THE HASHEMITE KINGDOM OF JORDAN

STUDIES IN THE HISTORY AND ARCHAEOLOGY OF JORDAN

XI
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A Stratified third Millennium BC Pottery Sequence from North-Central Jordan: The EBII - III Repertoire of Khirbat al-Baträwī

1. Introduction: Stratigraphy of the Site
Excavation and restoration work carried out by Rome “La Sapienza” University at the site of Khirbat al-Baträwī in north-central Jordan between 2005 and 2010 brought a significant portion of this untouched EB II - III fortified town to light, with a continuous sequence of structures and occupational layers from the beginning of the 3rd millennium BC to the final destruction of the town at the end of EB IIIB (Nigro 2009a, 2010a, 2010b; Nigro ed. 2006, 2008; 2012; Nigro and Sala 2009; 2010).

The coherent and uninterrupted stratigraphic sequence of this site, which was affected by successive episodes of destruction and reconstruction, preserves three main periods of occupation (respectively EB II, EB IIIA and EB IIIB; Nigro 2010a: 42-44) and many sealed contexts. This has allowed us to explore developments in the ceramic repertoire of this early urban community within the general framework of the north-central Jordanian pottery horizon, including sites as Khirbat az-Zayaaqin (Genz 2002), Pella (Bourke 2000), Tall Abû al-Kharaz (Fischer 2008), Tall al-Handaqûq North (Mabry 1989), Tall as-Sa’idiyya (Tubb 1988: figs 32, 35, 38, 1998: 44), Tall al-Handaqûq South (Chesson 2000) and the more recently excavated site of Tall Zarâ (Vieweger et al. 2009).

The clearest and best-preserved stratigraphic sequence at the site was excavated on the north side of the town in Area B (see Nigro this volume: figs 1 - 2), both inside and outside the EB II - III main city-wall (Nigro 2007: 347-349, 352-353; Nigro ed. 2008: 7-8, 66-76, 127-147; 2012: 13-30, 145-167).

Three successive destruction layers (related to the destructions which afflicted the town at the end of EB II, EB IIIA and EB IIIB) were excavated outside the main city-wall and between it and the ad-
1. Western section of squares BnII5 + BnII4 outside the EB II-III Main City-Wall (W.163), with the three (EB II, EB IIIA and EB IIIB) superimposed layers of destructions (F.809, F.805, F.802/F.814) and related pottery materials.

2. Superimposed layers of destruction and collapse outside the EB II-III Main City-Wall (W.163), from east.

Fine ware (i.e. simple painted ware), as well as for the main shapes with related fabrics, typological features, surface treatments and decoration. Specialised pottery productions relating to each period are listed afterwards.

In all three phases, plain ware vessels (i.e. table, cooking and storage wares) represent around 80% of the assemblage, which comes mainly from the domestic sphere or from possible public storage units. However, the frequency of specialised production changes from one period to another (TABLE 2; FIG. 4).
2. EB II Pottery Repertoire
To date, EB II layers have been reached in two areas of the site: Areas E and B. Area E is located on the southern side of the site, where a sounding opened in the middle of the southern fortification line reached the earliest occupational layers, which lay directly over bedrock and dated back to EB II (phase 4; Nigro 2007: 357-358; Nigro ed. 2008: 245-255). EB II layers consisted of a thick stratum of collapse, represented by compacted charcoal, ash and crushed greyish mud-bricks. The latter had tumbled down from the EB II city-wall superstructure as a result of the violent earthquake which brought the EB II town to a sudden end (Nigro 2009a: 666-667, 2010b: 437). Similar EB II layers were reached in Area B North, outside the main city-wall, and in Area B South, inside the EB II blocked city-gate (phase 5; Nigro ed. 2008: 75-76).

### Table 1. Archaeological periodization and stratigraphic phases of Khirbat al-Batrāwī, with enlightened the main EB II, IIIA and IIIB contexts.

<table>
<thead>
<tr>
<th>Site</th>
<th>Period</th>
<th>Absolute Chronology</th>
<th>Area A</th>
<th>Area B North</th>
<th>Area B South</th>
<th>Area E</th>
<th>Area F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batrawy I</td>
<td>EB I</td>
<td>3400-3000 BC</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy II</td>
<td>EB II</td>
<td>3000-2700 BC</td>
<td>Phase 6</td>
<td>Phase 5</td>
<td>Phase 4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy IIIa</td>
<td>EB IIIA</td>
<td>2700-2500 BC</td>
<td>Phase 5</td>
<td>Phase 4</td>
<td>Phase 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy IIIb</td>
<td>EB IIIIB</td>
<td>2500-2300 BC</td>
<td>Phase 4-a</td>
<td>Phase 3-c</td>
<td>Phase 3-d</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy IVa</td>
<td>EB IVA</td>
<td>2300-2200 BC</td>
<td>Phase 3-a</td>
<td>Phase 3-a</td>
<td>Phase 2-a</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy IVb</td>
<td>EB IVB</td>
<td>2200-2000 BC</td>
<td>Phase 2-d</td>
<td>Phase 2-g</td>
<td>Phase 2-c-a</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy V</td>
<td>Later Periods</td>
<td>2000 BC-1950 AD</td>
<td>Phase 2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Batrawy VI</td>
<td>Contemporary Frequentation</td>
<td>1950-2007 AD</td>
<td>Phase 1</td>
<td>Phase 1</td>
<td>Phase 1</td>
<td>Phase 1</td>
<td>Phase 1</td>
</tr>
</tbody>
</table>

### Table 2. Graphics of attestation of different pottery productions in EB II, EB IIIA and EB IIIB periods.

![Diagram](image)

- Simple Ware
- Kitchen Ware
- PreservationWare
- Simple Painted Ware
- Red Burnished/Polished
- Grain Wash
- Metallic Ware
- Khirbet Kerak Ware
4. Graphics of attestation of different pottery productions in EB II, EB IIIA and EB IIIB periods.

1 The latter shape finds comparisons at EB II Tell el-Qassis (Ben-Tor et al. 2003: fig. 48:9), Tall es-Sultan (Garstang et al. 1935: pl. XXXIII:27) and Tell 'Arad (Amiran et al. 1978: pl. 13:10).


3 Amphoriskoi are common in contemporary EB II assemblages from Tall abîl Kheir. A parallel for the lug-handles of Battawī specimen KB.05.B.111/1 can be found in Fischer 2008: fig. 135:5.
a coarse reddish-brown / brown fabric with gritty chalk, limestone and mica tempers, which finds comparisons in both northern and southern Palestine, at EB II Tall as-Sukhneh North (Chesson et al. 1995: fig. 3:2), Khirbat Kerak (Greenberg et al. 2006, figs 2.15:2, 3.29:3, 3.41:3, 5.79:4, 7.35:9), Tall es-Sultan (Kenyon and Holland 1983, fig. 56:20), and Arad (Amiran et al. 1978: pl. 45:19). Unfortunately, no whole vessels were recovered, so it is still unclear whether the Batrawi II hole-mouth pots had a flat or round base (Greenberg 2006). However, the flat base of one pot was retrieved.

Nevertheless, at key northern Jordanian sites like Khirbat az-Zayra‘in (as at contemporary northern Palestinian sites; Greenberg 2006: 40-43), the typical cooking vessel is the squat-ovoid hole-mouth pot with rounded base (Genz 2002: pls 72:2-3, 73:1-2, 81) or the squat-ovoid pot with everted rim and rounded base (Genz 2002: pl. 73:3-4).

Batrawi II storage ware vessels fall into three main functional classes: *pithoi* for long-term storage (more than 80 litres), medium-large jars and hole-mouth jars for medium-term storage (40 - 50 litres) and medium to medium-large jars with loop
handles, most likely for transport (30 - 40 litres). All storage vessels were coil-built, with necks and rims manufactured on a slow wheel. They were produced in light brown, light red, pink or reddish fabrics, sometimes with a reduced grey core. They could also be refined with an outer red / brown slip, horizontal or alternating horizontal and vertical combing (FIG. 6:14 - 6:17) or, occasionally, the so-called ‘grain-wash’ decoration, inherited from the preceding EB I tradition and consisting of painted irregular orange / red / brown vertical or crossing bands. This type of decoration continued to be used in northern Palestine during EB II, mainly on pithoi and storage jars, as attested to by the assemblages of Khirbet Kerak (Greenberg et al. 2006: figs 2.15:3, 5.79:6, 5.82:3,7, 8.58:7, 8.80:6), Khirbat az-Zayraqūn (Genz 2000), Tall as-Sukhnih North (Chesson et al. 1995: fig. 3:14), Tall Abū al-Kharaz (Fischer 2008: figs 49:4,10, 51:10) and Tall al-Handaquq North (Mabry 1989: 78-79, figs 10:11).

The Batrawī II storage ware repertoire is mostly represented by coil-built hole-mouth jars (FIG. 6:3 - 6:7), which were the typical storage container in dwellings as attested to in particular by contemporary assemblages from EB II dwellings at Tall es-Sultan (Sala 2010: 260-261), et-Tell4 and Tell ‘Arad5 (Ilan 2001: tab. 18.6-18.7). They had an ovoid body, flat base and plain, flattened or swollen rim.

6. EB II Storage and Metallic Ware vessels.

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Transport jars with ovoid shape, flaring necks and vertical handles (FIG. 6:11 - 6:13) are widely known, being common on northern Palestinian sites; they were often also produced in metallic ware (see below).

Large pithoi with flaring necks and everted thickened rounded rims (FIG. 6:1)6, or everted squared or triangular rims (FIG. 6:2)7, are present but less common.

Metallic ware, an EB II diagnostic of northern Palestine (Greenberg and Porat 1996), is so far present at Khirbat al-Batrāwī in the distinctive class of pattern-combed jars. These exhibit ovoid bodies, flaring necks and loop handles, and were used for the storage and above all transport of specific products (Greenberg and Porat 1996: 10-11), including olive oil. These vessels were always refined by finely regular horizontal or alternating horizontal and vertical outer combing. Highly fired, hand-made, metallic ware jars were produced in a red/orange fabric or, occasionally, a dark grey fabric in thicker vessels. In section, the fabric is generally uniform in appearance, evenly fired but rather coarse grained, with grey cores appearing in large vessels. The same ‘metallic orange/reddish ware’ production is widely present in northern Transjordan and Jordan, as for example at Tall al-Handaqiq North (Mabry 1989: 79) and Khirbat az-Zayraqrūn (Genz 2002: 30).

Simple painted ware is only present in low frequencies during the Batrāwī phase, consisting of a few fine bowl and small jar fragments, with tiny white and black grits, sometimes refined by a white / cream slip. Painted decoration is represented by red, reddish-brown and grey vertical, oblique or crossing lines, painted either on curved bowls or small jars (FIG. 5:8 - 5:9). Decoration and patterns are very simple and the vessels belong to the ordinary domestic repertoire8. Another type of painted decoration is ‘grain-wash’, but this was used mainly on storage containers (see above).

The main fine and specialised production of the Batrāwī II phase is represented by red-burnished and polished ware (Amiran 1969: 58-59; Esse 1991: 104-107). Red-burnished platters, 30 to 45 cm in diameter (with a diameter to depth ratio of at least 4:1) (FIG. 5:11 - 5:12), are the main eating and serving table ware vessels and become a hallmark of the EB II period all over Palestine (Ilan 2001: 343)9. They are always red-burnished inside, with a horizontal, radial or net pattern, and often outside as well. They have a flat base, straight oblique to slightly curved walls and a short triangular or slightly in-turned rim, either thickened or tapered. A concavity is sometimes present below the rim10.

Batrāwī II red-burnished production also includes platter-bowls with curved walls and in-turned rims (FIG. 5:13), which find comparisons at EB II Tall Abū al-Kharaz (Fischer 2008: fig. 145:8), Tall as-Sukhna North (Chesson et al. 1995: fig. 3:7), in the EB II Kinneret Tomb (Mazar et al. 1973: fig. 6:26), Khibret Kerak (Greenberg et al. 2006: figs 5.78:4, 7.31:6), Qiryat Ata (Golani 2003: figs 4.25:18, 4.35:10, 13), Tall es-Sultan (Kenyon and Holland 1983: fig. 51:1, 4, 53:1, 95:11) and Tell ‘Arad (Amiran et al. 1978: pl. 23:15). There are also bowls with straight walls and in-turned (sometimes projecting in and out) rims (FIG. 5:10), a shape which is present at EB II Khirbat az-Zayraqrūn (Genz 2002: pls 45:5, 68:4, 77:8) and Tall es-Sultan (Garstang et al. 1936: pl. XXXVI-II:4).

Finally, red-burnished and polished jugs and juglets (FIG. 5:14 - 5:15) with a flat or sometimes slightly stump base (as in contemporary EB II rep-

6 This type finds comparisons at EB II Khirbat az-Zayraqrūn (Genz 2002: pl. 19:14), Tall as-Sukhna North (Chesson et al. 1995: fig. 3:9), Khirbet Yarmouk (de Miroshchadi et al. 1988: pl. 21:18) and Tall el-Umayr (Harrison 2006b: fig. 5.14-1, 3).
7 They find comparisons at EB II Tall al-Handaqiq North (Mabry 1989: fig. 10:11), Tall es-Sultan (Kenyon and Holland 1983: fig. 141:5), Khirbet Yarmouk (de Miroshchadi et al. 1988: pl. 20:8) and Tall el-Umayr (Harrison 2006b: fig. 5.14-5).
8 This is the type of painted decoration that G. Charloux (2006) has recently defined as “céramique aux lignes peintes A” in order to differentiate it from specialised production, such as line-painted ware (designated “céramique aux lignes peintes B”), which was still present in central and southern Palestine during EB II. It is attested to at other key EB II sites, such as Tall as-Sadiyya (Tubb 1989: fig. 4:7, 1998: pl. 4b), Tall Abū al-Kharaz (Fischer 2000: fig. 12.8:6, 2008: figs 139:1, 154-9:10) and Tall es-Sultan (Sala 2010: 262).
10 The body of the platter was pressed into a mould and the rim attached afterwards: the rim and its join with the vessel were then smoothed on a slow wheel.

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ertories from Tall Abu al-Kharaz [Fischer 2008: fig. 135:9-10, 12-15] and Qiryat Aţa [Golani 2003: fig. 4.29:7-8, 12-15]) are the main 'luxury' container of this phase (Esse 1991: 104-107), which may have been used for grape-juice and / or ointments.

3. EB IIIA Pottery Repertoire

A second violent destruction, represented by a thick dark grey layer of charcoal, ash and burnt fragments of yellowish mud-bricks, marks the dramatic end - evidently by fire - of the EB IIIA town of Batrāwī (Nigro 2009a: 668, 2010b: 439). EB IIIA contexts are thus sealed without any disturbance. They have been excavated in Area B North, between the main city-wall and outer wall W.155, and north of scarp-wall W.177 directly over bedrock (phase 4; Nigro 2007: 350-351; Nigro ed. 2008: 73-74; Nigro and Sala 2009: 374-375). The same destruction layer was also exposed within the town in Area B South, in the street (L.148 + L.458) running parallel to the main city-wall and inside the EB II blocked city-gate (phase 4; Nigro 2006: 243-244, 2007: 354; Nigro ed. 2006: 165, 184-185, 2008: 145-150). Some EB IIIA material was also recovered from the acropolis, in Area A East, scattered directly over the bedrock (phase 5; Nigro ed. 2006: 75).

EB IIIA and EB IIIB ceramic repertoires are often dealt with in the literature as a single entity, because of the undeniable continuity in both vessel shapes and productions between the two phases. Nevertheless, the well-defined stratigraphy of the EB II - III fortified town of Khirbat al-Batrāwī has allowed us to put the distinction between the EB IIIA and EB IIIB assemblages on a coherent stratigraphic basis. Thus, the evolution of some shapes and differences between fabrics can be summarised, as can the diversification and diffusion of some specialised production between the two periods.


It also finds parallels at contemporary central and southern sites, such as et-Tell (stratum VI; Callaway 1972: 257-291, 1980: 159-183), Tall es-Sultan (Garstang's level III; Kenyon's squares E1II - IV, phases C - A; phase Sultan IIIc1), Khirbet Yarmouk (strata A5 in Area A, BIII in Area B, CIV - C1II in Area C, D6 in Area D, E3 in Area E, GIV in Area G; de Miroshchki et al. 1988: 76-80, pls 27-40, 2000: tab. 18.1, figs 18.3-18.4), Tell el-Hesi (stratum 4c - b; Fargo 1979), Tall al-'Umayrī (IP 21 - 20; field D, phases 6 - 5; Harrison 1997; Herr 2000: fig. 2.3) and Bāb adh-Dhrā' (stratum II).

The transition to EB III, the period which witnessed the major flourishing of the town, was marked first by a clear standardisation in terms of shape, fabric and function of pottery production, and second by a significant increase in the number and variety of fine and specialised wares, thereby testifying to fundamental changes in patterns of production and consumption. The simple painted and red-burnished / polished wares become more widespread and of better quality, along with pattern-combed metallic ware; Khirbet Kerak ware also makes its appearance.

The shape and surface treatment of the majority of vessels are still based on that of the previous EB II period, but shows a higher standard of manufacture, finishing and firing. In the meantime, fabrics become more standardised and sieved, with a preponderance of well-fired, well-tempered (always mineral, usually with calcite grits) light red and reddish-yellow fabrics. Vessels are usually well-finished, with well-levigated surfaces.

Plain ware mostly continues EB II traditions, as evidenced by the large number of bowls with curved walls and plain or pointed rims (FIG. 7:1 - 7:2) and bowls with in-turned rims (FIG. 7:3)\(^\text{11}\). Deep bowls with curved walls and everted rims also appear (FIG. 7:4), as in contemporary layers at et-Tell (stratum VI; Callaway 1980: fig. 108:18-19), Tall es-Sultan (phase Sultan IIIb1; Kenyon and Holland 1983: fig. 59:5; Marchetti and Nigro eds 2000: fig. 1:32:1), Tell el-Hesi (Fargo 1979: fig. 1:10) and Tall al-'Umayrī (Harrison 2000b: fig. 2000: fig. 1:49-4) and Tall al-'Umayrī (Harrison 2000b: fig. 5.22.10).

\(^{11}\) This shape is widely present in EB IIIA contexts, as attested at et-Tell (stratum VI; Callaway 1972: fig. 60:6, 1980: fig. 109:20), Tall es-Sultan (phase Sultan IIIb1; Marchetti and Nigro eds 2000: fig. 1:49-4) and Tall al-'Umayrī (Harrison 2000b: fig. 5.22:10).
5.22:6). The disc of bowl KB.08.B.805/30 (FIG. 7:5) finds comparisons at EB IIIA Beth Shan (stratum XII; Fitzgerald 1935: pl. VIII:13) and Tall es-Sultan (Garstang 1932: pl. IV:1-2, 4; Kenyon and Holland 1983: fig. 59:6). Vats with straight wide oblique walls and large bowls / kraters with slightly splaying out walls (FIG. 7:6)\textsuperscript{12}, occasionally with pushed-up ledge handles and sometimes refined with pattern-combed decoration, are also present. These may have been linked to an increase in communal food-production (e.g. olive oil and brewing; Esse 1991: 119-124; Ilan 2001: 343; Tubb 1998: 44, pl. 4a).

An increase in the frequency of jugs and juglets with stump or tapering bases, typical of this phase, is also noticeable (FIG. 7:16 - 7:20). In jugs, as well as in small and medium size jars (FIG. 7:7 - 7.15)\textsuperscript{13}, rims and necks are now commonly manufactured on a slow wheel, the use of which becomes widespread. This leads towards a progressive standardisation of some of the main shapes of each functional class.

As regards cooking ware, the coil-built hole-mouth pot with ovoid shape and slightly swollen rounded or flattened rims even represents the main type in the Batrāwī III repertoire.

\textsuperscript{12} The latter shape finds comparisons at et-Tell (Callaway 1972: fig. 62:24, 27) and Tall es-Sultan (Kenyon and Holland 1982: fig. 71:10-11).

\textsuperscript{13} For comparisons see et-Tell (stratum VI; Callaway 1972: fig. 61:6-7, 9-20, 1980: fig. 111:12-23).
EB IIIA storage ware is still illustrated by the three morphological and functional classes of the previous Batrawi II period. *Pithoi* for long-term storage are characterised by an elongated ovoid body, flaring neck and rope-like plastic decoration usually applied at the base of the neck (FIG. 8:12) to hide the joins of different parts of the vessel (coil-built body and wheel-turned neck). They now exhibit different rim profiles: everted thickened rims (FIG. 8:1 - 8:2), everted triangular rims (FIG. 8:3) and everted outer-folded ridged rims (FIG. 8:4)\(^{14}\); the latter were to become a hallmark of the whole EB III period.

Ovoid-shaped jars with flaring necks, everted rims and loop handles (FIG. 8:13-8:14), sometimes characterised by horizontal or alternating horizontal and vertical combing (FIG. 9:7 - 9:14) and mainly used for transport, continue to be widely produced, as are ovoid-shaped hole-mouth jars for household storage, with slightly swollen rounded or flattened rims (FIG. 8:5 - 8:11). Flattened recessed rims also appear and spread during the Batrawi IIIa period\(^{15}\).

The use of 'grain-wash' decoration (in orange, red or dark grey) also increases in this phase (FIG. 9:1 - 9:6), as evidenced in the EB III pottery assemblage of Khirbat az-Zayraqún (where 'grain-wash'

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\(^{14}\) For comparisons see Khirbet Kerak (Greenberg et al. 2006: figs 5.84-20), et-Tell (stratum VI; Callaway 1980: fig. 111:36-38), Khirbet Yarmouk (de Miroschedji et al. 1988: pl. 29:4) and Tall al-ʿUmayr (Daviau 1991: figs 6.10:16, 18, 6.21:5, 8; Harrison 1997: fig. 5:9:5, 2000b: fig. 5:21:12-15).

\(^{15}\) As evidenced in EB III layers at Tall al-ʿUmayr (Daviau 1991: figs 6.10:3-6, 6.20:27-29, 6.23:24, 27-28).
9. Samples of EB IIIA Grain Wash and combed decorations.

decoration is mainly applied on *pithoi*, with striking parallels in the Batrewwi samples; Genz 2002: 25, pls 35:3, 62, 76:2, 87, 154:d-e).

Pattern-combed metallic jars with ovoid body and loop handles, made of a highly-fired orange / reddish or grey fabric and always with fairly regular horizontal or alternating horizontal and vertical combing, are still produced. They may have been associated with the trade in olive oil from the countryside, as evidenced in contemporary layers at Khirbet Kerak (early period D; Greenberg et al. 2006: figs 5.88:9, 7.49:3, 8.91:14) and Tell el-Qas-sis (stratum XIIIA; Ben-Tor et al. 2003: fig. 38:8).

Fine and specialised production also increases significantly in scale and variety during the EB II-III A, perhaps testifying to the rank and wealth of an emerging urban elite which promoted the production and acquisition of fine wares.

In EB IIIA, simple painted ware reaches its highest frequency of the entire EB II - III period (FIG. 10:7 - 10:13), as was apparently also the case in contemporary layers at Tall es-Sultan, Khirbet Yarmouk, et-Tell, Tell el-Hesi and Tall al-‘Umari (painted decoration declined in frequency in the
10. EB IIIA specialized productions: Khirbet Kerak, Simple Painted and Red Burnished/Polished Wares.
following EB IIIIB). Painted decoration consisting of narrow oblique or crossing orange / red stripes is mainly employed in open shapes, viz. curved bowls with pointed rims (FIG. 10:7) and bowls with the in-turned flattened rim typical of this period (FIG. 10:8). The latter shape has a remarkable parallel at Tall al-‘Umayrī (Harrison 2000a: fig. 19.2:25, 2000b: fig. 4.22:9)16. Also decorated in this manner are small vats with in-turned rims (FIG. 10:9), which find a parallel in a specimen from EB IIIA Khirbet Yarmouk (de Miroshcedjī 2000: fig. 18.3:3); the shape is likewise known from contemporary contexts at Khirbat az-Zayraqān (Genz 2002: pl. 34:1). This decoration is also applied to small jars and jugs17. While a painted decoration with larger, more irregular bands is sometimes present.

Red-burnished and polished ware continues to be produced in bowls with straight sides and upright or in-turned rims and in platters with upright triangular rims (FIG. 10:15 - 10:16), radially, horizontally or net-burnished. It also continues to be produced in jugs and juglets with a flat or stump base (FIG. 10:17 - 10:20). Large bowls, 30 - 35 cm in diameter, with thick curved walls and sharply in-turned rims (FIG. 10:14), red slipped and burnished both inside and out, were also recovered from EB IIIA layers. These are also known from contemporary EB IIIIA repertoires from Khirbat az-Zayraqān (Genz 2002: pl. 38:4), Khirbet Kerak (early period D; Greenberg et al. 2006: figs 5.83:4, 8.87:4), Tell ed-Duweiri (Tufnell 1958: pl. 58:91) and Khirbet Yarmouk (de Miroshcedjī 2000: fig. 18.3:10).

The hallmark of the Battrāw IIIa repertoire is represented, as at most contemporary sites in northern Palestine and Transjordan, by the appearance of Khirbet Kerak ware in the form of curved bowls, sinuous-sided bowls and red-polished and black lustrous jugs.

Bowls (12 - 15 cm diameter) with curved walls, flat bases and rounded or pointed rims, black-polished outside and red-polished inside (and sometimes outside around and below the rim), are a common shape (specimens KB.06.B.164/1, KB.08.B.802/1; FIG. 10:2) which has parallels from the ‘Amīq plain in Syria (Braidwood and Braidwood 1960: fig. 281:14-15), Tell Waqqas (Greenberg 1997: fig. III.4:14) and Khirbet Kerak (Getzov 2006: fig. 3.51:2) in northern Palestine, and Tell es-Sultan (Garstang et al. 1935, pl. XXVII:7; Negro 2009b: fig. 9:TS.99.F.215.16) in southern Palestine. One bowl (KB.09.B.820/10; FIG. 10:11) exhibits an unusual reverse colouring of the inner outer surfaces, since it is black-polished inside (and outside around the rim) and red-polished outside. This reversal is quite odd in Palestinian contexts.

A large black-polished bowl (KB.09.B.820/12; FIG. 10:3), with curved walls, in-turned rim and incised decoration on the rim, finds comparisons at Khirbet Kerak (Greenberg et al. 2006: fig. 7:48:3; although this specimen is red-polished inside and outside, as it is more usual for this category of vessels) and at Tall ash-Shuna (Leonard 1992: pl. 14:5).

A bowl with sinuous-sided profile and pointed rim, black-polished inside and outside, red-polished outside over the rim (KB.09.B.820/11; FIG. 10:5) is a typical Khirbet Kerak ware vessel, which finds comparisons both in the ‘Amīq plain in Syria (Braidwood - Braidwood 1960, fig. 281: 25-27) and in Palestine from Khirbet Kerak (Greenberg et al. 2006: fig. 2.35:3) to Tall es-Sultan (Garstang et al. 1935: pl. XXVIII:23; Kenyon 1960: fig. 38:28).

Finally, some fragments of black lustrous jugs were recovered, which have parallels at both Khirbat az-Zayraqān (Genz 2002: pl. 67:5) and Tall es-Sultan (Marchetti and Negro eds 2000: 30, fig. 1:39:2-3). A red lustrous jug (KB.08.B.805/6; FIG. 10:6) was also recovered, with a parallel in the contemporary repertoire from Beth Shan (Fitzgerald 1935: 19, pl. VII:12-18), while a jug (KB.09.B.820/13; FIG. 10:4) displays the red to black colour change of the outer lip more common on other Khirbet Kerak shapes, but is also similar.


17 For comparisons see painted specimens from Khirbat az-Zayraqān (Genz 2002: pls 53:12, 136:10, 13), Khirbet Kerak (early period D; Greenberg et al. 2006: figs 2.17, 5.88.4, 7.79.4, 8.89.8), Beth Shan (stratum XII; Fitzgerald 1935: pl. IX:23), Tall es-Sultan (phase Sultan IIIb1; Kenyon 1960: fig. 35:25), Kenyon and Holland 1983: fig. 144:12, Marchetti and Negro eds 2000: fig. 1:40:18-19, 22-25, 1:49:8-9) and Tell el-Hesi (Fargo 1979: fig. 1:6).
to a specimen from Khirbat az-Zayraqūn (Genz 2002: pls 4:3, 159:B).

4. EB III B Pottery Repertoire

The EB III B period was investigated mainly in Area B. In Area B North, this included excavations outside the EB II - III main city-wall, in the EB III B destruction layers marking the final destruction of the EBA town (phase 3; Nigro 2009a: 670, 2010b: 441) excavated between the main city-wall and outer wall W.155, between the outer wall and scarp-wall W.165, and to the north of the latter (FIG. 11; Nigro ed. 2008: 69; 2012: 24-27; Nigro and Sala 2009: 374-375). In Area B South, this included the EB III B layers excavated inside dwellings (house B2) and public buildings (building B1) erected at the beginning of EB III B along the street (L.133+L.1060) running parallel to the main city-wall (phase 3; Nigro ed. 2008: 137-143; 2012: 162-167). EB III B destruction layers were excavated in the street itself, which yielded a large quantity of diagnostic material. The discovery in 2009 of a third building west of building B1, designated Building B2, yielded an assemblage of complete vessels dating to this phase, among which twenty pithoi placed along the walls of the building 18.

EB III B strata and structures were also exposed on the acropolis, in Area A. However, these were in a very poor state of preservation owing to the violent destruction and subsequent levelling activities undertaken by the inhabitants of the EB IV B village which grew up in this area at the end of the 3rd millennium BC. Nevertheless, the corner of a rectangular building reinforced on the outer side with a bench, which was associated with an open courtyard paved with limestone grits (Area A East, phase 4; Nigro ed. 2006: 109-116), and a broad stone structure flanked by a series of food production and storage installations (Area A West, phase 4; Nigro 2007: 349; Nigro ed. 2008: 20-27) were exposed. These were associated with a group of fragmentary storage containers, mainly pithoi, characterised by the typical rope-like decoration applied at the base of the neck and on the middle of the body.

Batrāwī III B pottery production is characterised by a further leap in the direction of standardisation of both shapes and fabrics. Use of a wheel becomes ordinary to make the upper parts of medium and large size vessels (necks and rims of jars and pithoi, and sometimes the rims of hole-mouth jars), as well as to manufacture small containers for daily use. At the same time, technological improvements are accompanied by a noticeable drop in the quality of the pottery, with common use of relatively coarse and low-fired red, reddish-brown and brown wares.

11. General view of EB IIIB layers of destruction outside the EB II-III Main City-Wall: F.814 (between the EB II-III Main City-Wall and Outer Wall W.155), F.816 (between Outer Wall W.155 and Scarp-Wall W.165), F.818 (outside Scarp-Wall W.165), from west.

18 Buildings B1 +B3, then named Palace B, were excavated in years 2010-2012, resulting in the discovery of more than 100 complete vessels of EB III B date; these will be published separately (for a preliminary discussion see Nigro this volume; Nigro 2010a: 67-110).
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Specialized production (such as Khirbet Kerak ware or simple painted ware) disappear or become rare, although red-burnished specimens still exhibit a high level of refinement and represent the main luxury production of this period.

The Batrawi IIIb pottery repertoire finds most of its comparisons in the EB IIIB layers of northern Palestinian and Transjordanian sites, mainly Khirbat az-Zayraqín ("spät en Horizont", that is "Letztbenutzungsphase"; Genz 2002: 120) and Khirbet Kerak (late period D; Greenberg et al. 2006: figs 2.40, 3.24-3.25, 5.91-5.95, 7.43, 8.100-8.107), but also Pella (latest horizon; Bourke 2000: figs 13.2-13.6) and Beth Shan (stratum XI / phase R7a; Mazar et al. 2000: fig. 14.6).

It also finds parallels at central and southern sites, such as et-Tell (phases VII - VIII; Callaway 1972: 298-299, 307-329, 1980: 191-244), Tall es-Sultan (phase Sultan IIIc2), Khirbet Yarmouk (strata A6 - A7 in Area A, BII - BI in Area B, CII - CI in Area C, D7 - D8 in Area D, E4 in Area E, GIII - GII in Area G; de Miroshedji et al. 1988: 80-84, pls 41-45, 2000: tab. 18.1, figs 18.5-18.10), Tell Beit Mirsim (phase J; Albright 1933; Dever and Richard 1977), Tall al-Handaqiq South (Chesson 2000), Tell al-`Umrayr (IP 19; field D, phase 4; Harrison 1997; Herr 2000: fig. 2.3) and Bāb adh-Dhrā` (stratum II).

In the plain ware repertoire, hemispherical bowls (FIG. 12:1) and bowls with straight sides and in-turned or in-turned flattened rims (FIG. 12:4 - 12:5) are still commonly produced, together with

19 For comparisons see Khirbat az-Zayraqín (Genz 2002: pl. 13), et-Tell (stratum VII; Callaway 1972: fig. 68.3, 6. 1980: figs 123:1-2, 4, 124:5, 126:1, 5, 7, 18, 128:12, 14, 16, 18, 130:1-

deep bowls with oblique walls and in-turned rounded rims (FIG. 12:6), and platters / bowls with upright or in-turned rims (FIG. 12:7 - 12:9). Bowls with sharply inverted / pushed-down rims (FIG. 12:2 - 12:3) are however a diagnostic shape of late EB III, as attested to at Tall al-‘Umayri (Harrison 2000a: 349-351, fig. 19.2:16-17), Khirbet Yarmouk (Miroshchedji et al. 1988: 81, pl. 42:6, 8; de Miroshchedji 2000: fig. 18.5:8), Tell ed-Duweir (Tufnell 1958: pls 63:10, 65:373), et-Tell (stratum VII; Callaway 1972: fig. 80:4, 1980: fig. 127:13, 15, 23, 129:2, 4), Tall es-Sultan (Garstang 1932: pl. 1:5; Kenyon and Holland 1982: fig. 52:20) and Tell Beit Mirsim (Albright 1933: pl. 1:9; Dever and Richard 1977: 3, pl. 1:6). Medium and large vats with flat bases, straight oblique walls, in-turned rims and ledge handles are also present (FIG. 12:10), as at Tall es-Sultan (Kenyon and Holland 1982: fig. 71:1) and Tell Beit Mirsim (Albright 1933: pl. 1:4).

Several types of jugs and juglets are found, with both piriform and globular bodies (FIG. 13:1 - 13:4). Juglets with globular bodies, vertical necks and everted rims are quite common (FIG. 13:1), with striking comparisons at Tall es-Sultan (Garstang 1932: pl. II:17-20). Pronounced pointed or spike-based juglets (FIG. 13:5 - 13:6) are a diagnostic late EB III type (see Dever and Richard 1977: 7, 10; Mazar et al. 2000: 267). At Beth Shan, Tell ed-Duweir, Tall es-Sultan and et-Tell, for example, stump and pointed bases appear as early as EB II and continue into EB IIIA, but pronounced pointed or spike-bases only appear in EB IIIB. Juglet KB.09.B.1034/1 has numerous parallels from Beth Shan (Mazar et al. 2000: fig. 14.6:12), Tall es-

20 For comparisons see Tall es-Sultan: Kenyon 1960: fig. 57:4; Kenyon and Holland 1982: fig. 55:35-37.

21 For comparisons see et-Tell (strata VII - VIII; Callaway 1972: figs. 68:1, 75:2-6, 1980: figs 126:2, 6, 8-16, 128:21, 129:22).

Small and medium size jars with flaring necks and a variety of everted rims are also widespread (FIG. 13:8 - 13:14), as in contemporary EB IIIB layers at et-Tell (stratum VII; Callaway 1980: fig. 131:1-22).

With regard to cooking ware, hole-mouth pots with swollen rounded, flattened or sometimes inverted rims still represent the main vessel of this functional class. However, flattened recessed rims also appear (FIG. 14:1 - 14:7), apparently as a typical trait / development of the local Jordanian hori-
zc (where they continue into EB IV)\textsuperscript{22}.

Storage ware continues to be dominated by the three broad morphological and functional container classes of the preceding EB II - IIIA periods. Ovoid-shaped hole-mouth jars for short-term storage are still the most common domestic storage container (FIG. 15:1 - 15:7). They typically have swollen flattened or rounded rims, but flattened recessed / concave rims and hammered rims also appear and become a hallmark of the Batrawi IIIb period, as at Tell al-'Umayr (Harrison 2000a: 355, fig. 19.6:4-7)\textsuperscript{23}. Flattened recessed rims, in particular, persist and become a marker of the later EB IVB repertoire at the site (Sala 2006: 104-106, fig. 3.56).

Transport jars with ovoid bodies, flaring necks, everted rims and vertical handles are also present, but they are mainly produced in a local metallic ware (see below), often with an outer horizontal or alternating horizontal and vertical combing (FIG. 14:8 - 14:10).

Finally, many large pithoi for long-term storage

\textsuperscript{22} For comparisons see Khirbat az-Zayra'qin (Genz 2002: pls 9:12, 11:4, 16:5, 18:9-11, 129:3) and Bīb adh-Dhārī (Rast and Schaub 2003: pls 50:8, 62:18, 70:2).

were recovered from EB IIIb public storage buildings and installations excavated on the acropolis and in Area B South, inside the EB II - III main city-wall. These huge containers have a narrow flat base, elongated ovoid body and a flaring neck (FIG 18). They are characterised by rope-like decoration, always applied to the middle of the body and at the base of the neck in order to hide the joins between the different parts of the vessel. The rope decoration at the base of the neck often exhibits stick impressions (FIG. 16:8 - 16:11), while the rope decoration on the middle of the body is usually represented by a plain raised band (FIG. 18), as in specimens from EB IIIb layers at Khirbet Yarmouk (de Mioschedji 2000: fig. 18.6:10), Tall al-‘Umayr (Harrison 1997: figs. 5.20:1, 5.21-5.22. 2000a: fig. 19.5) and Tell ed-Duweir (Tufnell 1958: pl. 62:302)\(^\text{25}\). Two complete *pithoi*, which typify this functional class of Batrawi IIIb storage ware, were found in building B3 at the end of the 2009 season (FIGS 17 - 18). They find comparisons (in terms of size, morphology and capacity) in *pithoi* recovered from contemporary EB IIIb contexts at Khirbat az-Zayraqm (see Genz 2002; pls 26. 33). Batrawi IIIb *pithoi* display a different range of rims. Evertedouter-folded, sometimes slightly ridged, rims continue from the previous Batrawi IIIa phase and, together with sharply everted outer-

\(^{24}\) Comparisons for this type of rope decoration can be found at contemporary Khirbat az-Zayraqm (Genz 2002: pls 25.3, 26. 31.2. 36.1, 37.84. 87.98), Khirbet Kerak (Greenberg et al. 2006, fig. 5.88:13), Tall al-‘Umayr (Daviau 1991: fig. 6.40:20; Harrison 2000a: fig. 19.5) and Tall es-Sultan (Kenyon and Holland 1983: fig. 157.7).

\(^{25}\) A type of modelled rope decoration is sometimes also applied around the girth of the body, as in specimens KB.06.A.220/46 and KB.06.A.204/14b (FIG. 19:1 - 19:2) or specimens KB.06.A.220/1, KB.06.A.220/2 and KB.06.A.220/3 (FIG. 19:3 - 19.5). The latter finds comparisons at Bab adh Dhrra (Rast and Schaub 2003: pls 63:34, 64:7, 66:16).
folded rims (FIGS 18, 16:1 - 16:3), become a hallmark of the period as in EB IIIB contexts at Khirbat az-Zayraqûn (Genz 2002: pls 11:13, 17:8, 37, 65:3, 77:6), et-Tell (Callaway 1980: fig. 132:10, 12, 15), Tall al-Handlerq South (Chesson 2000: fig. 20.3:11) and Tall al-‘Umayrî (Harrison 1997: 18. EB IIIB *pithoi* from Building B3.

17. General view of EB IIIB buildings inside the EB II-III Main City-Wall, with *pithoi* still *in situ* along the northern wall of Building B3, from west (2009).
Sharply out-flaring rims, with rounded or pointed edges, appear for the first time and become a hallmark of the Bahrani IIIb repertoire (FIG. 16:4 - 16:5), as in EB IIIB contexts at Khirbat az-Zayra'qin (Genz 2002: pls 11:13, 23:6, 36), Tall al-'Handaqqaq South (Chesson 2000: fig. 20:3:12), Tall al-'Umayr (Daviau 1991: fig. 6.40:20; Harrison 1997: fig. 5.22, 2000a: 353, fig. 19.5), Tell ed-Duweir (Tufnell 1958: pls 62:282-283, 291-292, 294, 297), Khirbat Kerak (Greenberg et al. 2006: fig. 7.38:10), et-Tell (Callaway 1972: figs 61:21-22, 67:8, 1980: figs 132:2-3, 11, 13, 141:9, 13) and Tell Beit Mirsim (stratum J; Dever and Richard 1977: 10, fig. 2:12) where it is said that this rim is typical of the large pithoi known from late EB III contexts. Finally, everted squared rims and everted triangular rims are also present (FIG. 16:6 - 16:8), as in contemporary layers at Khirbat az-Zayra'qin (Genz 2002: pls 86, 96:5).

‘Grain-wash’ decoration (FIG. 14:11 - 14:12), now also in a ‘smeared wash’ variant in white or red (FIG. 14:13 - 14:14; also known from a number of Khirbat az-Zayra'qin specimens [so-called “breite Streifen” decoration; Genz 2002: pls 28, 30, 33, 86, 97, 108:3, 153:d, 155:b-c] and Khirbet Kerak [Greenberg et al. 2006: figs 8.78:3-4, 8.80:4])26, is still used to finish the surface of storage containers - mainly pithoi - but also large and medium-large jars. A thick lime ‘white-coating’ is sometimes also used as an outer finish on storage containers.

Olive oil continued to be transported and stored in local metallic pattern-combed jars (a type which spreads all over the Levant in the mid-3rd millennium BC; Mazzoni 1987), with loop handles and flaring neck (according to a type well-known from, for example, Khirbat az-Zayra'qin [Genz 2002: pls

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26 Classic ‘grain-wash’ decoration is still used (FIG. 14:13 - 17:14), being common at both Khirbat az-Zayra'qin (mainly on pithoi; Genz 2002: 35, pls 35:3, 62, 76:2, 87, 154:d-e) and Khirbet Kerak (Greenberg et al. 2006: fig. 2:40).

As noted above, the move towards standardisation was accompanied by a general decline in the quality of ordinary pottery production and, consequently, a reduction in the representation of some fine wares.

Simple painted ware is still present but in vastly reduced frequencies, following a general trend which witnessed the progressive disappearance of painted decoration in Palestinian pottery repertoires during the transition from EB IIIA to EB IIIB. A decoration of painted red / reddish-brown oblique or crossing narrow lines is sometimes applied to jugs and small jars (FIG. 20:8 - 20:10). A painted decoration with larger, more irregular bands (occasionally in a sort of ‘smeared wash’ variant) is also present, mainly on jars and medium-large

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This trend appears to be documented at Khirbet Kerak in the transition from early period D (EB IIIA) to late period D (EB IIIB), at Tall es-Sultan in the transition from phase Sultan IIIB1 (EB IIIA) to phase Sultan IIIB2 (EB IIIB) and at Tall al-'Umayr in the transition from phase 6B to phase 6A (Daviau 1991).
containers (FIG. 20:11 - 20:12). It can be associated with the painted decoration known at Khirbat az-Zayra’qin as “unregelmäßige Streifenbemalung, breite Bänder” (Genz 2002: 32).

Red-burnished and polished wares represent the main specialised and luxury production of the Batrāwī IIIB phase, with a repertoire of bowls and platters with upright or in-turned pointed rims (FIG. 20:2-3), the latter being typical of the EB III period (as at Khirbat az-Zayra’qin [Genz 2002: pls 14:13, 38:3, 53:1, 58:10, 65:14, 77:3, 8, 102:1, 111:4, 112:12, 114:5, 118:13-14, 127:5] and Tall es-Sultan [Kenyon and Holland 1982: fig. 50:6-10]). Red-burnished platters with upright / slightly in-turned elongated squared rims are also a marker of late EB III period (FIG. 20:1), as at EB IIIB Khirbat az-Zayra’qin (Genz 2002: pl. 1:3) and Tell Beit Mirsim (stratum J; Dever and Richard 1977: fig. 1:4). A variety of jugs and juglets is also present (FIG. 20: 4 - 20: 7), amongst which red- or black-burnished juglets with globular bodies and pronounced pointed bases (FIG. 20:7) typify the period (FIG. 21). They are also typical of late EB III assemblages at other well-stratified sites, including Beth Shan (Mazar et al. 2000: 267), Tell ed-Duweir (Tufnell 1958: pls 59:159, 164, 60:210-212, 61:247), Tall es-Sultan (Garstang 1932: pl. II:19-20; Kenyon 1960: figs 35:35-38, 37:48, 39:10-11, 52:52-55, 61:30, 68:19) and Tall al-Umayri (Daviau 1991: fig. 6,41:26). In general, the use of red-burnished and, especially, pattern-burnished slips becomes more common, with the vessels of this class having a finer finish than ever before.

The ongoing study of the assemblage of more than 100 complete EB IIIB vessels recovered from the western pavilion of the palace of the ancient town in 2010 (Nigro 2010a: 67-110) will undoubtedly shed further light on the EB II - III pottery sequence of Khirbat al-Batrāwī, making it a key site in the context of the northern Palestinian and Jordanian ceramic horizon.

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