Further Examples of Bronze Incense Shovels from Palestine
During the excavations on El-Tell/Bethsaida one complete and the handle of possibly another ritual shovel were uncovered (Fig. 1a, b). They were cast in bronze and decorated by impression.

Bronze shovels have been recorded since the childhood of archaeology among the archaeological material from Rome and Roman provinces, also such prestigious sites as Pompeii and Herculaneum. In 1996 Rami Arav counted 45 bronze shovels referred to as coming from the Ancient World. In Palestine a special interest is bound to this class of Roman period artefacts as their pictorial representations are often found on the late mosaics decorating Palestinian synagogue buildings both Samaritan and Jewish. Extant shovels with Syro-Palestinian provenance four bronze shovels of varying sizes and variously decorated (three hidden in basket No. 57 and one found in locus 61, all discovered during excavations of the Cave of Letters and published by Yigael Yadin) are the most famous as they may supply a *terminus ante quem* of A.D. 132, and they come from a well defined finds complex. Beside the published items, a series of unpublished shovels exists in the collections of the Syrian National Museum in Damascus and in the provincial Syrian museums. These items are of chief interest in connection with the known Syro-Palestinian series.

In the present paper an incense shovel of Syro-Palestinian origin, to date unpublished, will be presented and discussed in connection with the recent discovery on El-Tell. It forms a part of a collection of antiquities gathered during the second half of the nineteenth century in Palestine and exported to Europe.

There exists a marked interest in this class of artefacts, as they undoubtedly form a group of utensils connected with sacral behaviour, apparently bound to various cults. Their exact function, however, remains an unsolved question. Were they used to transport the embers, or was the incense burnt on them as recorded by traces left on several items from the Cave of Letters? Were the rings visible on some of them indicating where the incense should be placed?


2 Real Museo Borbonico, Vol. X, Naples 1827, Pl. LXIV, pp. 3–4; Y. YADIN, The Finds from the Bar Kochba Period in the Cave of Letters, Jerusalem 1963 [= Finds], Pl. 28 (cf. also second edition of 1975) also presents two shovels from the collections of the National Museum in Naples: No. 76622 (Neg. No. B2195, 4-10-960 – top right), and No. 76623 (Neg. No. B2196, 4-10-960 – top left).


4 YADIN, Finds, pp. 48–58, Pls. 12, 15, 16, Figs.11–15.

5 On the pan of shovel No. 3 (No. 57.25), *ibid*., p. 49; on the pan of shovel No. 4 (No. 61.3.5), *ibid*., p. 51; on the pan of shovel No. 6 (No. 57.24) with recognized traces of burning in the centre of the pan, *ibid*., p. 54. In the case of shovel No. 5 (No. 57.23), *ibid*., p. 51, Yadin mentions slight traces of burning in the centre of the pan. On p. 58 he explains possible uses of the pan in light of his findings and the theories of Goodenough, cf. E.R. GOODENOUGH, Jewish Symbols in the Greco-Roman period, IV, New York 1954, pp. 195f and 204ff.
The question of further precisng the liturgical function of the shovel cannot, however, be further elucidated in this paper. To date we still lack new convincing evidence, such as e.g. a representation in art of a person using the shovel. The treatise of Michael Avi-Yonah6 concerning this problem should be pointed out here; the ideas presented newly by Richard Freund will be summed up below.

In the collection of the Culture-Historical Museum in Oslo there is a bronze shovel of a Syro-Palestinian provenance with column-shaped handle ending in a rectangular plate supported by a diagonal foot. (Fig. 2a, b) More precisely it may be of a southern littoral provenance, as most of the items from this collection come from the area around Jaffa. Additionally we know about another, 26 cm large shovel, said to come from Ascalon or Gaza (Fig. 3).7 probably identical with the one catalogued eighteen years later with Ascalon as its provenance.8

The shovel came into the public collection in Norway as a gift from the later owners, a Norwegian consortium, which bought a large collection of antiquities gathered in Palestine by a Russian aristocrat Platon von Ustinow, who brought it to England in 1913. The collection, called The Ustinow Collection, was subsequently transported to the capital of Norway, then known under the name Kristiania, and offered for sale at a public auction during the fall of 1918.9 Unsold items were handed over to the Ethnographical Museum during World War II (May 1940).

7 CH. CLERMONT-GANNEAU et al., Mission en Palestine et en Phénicie entreprise en 1881 – cinquième rapport, Extrait des AMSL, 3. série, t. IX, Paris 1884 [= Mission en Palestine], p. 75, No. 55. Series I. On p. 54 he writes about this series as: (...) les monuments originaux, à l’exception de trois ou quatre qui sont restés à Jaffa, ont été rapportés par moi à Paris, où ils se trouvent à la disposition de l’État, en attendant d’être incorporés à nos collections nationales. Clermont-Ganneau was a friend of original owner of the here described collection and published some of the purchases of Platon von Ustinow, whose collection appears for the most to have been gathered in the southern, coastal portion of Palestine.
8 R. DUSSAUD, Musée du Louvre, Département des Antiquités orientales. Les monuments palestiniens et judaïques (Moab, Judée, Philistie, Samarie, Galilée), Paris 1912, Cat. No. 85.
In the sales catalogue the shovel here described bears the number R. 1488 and was offered for the ridiculously low price of fifteen Norwegian crowns. In the collection of the Ethnographical Museum it was given number E. 39732. After the last reorganisation of the museum services in Norway it was catalogued under number C. 41047.

The shovel was not cleaned except for scratching in the middle of it, probably in order to examine the surface of the pan. The state of preservation is good. The shovel lacks about 2/3 of its handle, the leaf-like decoration is preserved at the left corner of the pan, and small pieces of metal appear at the edge of the pan. The surface is oxidized and corroded: hard deposits, sandy in colour, are visible particularly well in places with sunken parts of ornamentation.

The shovel is composed of a rectangular pan bordered at three sides and open in front. The handle is placed slightly diagonally in the middle of the short bordered side. Bordering edges are topped by a flat decorated rim. The bottom of the pan is slightly shorter than the borders of its long sides. The total length of the shovel is 14.2 cm, of which the pan is 10.2 cm long. It is 7.4 cm wide and 1.6 cm high. The greatest height, with the decorated base of the handle included, is 2.8 cm. The pan rests on four low feet, in shape of an elongated rectangles (4 mm x 1 mm x 1 mm).

The decoration is both cast and impressed. Its pattern is very similar to that seen on the el-Tell item. The side edges of the pan are decorated in relief with one wavy line at the bottom and two straight lines above it. The relief decoration is cast. The rim is decorated with three straight relief lines, two grooves in between, the decoration is cast. At both corners on the short side there is a leaf-like decoration, the leaves being bent inwards. This motif was added after casting. The bottom of the pan is decorated with five impressions of 9 mm large circles with a dot in the centre. They were placed as follows: one in each corner and one in the centre of the pan.

The handle is in a form of a halved cylinder; a simplified Corinthian capital was placed at the joint with the pan and a relief collar above it. Comparison with other shovels, such as the one published by Yadin as No. 5, the two items in Naples reproduced by Yadin, and especially the shovel from El-Tell, indicates the approximate length of the handle as approaching c. 10–12 cm (cf. the table below).

Yadin suggests that three other shovels, found apparently in Hauran and purchased in 1900, today in the Metropolitan Museum of Art in New York (Nos. 658, 659, 660) may have constituted a set. It must be added that shovels hidden in basket No. 57 from the Cave of Letters may have formed a similar set. We would then have a series of sizes: a) for the items said to come from Hauran – L = 41 cm, = 32 cm, = 25.4 cm, and b) for the items found during Yadin’s excavation in the Cave of Letters – L = 35.8 cm, = 28.7 cm, = 23 cm.

10 Cf. supra, n. 2.
11 YADIN, Finds, p. 55, Nos. a, b, c, with reference to G.M.A. RICHTER, Greek, Etruscan and Roman Bronzes, New York 1915 [= Bronzes], pp. 235f.
12 YADIN, Finds, Nos. 3, 4, 5, pp. 48–51, Pl. 15.
FURTHER EXAMPLES OF BRONZE INCENSE SHOVELS FROM PALESTINE

On the 7th of May, 1996, a short-handle incense shovel was found at El-Tell. In 1998 a bronze handle of another one, much larger in size, decorated with the same motif of concentric circles, was found (Fig. 1a, b). This fragmentary handle has a regular shape, half-circular in cross-section, with a zig-zag stiffening band inside. Its ending is in a shape of trapezoid plate topped with a button with a bent band supporting it underneath. On the upper surface of this plate a double circle with a dot in the centre is impressed. Total length of the shovel is at the moment hard to estimate. The fragment is 9.9 cm long, the diameter of the handle is 1.9 cm.

It was found in area A, locus 283, basket 4155. The decoration puts the two shovels found at El-Tell in close connection. They may even have constituted a pair.

The shovel found in 1996 (Fig. 1b) is completely preserved, but during the exploration the handle was broken. It has the following dimensions: total length – 20.5 cm, length of the handle – 11.2 cm, length of the pan – 9.3 cm, width of the pan – 6.7 cm, height of the pan – 1.5 cm, height of the handle – 3.1 cm. As one may observe this measurements are very close to the size of the item from the Ustinow collection. The shape and decoration are very similar as well. The rectangular pan rests on four legs. The bottom of the pan is shorter than the bordering sides, the rim is flat and the handle is in a shape of half cylinder with a simplified Corinthian capital at its junction with the pan. The handle has a ridge in the middle and a diagonally sunken ending topped with a square plate for support. The side edges of the pan are decorated, as in the case of the Ustinow shovel, with a wavy line at the bottom and two straight lines above it. The rim is decorated with three ridges. There is a leaf decoration at both corners of the upper shorter side. This decoration is moulded, as the shovel was cast in one piece. The decoration of the upper surface of the pan was executed after moulding by impression. It consists of five circles with a dot in the centre, placed as follows: one in each corner of the pan and one in its centre.

The shovel was analysed as to the composition of the raw material used. The scanning by electronic microscope (SEM) showed that the material was not homogenized. This fact could be explained either by low melting temperature or poor stirring of ingredients. The percentage of copper amounts to 77.18–82.46%, tin to 6.39–7.78%, and lead to 9.42–15.69%. Use of lead is not normal for bronzes, which normally contain 40% of tin and 60% of copper. However, the composition of the bronze used in the case of the shovels discovered in the Cave of Letters was similar.

13 ARAV, Bethsaida 1994–1996, pp. 32ff, Figs. 22a, b, 23, 24. Found in square G 54, locus 152, basket 2660, on the elevation 67.47 m. The shovel was located in a refuse pit, together with pottery shards dated to the Herodian period, first–second century A.D. (cf. Table 2, p. 36).
14 This item is still unpublished, but the photograph of both is given in: SKUPINSKA-LOVSET, Temple Area, Fig. 12 and in this paper.
15 ARAV, Bethsaida 1994–1996, p. 37, Fig. 23, the reproduced x-ray photo shows this clearly.
16 Ibid., pp. 39–40.
17 YADIN, Finds, p. 48, n. 21.
The shovel kept in Oslo and the shovel found at El-Tell belong to the smallest among the above described short-handled series. Both exhibit Syro-Palestinian features exemplified in the general shape and especially in the forming of the bottom of the pan. It is slightly drawn back in relation to the bordering side-edges. It has also a characteristic inside decoration stamped on the bottom of the pan. It consists of five circles (or concentric circles) placed one in each corner and one in the middle of the pan. Thus the decoration may be of a single circle with a dot in the middle or of the multiple concentric circles. In the case of the shovel from the Cave of Letters two concentric circles can be recorded and such is also the case of the fragmentary handle found at El-Tell. In the case of the shovels from el-Tell and from Oslo the motif of only one circle with a central dot can be seen on the bottom of the pan. It can only be speculated whether the decoration was executed only for esthetic reasons or it had some functional value.

At last the shovel coming from Ascalon or Gaza should be mentioned. It was recorded by Ch. Clermont-Ganneau in 1881 as personally examined. A drawing of this object was made by B. Schmidt (Fig. 3) and from this drawing the size of the pan and the handle could be estimated. The reconstructed dimensions are given in a table below. This shovel has a column-shaped handle with a Corinthian capital and a fluted shaft of the column.

A shovel illustrated by Stanislav Loffreda should also be mentioned here, since it is connected with nearby Capernaum. However, more precise information is not available at present.

The dimensions of this series are compared in the table below. As for the relation between the total length of shovel and the length of pan in the case of the shovel related closest to the one here described the following figures may be given in percentage:

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18 This object is still unpublished.
19 CLERMONT-GANNEAU, Mission en Palestine, p. 54, cf. supra, n. 7.
20 Ibid., p. 75, No. 55: Pelle à feu, ornée de ciselures assez élégantes. Le manche représente une sorte de colonnette avec son chapiteau et son fût cannelé verticalement. Dessous, quatre petits pieds pour pose le pelle d'aplomb en l’isolant. Longueur 0m26.
No. 1: L: 23 cm, pan – 10.7 cm = 46.52%,
No. 2: L: 25.4 cm, pan – ?,
No. 3: L: ?, pan – 10.2 cm,
No. 4: L: 20.5 cm, pan – 9.1 cm = 45.38%,
No. 5: L: 26 cm, pan – 13.76 cm = 52.9% (dimensions reconstructed on the basis of the drawing). The width of the pan (rim included) should be calculated as 9.18 cm, without rim – 8.2 cm.

Upon a closer examination, it may be concluded that the dimensions of the object in Oslo and the one found in Bethsaida are very close. The decoration is also very similar. However, the question whether they were made in the same workshop, even in the same mould or type of the mould, remains unanswered until more laboratory tests are carried out and more objects investigated.

The question of belonging to the set of the utensils for a particular cult must also remain open at the moment.

<table>
<thead>
<tr>
<th>Find place</th>
<th>Total length</th>
<th>Size of the pan (length x width)</th>
<th>Comments, publication, collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cave of Letters, basket No. 57.23</td>
<td>23 cm</td>
<td>10.7 x 7.9 cm</td>
<td>Rim &amp; sides grooved, handle in shape of Corinthian column, square support. YADIN, Finds, p. 51, n. 5, Fig. 1.4.</td>
</tr>
<tr>
<td>3. south Palestine (Jaffa?, Gaza?)</td>
<td>14.2 cm (fragmentary)</td>
<td>10.2 x 7.4 cm</td>
<td>The Ustinow Collection, The Culture Historical Museums, Oslo, Inv. C 41047. Unpublished.</td>
</tr>
<tr>
<td>4. El-Tell</td>
<td>20.5 cm</td>
<td>9.1 x 6.7 cm</td>
<td>Kibbutz. ARAV, Bethsaida 1994–996, pp. 35-43.</td>
</tr>
<tr>
<td>5. Ascalon or Gaza</td>
<td>26 cm</td>
<td>13.76 x 8.2 cm (9.18 cm with the rim)</td>
<td>Ginosar. Paris, Louvre (?). CLERMONT-GANNEAU, Mission en Palestine, p. 75, n. 55.</td>
</tr>
</tbody>
</table>

The discussion of the incense ceremony vessels in Jewish culture is newly given by Freund.22 He points to the prominent appearance of visualisations of incense shovels among ritual utensils in synagogue iconography from the third to sixth centuries A.D. promoting two hypotheses: either the short-handled incense shovel was originally a pagan ritual object (as remarked earlier by Yadin and others) and because of its popularity it entered Jewish (i.e. rabbinic synagogal) iconography and literature, or alternatively, the short-handled shovel became significant in the period in question because it resembled (or was imagined to resemble) a ritual object used in the incense service in the Temple in Jerusalem.

22 R. FREUND, The Incense Shovel of Bethsaida and Synagogue Iconography in Late Antiquity [= Incense Shovel], in: ARAV, FREUND (eds.), Bethsaida, pp. 413ff.
lem, and, additionally, some sort of incense ritual continued to play a role in the synagogue after the destruction of the Temple.\textsuperscript{23}

Freund gives further evidence for the incense ceremony where two kinds of metal utensils are used: a long-handled shovel (\textit{machtach}) and a short-handled one (\textit{bazich}). The \textit{machtach} was held in the right hand with burning coal on it, the \textit{bazich} with incense – in the left hand.\textsuperscript{24}

In the same volume of the Bethsaida series the same shovel is interpreted by Arav as an important evidence of the Roman Imperial cult,\textsuperscript{25} while Freund sees it rather in the context of the Jewish ceremonies.\textsuperscript{26}

As a matter of fact, it must be repeated that the described shovel, alone or as a part of a set of shovels, is recorded in decoration of Samaritan synagogues and temples of Hauran.

From the number of 45 bronze shovels given by Arav and referred to as coming from the Ancient World,\textsuperscript{27} all were apparently used in ritual incense ceremony but probably each to the locally venerated deity. As no corpus of these utensils exists, and the data at hand are of uneven value, a final conclusion is impossible at the moment. It is probable that the decoration may tell something about the kind of cult performed.

\textsuperscript{23}Ibid., pp. 415–416.
\textsuperscript{24}Ibid., p. 442 – with reference to translation: Artscroll Mahzor, 564–565.
\textsuperscript{26}FREUND, Incense Shovel, pp. 413–457.
\textsuperscript{27}ARA V, Bethsaida 1994–1996, p. 41.