 23**).

Mansub (JADIS n. 2318.018): the site represents one of the largest EB I occupations of Middle Wādī az-Zarqā’, firstly visited by J.W. Hanbury-Tenison in 1984 (Hanbury-Tenison 1987: 154-155, site 17), with EB I sherds scattered over a surface of 300 × 200m.

Riyāshī (JADIS n. 2318.017): another substantial EB I large occupation (around 4 ha.) has been detected at Riyāshī, just north of Khirbat Maṣṣūb (Hanbury-Tenison 1987: 154, site 16).



18. Early Bronze II-III A surface objects and pottery from Tall as-Sukhna North.



19. Topographical map of Tall al-Bira and its surroundings.

Also abandoned at the end of the IV millennium BC, the site was sparsely frequented in the Middle Bronze, Iron Age, Roman and Byzantine periods.

Tell al-‘Ain (JADIS n. 2418.025): the most easterly EB I village visited during the survey was Tall al-‘Ayn (Fig. 24). Already visited by N. Glueck (Glueck 1951: 84, site 305) and surveyed by J.W. Hanbury-Tenison in 1984 (Hanbury-Tenison 1987: 155, site 28), this site shows a long-lasting occupation from the beginning of the Early Bronze Age, with scattered EB I-II, MB II-III and LB sherds, and a later more sub-

stantial occupation in the Iron Age, Roman, Byzantine and Umayyad periods (Fig. 25).

Et-Tell (JADIS n. 2317.032): the site occupies a panoramic hill in an unconquerable location above 700m, in a region of oak forest and pines, suitable for wheat and olive cultivations. Its occupation dates back to the Early Bronze I (as it seems attested to by cup-marks and a rock-cut circular cistern in the bed-rock), followed by remains of an EB II-III (fortified?) town, almost completely erased by the later Persian fortress and its annexed devices (Gordon and Knauf 1987: 291-292, 294, site 4). Scattered MB, LB and Iron Ages fragments are also present at the site (Fig. 26).

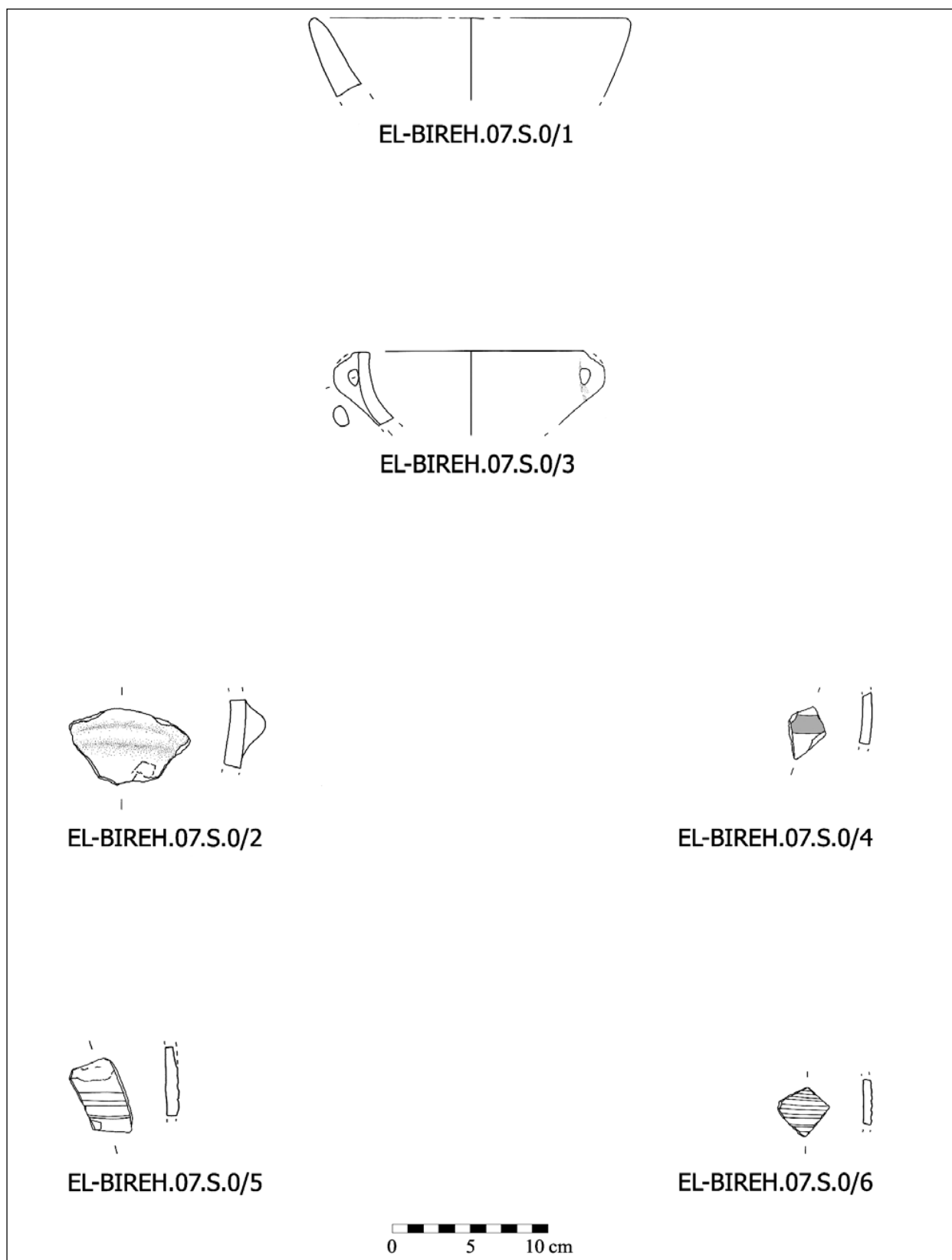
EB I dolmen fields in the Upper and Middle Wādī az-Zarqā’ (A. Polcaro)

Like the other Wadis running east-west from the highlands to the Jordan Valley, Wādī az-Zarqā’ hosted many dolmen fields (Fig. 27)¹⁷. Their disposition fairly corresponds to the different areas exploited by pastoral communities in different seasons (Polcaro 2008; Steimer-Herbert 2004: 27-30). It is probable that dolmen fields were used as funerary areas and cult places by EB I pastoral communities of Transjordan in some seasons during the movements of herds (Polcaro 2006: 139-146; Polcaro and Polcaro 2006). The dating to Early Bronze I is proved for all the megalithic necropolis of Wādī az-Zarqā’¹⁸: here the excavation at the dolmen field of Dāmiya/Ala Safat, at the confluence of the river with the Jordan Valley, proves the attribution of these structures to the Early Bronze I, mainly because of pottery material from the site (Stekelis 1961: 63; Yassine 1988: 51; Prag 1995: 77). Furthermore, our study of dolmens orientation has suggested a link between the cultural ideology of pastoral society, the funerary costume of secondary burial, and the topographical disposition of dolmen fields in the

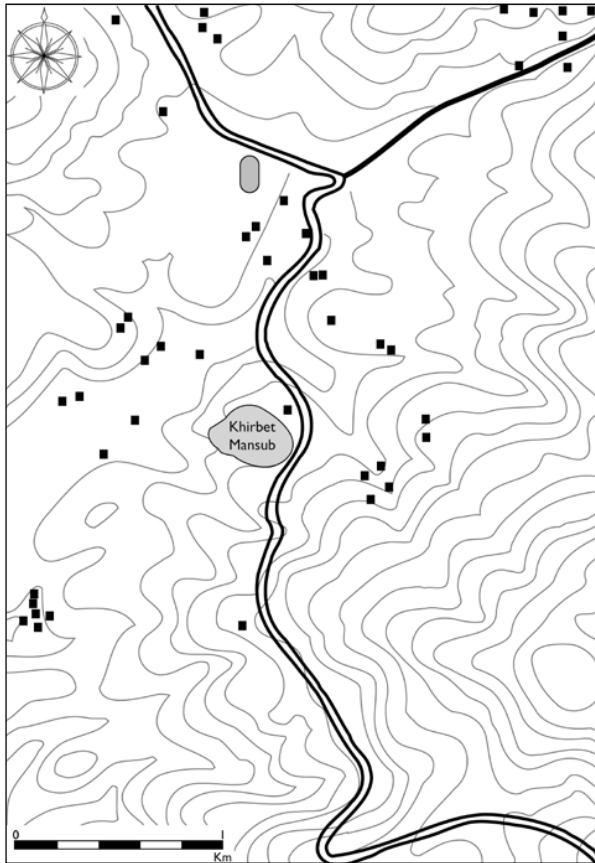
17. Most of the dolmen fields in Jordan are in the north-eastern area of the Dead Sea Plain, along Wādī Ḥisbān (200-300 dolmens) and Wādī Judayd (250 dolmens), in connection also with the great Chalcolithic necropolis of Adeimeh (Stekelis 1935; Hanbury-Tenison 1986). Towards the north, the other important areas with dolmen fields are al-Murayghāt, south of Mādabā (Piccirillo 2001), the Wādī az-Zarqā’, Wādī al-Yābis (Palumbo 1992; Palumbo *et al.* 1990: 480), Wādī at-Tayyiba, Wādī al-‘Arab and Wādī al-Yarmūk, until

the Golan region (Prag 1995: 72-78).

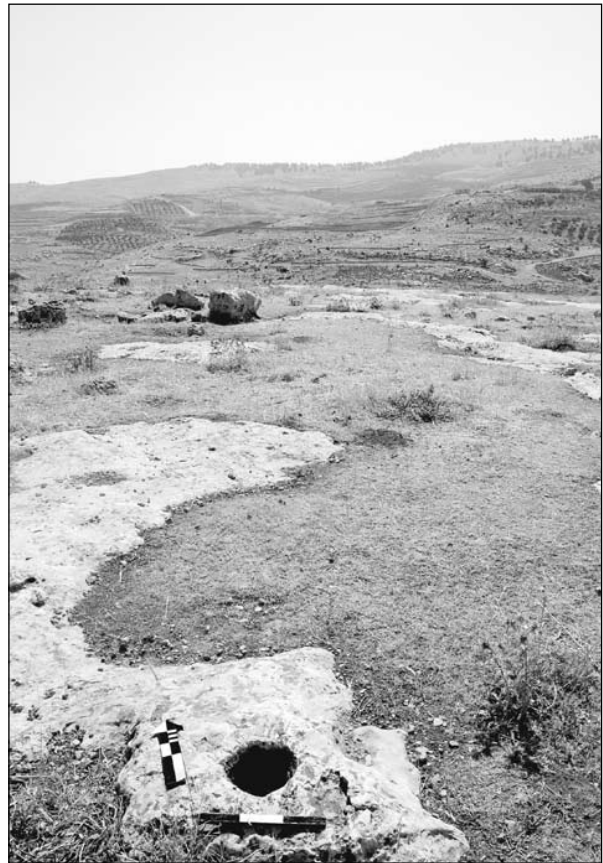
18. While the southern megalithic necropolises date to the Late Calcolithic Period, the majority of northern dolmen fields, in particular along the Wādī Yarmūk and on the Golan Heights, seem mostly belong to the Early Bronze IV/Middle Bronze I (Zohar 1992). It is noticeable, however, that more recent studies propose a more ancient date (Early Bronze I) for some important megalithic structures of the Golan, like Rujum Hiri (Aveni and Mizrahi 1997).



20. Surface pottery from Tall al-Bira: Early Bronze II (from *El-Bireh.07.S.0/1* to *El-Bireh.07.S.0/4*) and Byzantine (*El-Bireh.07.S.0/5*, *El-Bireh.07.S.0/6*) sherds.



21. Topographical map of Khirbat Mansub and its surroundings.



22. Cup-mark excavated in the bed-rock at Khirbat Mansub.

Early Bronze I¹⁹.

The dolmen fields of Wādī az-Zarqā' are located in various areas: on the higher places along the river and on the flanks of northern affluent Wadis. Most of these dolmen fields are small necropolis of a dozen structures maximum, with only two exceptions, Dāmiya and Jabal Muṭawwaq, which included hundreds of dolmens. In past surveys, catalogued by the JADIS database, 18 dolmen fields were identified in Upper and Middle Wādī az-Zarqā'; out of these,

only Jabal Muṭawwaq was partially investigated by the University of Oviedo under the direction of Prof. Fernández-Tresguerres (Fernández-Tresguerres 2005: 365), while on the other sites only sporadic information is available. During the 2007 season, we were able to identify five more dolmen fields²⁰, without including those in the 'Amman vicinities²¹.

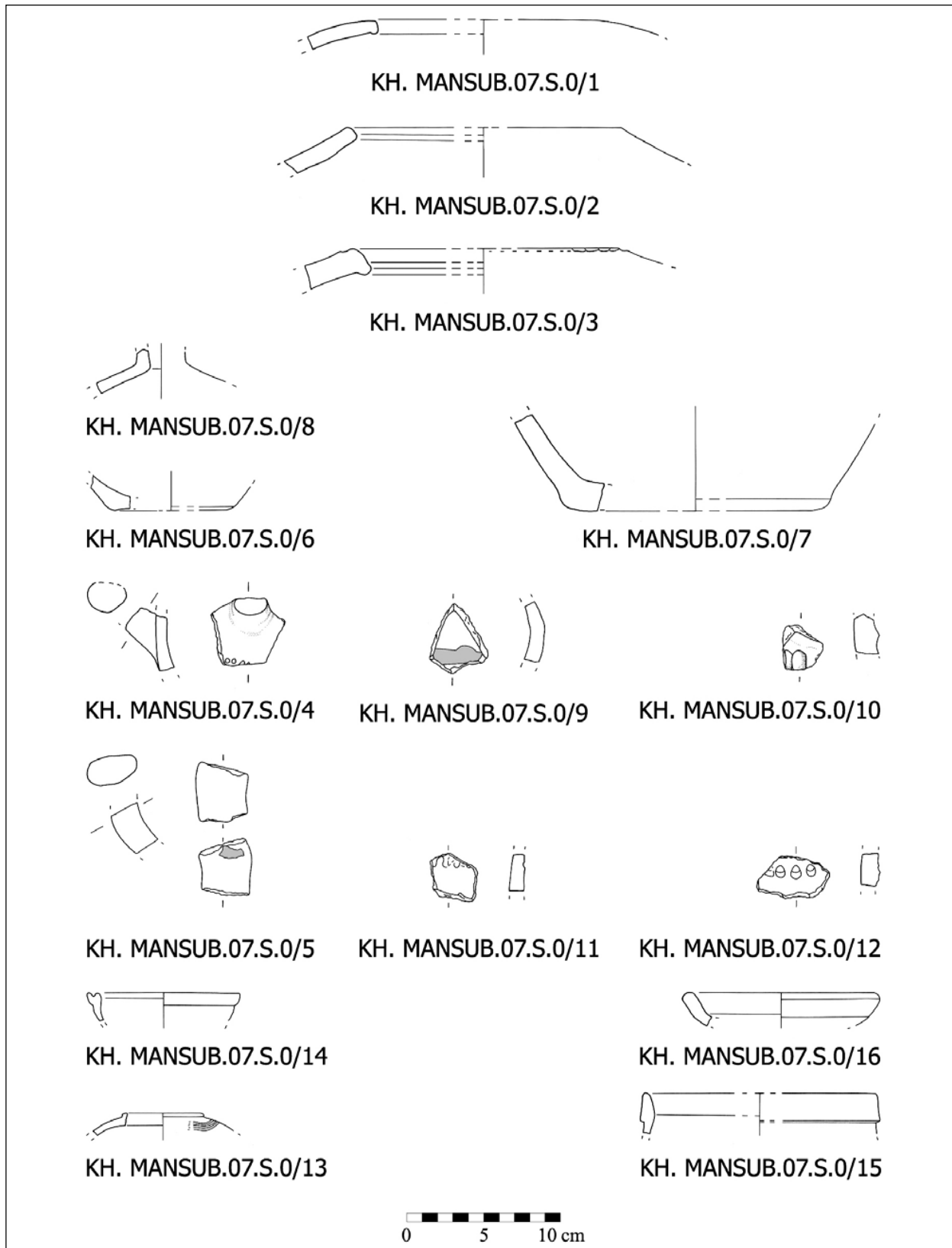
Architectural features of Jordanian dolmens are now well known due to many recent studies²². In general, a megalithic structure is com-

19. The orientation of dolmens mostly directed along the north - south direction was in fact interpreted as a precise astronomical alignment, linked to the culmination of Orion constellation in the Winter Solstice (Polcaro and Polcaro 2006: 169-170). This fact, statistically proved, was suggested to be connected with the Dumuzi's mythology and the particular funerary costumes of EB I pastoral society (Polcaro 2008; Polcaro and Polcaro 2006: 170-174), that probably used the dolmens and other megalithic structures as places to leave the dead until the decomposition of the bodies (Polcaro 2006: 283-292).

20. The first three sites, A, B, C, were identified thanks to the indication of Prof. Khaled Douglas (University of Zarqa) and Dr. Hugo Gajus Scheltema (Royal Netherlands Embassy in 'Amman), who collaborated with us in 2006 during the orientation measurements of different megalithic structures along the Wādī az-Zarqā' valley (Polcaro and Polcaro 2006).

21. Many of these dolmens have now disappeared; the same destiny occurred to the dolmen fields in the Mādabā area, in this case due to the expansion of the rock quarries (Piccirillo 2001).

22. Zohar 1992; Steimer-He.

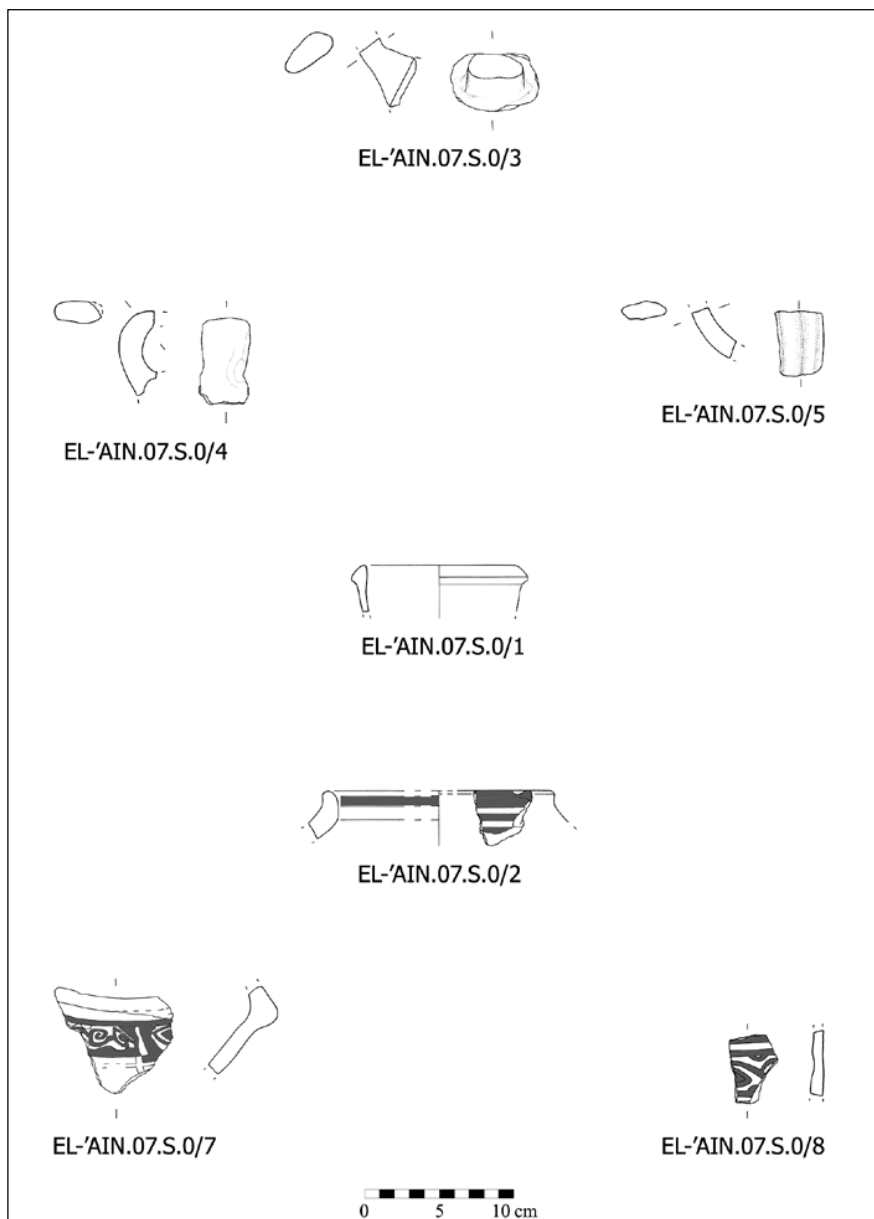


23. Surface pottery from Khirbat Mansub: Early Bronze I (from Khirbat Mansub.07.S.0/1 to Khirbat Mansub.07.S.0/12) and late Roman (from Khirbat Mansub.07.S.0/13 to Khirbat Mansub.07.S.0/16) sherds.

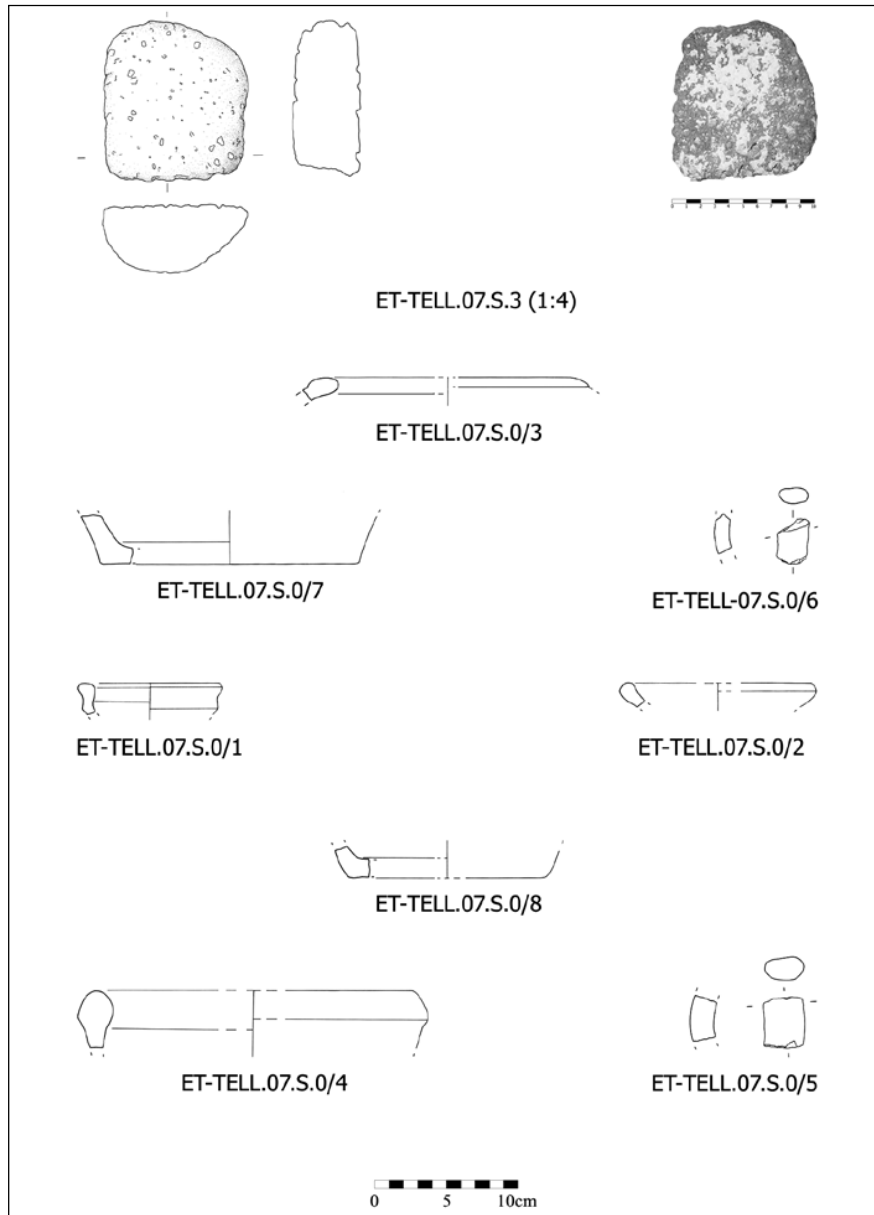


24. Topographical map of Tall al-'Ayn and its surroundings.

posed of a horizontal rock slab, lying on top of two or three vertical slabs; sometimes another rock slab is added to these to close the opening of the structure, as in Dāmiya, where the fourth slab often shows a small hole in the centre. This typology is called “box-like” type and it is sometime completely covered by earth and stones, assuming the form of a tumulus or a cairn. Common in Jordanian dolmens are circular or rectangular platforms on which these structures are built: these platforms are foundations composed by alignments of big stones, 4-6 meters in diameter (Kafafi and Sheltema 2005: 11). Out of the six known typologies of dolmens, the most com-



25. Surface pottery from Tall al-'Ayn: Early Bronze (EL-'Ain.07.S.0/3, EL-'Ain.07.S.0/6), Middle Bronze (EL-'Ain.07.S.0/4, EL-'Ain.07.S.0/5), Byzantine (EL-'Ain.07.S.0/1) and Umayyad (EL-'Ain.07.S.0/2, EL-'Ain.07.S.0/7, EL-'Ain.07.S.0/8) sherds.



26. Surface objects and pottery from at-Tall: Early Bronze II (Et-Tell.07.S.0/3, Et-Tell.07.S.0/6, Et-Tell.07.S.0/7), Middle Bronze III/Late Bronze I (Et-Tell.07.S.0/1, Et-Tell.07.S.0/2, Et-Tell.07.S.0/8), and Iron Age II (Et-Tell.07.S.0/4, Et-Tell.07.S.0/5) sherds.

mon in Wādī az-Zarqā' are Types A and B: the first consists of two vertical slabs surmounted by a horizontal slab; the structure is closed by a further slab and sometime by a fourth one on the rear side. Type B is formed by two or four long vertical slabs and two or more horizontal slabs that form the roof, which sometimes reaches a length of ten meters (Kafafi and Sheltema 2005: 12). In the sites of Upper Wādī az-Zarqā', we recognized also Type E, formed by a double chamber, one over the other, often divided by a wooden horizontal slab. Finally, Type F is also present in Wādī az-Zarqā': the latter typology, called "pseudo-dolmen", is similar to rock cut

graves excavated in a single block of rock (Kafafi and Sheltema 2005: 12).

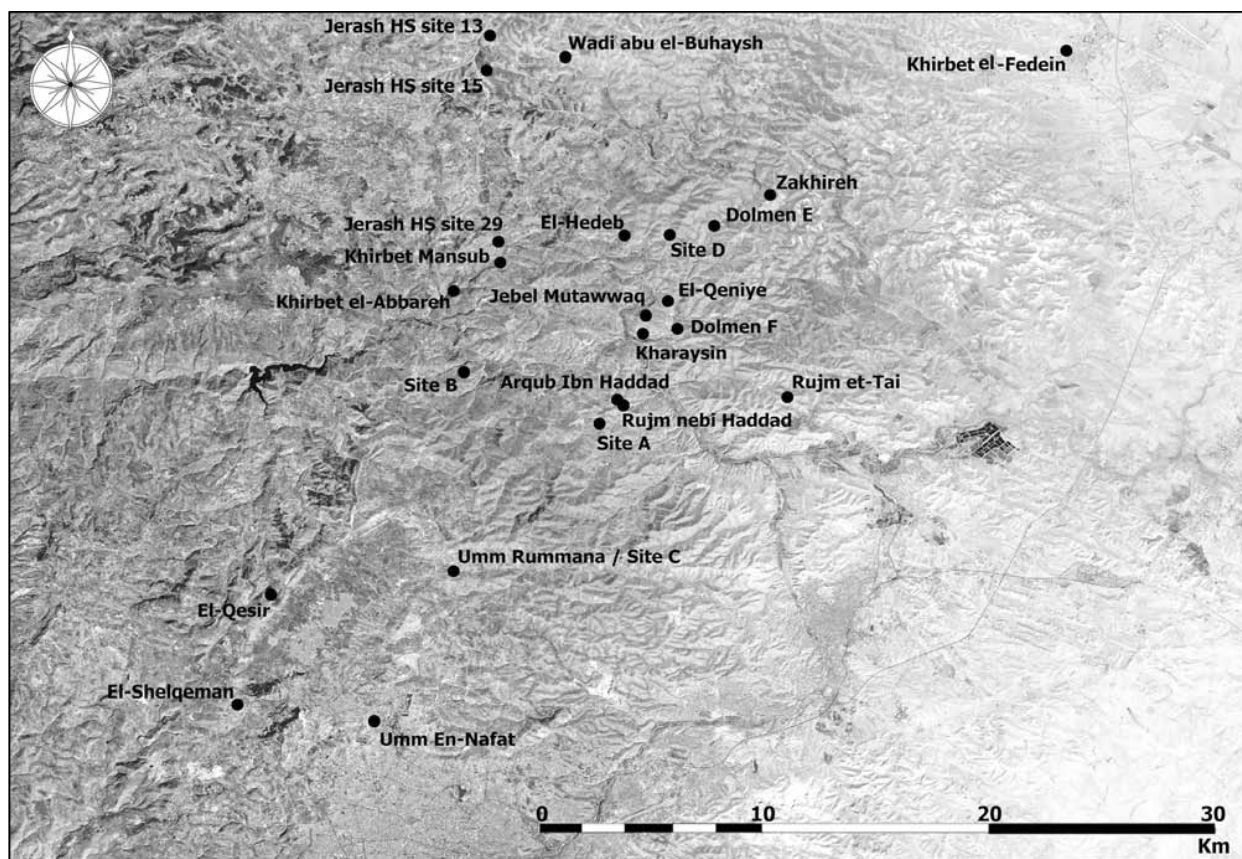
Catalogue of JADIS Dolmen Fields

In the inner fluvial river basin the JADIS database indicates three dolmen sites:

El-Qesir

JADIS reference: n. 2216.003 (coordinates: UTME: 7656; UTMN: 35527; size: 35000 mq; elevation: +806)

Description: site 282 of Glueck's survey (Glueck 1939: 198-199). The site is recorded as an EB II-III fortified settlement; dolmens are near the site. According to JADIS also an EB IV



27. Topographical map of dolmen fields in the az-Zarqā' region.

village is present.

El-Shelqeman

JADIS reference: n. 2215.018 (coordinates: UTME: 7642; UTMN: 35467; size: unknown; elevation: +860)

Description: no other structures or indications different to dolmens are recorded for this site.

Umm en-Nafat

JADIS reference: n. 2315.126 (coordinates: UTME: 77055; UTMN: 354596; size: unknown; elevation: +1045)

Description: site 58-31.1 of Abu Dayyah's survey (Abu Dayyah *et al.* 1991: 392). Some wall structures and the presence of a possibly modern cemetery are recorded near the dolmen field.

Along the river valley the JADIS database indicates nine dolmen sites:

Rujm et-Tai

JADIS reference: n. 2517.006 (coordinates: UTME: 2234; UTMN: 35637; size: unknown;

elevation: +660)

Description: presence of dolmens nowadays lost.

Rujm Nebi Hadad

JADIS reference: n. 2417.013 (coordinates: UTME: 7816; UTMN: 35634; size: unknown; elevation: +765)

Description: presence of EB I pottery within the dolmen field; according to JADIS pottery sherds date back from EB IV.

Arqub Ibn Haddad

JADIS reference: n. 2417.008 (coordinates: UTME: 7813; UTMN: 35637; size: unknown; elevation: +675)

Description: site 324 of Glueck's survey (Glueck 1939: 216). Some standing stones are recorded in connection with the dolmen field (attributed to Early Bronze IV by JADIS).

Kharaysin

JADIS reference: n. 2417.002 (coordinates: UTME: 7824; UTMN: 35673; size: 30000 mq; elevation: +460)

Description: site 24 of Hanbury-Tenison's

survey (Hanbury-Tenison 1987: 155). The presence of dolmens in this Neolithic site is probably linked to the nearby greater Jabal Muṭawwaq EB I dolmen field.

El-Qeniyeh

JADIS reference: n. 2418.024 (coordinates: UTME: 7835; UTMN: 35691; size: unknown; elevation: +600)

Description: site 260 of Glueck's survey (Glueck 1951: 84-85). Only the presence of a dolmen field is recorded.

Jebel Mutawwaq

JADIS reference: n. 2418.011 (coordinates: UTME: 7825; UTMN: 35683; size: 240000 mq; elevation: +590)

Description: this is the only dolmen field recorded in JADIS database visited during the survey of Rome "Sapienza" University. The site is one of the best preserved dolmens field in Jordan, with hundreds of intact structures. The first survey carried out by J.W. Hanbury-Tenison (Hanbury-Tenison 1986: 245) recognized one thousand dolmens. We identified the two best preserved areas on the site: one on the east of the EB I settlement, connected to the dolmen field (Fernández-Tresguerres 2005), and one more extended on the northern side. The first area is near a natural spring, around which many caves are visible; here we identified at least ten dolmens, well preserved, aligned on different rows, all oriented north-south. The northern dolmen area is divided into three groups of structures, located on two slopes, one in front of another, and on the valley in between them. Also the dolmens of this area are mostly oriented north-south; we analyzed twenty well preserved structures of different type, mostly ascribable to the A and B typology.

Khirbat el-Abbareh

JADIS reference: n. 2318.058 (coordinates: UTME: 7736; UTMN: 35694; size: unknown; elevation: +456)

Description: site 268 of Glueck's survey (Glueck 1951: 89). Some walled structures in connection with surface Roman pottery are recorded with the dolmen field.

Khirbat Mansub

JADIS reference: n. 2318.019 (coordinates: UTME: 7757; UTMN: 35710; size: unknown; elevation: +540)

Description: sSite 265 of Glueck's survey

(Glueck 1951: 87). Only the presence of a dolmen field is recorded; pottery from EB I to Byzantine period is registered.

Jerash HS Site 29

JADIS reference: n. 2318.009 (coordinates: UTME: 7756; UTMN: 35721; size: unknown; elevation: +540)

Description: the presence of a dolmen field is recorded with pottery from Late Chalcolithic to EB I (Leonard 1987: 354).

Along the northern river valleys the JADIS database indicate six dolmen sites:

El-Hedeb

JADIS reference: n. 2418.019 (coordinates: UTME: 7814; UTMN: 35726; size: unknown; elevation: +664)

Description: site 300 of Mittmann's survey (Mittmann 1970: 114-115). Only the presence of a dolmen field is recorded.

Zakhireh

JADIS reference: n. 2418.027 (coordinates: UTME: 2229; UTMN: 35747; size: unknown; elevation: +800)

Description: site 306 of Glueck's survey (Glueck 1951: 73). Some walled structures in connection with the dolmen field are recorded.

Jerash HS Site 15

JADIS reference: n. 2319.008 (coordinates: UTME: 7748; UTMN: 35814; size: unknown; elevation: +1020)

Description: only the presence of a dolmen field is recorded; pottery mostly dated to the Early Bronze I (Leonard 1987: 351).

Jerash HS Site 13

JADIS reference: n. 2319.006 (coordinates: UTME: 7749; UTMN: 35833; size: unknown; elevation: +1000)

Description: some walled structures in connection with the dolmen field are recorded; pottery mostly dated to the Early Bronze I (Leonard 1987: 348).

Wadi abu el-Buhaysh

JADIS reference: n. 2419.012 (coordinates: UTME: 7784; UTMN: 35822; size: unknown; elevation: +850)

Description: site 257 of Glueck's survey (Glueck 1951: 77). Only the presence of a dolmen field is recorded.

Khirbat El-Fedein

JADIS reference: n. 2619.001 (coordinates:

UTME: 23678; UTMN: 358213; size: 75000 mq; elevation: +708)

Description: site 247A of Glueck's survey (Glueck 1951: 1-2). The site shows a long occupation from Iron Age to Umayyad period.

Catalogue of New Discovered Dolmens

Umm Rummana - Site C

Coordinates: Lat: 32 05,462; Long: 35 54,196 (in the inner fluvial river basin)

Size: unknown

Elevation: +900

Description: the dolmen field is near the modern village of Umm Rummana and it is heavily threatened due to the modern agricultural works that have destroyed many megalithic structures. We identified at least ten dolmens well preserved, mostly of A typology, sometimes constructed with a foundation pit. The dolmen field was clearly more extended, probably also along the nearby hills, where many big broken stone slabs are visible. Noticeable is the presence of a big dolmen of E typology, recognizable by the parallel notches cut on the side of the vertical slabs. Also near the site some rock-cut tombs have been identified.

Site A

Coordinates: Lat: 32 09,772; Long: 35 58,480

Size: unknown

Elevation: +715

Description: the site is extended on two connected hills. On the northern one two well preserved dolmens were identified, but the presence of many broken stone slabs points to the original presence of a big dolmen field. On the southern hill some walls, as well as many cupmarks on the natural bed-rock, were identified. The stone alignments seem relative to platforms and enclosures more than houses. Many pottery fragments dated to the Early Bronze I were recognizable on the surface.

Site B

Coordinates: Lat: 32 11,287; Long: 35 54,500

Size: unknown

Elevation: +458

Description: the site is extended on a slope descending to the Wādī az-Zarqā' Valley, apparently not connected with EB settlements. Two dolmens were identified: one of B typology,

with a great rectangular platform around it and a particular closure made of small stones; and one of F typology, excavated in a single block. Between the structures some EB I pottery was recognized. The presence of a cairn near the site, possibly with a *dromos* entrance, is noticeable.

Site E

Coordinates: Lat: 32 15,584; Long: 36 01,846

Size: unknown

Elevation: +625

Description: the site lies on a hill, along the southern side of the modern street to Tall al-'Ayn. Here at least two well preserved dolmens have been identified. Both of them belong to A typology, of small dimensions without platform or others connected structures, oriented north-south.

Site D

Coordinates: Lat: 32 15,311; Long: 36 00,543

Size: unknown

Elevation: +654

Description: the site was identified at 2.10km west of Site E. Only a well preserved dolmen of A typology was recognized. It is possible that this dolmen and the two of Site E were originally part of the same megalithic field, completely destroyed except for these few specimens.

Conclusions (L. Nigro)

The third season of excavations at Khirbat al-Batrāwī was devoted to the protection and the valorization of some major monuments at the site, i.e. its magnificent city walls and city gate with an inner staircase, dating back to the Early Bronze II-III (2900-2300BC). In the meantime, Rome "La Sapienza" Expedition carried out a further survey of the Upper Wādī az-Zarqā', especially focused on Early Bronze Age remains, in order to situate the site in its regional context, and to reconstruct its historical development.

Bibliography

Abu Dayyah, A.-S. *et al.*

1991 Archaeological Survey of Greater Amman, Phase I: Final Report. *ADAJ* 35: 361-395.

Aveni, A. and Mizrachi, Y.

1997 The Geometry and Astronomy of Rujm el-Hiri, a Megalithic Site in the Southern Levant. *Journal of Field Archaeology* 25: 475-496.

- Chesson, M.S. *et al.*
 1995 Tell es-Sukhne North: An Early Bronze II Site in Jordan. *Paléorient* 21/1: 113-123.
- Douglas, K.
 2006 Occupational History of the Early Bronze Age in the Upper Wadi az-Zarqa. Pp. 49-62 in L. Nigro (ed.), *Khirbat al-Batrāwi. An Early Bronze Age Fortified Town in North-Central Jordan. Preliminary Report of the First Season of Excavations (2005)*.
- Fernández-Tresguerrez Velasco, J.A.
 2004 Jabal al-Mutawwaq/Qunayya, Az-Zarqa'. *Munjazât* 5: 24.
 2005 Jabal al-Mutawwaq. *ADAJ* 49: 365-372.
- Finkelstein, I. and Ussishkin, D.
 2000 Area J. Pp. 25-74 in I. Finkelstein, D. Ussishkin and B. Halpern (eds.), *Megiddo III. The 1992-1996 Seasons* (Tel Aviv Monograph Series 18).
- Genz, H.
 2002 *Die frühbronzezeitliche Keramik von Khirbat ez-Zeraqon* (Abhandlungen des Deutschen Palästina-Vereins, Band 27,2), Wiesbaden.
- Glueck, N.
 1939 *Explorations in Eastern Palestine, III (AASOR XVIII-XIX)*. New Haven.
 1951 *Explorations in Eastern Palestine, IV, Part I: Text (AASOR XXV-XXVIII)*. New Haven.
- Gordon, R.L. and Knauf, E.A.
 1987 Er-Rumman Survey 1985. *ADAJ* 31: 289-298.
- Hanbury-Tenison, J.W.
 1986 *The Late Chalcolithic to Early Bronze I Transition in Palestine and Transjordan* (BAR International Series 311). Oxford.
 1987 Jarash Region Survey 1984. *ADAJ* 31: 129-157.
- Kafafi, Z.
 in press Early Bronze Age I Settlers and Transhumance in the Wdi az-Zarqa Basin: Stations on the Way from the Jordan Valley to the Badia Region. In J.-Cl. Margueron, P. de Miroschedji and J.-P. Thalmann (eds.), *Proceedings of the Third International Congress on the Archaeology of the Ancient Near East, Paris 2002*. Paris.
- Kafafi, Z. and Scheltema, H.G.
 2005 Megalithic Structures in Jordan. *Mediterranean Archaeology and Archaeometry* 5/2: 5-22.
- Leonard, A.
 1987 The Jarash - Tell el-Husn Highway Survey. *ADAJ* 31: 343-390.
- Loud, G.
 1948 *Megiddo II. Seasons of 1935-39* (OIP 62). Chicago.
- Mittmann, S.
 1970 *Beitraege zur Siedlungen und Territorialgeschichte des Nordlischen Ostjordanien*. Meinz.
- L. Nigro, M. Sala, A. Polcaro: *Khirbat al-Batrāwi*
 Nigro, L.
 2006a Preliminary Report of the First Season of Excavations by the University of Rome "La Sapienza" at Khirbat al-Batrāwi (Upper Wadi ez-Zarqa). *ADAJ* 50: 229-248.
 2006b Khirbat al-Batrāwi. *MUNJAZÂT* 7: 57-59.
 2007a Preliminary Report of the Second Season of Excavations by the University of Rome "La Sapienza" at Khirbat al-Batrāwi (Upper Wadi az-Zarqa'). *ADAJ* 51: 345-360.
 2007b Khirbat al-Batrāwi: una città del Bronzo Antico tra il deserto basaltico e la Valle del Giordano. *Scienze dell'Antichità* 13.
 2007c Khirbat al-Batrāwi. *MUNJAZÂT* 8.
 in press Khirbat al-Batrāwi: a Case Study of 3rd millennium BC Urbanism in North-Central Jordan. *SHAJ* 10.
- Nigro, L. (ed.)
 2006 *Khirbat al-Batrāwi. 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), Rome.
- Palumbo, G.
 1992 Monumenti megalitici nella regione del Wadi al-Yabis (Giordania Settentrionale). *CMAO* 4: 45-60.
- Palumbo, G. *et al.*
 1990 Survey in the Wadi el-Yabis. *Syria* 67: 479-481.
- Palumbo, G. *et al.*
 1996 The Wadi Az-Zarqa'/Wadi Adh-Dhulayl Excavations and Survey Project: Report on the October-November 1993 Fieldwork Season. *ADAJ* 40: 375-426.
 1997 The Wadi Az-Zarqa'/Wadi Adh-Dhulayl Archaeological Project, Report on the 1996 Fieldwork Season. *ADAJ* 41: 9-26.
- Palumbo, G. (ed.)
 1994 *JADIS, the Jordan Antiquities Database and Information System: a Summary of the Data*. Amman.
- Piccirillo, M.
 2001 Ricerca storico-archeologica in Giordania XXI - 2001. *Liber Annuus* 51: 359-394.
- Polcaro, A.
 2006 *Necropoli e costumi funerari in Palestina dal Bronzo Antico I al Bronzo Antico III* (Contributi e Materiali di Archeologia Orientale 11), Roma.
 2008 The Ideology of Ancestors in EB I Palestine and Transjordan. The Cult of Dead as Social Structure and Factor of Territorial Unification of Early Urban Development. Pp. 521-534 in H. Küne *et al.* (eds.), *Proceedings of the 4th International Congress of the Archaeology of Ancient*

ADAJ 52 (2008)

- Near East, 29th March - 3rd April 2004, Vol I.*
Wiesbaden.
- Polcaro, A. and Polcaro V.F.
2006 Early Bronze Age Dolmens in Jordan and their Orientations. *Mediterranean Archaeology and Archaeometry* 6/3: 165-171.
- Prag, K.
1995 The Dead Sea dolmens: death and the landscape. Pp. 75-84 in S. Campbell and A. Green (eds.), *The Archaeology of Death in Ancient Near East.* Oxford.
- Rast, W.E. and Schaub, R.T.
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, In.
- Sala, M.
2007 *L'architettura sacra della Palestina nell'età del Bronzo Antico I-III* (Contributi e Materiali di Archeologia Orientale 13). Roma.
- Stekelis, M.
1935 *Les Monuments Mégalithiques de Palestine*, Paris.
1961 *La nécropole mégalithica de Ala-Safat, Jordania.* Barcelona.
- Steimer - Herbert, T.
2004 *Classification des sépultures à superstructure lithique dans le Levant et l'Arabie aux IV^e et III^e millénaires av. J.-C.* Oxford.
- Yassine, K.
1988 *Archaeology of Jordan: Essays and Reports.* Amman.
- Zohar, M.
1992 Megalithic Cemeteries in the Levant. Pp. 43-64 in O. Bar-Yosef and A. Khazanov (eds.), *Pastoralism in the Levant - Archaeological Materials in Anthropological Perspectives.* Madison.