

UNIVERSIDAD AUTÓNOMA DE MADRID

Proceedings of the 5th International Congress  
on the Archaeology of the Ancient Near East



**Universidad Autónoma de Madrid**

**Proceedings of the 5th International  
Congress on the Archaeology of  
the Ancient Near East**

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### **Programme - Programa**

# Khirbet Kerak Ware from Tell es-Sultan/ancient Jericho: A reassessment in the light of the finds of the Italian-Palestinian Expedition (1997-2000)

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## Abstract

Up to now a rather large amount of Khirbet Kerak Ware (around seventy specimens plus some feasible local imitations) has been retrieved from both the tell and the nearby necropolis by the Expeditions who worked at Tell es-Sultan/ancient Jericho. The aim of this paper is a brief overall presentation of the Khirbet Kerak assemblage found at Tell es-Sultan by the two British Garstang's and Kenyon's Expeditions in the light of the finds recently recovered by the Italian-Palestinian Expedition (1997-2000) in Area F, in the Early Bronze IIIA dwelling quarter excavated on the northern plateau of the tell. A rather good inventory of this specialized ware can now be outlined from the finds of Tell es-Sultan, both suggesting the existence of a local manufacture of this production and enriching its general attestation in the Southern Levant.

**Keywords:** Khirbet Kerak Ware, Tell es-Sultan/ancient Jericho, specialized production, reassessment, findings from Garstang's and Kenyon's excavations, recent Italian-Palestinian findings, local manufacture, importations.

## 1. Introduction\*

A rather large amount of Khirbet Kerak Ware (around seventy specimens plus some feasible local imitations) were retrieved both on the tell and in the nearby necropolis by the expeditions who worked at Tell es-Sultan/ancient Jericho; namely the two British Expeditions respectively directed by J. Garstang from 1930 to 1936 and by K.M. Kenyon from 1952 to 1958, and the joint Italian-Palestinian Expedition carried out in years 1997-2000.<sup>1</sup>

This paper is a brief overall presentation of the KKW assemblage found at Tell es-Sultan in the light of the finds of the Italian-Palestinian Expedition in Area F, the Early Bronze IIIA dwelling quarter excavated in years 1998-2000 under the responsibility of Lorenzo Nigro on the northern plateau of the tell,<sup>2</sup> to the south of Garstang's north-eastern trench,<sup>3</sup> and to the south-west of Kenyon's Squares EIII-IV<sup>4</sup> (fig. 1).

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<sup>1</sup> The general results of these excavations are illustrated respectively in Garstang - Garstang 1948; Kenyon 1960; 1965; 1981; Marchetti - Nigro eds. 1998; 2000; Nigro 2006.

<sup>2</sup> Nigro 2000; 2006: 10-17.

<sup>3</sup> Garstang *et al.* 1935; 1936.

<sup>4</sup> Kenyon 1981: 309-338.

Khirbet Kerak Ware, a specialized production characteristic of the Early Bronze III Levant,<sup>5</sup> shows a relatively good attestation in the Early Bronze IIIA pottery inventory of Tell es-Sultan (Period Sultan IIIc1 in the updated periodization of the Italian-Palestinian Expedition).<sup>6</sup>

A rewarding inventory of specimens and shapes of this specialized ware can now be outlined from the finds of Tell es-Sultan, although, as I will deal with, a prevalence of small open shapes, such as carinated bowls with upright or slightly inverted sides, carinated bowls with sinuous-sided profile and the distinctive red/black colour change of the lustrous slip under the rim, and slightly carinated reddish-burnished bowls with pointed rim, most of which of local manufacture, has to be noticed.

The KKW assemblage from Tell es-Sultan remarkably enriches the overall documentation of this production in the Southern Levant, especially in the southernmost area of its attestation, and also testifies to the particular geographic role of this site at one of the main east-west and north-south crossroads of the Ancient Near East.<sup>7</sup>

## 2. *Garstang's excavations*

The Marston-Melchett Expedition directed by J. Garstang in the '30ies reached Early Bronze III strata both on the tell and in a few tombs in the nearby necropolis.

On the tell, substantial Early Bronze III structural layers were investigated during the two last seasons of excavation at Tell es-Sultan, in 1935-1936, in the north-eastern sector of the mound (Squares E7-8),<sup>8</sup> where a large and deep trench<sup>9</sup> was dug just to the east of the Early Bronze III dwelling quarter already

<sup>5</sup> During the Early Bronze III, Khirbet Kerak Ware is spread in the Levant from the North-Syrian coast to the North-Western Central Syria, decreasing as one moves to the east up to the River Quoweiq area and to the left bank of the Euphrates (Mazzoni 1985a: 9-11; 2002: 73-74; Matthiae 1995: 52-53, 121-124); and from the 'Amuq region, along the Orontes route, up to Southern Palestine, with its major concentrations at Ras Shamra (IIIA1-3; Schaeffer 1962: 204-212, 248-249, 430; de Contenson 1969: 49, 64, 76; 1989: 320-327; 1992: 183, 185) and in the 'Amuq Plain (Phases H-J; Braidwood - Braidwood 1960: 358-368, 398-403, 518-519) in North-Western Syria, as well as in some northern Palestinian sites such as Khirbet Kerak, 'Affula, Yaqush, Tell el-Hosn and Tell ash-Shunah North (Esse 1991: 33-62; Philip 1999).

<sup>6</sup> Marchetti - Nigro eds. 1998: 13-14; Nigro 2006: tab. 1.

<sup>7</sup> The strategic location of Tell es-Sultan in the framework of the ancient road network, both from east to west and from north to south, is testified to from the earliest Early Bronze I by the finding of some Egyptian or Egyptianizing items in Early Bronze IA layers on the tell (two ceremonial mace-heads and a possible stone palette in Garstang's north-eastern trench, level VII; Garstang's *et al.* 1936: pl. XXXVI:24-26; Garstang - Garstang 1948: 79), as well as in the nearby necropolis (two so-called «lotus vases» from Early Bronze IA layers of Kenyon's Tombs A 114 and K 1; Sala 2005: 177-178), which point to the particular relationship between Tell es-Sultan and the emerging Pharaonic reign; on the other hand, the recovering of two imitations of Grey Burnished Ware from Early Bronze I tombs in the necropolis (Tomb K2; Kenyon 1965: fig. 7:8), as well as the presence of an Early Bronze II cylinder seal from Tomb A127 (Kenyon 1960: 91, fig. 27:4) and of a seal impression from the tell (Sellin - Watzinger 1913: fig. 66), testify to its connections with the northern inner and coastal regions (Nigro 2005: 6, note 4).

<sup>8</sup> Garstang 1931: pl. I; Garstang *et al.* 1935; 1936.

<sup>9</sup> This excavation was the setting for the first wide investigation of the earliest strata at Tell es-Sultan, from the Early Bronze Age to the Pre-Pottery Neolithic Period. For an overall glance at the stratigraphy and findings of Garstang's north-eastern trench see Sala 2006.

excavated on the northern plateau of the tell by Sellin and Watzinger in years 1907-1909.<sup>10</sup> The uppermost layers excavated by Garstang in the north-eastern trench (namely Garstang's levels II-III)<sup>11</sup> belong to the fortified town of the Early Bronze III. To the south of the Early Bronze III city-wall, a large portion of an Early Bronze IIIA dwelling quarter was brought to light (fig. 2), which consisted of a dense agglomeration of square rooms (3 to 5 m wide), with benches, cutting and grinding slabs, pulping holes and silos for storage and food preparation, and was crossed by a main curving street, sharply bending from SW to NW because of the presence of the city-wall.<sup>12</sup>

Here, from House 109, a number of KKW fragments was retrieved in the earliest Early Bronze III level (Garstang's level III).<sup>13</sup>

KKW assemblage from House 109 (fig. 3) basically includes a number of bowls fragments illustrating well-known types of the KKW inventory:

- A hemispherical bowl with pointed rim (fig. 3:1); a type of bowl usually red or reddish-brown slipped and burnished on both interior and exterior,<sup>14</sup> though only a few specimens of this type show the red to black colour change of the outer slip more common on other Khirbet Kerak shapes, as it is the case of Garstang's example;<sup>15</sup>
- slightly carinated bowls with straight sides and slightly everted pointed rim, red or reddish-brown slipped and highly burnished on both interior and exterior (fig. 3:2-4);<sup>16</sup> some examples of this type have a plastic decoration, such as one or two knobs applied on girth on the outer wall of the vessel, as it is the case of bowl n. 5 (fig. 3:5),<sup>17</sup> which shows also the distinctive red to black colour change of the outer slip;
- sinuous-sided bowls with everted pointed rim (fig. 3:6-10),<sup>18</sup> some of which have the red interior and the distinctive outer red/black colour change of the lustrous slip below the rim characteristic of the very KKW production<sup>19</sup>

<sup>10</sup> Square E6; Sellin - Watzinger 1913: fig. 17.

<sup>11</sup> Garstang *et al.* 1936: pl. XXVIII. Garstang used the term «level» to name the major occupational and stratigraphic phases distinguished in the deep accumulation excavated in the north-eastern trench.

<sup>12</sup> Garstang *et al.* 1935: 152-154, pl. XIII,a; Garstang - Garstang 1948: 78-79, pls. IV,c, V,b. The same street was uncovered by the Italian-Palestinian Expedition in Area F (named L.437, then L.307; Nigro 2006: 5-6, 10, in particular note 9).

<sup>13</sup> Garstang *et al.* 1935: 154-155, pls. XXVII:7, XXVIII:10, 12-12b, 15-20, 23, XXIX:21-22.

<sup>14</sup> As it is attested to in northern Palestinian sites such as 'Affula (Sukenik 1948: pl. X:8, 10-13, 17), Khirbet Kerak (Greenberg - Paz 2004: fig. 15:10; Getzov 2006: fig. 3.50:1-3), Tell el-Hosn (Fitzgerald 1935: pl. VIII:9; Mazar *et al.* 2000: fig. 14.3:2), Tell el-Qedah (Greenberg 1997a: figs. II.1.4; II.2.1; 1997b: figs. III.2:10, III.4:12), and Khirbet ez-Zeraqon (Genz 2002: pls. 11:2, 21:9, 11, 38:2).

<sup>15</sup> Garstang *et al.* 1935: pl. XXVII:7. Comparable specimens have been found, for instance, in the 'Amuq Plain (Braidwood - Braidwood 1960: fig. 281:14-15), at Tell el-Qedah (Greenberg 1997a: fig. II.1.2; 1997b: fig. III.4:14) and Khirbet Kerak (Getzov 2006: fig. 3.51:1-2).

<sup>16</sup> Garstang *et al.* 1935: pl. XXVIII:12, 15-16.

<sup>17</sup> Garstang *et al.* 1935: pl. XXVIII:17.

<sup>18</sup> Garstang *et al.* 1935: pl. XXVIII:10, 18-20.

<sup>19</sup> Khirbet Kerak Ware is distinguished by a peculiar surface treatment consisting of a thick slip highly burnished, with a distinctive outer red/black colour change in upper part of the vessel, that is characteristic of this type of bowl, as it is attested to in the 'Amuq Plain (Braidwood - Braidwood 1960: figs. 281:16-

- (namely bowls nn. 10 and 12, with the omphalos base also typical of this type). Other ones have a red or reddish-brown surface on both interior and exterior, and a gentler profile (namely bowls nn. 8-9); many of such bowls were retrieved on the tell by Kenyon's and Italian-Palestinian Expeditions, and might represent a local production;
- a deep sinuous-sided bowl (fig. 3:7),<sup>20</sup> with black burnished surface, that is actually a very dark grey burnished slip, probably a local variant of the real KKW black lustrous surface;
  - finally, a medium-sized slightly carinated bowl with inverted sides and pointed rim (fig. 3:11),<sup>21</sup> and the distinctive red interior and red to black exterior.

The assemblage from Garstang's House 109 thus includes an inventory of bowl shapes, partly related to the typical KKW production, partly showing variants apparently related to a local manufacture.

Garstang was the first to extend archaeological investigations to the nearby necropolis, and identified a few Early Bronze Age tombs; in particular, the great Tomb A, an important family tomb in use for the whole Early Bronze Age<sup>22</sup>. A specimen of KKW was retrieved in the uppermost layer of Tomb A (layer 0): an one-handed carinated jar, with everted rim and flat base, and two plastic knobs applied opposite the handle, red slipped and burnished inside, black slipped and burnished outside (fig. 4).<sup>23</sup> Two comparable specimens were found by K.M. Kenyon respectively in Tomb D12 and Tomb F4: the jar from Tomb D12 is very similar to the one from Tomb A (though a little more slender), except for the handle; the other one from Tomb F4 has a gentler profile, and it is probable a variant of local manufacture (see below). In addition, a few bowls retrieved in Tomb A, with a sinuous-sided profile and a red slipped surface,<sup>24</sup> have been suggested by J.B. Hennessy<sup>25</sup> to be local imitations inspired to KKW prototypes.

### 3. *Kenyon's excavations*

The north-eastern sector of the tell excavated by J. Garstang was re-explored to some extent by the second British Expedition directed by K.M. Kenyon in

17, 19-23, 25-30) and in northern Palestinian sites such as Khirbet Kerak (Getzov 2006: fig. 3.50:16-23) and 'Affula (Sukenk 1948: 11, pl. X:18-20), but also to the south at Khirbet Yarmouk (de Miroschedji *et al.* 1988: pl. 40:5; de Miroschedji 2000a: fig. 18.5:5), Tell el-'Areini (Brandl 1989: fig.6:1), Tell ed-Duweir (Tufnell 1958: 44, fig. 4.284) and Tell el-'Umeiri (Harrison 2000: fig. 5.14:32).

<sup>20</sup> Garstang *et al.* 1935: pl. XXVIII:23.

<sup>21</sup> Garstang *et al.* 1935: pl. XXVIII:12b. See below Kenyon's bowl Reg.275 from Squares EIII-IV.

<sup>22</sup> Garstang 1932: 18-22.

<sup>23</sup> Garstang 1932: pl. VI:11 (Cat.No.000,J.31). A very similar specimen, both for the shape and for the plastic knob decoration, has been retrieved in north-central Anatolia at Alaca Hüyük (Hennessy 1967: pl. LXV:2).

<sup>24</sup> Garstang 1932: pls. III:9,10,12, VI:1.

<sup>25</sup> Hennessy 1967: note 13. Comparable specimens were retrieved by Kenyon in the nearby necropolis in Tombs F4 (Reg.No.10, 45, 121, 256; Kenyon 1960: fig. 43:21-24), F2 (Reg.No.296; Kenyon 1960: fig. 57:13) and A114 (Reg.No.17; Kenyon 1960: fig. 67:6), interpreted by the archaeologist as local imitations of Khirbet Kerak Ware.

1952-1958 by opening Squares EIII-IV immediately to the south of Garstang's trench (fig. 1). Here, a further portion of the Early Bronze IIIA dwelling quarter on the northern plateau of the tell was brought to light. Two KKW fragments were retrieved in this sector (unfortunately unstratified); namely: a medium-sized bowl with slightly inverted sides and the characteristic red/black colour change of the outer slip (Fig. 5:Reg.275); and a deep sinuous-sided bowl with black lustrous slip and outer fluted decoration (Fig. 5:Reg.257).<sup>26</sup>

Other KKW sherds were retrieved by Kenyon in Trench I,<sup>27</sup> Trench II,<sup>28</sup> and in Area H on the eastern side of the Spring Hill<sup>29</sup> (fig. 5). All these fragments belong to sinuous-sided bowls with everted rim, and a reddish or reddish-brown burnished slip on both interior and exterior.<sup>30</sup> K.M. Kenyon labelled such bowls as «imitations of Khirbet Kerak Ware»: they are, in fact, comparable to the classic KKW carinated sinuous-sided bowls (most of which were found by Kenyon herself in the contemporary tombs of the nearby necropolis), but they have a much gentler profile and they lack the distinctive red/black colour change of the outer slip characteristic of the very KKW of this typology.<sup>31</sup> They may, thus, represent a variant or a local manufacture of the carinated sinuous-sided bowls largely attested to in the northern KKW inventory.

Kenyon's excavations on the tell retrieved also some other slightly carinated bowls, red slipped and burnished, which can be considered somewhat local imitations variously inspired to KKW shapes (fig. 6).<sup>32</sup>

A remarkable group of KKW vessels was found by Kenyon in Early Bronze III tombs excavated in the nearby necropolis: Tombs D12, F4 and F2 (fig. 7).

As well as in the KKW assemblage retrieved on the tell, bowls are the most attested shapes also in the assemblage from the necropolis. Beside bowls, a single KKW small carinated jar, with everted rim and flat base, black lustrous outside, red lustrous inside and fawn around the rim, was found in Tomb D12 (fig. 4: Reg.555).<sup>33</sup> A further small one-handled jar was retrieved in Tomb F4 (fig. 4: Reg.133): it has a rounded sinuous-sided profile, and an irregular reddish and buff burnished slip, thus probably representing a local manufacture or imitation of KKW prototypes.<sup>34</sup>

<sup>26</sup> Kenyon - Holland 1983: 374, fig. 147:12-13. The medium-sized bowl with inverted sides Reg.275 is comparable to Garstang's bowl n. 11 in fig. 3.

<sup>27</sup> YATi/12 (Kenyon Holland 1983: fig. 18:25) and YATi/14 (Kenyon - Holland 1983: fig. 18:26).

<sup>28</sup> B.x.72 (Kenyon - Holland 1982: fig. 57:16) and OBA/182 (Kenyon - Holland 1983: fig. 64:4).

<sup>29</sup> B.x.114 (Kenyon - Holland 1982: fig. 57:15) and HD-HE/7a (Kenyon - Holland 1983: fig. 155:3).

<sup>30</sup> As Garstang's bowls nn. 6-9 in fig. 3.

<sup>31</sup> See below note 37.

<sup>32</sup> Namely, specimens B.x.232 (Kenyon - Holland 1982: fig. 57:17), YATi/11 (Kenyon - Holland 1983: fig. 18:24), OBGi-OBH/3 (Kenyon - Holland 1983: fig. 59:5), and Reg.2948 (Kenyon - Holland 1983: fig. 159:8). Similarly, P. de Miroschedji has deemed some bowls with a sinuous profile, retrieved in Early Bronze IIIB contexts at Khirbet Yarmouk, shapes inspired by carinated bowls in Khirbet Kerak Ware (de Miroschedji 2000a: 328).

<sup>33</sup> The type of carinated jars is quite attested in the KKW inventory from the 'Amuq Plain (Braidwood - Braidwood 1960: 306:1, 3).

<sup>34</sup> Such as the one-handled jar with a marked sinuous-sided profile, red lustrous inside and over the rim, black lustrous outside, found at 'Affula (Sukenik 1948: 11, pl. X:1, XXI).

The assemblage of open shapes includes some typologies characteristic of the basic KKW inventory:

- Hemispherical bowls with straight sides and pointed rim, with rounded or omphalos base, and red burnished slip (fig. 7: Reg.554, 550, 545, 508 from Tomb D12),<sup>35</sup> though one specimen of this type (Reg.554) shows the distinctive outer red/black colour change of the lustrous slip (as in Garstang's bowl n. 1 in fig. 3);
- a conspicuous group of shallow carinated sinuous-sided bowls, with pointed everted rim and omphalos or flat base, which represents the more relevant group of KKW vessels retrieved (fig. 7: Reg.546, 551, 553 from Tomb D12; Reg. 189, 318 from Tomb F4; Reg.69, 360 from Tomb F2); one of these bowls is one-handled (fig. 7: Reg.214 from Tomb F2).<sup>36</sup> All of these specimens have a highly burnished red slip inside, sometimes also over the rim outside, and a black lustrous slip outside; knobs are sometimes applied on girth on the outer wall of the vessel;<sup>37</sup>
- a deep sinuous-sided bowl, red lustrous inside and over the rim, black lustrous outside, with two opposed knobs on girth (Fig. 6: Reg.547 from Tomb D12).<sup>38</sup>

Some other vessels, bowls and one-handled bowls and jars with sinuous-sided profile, possibly imitations somewhat inspired by KKW shapes, were retrieved by Kenyon in the Early Bronze III tombs D12, F4, F2 and A114; respectively: Reg.250, 415, 114, 242+535 from Tomb D12;<sup>39</sup> Reg. 7, 10, 37, 45, 121, 172, 256, 306 from Tomb F4;<sup>40</sup> Reg. 131, 138, 296 from Tomb F2, and Reg.17 from Tomb A114.<sup>41</sup>

### 3. *The Italian-Palestinian excavations*

Archaeological excavations at Tell es-Sultan were resumed in years 1997-2000 by the joint Italian-Palestinian Expedition carried out by the Palestinian Department of Antiquities and Cultural Heritage and Rome «La Sapienza» University». In 1998, the Expedition opened a new area just to the south of Garstang's trench and

<sup>35</sup> Kenyon 1960: fig. 38:32-35.

<sup>36</sup> Kenyon 1960: fig. 57:43. A comparable one-handled sinuous-sided bowl, red lustrous inside and over the rim, black lustrous outside, was found at Tell-el-Mutesellim (bowl n. d 576; Loud 1948: pls. 106:8, 5:14, where it has been erroneously reconstructed with two handles).

<sup>37</sup> Kenyon 1960: figs. 38:29-31, 44:10-11, 57:41-43. This is, in fact, one of the most characteristic and widespread shapes of the whole Syrian-Palestinian KKW inventory, from the northern Syria to the southern Palestine, where this shape is attested also, for instance, at Khirbet Yarmouk (de Miroschedji *et al.* 1988: pl. 40:5; de Miroschedji 2000a: fig. 18.5:5), Tell el-'Areini (Brandl 1989: fig.6:1), Tell ed-Duweir (Tufnell 1958: 44, fig. 4.284; pls. 13:82, 66:407) and Tell el-'Umeiri (Harrison 2000: fig. 5.14:32), as well as in three other unplished specimens from Tell ed-Duweir and one from Tell es-Sa'idiyeh (n. Z BB 1006.1 97) now at the British Museum.

<sup>38</sup> Kenyon 1960: fig. 38:28.

<sup>39</sup> Kenyon 1960: figs. 33:1; 36:19, 21-22.

<sup>40</sup> Kenyon 1960: figs. 43:21-25; 44:16-18.

<sup>41</sup> Kenyon 1960: figs. 57:13; 58:6-7; 67:6.

to the south-west of Kenyon's Squares EIII-IV (Area F), where emerging mud-brick structures in a sector kept safe from previous excavations showed the possibility of re-examining the whole Early Bronze Age stratigraphic sequence. In years 1998-2000, a new portion of the Early Bronze II-III dwelling quarter already investigated on the northern plateau by all of the expeditions which worked at Tell es-Sultan was brought to light (fig. 8).<sup>42</sup>

A further assemblage of KKW fragments (around twenty fragments) was found, mainly in two Early Bronze IIIA units: House L.303 and House L.305, placed just to the east of the Early Bronze III street L.307.

The first group of KKW sherds was found in 1998 in House L.305 (fig. 9).<sup>43</sup> The assemblage includes various fragments of jugs, with an outer black lustrous slip; namely: a handle (TS.98.F.148/1a), a fragmentary shoulder (TS.98.F.148/1b), a pointed base (TS.98.F.148/2) and a fragment of body. To the same group belong the fragmentary wall of a large carinated crater (TS.98.F.148/4), with a very dark grey lustrous slip and ridged decoration; and a slightly carinated bowl (TS.98.F.148/3), with inverted sides and pointed rim, which shows the distinct red/black colour change of the lustrous slip below the rim.<sup>44</sup> Two more samples of KKW were retrieved in House L.305 in year 1999; namely, the fragments of two bowls<sup>45</sup> with straight sides, pointed rim and a reddish-brown burnished slip on both interior and exterior,<sup>46</sup> which seem to represent KKW specimens of local manufacture.

The other conspicuous group of KKW sherds was found in year 1999 in the Early Bronze IIIA House L.303 (fig. 10).<sup>47</sup> This group mainly includes a number of bowls fragments, such as slightly carinated bowls with straight sides and slightly everted pointed rim, with a red or reddish-brown burnished slip on both interior and exterior.<sup>48</sup> This type is well represented by bowl TS.99.F.215.13/a (fig. 9, at the top), which has also an applied plastic decoration consisting of an outer oblique ridge and a knob on girth.<sup>49</sup> There are then reddish burnished bowls with thin profile and pointed rim,<sup>50</sup> one of which shows the characteristic red/black colour change of the outer slip;<sup>51</sup> and sinuous-

<sup>42</sup> Nigro 2000; Nigro 2006: 5-6, 10-17.

<sup>43</sup> Nigro 2000: 30, fig. 1:39.

<sup>44</sup> This specimen is comparable with Kenyon's bowl Reg.No.275 retrieved in Squares EIII-IV (see above fig. 5).

<sup>45</sup> TS.99.F.236/13 and TS.99.F.236/14.

<sup>46</sup> Similar to Garstang's bowls nn. 2-4 in fig.3. This type of bowl, usually red lustrous inside and outside, is quite attested in the Palestinian KKW inventory, for instance, at Khirbet Kerak (Getzov 2006: fig. 3.50:5-15) and 'Affula (Sukienik 1948: pl. X: 15-16). Comparable specimens of straight-sided bowls with pointed rim and reddish slip have been found at et-Tell (Amiran 1967: fig. 1:6-8): as Garstang's and Italian-Palestinian examples from Tell es-Sultan, they represent a local manufacture inspired by the northern KKW prototypes.

<sup>47</sup> The fragments were retrieved on different superimposed floors of the house, all datable to the Early Bronze IIIA.

<sup>48</sup> See above note 46.

<sup>49</sup> This bowl finds comparisons in some specimens from Khirbet Kerak (Getzov 2006: fig. 3.50:8, 10-11), and stricter parallels in one bowl from Tell el-Hosn (Mazar *et al.* 2000: fig. 14.3:1) and in unplished one from Tell es-Sa'idiych now at the British Museum (n. Z BB 1006.1 98).

<sup>50</sup> TS.99.F.215.15, TS.99.F.215.17, TS.99.F.221.3 and TS.99.F.227.1.

<sup>51</sup> TS.99.F.215.16.

sided bowls with a gentle profile and an inner and outer reddish burnished slip,<sup>52</sup> probably a local manufacture, comparable with the above mentioned Kenyon's examples retrieved on the tell, such as the bowl from Trench II B.x.72 (fig. 5).<sup>53</sup>

Beside the bowls, two fragmentary thicker walls from the same house with an outer red/black burnished slip in one case, and a dark reddish grey burnished slip in the other case,<sup>54</sup> could belong to kraters. Finally, the upper part of a small sinuous-sided jar with inner and outer reddish-brown burnished slip has been retrieved on the lowest floor of House L.303.<sup>55</sup>

One more fragment of a sinuous-sided bowl, with a gentle profile and a reddish-brown burnished slip on both interior and exterior, was retrieved in unit L.444, on the western side of street L.307;<sup>56</sup> and two fragments of small jars with sinuous-sided profile, TS.99.F.240.2 and TS.99.F.240.3, the second one with red/black outer surface,<sup>57</sup> were retrieved in the upper filling of street L.307.

#### 4. Conclusions

The updated Jericho KKW assemblage as a whole offers a quite good inventory of this production, which allows two preliminary observations. First, distinctive elements and shapes of the KKW inventory attested to in northern Palestinian sites (such as large kraters, lids, stands and andirons),<sup>58</sup> lack, at the moment, in the Jericho assemblage. Secondly, a fair number of KKW shapes is documented at Tell es-Sultan (bowls of different typologies, jugs, little jars, kraters), but a prominent presence of small open shapes is to be noted;<sup>59</sup> namely, carinated sinuous-sided bowls with red/black lustrous slip mainly from the necropolis, and slightly carinated bowls with straight sides or sinuous-sided profile, with a red or reddish-brown burnished slip, from the tell, all belonging to a locally produced Khirbet Kerak Ware.

In the overall KKW assemblage from Tell es-Sultan, two main groups can be distinguished, following a sharp observation already put forward by K.M. Kenyon: the first group is that of the classic KKW vessels, mainly retrieved in tombs, but also in a few specimens on the tell, with the characteristic and highly burnished red, black or red to black lustrous slip; the second group includes vessels which

<sup>52</sup> TS.99.F.215.14 and TS.99.F.221.4.

<sup>53</sup> See above notes 26-28. Similar examples of sinuous-sided bowls locally produced with a burnished reddish-brown slip have been found also at et-Tell (Amiran 1967 : fig. 1:3-4; Callaway 1972: 257-258, fig. 60:8, 11; 1980: figs. 108:18-19, 22; 125:46) and Nizzanim (stratum 2; Yekutieli - Gophna 1994: fig. 8:7).

<sup>54</sup> TS.99.F.215.18 and TS.99.F.221.6.

<sup>55</sup> TS.99.F.227.7. This shape finds comparisons in some small sinuous-sided KKW jars from Khirbet Kerak, which show, nevertheless, the characteristic red/black colour change of the lustrous slip below the rim (Greenberg - Paz 2004: fig. 15:12; Getzov 2006: fig. 3.50:17, 21, 23).

<sup>56</sup> TS.99.F.234.4, the same as bowl TS.99.F.215/14.

<sup>57</sup> See above note 55 for the comparable examples from Khirbet Kerak.

<sup>58</sup> See, for instance, the diversified KKW assemblages from Khirbet Kerak (Greenberg - Paz 2004: fig. 15:10-13; Getzov 2006: figs. 3.50-3.51, 3.53), 'Affula (Sukenik 1948), Yaqush (Esse 1990), Tell esh-Shuna (Leonard 1992) and Tell el-Hosn (Fitzgerald 1935; Mazar *et al.* 2000: figs. 14.3-14.4).

<sup>59</sup> That is, the vessels easier to be transported (see below).

K.M. Kenyon labelled in many cases as «imitations of Khirbet Kerak Ware» and which, actually, can be considered a variant of local manufacture of this northern-derived specialized production. This group consists mainly of a number of sinuous-sided bowls with a gentler carination and fragments distinguished by a reddish, reddish-brown or dark grey slipped surface, with a quite dull finish, instead of the characteristic red/black lustrous slip of the classic KKW vessels. Summing up, the KKW assemblage of Tell es-Sultan includes, on the one hand, classic KKW vessels, almost exclusively bowls, mainly retrieved in the necropolis and possibly imported, perhaps from northern Palestinian sites through trade routes along the Jordan Valley; on the other hand, a major group of KKW fragments from the tell suggests the existence of a local manufacture of this specialized ware, which is distinguished by the smoother carination of the vessels, and by the firing, at a slightly less high temperature, which resulted in a reddish or dark grey colour of the surface, instead of lustrous red and black surface typical of this production.<sup>60</sup>

The majority of the KKW retrieved at Tell es-Sultan, especially in the Early Bronze IIIA dwelling quarter on the northern plateau of the tell, seems thus to have been locally produced; while the more classic KKW vessels (bowls) belonging to the funerary assemblages were probably traded in and mostly destined to such a specific furnishing.

If the northern, namely Anatolian and Transcaucasian derivation of this specialized production was suggested from the beginning,<sup>61</sup> later studies and analyses confirmed that the Palestinian Khirbet Kerak Ware was basically locally, or at least regionally produced.<sup>62</sup> This is also the basic outcome of the Jericho KKW assemblage: together with classic KKW specimens, the Tell es-Sultan inventory not only offers a clearer example of the existence of a local manufacture of this specialized production,<sup>63</sup> which, inspired by the very Khirbet Kerak Ware apparently traded in and destined to some specific purposes (such as funerary furnishing), should be a ceramic of prestige produced by professional potters; but also testifies to the presence of a well identifiable local atelier, along with the local workshops already recognized to the North in the 'Amuq<sup>64</sup> and at some northern Palestinian sites.<sup>65</sup>

The overall evidences and recent finds from Tell es-Sultan thus add an important contribution for a general re-evaluation and specifying of the attestation, production and diffusion of Khirbet Kerak Ware in Southern Levant. As it concerns the chronology of diffusion of this specialized production in the southernmost area of its attestation, updated analyses by means of thermoluminescence carried out on KKW fragments from Area F<sup>66</sup> provided a refined dating of the Khirbet Kerak Ware from the Early Bronze IIIA dwelling quarter of Tell es-Sultan, which

<sup>60</sup> Nigro 2006: 16.

<sup>61</sup> Amiran 1952; recently de Miroschedji 2000b: 261-262.

<sup>62</sup> Esse - Hopke 1986.

<sup>63</sup> Analyses of the fragments retrieved by the Italian-Palestinian Expedition have shown that they were locally produced.

<sup>64</sup> Esse - Hopke 1986: 330.

<sup>65</sup> De Miroschedji 2000b: 260.

<sup>66</sup> The results of these analyses were presented by L. Nigro at the Fourth International Congress on the Archaeology of the Ancient Near East held in Berlin in 2004.

should be ascribed to a period between 2550-2450 BC; that is, a bit later than the conventional beginning of attestation of Khirbet Kerak Ware in northern Palestine.<sup>67</sup> On the other hand, the almost exclusive presence of small open shapes, easier to be shipped, in the KKW assemblage of Tell es-Sultan (as well as, in fact, in those of the other southern Palestinian sites where KKW is attested) suggests that different ways of setting and diffusion acted in the Syro-Palestinian area: in the southern Palestinian sites Khirbet Kerak Ware spread mainly as result of cultural and commercial interactions and occasional exchanges with northern Palestinian sites, where this production had a more widespread diffusion.

The presence of a such conspicuous number of KKW specimens at Tell es-Sultan in the Southern Jordan Valley, partly traded in, partly locally imitated and produced, fits well with the geographic position of this ancient city, which rose at one of the main crossroads of the Ancient Near East, opened to the influences both from North and East across the Jordan Valley, and from South and West up to the Egypt. Thanks to this geographical centrality Tell es-Sultan always represented a favourable scenery where the different cultural *facies* of the Palestinian and Levantine region could meet and merge together, and it thus offers nowadays an invaluable observatory for a satisfying comprehension and description of the cultural and socio-economic dynamics of the whole Palestinian Early Bronze Age.<sup>68</sup>

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<sup>67</sup> A similar delay has been pointed out by P. de Miroschedji for the KKW presence at Khirbet Yarmouk (de Miroschedji 2000a: 328; 2000b:258).

<sup>68</sup> Nigro 2005: 1-6.

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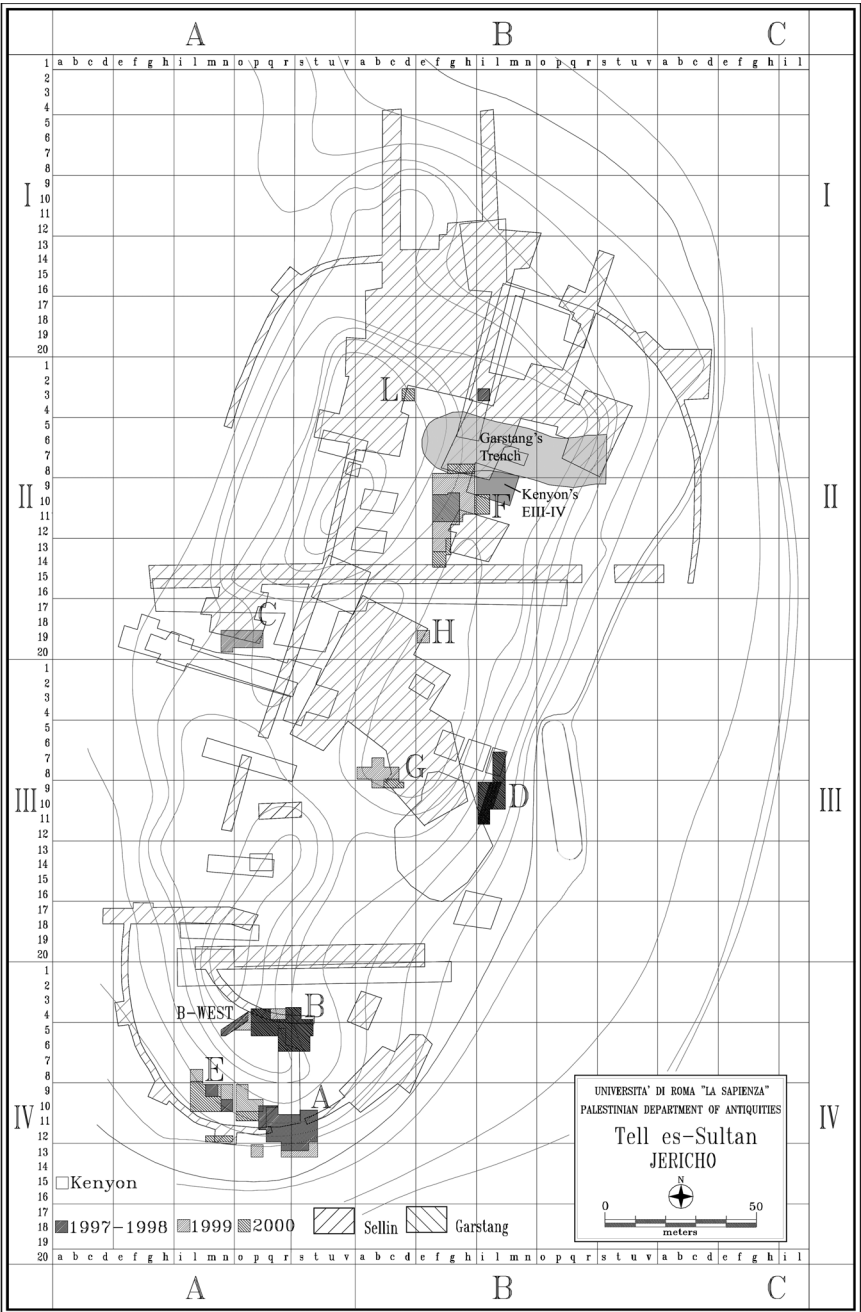
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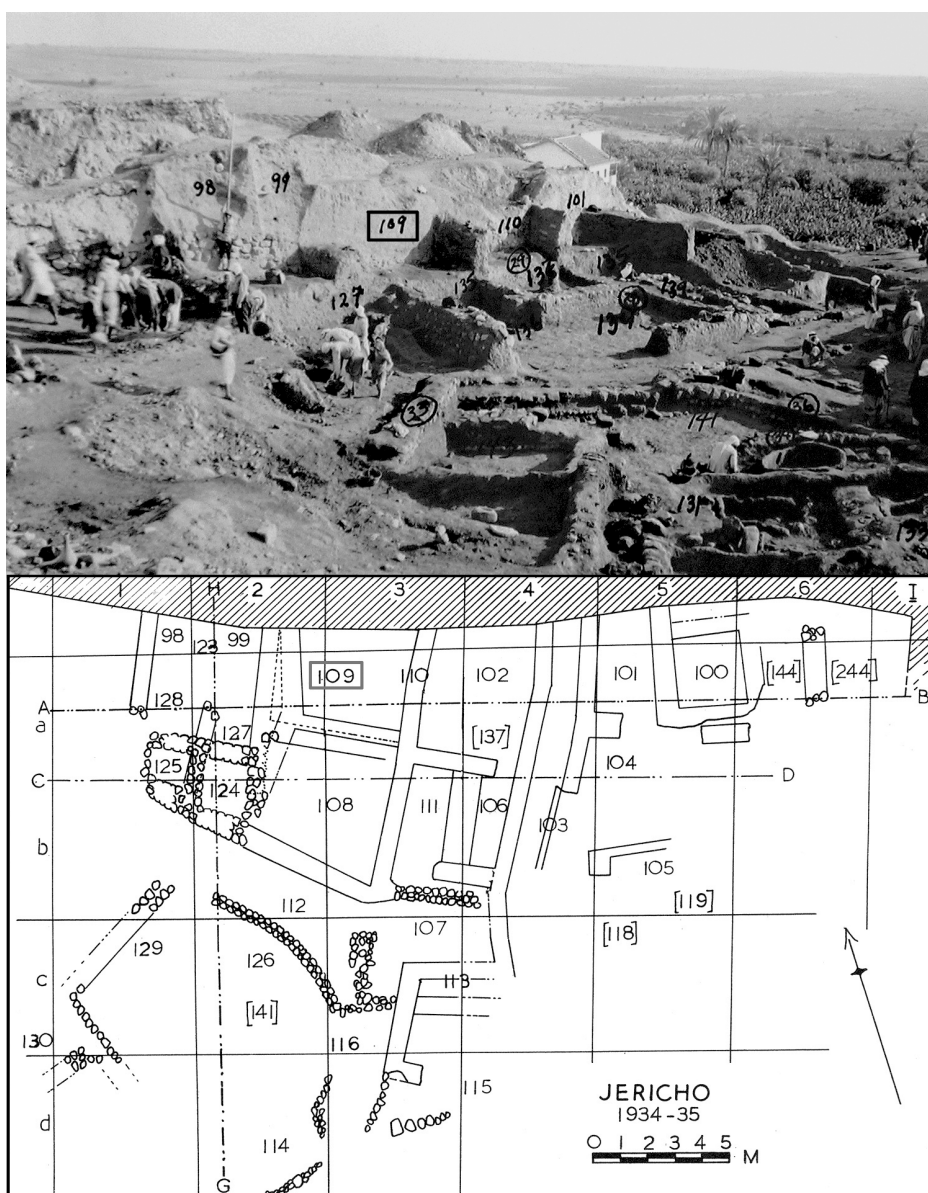
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**Fig. 1: General plan of Tell es-Sultan with the areas excavated by the Austro-German and British Expeditions, and by the Italian-Palestinian Expedition in years 1997-2000 (after Nigro 2006: fig. 2).**



**Fig. 2:** The Early Bronze IIIA dwelling quarter excavated by J. Garstang in the north-eastern trench in 1935 (after Garstang et al. 1935: pl. XIII,a).

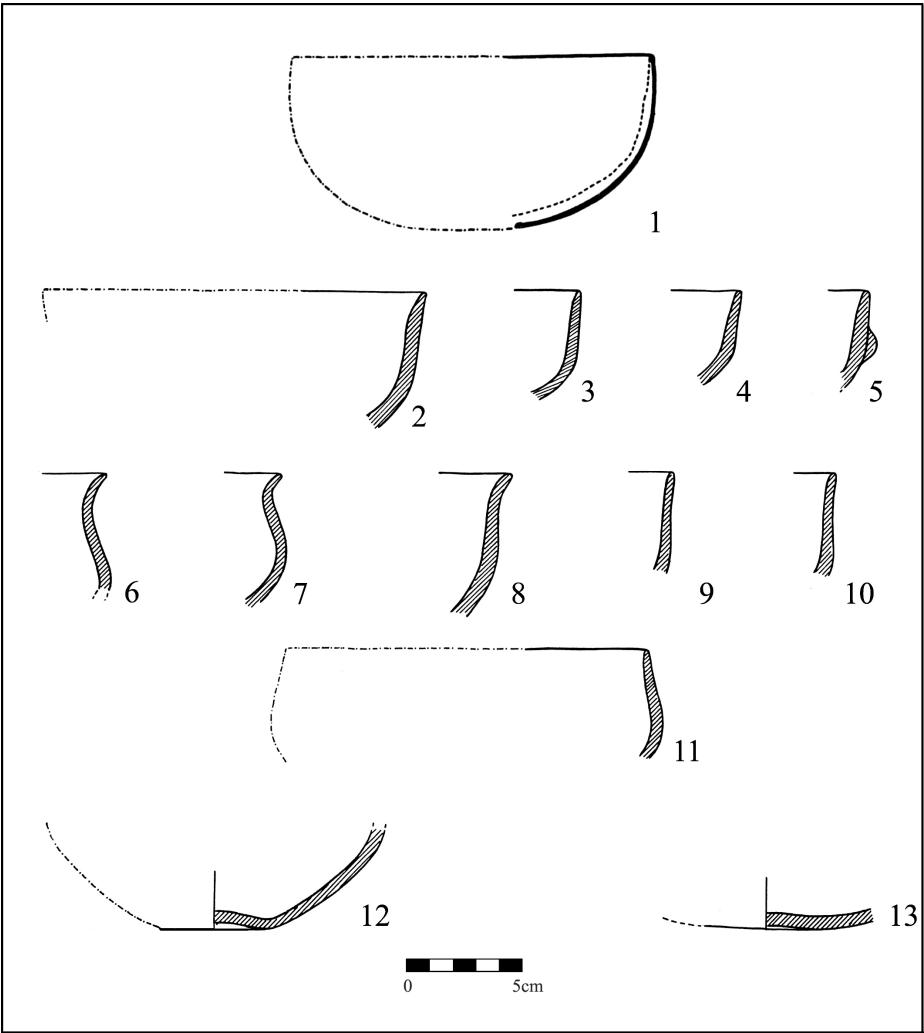


Fig. 3: KKW assemblage from House 109 excavated by J. Garstang in 1935  
(after Garstang et al. 1935: pls. XXVII:7; XXVIII:10, 12, 12b, 15-20, 23;  
XXIX:21-22).

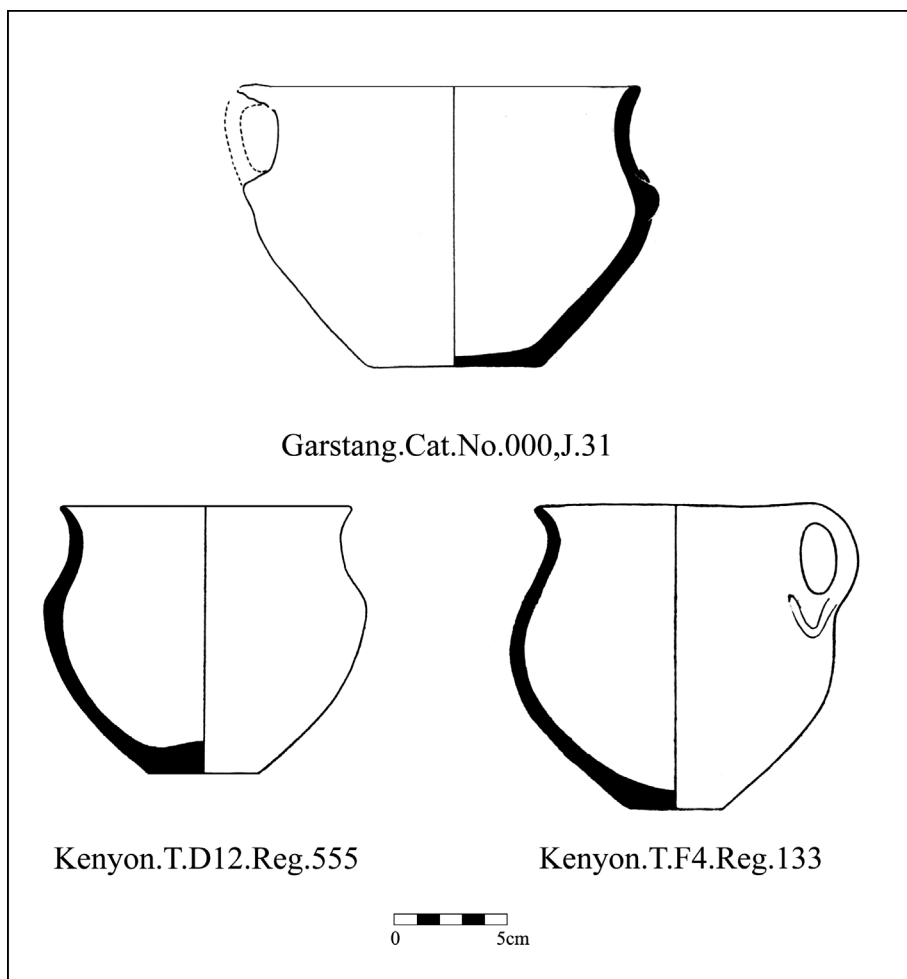
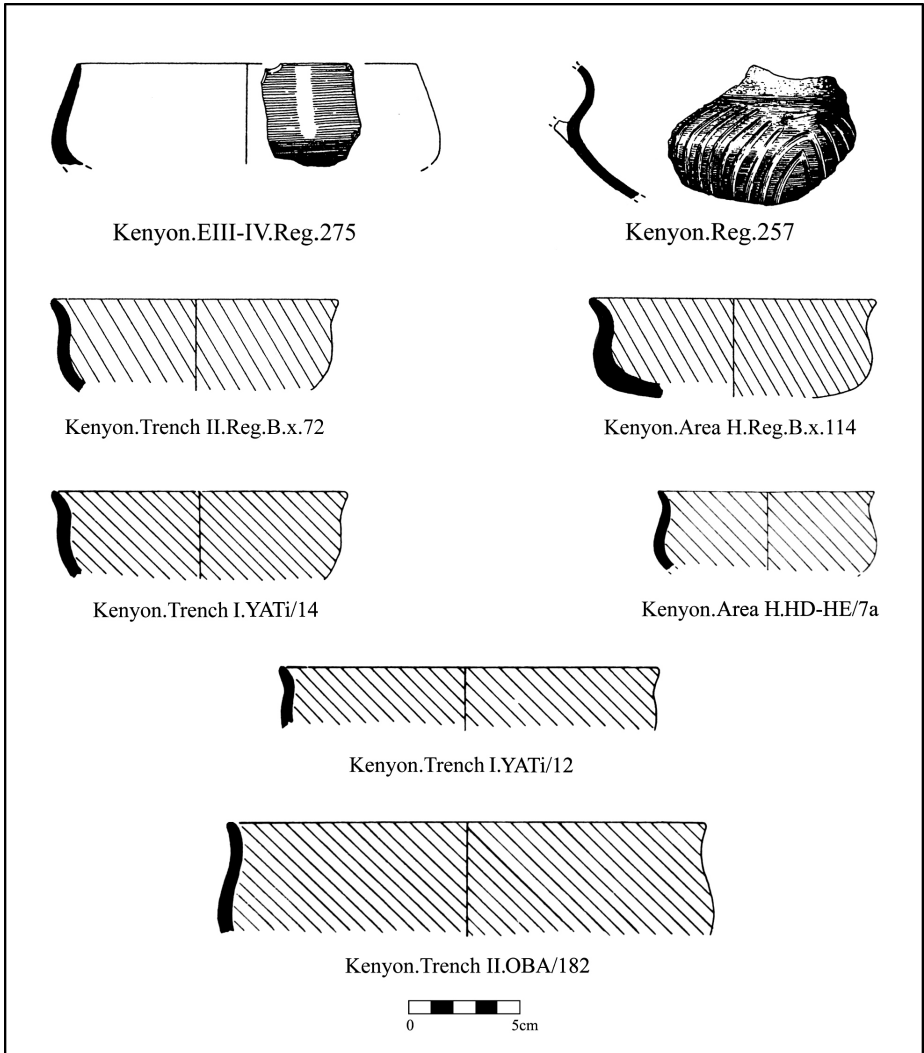
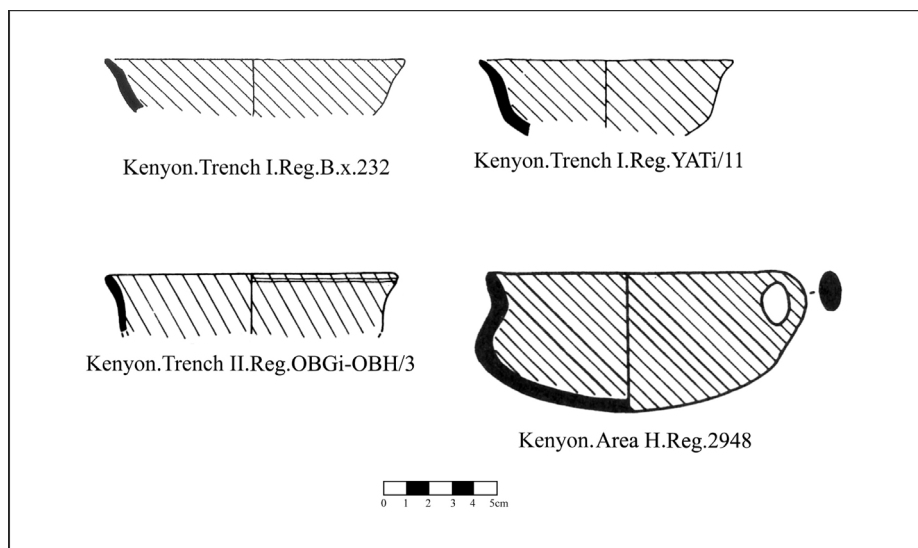


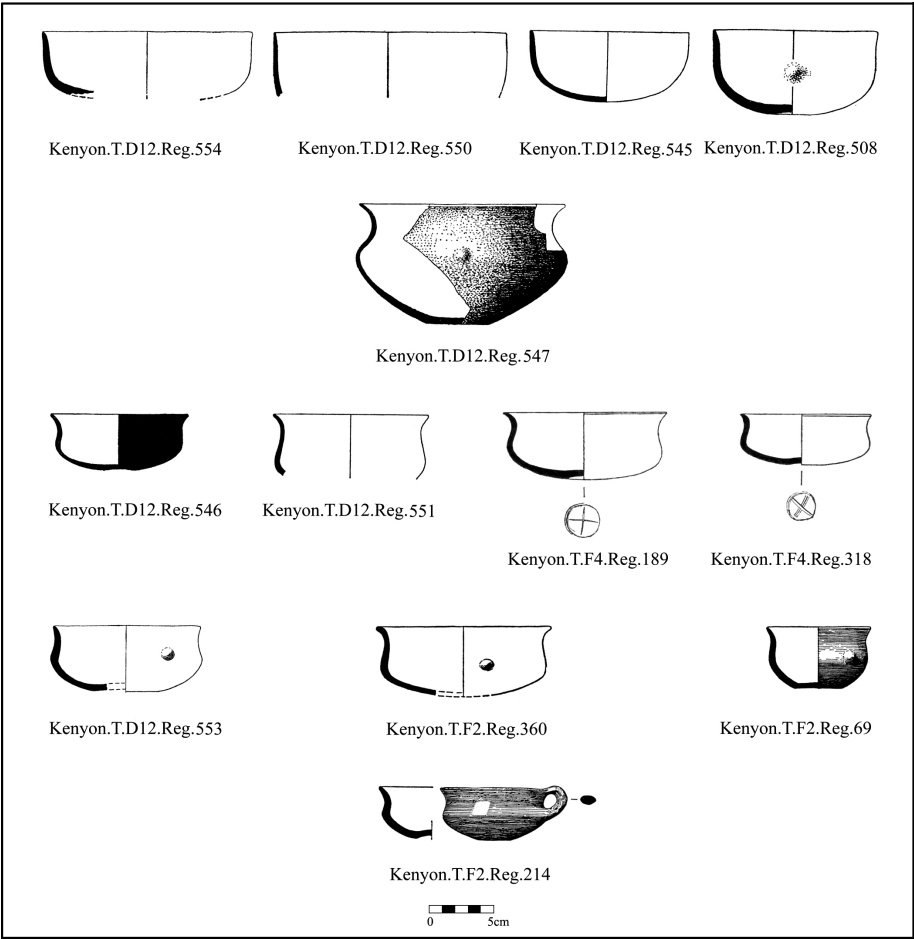
Fig. 4: The one-handed carinated jar from Garstang's Tomb A (after Garstang 1932: pl. VI:11) and the two jars respectively from Kenyon's Tomb D12 (after Kenyon 1960: fig. 38:27) and Tomb F4 (after Kenyon 1960: fig. 44:15).



**Fig. 5: KKW bowls retrieved by K.M. Kenyon on the tell**  
(after Kenyon - Holland 1982: fig. 57:15-16; Kenyon - Holland 1983:  
figs. 18:25-26; 64:4; 147:12-13; 155:3).



**Fig. 6:** Local imitations of KKW shapes retrieved by K.M. Kenyon on the tell (after Kenyon - Holland 1982: fig. 57:17; 1983: figs. 18:24; 59:5; 159:8).



**Fig. 7: KKW bowls retrieved by K.M. Kenyon in Tombs D12, F4 and F2 (after Kenyon 1960: figs. 38:28-35; 44:10-11; 57:41-43).**

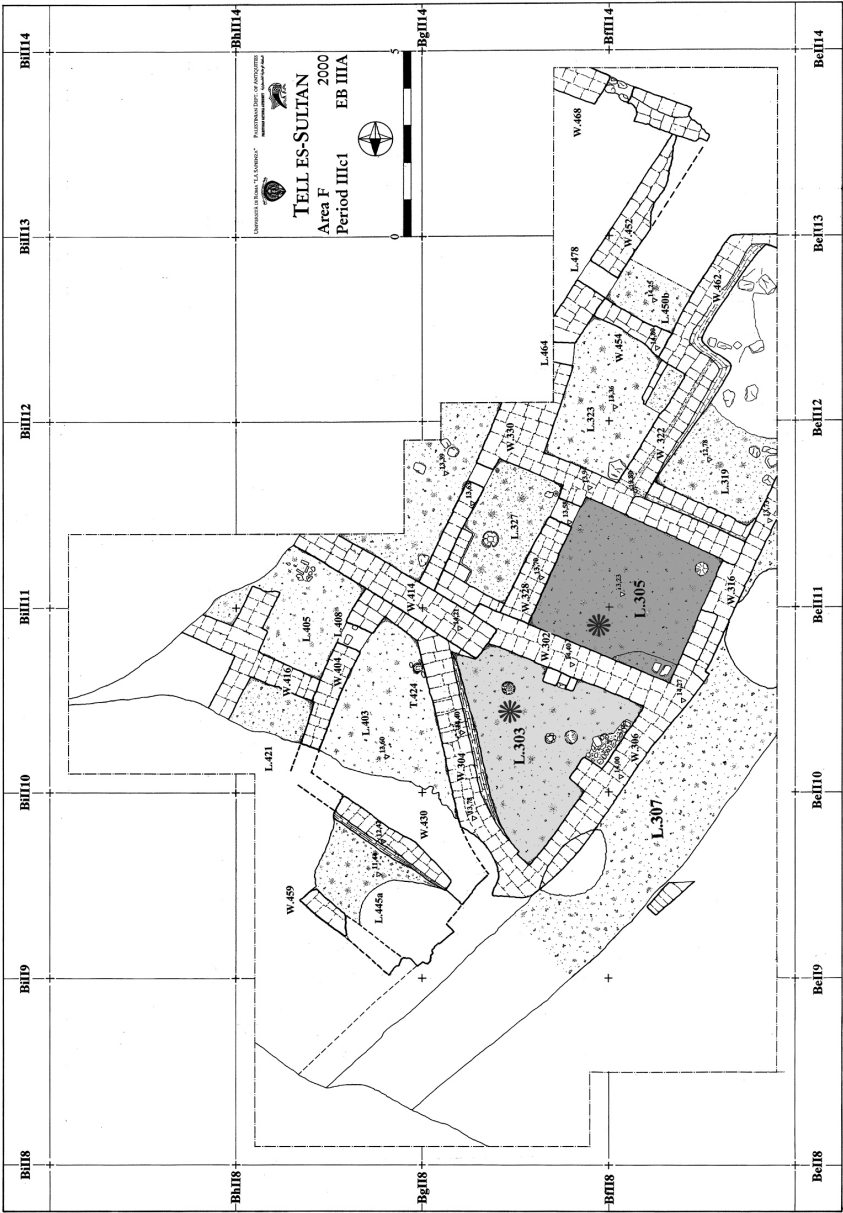


Fig. 8: Plan of the Early Bronze IIIA (Period Sultan IIIc1) dwelling quarter excavated by the Italian-Palestinian Expedition in Area F, with marked the two houses L.303 and L.305 where the Khirbet Kerak Ware was found (after Nigro 2006: fig. 9).



**Fig. 9:** KKW fragments retrieved in House L.305 in 1998 (Courtesy from the Archives of the Italian-Palestinian Expedition).



**Fig. 10:** KKW bowls retrieved in House L.303 in 1999 (Courtesy from the Archives of the Italian-Palestinian Expedition).

