OIL LAMPS FROM AL-FUSTAT

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1. Introduction

Since the birth of the mankind, they have had close relations with fire. The fire which has been used for cooking, heating, and lighting, has played an important role in the cultural history of life.

The fire for lighting became extremely important in the cultural history since the mankind invented lamplight instead of a bonfire. The invention of a lamp, which introduced a portable and safe lighting into a human life, can be called an epoch-making one in the cultural history. The life condition must have changed because of the introduction and diffusion of lamps. The lamplight have rendered a night life less difficult, and have had an important effect upon plans of buildings.

Since the Roman period, the large number of lamps were excavated from all sites in the Middle East. Especially, in the Islamic sites, lamps are common finds. These were made of silver, bronze, copper, stone, glass, and clay. Among them, glazed clay lamps are main from the archaeological sites. Glass and stone lamps are not so many, and silver, copper and bronze lamps are rare.

According to “A Mediterranean Society”(1) by S. D. Goitein, these materials for lamps except clay were used in sinagogues, churches, mosques and reception halls. To the contrary, there were no descriptions on clay lamps. In “Ma‘ālim al-Qurba fi Ahkām al-Ḥisba”(2) by Ibn Ukhuwwa, we find only one mention on the weight of copper lamps. Nevertheless, archaeological finds prove that clay lamps connected closely with daily life.

However, studies on clay lamps are slow except on Greco-Roman and Jewish ones.(3) Although there were brief studies on Islamic glazed clay lamps by archaeologists and experts of ceramics, we can say that no systematic study has been made on them. Only one useful study is “Medieval Ceramic Oil Lamps from Fustat”(4) by W. B. Kubiak, who was a vice-director of American Research Center in Egypt Mission at al-Fustat.

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In this paper, I shall discuss classification and chronology of the Islamic clay lamps using around 1200 pieces including small ones which were found during eight seasons of excavations by the Waseda University — Idemitsu Museum of Arts — The Middle Eastern Culture Center in Japan Mission at al-Fustat. 

2. Classification of Clay Oil Lamps

Clay oil lamps from Fustat can be divided into four main groups. The first group is pseudo-Byzantine lamps, the second one is Islamic lamps, the third one is dish-like lamps, and the last one is miscellaneous lamps. Also, these can be divided into glazed and unglazed groups. But, the latter is rare in the Islamic period. So, it will be discussed in the description of four main groups.

Bases of these lamps can be divided into eight types (a to h) as can be seen in Figure 1. Type a has a flat base which was cut off by a thread. Type a1 has a base without any work except cutting off, and type a2 has a base with scraping off at the lowest part of the body.

Type b has a flat base with flattening process after cutting off. Type b1 has no work except flattening, type b2 was scraped off at the lowest part of the body, type b3 consists of a base whose central part was scraped deeply when it was flattened, and type b4 is scraped off deeply at the lowest part of the body.

Type c makes a transitional base from a flat one to a ring one. Type c1 is with deep scraping off during the processing of a ring base, type c2 having a base which is a mixed type of c1 and b3, while type c3 is a variation of c2.

Type d is a proto-type of the ring base. Its shape is like the type c1, but with a curved circle.

Type e is a variation of the types c2 and c3. Type e1 derived from c2 and type e2 derived from c3. Type e has a curved circle.

Type f has a ring base. This type can be divided into three subtypes as the readers can see in the Figure 1.

Type g has a high ring base just like Mamluk ceramics. Type g2 is higher than type g1.

Type h has a unique base with four projections at four corners of a square shaped one. This type is found only in the box-shaped lamp.
A. The First Group

Lamps of the first group follow the technical tradition of Byzantine lamps. The upper and lower parts of the body were made separately by a mold, and then fixed. The upper parts were usually decorated with geometric patterns, animal patterns, floral patterns, or script patterns. To the contrary, lower parts were usually without any decoration, but rarely with simple decorations as marks.

A pointed egg-like shape is common in this group. They are either glazed or unglazed. As to the colors of glaze, green glaze was commonly used, but sometimes was used light brown glaze. These glazes are also common among Byzantine ceramics. Clay is mostly fine pinkish just like that of red polished pottery, and rarely as reddish brown ones.

Kubiak divides this group into two sub-groups, basing on the sizes of the hole for oiling and the forms of the handle.

According to our finds, they can be divided into four types as shown in Figure 5. Type I-1 may follow the shape of Roman Lamps with a large hole for oiling, a tongue like handle bending forward. We found only one of this type. This specimen is unglazed. Types I-2 to I-4 follow the tradition of Byzantine Lamps. Shapes of these types are pointed egg-like ones. Type I-2 is a lamp with a larger hole and a triangular pyramid shaped handle. Lamps of this type are usually green glazed. Type I-3 is with a smaller hole and a handle same as Type I-1. These are also glazed mainly in green. Type I-4 has a smaller hole and a ring shaped handle. Figure 5-4 is the only one specimen of this type which we excavated. This one is unglazed. As to forms of handles, F. E. Day(6) mentions on an erected stick-like shaped one in his paper on the early Islamic Pseudo-Byzantine lamps. But, we have no specimen among our finds. So, this will not be discussed in this paper.

Kubiak writes that lamps of this group were mainly found from deposits roughly dated to the ninth and tenth centuries, and several specimens from deposits dated to as late as the second half of the eleventh century. Then, he suggested that lamps of this group may have been used before the ninth century on the bases of technical tradition employed. On dating of lamps of this group, A. Lane,(7) also, dated them to the ninth and tenth centuries in his study on the lamps from al-Mina. To the contrary, J. Sousteil(8) dated a lamp of this group from Ramla in Syria to the eighth century. Also, in the catalogue of Islamic ceramics kept in the Benaki Museum,(9) which lists a large number of lamps of
this group, H. Philon dated them between the eighth and eleventh centuries.

From our site, 13 pieces of lamps of the first group were excavated. 2 pieces were found from the first stratum, 8 pieces were from the second stratum, one piece was from a dakka and one piece came out from the disposal pit. Among them, 3 pieces are glazed and the rest are unglazed.

For dating of lamps of this group, it may be worth to note three specimens. The lamp of figure 5–3 was found from the sixth layer of dakka 66–3 with the Umayyad fals which had been minted between c. 696 and c. 734. Two other lamps were found from the undisturbed part in the lowest second stratum which may belong to the eighth century or earlier.

It is very difficult to date them on the basis of these data. It may be said, however, that lamps of the first group were made since the eighth century or earlier.

B. The Second Group

The lamps of the second group have quite different forms from the Byzantine lamps. They are characterized by long nozzles joining to bodies and by high necks for oiling. The second group can be divided into six main types.

a. Type 1.

Type 1 is still affected by Byzantine lamps in the technique of manufacturing. There are three variations in this type (see Figure 6). The body is turned by a potter’s wheel, cut to restore, and then, were added a nozzle and a handle to the body. The handle of this type is characterized by being pushed-in. The majority of bases is b1 and b2, and sometimes a2 occurs. The clay is mainly pinkish, which is same as that of red-polished pottery and also similar to that of group 1 and occasionally to fine reddish vessels. The colors of glaze are in chiefly green lead line, which is characteristic from the Byzantine period to the ninth century, sometimes in yellow and brownish lines. Most of glazes are applied on whole side, and three pieces are without base.

As to this type, Kubiak named them Type B, and he mentions that the most common color was green lead glaze, then, tin glaze, white, pale yellow and light green were used, and unglazed ones were not rare. He suggests that the date of this type is in the middle of the Fatimid period, that is, the tenth and eleventh centuries.

From our site, we found 12 pieces of this type. Among them, 5 pieces were
found from the first stratum, 6 pieces were from the second stratum and one piece was from a dakka. Apparently, one piece was found from the layer of the early Islamic period, that is, before the Fatimid period.

Judging from this fact, type 1 already occurred in about the ninth century. There is no doubt that this type continued to be manufactured to the eleventh century, since there are white-weathered pale green or yellow green ones and bluish-green glazed ones which were most characteristic in the Fatimid period. And, one of them has the projections on the both sides of the front body.

b. Type 2.

Type 2 is basically with a rectangular body in vertical section and a rising ridge on the edge of the upper body. The latter is owing to that the upper part and the lower part of the body were made separately, then joined. This technique derived from the first group. Type 2 can be divided into six variations (see Figure 6). Fundamentally, type 1 and 2 are classified by their techniques, so both features of bodies are almost the same as far as the plans go.

The variations of type 2 are divided by the features of oiling holes. As to type 2a, the edge of the oiling hole is not rising and is made naturally. As to type 2b, the surroundings of an oiling hole swell upward loosely. As to type 2c, the outer part of an oiling hole is scraped off. As to type 2d, the surroundings of an oiling hole are rising slightly. As to type 2e, there is a high neck for an oiling hole which reaches to the handle. As to type 2f, there is also a high neck for an oiling hole, but it does not reach to the handle.

Kubiak named this type C. He mentions that the colors of glaze are similar to type B (type 2) and the unglazed lamps do not exist in Type C unlike Type B. As to the colors of glaze, he says that turquoise-blue which belongs to the late Fatimid period is added to those of Type B. He thinks that the date of this type is the tenth and eleventh centuries as early as Type B.

From our site, 39 pieces of this type were found; 16 pieces from the first stratum, 17 pieces from the second stratum, 4 pieces from the disposal pits, one piece from a dakka and one piece from a surface. As to the bases, 26 pieces among the 39 are of b1 and b2. The others are 3 pieces of a1, 2 pieces of a2, 2 pieces of b4 and 6 pieces of uncertain. As to the clay, pinkish ones are 15 pieces, fine reddish ones 15 pieces and the others are 9 pieces. As to the part of glaze, 19 pieces are glazed without base, 12 pieces are on the whole body and the others are uncertain. The main currency of the color is green and the others
are brown, white, yellow and bi-colored. Judging from the finds of our site, 8 pieces were found from the undisturbed second stratum, that is, below 23 meters above the sea level. This fact means that this type was manufactured in the ninth century as those of type 1. At the same time, since the white-weathered ones were found, this type continued to be manufactured until the Fatimid period. By the way, as to the projections, there is none among type 2, although 2 pieces were found among type 1. And type 1 and type 2 are generally small, most of whose diameter of body is about 6 cm.

c. Type 3.

Type 3 can be said to derive from type 1. This type can be divided into five sub-types (see Figure 7). Type 3a is characteristic of deep cutting off done in the front part of a small body, a long nozzle, a handle with a boss, and a high neck for an oiling hole. The surface is finished by shaving. And, it is common that a triangular projection is cut off deeply at the joining part of a body and a nozzle. Type 3b is characteristic of a triangular body in the vertical section, a long nozzle, a high and flattened neck, and a handle with a boss. Type 3c is similar to type 3b, but there is difference in level between a base and a nozzle. Type 3d is different from types 3b and 3c in the shape of a body. This type has the round body. Type 3e has a lozenge shaped body in vertical section.

We found 99 pieces of this type; one piece was found on the surface, 73 pieces came from the first stratum, 19 pieces were from the second stratum, 2 pieces were from dakkas, and 4 pieces from the disposal pits.

Kubiak named this type Type H and he says that there are two variations, that is, one with a triangular projection at the joining part of a body and a nozzle, and the other with a triangular body. As to the colors of glaze, he mentions that the majority are deep green, yellow green and yellow, which were unearthed with types F and G. The date of this type is between the late eleventh and the twelfth centuries.

From our data, yellow ones are 52 pieces, yellow green are 20 pieces, turquoise blue are 6 pieces, brown are 6 pieces, peacock-green are 4 pieces, greenish blue ones are 2 pieces and the others are 9 pieces. As to the glaze part, 68 pieces are glazed on the whole body, 27 pieces are without bases and 4 pieces are uncertain. As to the clay, pink or pinkish ones are 18 pieces and fine reddish ones are 64 pieces. Both of them account for about 88% of all. The others are reddish brown (9 pieces), reddish compound (4 pieces), whitish
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compound (2 pieces), and uncertain (2 pieces). The majority of a base type is bI, that is, 77 pieces (about 79%). This type is characteristic of projections on the front body. Especially, there are 14 pieces out of 21 pieces of type 3d, and 5 pieces out of 6 pieces of type 3e. Among all lamps, there are 64 pieces with projections, so this type amounts to about 30% of all.

Although there is no datum to decide the dating of this type, I must point out that most of finds from the second stratum were found together with the Fatimid ceramics. At the same time, most of this type were unearthed from the first stratum. Judging from these facts, it may be said that this type started to be manufactured in the Fatimid period. Moreover, the clay is not reddish brown nor that of reddish compound which were popular in the Mamluk period. Instead, fine reddish lamps which are common in the early Islamic period. So, I suppose that this type was manufactured from the flourishing days of the Fatimid period to the early Mamluk period.

As a conclusion, it may be said that the beginning of making of this type was not so late as in the Fatimid period, but, may go back to the tenth century. On the other hand, as this type has close relation to yellow glazed ones which I often have mentioned before, it must be made great account of this fact.

Type 3 is generally small. The diameter of a body of type 3a is about 5cm, and that of type 3b and 3c is about 6cm. However, type 3d and 3e are bigger, with that of about 7cm.

d. Type 4.

Type 4 may have derived from type 2. The upper and lower parts of a body were made separately, then fixed. This technique is same as that of type 2, but the dimension of a horizontal section of the body is much longer than that of type 2.

This type has no sub-type. A body is rectangular in a vertical section with a long nozzle, a low neck for an oiling hole and a big ring-like handle. There are three forms of handles as can be seen in Figure 4. Also, there are some specimens with two projections on bodies beside nozzles on which small triangular holes are carved at the upper parts of the bodies. However, these do not show the variation.

Lamps of this type are 90 pieces in total. 63 pieces were excavated from the first stratum, 22 pieces were from the second stratum, 2 pieces were from pits and one piece was from a dakka. Among them, all specimens except for

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two have base of types $b1$ or $b2$. Bodies of 72 pieces (80%) are covered with glaze, except bases, and the rest are covered wholly, by glaze.

The colors of glaze are in blue line, green line or yellow line. Half of this type belongs to blue line, and one thirds belong to green line, and 12 pieces are in yellow glaze. Among the yellow glazed lamps, 9 pieces were found from the first stratum.

14 specimens with two projections on bodies and 20 pieces with rectangular holes were found. Among them, 11 pieces are both with two projections and triangular holes. Also, it became clear that among 14 pieces with two projections 10 specimens were found from the second stratum.

As to the clay, 24 pieces are made of pinkish clay, 22 pieces are of fine red, 23 pieces are of yellowish compound clay and 21 are of reddish compound clay. The first one is typical in the early Islamic period and the second was used mainly in the same period. The third is typical in the Fatimid and Ayyubid periods. And the last one, is of typical clay in the Mamluk period. Among 22 pieces which were found beneath the second stratum, only 3 pieces were made of the third clay.

For dating, it must be noted that 3 pieces were found from the early Islamic deposits in the lower part of the second stratum. And, one piece was found from the constructional layer of dakka 106 which belonged to the same period.

Judging from our data, it can be said that type 4 developed around the time of the foundation of the Fatimid dynasty.

e. Type 5.

Type 5 derived from type 3. This type can be divided into three subtypes, but a general characteristic feature is a handle. As you see in Figure 4, handles of this type form complete rings, and all handles have bosses for thumbs.

The body of type $5a$ has a conical shape. The height of a neck and a handle are almost same, and an oiling hole is larger than others. The body of type $5b$ is in also a conical shape. A neck is higher than a handle, and an oiling hole is smaller. The vertical section of a body of type $5c$ is in oval shape. Other characteristics are same as those of type $5b$.

170 pieces of this type were found at our site. 107 pieces of this type were found from the first stratum, 37 pieces were from the second stratum. 22 pieces
were from pits, 4 pieces were from dakkas.

As to the clay, 67 pieces (39.4%) are yellowish compound, 8 pieces are pinkish ones, 38 pieces are fine red, 52 pieces (30.6%) are reddish brown ones.

Then, as to the colors of glaze, blue line consists of 72 pieces, 93 pieces are of green line and the others are 5 pieces. Among them, turquoise blue glaze is the same as the two typical Fatimid blue glaze. And glaze is surely done to the lowest part of a body excluding a base.

Base type c2 is majority of this type and some of them have base type c3. Base type c1 and others are very rare for this type.

Regarding this type, I have enumerated useful data. 9 pieces of type 5a were found from pit 35 with the Fatimid zigzag pattern filters. One piece of the same type was found from the lower part of pit 18, whose depth is 14.61m and filled with the Fatimid relics. And, 2 pieces were found from the lowest part of the Fatimid deposit.

As to type 5b, one was found from the lowest part of pit 18 (between 12.3m and 12.9m), and three were found from pit 35 with type 5a and the Fatimid filters. Also, 3 pieces were found from the lowest part of the second stratum which may belong to the tenth century. However, it is worth to note that there is a luster painted one although it was found from the first stratum.

As to type 5c, one was found from the lowest part of pit 18 (between 11.0m and 11.3m), and one was found from the lowest part of the second stratum. However, almost all pieces were found from the upper part of the second stratum.

As a conclusion, it may be said that type 5 developed in the tenth century. In the early Fatimid period, type 5a and 5b were major, then type 5c became to be major in the later Fatimid period. Also, judging from the clay, I guess that this type disappeared in the Ayyubid period.

f. type 6.

Lamps of type 6 developed from those of type 5. Comparing type 6a with type 5c, the close relation between type 5 and type 6 is obvious. However, considering that triangular holes which characterize type 4 are sometimes found among lamps of type 6, it must be said that type 6 follows type 5 taking characteristics of type 4 and others.

Type 6 can be divided into five sub-types, and type 6a can divided into
three variations. These are divided basing on the shape of vertical sections of bodies. Type 6a1 has an oval shape, type 6a2 has a flat oval shape and type 6a3 has a distorted oval shape. And, type 6b has a roundish rectangular shape, type 6c has a rectangular shape, type 6d has a triangular shape and type 6e has a lozenge shape (see Figure 2).

Examining necks for oiling holes of type 6, various forms are found while other types have uniform necks for each type. As you see in Figure 3, necks can be roughly divided into nine patterns. 6na, 6nb and 6ni may derived from necks of types 3, 4 and 5. The rest must be newly developed ones from type 6. 6na might have developed as the neck of type 4 and followed by type 6, 6nb and 6ni might have developed as the neck of type 3 and followed by type 5, then delivered to type 6.

As to handles, there are also various forms as you see in Figure 4. However, I do not discuss them here, because most of specimens lack handles and there is no difference from the technical point of view.

Lamps of this type have various kinds of bases. Among them, the most popular one is base type d, and this amounts to 46.6% (315 pieces) of type 6. Base Type e1 amount to 27.0% (183 pieces). The others are base type e2, f1, f2, and so on.

As to the colors of glaze, green line is 58.1%, and blue line is 28.7%, and the others are grey, brown, violet, white and so on. Comparing green ones with blue ones, it can be said, by their spots found, blue ones are earlier than green ones. Almost all of them are thickly glazed down to the lowest part of the body and slight at the base and the lowest part of the body.

During the eight seasons of excavations, 676 pieces of this type were found; 15 pieces were found from the surface, 505 pieces were from the first stratum 127 pieces were from the second stratum, 21 pieces were from pits and 8 pieces were from dakkas. Among them, type 6a1 has 51 pieces (7.5%), type 6a2 does 75 pieces (11.1%), type 6a3 consists of 171 pieces (25.3%), type 6b occupies 215 pieces (31.8%), type 6c, 97 pieces (14.3%), type 6d, 27 pieces (4.0%), type 6e, 16 pieces (2.4%) and unknown sub-types are 24 pieces (3.6%).

Classifying by clay used for them, yellowish compound clay, which is typical of the Fatimid and Ayyubid ceramics, reddish compound clay, typical of the Mamluk Period are common, and pinkish and fine red clay, which was used mainly before the Mamluk period, counts only 22 pieces (3.3%). Among 156 pieces which were found from the second stratum, dakkas and pits (see table 1), 125
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pieces (80.1%) were made of yellowish compound, pinkish and fine red clay. 37.1% of the total which are made of the latter three kinds of clay were found from beneath the second stratum, it is, accordingly, clearly recognized by our data that lamps of yellowish compound clay were found mainly in the lower part of the site and reddish ones mainly in the upper parts. Now, it is possible to say that yellowish ones are older than reddish ones.

Considering sub-groups by this method, 27 pieces (52.9%) of lamps of type 6a1 are made of yellowish compound clay, 6 pieces are of pinkish or fine red one and 18 pieces (35.3%) are of red compound clay. Among 19 pieces beneath the second stratum, all of them were yellowish or pinkish clay. Also, 34 pieces of lamps of this sub-type have disk-like risings surrounding neck.

35 pieces (46.7%) of type 6a2 are of yellowish compound clay, 6 pieces are of pinkish clay and 34 pieces (45.3%) are of reddish compound clay. Among 26 pieces beneath the second stratum, 23 pieces (88.5%) were of yellowish compound or pinkish clay.

82 pieces (48.0%) of type 6a3 are of yellowish compound clay, 2 pieces are of pinkish clay and 87 pieces (50.9%) are of reddish compound clay. Among 49 pieces beneath the second stratum, 37 pieces (75.5%) were of yellowish compound and pinkish clay.

Then, 37.3% of type 6a1, 34.7% of type 6a2 and 28.7% of type 6a3 were found beneath the second stratum.

As to type 6b, 97 pieces (45.1%) are of yellowish compound clay, 5 pieces are of pinkish clay and 113 pieces (52.6%) are of reddish compound clay. 34 pieces (15.8%) of type 6b were excavated beneath the second stratum, and 25 pieces (73.5%) of them were of yellowish compound clay.

As to type 6c, 14 pieces (14.4%) of type 6c were excavated beneath the second stratum, and 12 pieces (85.7%) of them were yellowish compound clay.

As to type 6d, 14 pieces (51.9%) are of yellowish compound clay, one piece is of pinkish clay, and 12 pieces (44.4%) are of reddish compound clay. 6 pieces (22.2%) of type 6d were excavated beneath the second stratum, and 5 pieces (83.3%) of them were of yellowish compound clay.

Then, 5 pieces of type 6e are of yellowish compound and pinkish clay, and 11 pieces (68.8%) are of reddish compound clay. All of them were found from the first stratum.

Now, it becomes clear that lamps of type 6a which were made of yellowish compound clay were mainly found beneath the second stratum and that lamps
of type 6b and 6c which were made of reddish compound clay were found from the first stratum. This means that type 6a is the oldest, while types 6b and 6c are the newest ones. Also, we may say that types 6a3 and 6d are the transitional types from the type 6a to types 6b and 6c.

As to dating of this type, it must be noted that one specimen of type 6a1 was found from pit 18 which deposited only the Fatimid filters and ceramics, without any disturbance. Also, according to our data, type 6a tends to be found together with ceramics of the late Fatimid to the early Mamluk periods, and type 6b and type 6c tend to be found with ceramics of the Mamluk period.

As a conclusion of lamps of type 6, it may be said that type 6a1 and 6a2 were developed following type 5, and types 6a3, and 6d, then types 6b and 6c followed them.

C. The third Group

Lamps of this group are dish-shaped lamps. These can be divided into eleven types including sub-types. Characteristics of each type will be clear from the drawings of Figure 10. Among them, types III-3a and III-3b must have been used as candle stands.

We found 101 lamps of this group at our site. 2 pieces were found on the surface, 78 pieces were from the first stratum, 15 pieces were from the second stratum, 4 pieces were from pits, and 2 pieces were from dakkas.

As to the clay, reddish brown clay which is typical of the Mamluk ceramics is common. And, almost all specimens are glazed mainly in brown color.

Lamps of this group are divided into eleven types, and each type has only a few specimens. This means that it is impossible to discuss this group in details. Now, I shall try to mention some facts which I could get from our data.

There are three major types, III-2, III-3c and III-4. Type III-2 has 25 pieces; 22 pieces were found from the first stratum, and 3 pieces were from the second stratum. Among them, 20 pieces are glazed in brown and 20 pieces were made of reddish-brown clay. As reddish brown clay and lead glaze are typical materials in the Mamluk period.

Type III-3c has 18 pieces, 17 pieces of which were found from the first stratum and 1 piece was from the second stratum. Among them, 13 pieces were made of reddish brown clay, and 12 pieces were glazed in a lead brown color. By the same reason, as type III-2 and III-3c, also, may belong to the Mamluk
D. The Fourth Group

Lamps of this group are uniquely shaped various ones. So, it is impossible to divide them into some specific types.

We found 14 pieces of this group from our site. 8 pieces were found from the first stratum, 5 pieces were from the second stratum, and one piece was from a dakka. Among them, 2 specimens are dish shaped lamps with legs and handles. Three pieces are box shaped lamps with base type h.

Moreover, there are two important pieces. One is a Roman type lamp
with many nozzles. This was found from the lower layer of dakka 90, and was made of fine pink clay. Another is a boat shaped stone lamp. This is the only one find which was made of stone (see Figure. 11).

Here, I must mention about the glass lamps. Till the end of the seventh season of excavations, we found 117 pieces of them including glass candle stands. 77 pieces were found from the first stratum, 26 pieces from the second stratum, 4 pieces were from pits, 5 pieces were from dakkas, 4 pieces were from the surface, and one piece was from an unknown spot.

3. Conclusion

Clay oil lamps in the Islamic Egypt passed three stages. The first stage belongs to the seventh and eighth centuries. Pseudo-Byzantine lamps were manufactured during this stage. The second stage is between the ninth and sixteenth centuries. Various types of clay oil lamps were manufactured in this stage. This stage was the flourishing period of clay lamps. The third stage is after the sixteenth century. Glass or brass may be became common instead of clay lamps.

As to the lamps of the second stage, there are two lines. One is a Byzantine lamp line, and the other is an Islamic lamp line which may follow a Coptic bronze lamp.

At latest, in the ninth century, type II–1 of the second line and type II–2 of the first line were manufactured. The volume of them is little. Then, in the tenth century, type II–3 and type II–5 of the second line, and type II–4 of the first line were made. In this period, a volume of a lamp increased. Among sub-types of type II–3, their change can be clearly known. By the end of the Fatimid period, the techniques of the first stage was forgotten. Then, in the twelfth century, type II–6 was made. Lamps in this period have large bodies and a great number of them were produced.

Now, it became clear that as time passed a size of a body became bigger and the number of productions became more. Especially, after the twelfth century, the size and number rapidly increased.

This fact means that civil life in the Mamluk period was affluent and night time was also included in the active daily life while in the early Islamic period, night time was kept for sleeping. And so, the transition of types suggests us the equalization of civil life in the Mamluk period.
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(This paper is a translation of my paper in Japanese with retouches and amendments. Difference of the number of lamps is due to the more detailed studies.)

Notes

(1) See Bibliography No. 6, pp. 132-136.
(2) ed. R. Levy, p. 146, Cambridge, 1937. Also, there is a description on a glass lamp in the Holy Qur'an (24: 35).
(3) There are many catalogues and systematic studies which are useful for the studies of the early Islamic lamps. Examples will be found in the selected Bibliography.
(4) See Bibliography No. 9.
(6) See Select Bibliography No. 3.
(7) See Select Bibliography No. 10.
(8) See Select Bibliography No. 16.
(9) See Select Bibliography No. 13.
(10) The strata of the al-Fustat site are divided into the upper or the first stratum and the lower or the second stratum. The upper one was formed by rubbish which had been thrown by the citizen of the Cairo city after the destruction of the al-Fustat city.
The second one is of soil and covering the remains, dakkas or pavements and its constructional layer, disposal pits, undisturbed deposits, roads and so on.

Select Bibliography


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10. Lane, A.; “Glazed Relief Ware of the Ninth Century A. D.”, *Ars Islamics* 6, 1983.
## Table 1

<table>
<thead>
<tr>
<th>TYPE</th>
<th>SURFACE</th>
<th>FIRST STRA.</th>
<th>SECOND STRA.</th>
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OIL LAMPS FROM AL-FUSTAT

Fig. 1

a1

a2

b1

b2

b3

b4

c1

c2

c3

d

e1

e2

f1

f2

f3

g1

g2

h

Fig. 1

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Fig. 2
Fig. 5

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Fig. 8

II-5a

II-5b

II-5c

II-6a1

II-6a2

II-6a3

0 10cm

Fig. 8
Fig. 9