UMAYYAD POTTERY IN (KHIRBET EDH-DHARIH)  
SOUTHERN OF JORDAN

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Abstract
The study aimed to explore the most pottery characteristics in Umayyad Period. The study depended on discovered pottery materials in the excavations in the site (Khirbet edh-Dharih) which was cited in the east side of Wadi Allo'oban on the way of the Temple which connected AlTafelah Governorate and AlKerak Governorate.

The study focused on the discovered sample of the study in (Khirbet edh-Dharih) to identify them, classify them and extracted the pottery sample which resembled this study, which referred to Umayyad Period beside site historical importance during the Nepatiene, Byzantine and Islamic Periods.

The researcher researched in Islamic Pottery in Umayyad Period in (Khirbet edh-Dharih) through the studying the history of the ancient research in the site and discussed the previous literature which were completed by roving as the surveys completed in the site, so excavations ancient constructions found in it: the Temple where found on it the Umayyad pieces of potteries. Palace, Npatiene house and the Cemetery.

The Umayyad Pottery in the site were studied in the same site with the ways used in constructing Umayyad Pottery, the shape of the Potteries and the illustration of their artistic characteristics of them.

The researcher classified the discovered potteries in reading the pottery pieces, the subject of the study, then classified each group according to its functions and the purpose of them.

Potteries were drawn in measurement 1:1 in careful way, the researcher described the piece, identify its argil granules, Garnet, Quartz beside organic materials which they had been added
to the Pottery, as identifying the color of the argil in using minis oil and identify how they were burned in the oven. The shape was described and surface manipulated added beside what they carry inside them or ornaments which performed on the outer surfaces of the potteries. Every pottery group were studied in mentioned the same examples to them and history by returning to the books published, essays which shed light on the historical side for the potteries, the subject of the study.

**Keywords:** Umayyad Pottery, Khirbet edh-dharih, Jordan

**Introduction**

Potteries manufacturing was advanced in the Islamic Periods, studying of Islamic Pottery from the most important studies in the practical Islamic Arts. From the most important Islamic Practical Arts. and from the most important ruined and valued materials, Manufacturing Islamic Glazed Potteries were started at the first as completed to Susanne And Byzantines Glazed Potteries. (Alrifai'i, 1977: 155)

Manufacturer of Islamic Glazed Pottery developed Artistic Patterns on the glazed pottery and put the characteristic of their culture on them in ornaments and painting. Thus participated in putting beautiful aesthetical values, nothing like them, because they own the homogenous bases and elements and ornaments. (Lane 1948:5-8).

Pottery manufacturing was considered traditional job helping in identifying on the culture and ages of nations. Every civilization has its own way in manufacturing pottery, as if the manufacturers in the same ages producing differ potteries, the characteristic of identification the culture and ages could be deleted. (Frankin, 1978: 77-217).

Manufacturing of pottery was came to peak in the Umayyad periods. Most sciences refer that to the heritage of production bases in Byzantine periods. others said that the Umayyad ancient places are the same Byzantine places, to mean, that the places were famous before Islamic periods is continued and become famous in the Umayyad periods. (Hussein, 1988, P. 65).

Umayyad pottery has special features which distinguished it from the Byzantines pottery period, in features distinguished each of them alone. Pottery were made in the Byzantines period from thick material and many colors like: yellow, orange, Pinkish, grey, white and yellowish. The most popular is the orange color mud lay to red and black. Red soft mud was appeared and make use of the dark red, orange and red. They had pure argil. (Sauer1982-1986:330-306).
Features of Umayyad Pottery

We can compare Umayyad pottery in general frame with Byzantine Pottery:

Umayyad pottery distinguished in general in special characteristics: the plates with wide edge outward or lay outside and others have flat edge.

Cups like plates had circled edges laid for outside and distinguished in white walls inside and their bases flat and wide. (Sauer 1986 :313)

Containers are circled distinguished in catches in the shape of circles under edges and had waved lines, but, kittle had heavy edges and a little wide outward, as their shoulders squared connected with the body and their bases are flat with circled hands expanded from the edges to the shoulders. The edges of cups were gradually declined without handling tools and their bases were circled or flat and their edges simple and thin. Here we may found large and small potteries were large pottery used for storage or water and their edges flat or thick with angles and their catching tools circled on the shoulders of the potteries, as small potteries their edges simple and have multiage necks. Their edges were wide outward from of them circled upside down outward and their bases are flat. The edges of water containers and catching tools in the shape of small appeared complex.

As mentioned above we note some similarities among some ancient pieces referred to Umayyad period with these referred to Byzantine period.

(Baramki 1942:66-80; Smith 1973: 234; Sauer 1986:316)

Umayyad manufacturer distinguished with many types from there manufactured shapes and the method used in manufacturing, they created new methods not mentioned before them in the field of industry and ornaments, from the most important ways renewed by Muslims in this field were pottery and pottery furnished in thick lin. And ornaments in porcelain, all of these kinds differ from each other in the type of mud, shaping, wall paper, furnish, ornaments and the ways they used in them. (AlBasha, 1999: 49).

Khirbet edh-Dharih

Khirbet edh-Dharih placed on one of the branches of Wadi AlHassa connected with Wadi Allo'oban far away approximately (25Km) near the Temple way which connected AlTafela City with AlKerak City far away about (20Km). (AL-Muheisen & Fiel Nief, 1990: 5; Braslavski 1934:93). It is far away from the Napatien site in Khirbet AlTanour which was discovered by (Glueck) in 1937 (Glueck, 1965 p. 48).

The site has very important role and distinguished in the Napatien periods because of its short distance from the Royal road (Trajan Road). It is place on the commercial way
which go forward ALGhor region and Palestine at the west passing in the region of AlNahass pit in Fenan (AL-Muheisen, 1965, p. 176).

There are some differences about the naming of the site. Some believed that resembled the sun and others believed that edh-Dharih or edh-Dharih was imagery for Kenda in Niger from AIYEmen (Hadramout). edh-Dharih is one of the names mentioned from Arab southern complicated names like edh-Dharih Ael. edh-Dharih is like AlShareq and (Mahrouq) it is image resembled the sun (AlKhory, 1990p. 31).

The researcher go with the believe that Khirbet edh-Dharih was called in this name related to edh-Dharih Spring near the site, as mentioned by AL-Muheisen in the previous reference.

**Archeological buildings**

**The temple**

The temple was built in the late of the first century after birth (Waliszewski 2001:97) it is the building that made Khirbet edh-Dharih important. The temple was built on decline land higher than Wadi Allo'oban. The temple design is Napatien, the temple was located in rectangular area in front of it located wide area. It has rectangular shape in the middle of located small building with special importance (sanctum of sanctorum)( Fiel Nief, 1984, p. 17)

The temple had front face rich in ornaments while the other side without any ornaments as it contained two gates in other side (AL-Muheisen, 1991, p. 10).

Main gate led to rectangular shape front area, you can receive through it to the second area which contained high platform surrounded with columns, and surrounded with the platform narrow bath in the shape of (U) believed it was designed for some rituals to turn around it, to ward south and east there is opened second rectangular area with two exists. This area is rich with geometrical shapes, hunting views, and pressured grapes. All of these were executed on plaster and sculptured ornaments on calcareous stones.


Through rummaging in the season 1992 in the first front area in the temple we found tiled ground and discovered some surrounding walls in the area.

It is clear that the region was used for housing in the Umayyad period and later Islamic periods with some differ Islamic rooms and buildings in the front tiled south west corner.

In the front area some rummaging were completed which lead to sanctum sanctorum to find the ground of the tiled temple which connected and balanced with the floors of the
path surrounded sanctum sanctorum. Were found in some pieces of tiles executed on them ornaments contained Alfresco draws from the most important of them geometrical and plants ornaments. Was found also number of stones with half human being sculptures (AL-Muheisen & Fiel Nief, 1993: 6).

It is clear that the temple through many seasons was used in many stages in Napatiens period and added some special modifications on sanctum sanctorum. The north part was rebuilt to use as a church in Byzantine Periods. (AL-Muheisen & Fiel Nief, 1993: 6).

In Islamic periods it is clear that the front area which lead to sanctum sanctorum was used for housing purposes in the Umayyad period and late Islamic periods. There is some modifications on sanctum sanctorum room in some small walls which referred to Umayyad periods where the temple was used or parts of it for housing. (AL-Muheisen & Fiel Nief, 1993: 6).

**The palace**

Located north west- south east from the large area and entered to it with entrance. The area surrounded by two squared shaped large rooms ceiling built in arch shapes and third room. (AL-Muheisen, 1996, p. 182) related to the building path room and grapes press. The path is composed of two parts the bottom room contained oven supplied the upper partial with heat and its interior walls built in red thermal blocks. It was contained on clay pipes to transfer heat and get rid of gases and smoke outside the building. (AL-Muheisen, 1996, p. 183).

**The press**

Rectangular shape located on the south part of the temple. Outside walls organized, but the floor full of middle and small stones and contained two presses of olives fruits distributed in homologous shape located near the north west wall. The way the olives fruits pressed and extracting oil from the press refer to the end of the first century before birth, it was assured by the coins which were found inside the building which related to the date to the periods between 40-70 after birth, the system the two presses were built was familiar in the Helsanti period.


The first press exposed to earth quack related to fire in the site. It is probable that earth-quack and fire happened at the time of collecting olives fruits, the prove is found some fired olive fruits inside the containers which distributed olives in the press. (AL-Muheisen & Fiel Nief, 1990, p. 10).
Cemetery

The cemeteries distributed in wide flat area located in the east part of the site. The most important discovered was the collective Cemeteries composed of sex tombs five tombs as floors each one above the other between two floors stony thin layers fixed extremely. Some proves pointed to find some graves in square shaped plan was built on the tomb.

(AL-Muheisen & Villeneuve 1988:469)

But tombs that were built in many layers that were known in the Napatiens period they were called well tombs as that tombs were found in Petra, these tombs found in Petra were sculptured inside rocks. Were Khirbet edh-Dharih tombs were built in stones. Through ancient coins discovered in the tombs referred to the third and fourth centuries after birth they proved that they were built in this period. Were the cemetery was built in the Napatiens period but used later.

(AL-Muheisen & Villeneuve 1988:466-471)

In 1991 season two Napatiens tombs were found on the hell over AlSharhah Valley from the north side and wooden chest was found in it lied two skeletons for a man and a woman. The woman was defined through the anklet, wrist lets and collar from dark yellow bugle, we also found some parts of the women’s shoes and parts the clothes and wool. As appeared the two curses were enshrouded in animal skin. But, the second tomb it is near wooden chest it is for Youngman and he has not any funereal materials.

In 1993 season discovered some individualism groups built in stones organized and fixed with white solid materials. The two skeletons were enshrouded in camel skin and fibers, and was found on the tomb some piece textiles and was found basaltic stone and coin inside the jaw were related to the early of the second century after birth.


Napatien home

In 1991 season discovered Napatien home expanded at the south east of the press composed of three rooms and has rectangle area expanded toward the north and south. The home was built from large stones and the ceiling was built in the shape of stony arcs proved for that the remaining of their bases. The northern room distinguished in the magnificent walls and we can notice that the two rooms the moderate and the southern were similar were the roof of both of them were built in arches their bases still in their places, in the moderate room we can find in the south west corner a container contained pottery pieces return to the first half of the sixth century after birth, the ceiling of the home was built from thin large
stony layers some of them had one meter in length nearly and their width between 50-70cm. it is clear that they were reused in the later Islamic periods (AL-Muheisen, 1991, pp. 14-15).

**Umayyad Pottery in Previous Literature**

There are many studies were abducted from them Arab and foreign studies and interest in the study of Umayyad Pottery:

**Arab Studies**

The most important feature of magnificent Islamic glazing Potteries are metallic shining. It was mentioned that Islamic manufacturers use glazed pottery in making tales and stars to cover the walls in manufacturing many types of pottery and master works from cups, bowls, pitcher, coffee cups, flasks, glowworms, invectives, tumblers and many different kinds of dishes in depth and shapes, packages, dresses, fumigators, candlesticks and others from pewter and masterpieces. The Islamic Glazing pottery extinguished in creating the ornaments and showing many kinds of them and the suitability of the ornament to the shape of the masterwork.(Hassan, 1948, p. 258).

Producing glazing pottery had many methods and appeared many kinds of ornaments that make the production nice and beautiful. Drawing in colors was used under the transpicuous glass paint and adding gold color was used as engraving, puncture, and enamel beside metallic glazing was added.

Muslims ornament these plates according to Islamic Traditions in tending toward abstracting and simplicity, as he pointed in his book to varieties of Islamic Glaze types, so he mentioned the glazed pottery with topgallant ornaments and glazed pottery with digging ornaments beside glaze pottery under the paint, so glaze pottery with metallic shining which was considered the most important feature distinguished the Islamic Pottery which made to standby the golden and silver plates .(Al-Alfi, 1960, pp. 262-273).

Glazed pottery Islamic Manufacturers followed old methods and started in creating new methods gradually in ornaments the glazed pottery, naturally they effected in Chinese's glazed pottery in shaping the pieces. But the Islamic pottery differ greatly in ornaments and the methods of manufacturing, in using colors when they used the light yellow color, light green and added light amaranthine, many times ordered the spots and colored branches with lined graved draws inside geometrical homogenous shape like uncompleted circles, unite circles, lozenges, and crossing shapes.

The art of glazing the potteries was developed on the hands of Muslim manufacturers in subjects drawing under transpicuous lays or above thin white layer or another layer from
dark color, As he pointed that the best kinds of pottery that made for well known persons and rulers except were for popular use. (Kahalah, 1972, pp. 214-243)

Pottery in Umayyad period were made for life living purposes: storage of food, transporting water, save food or used on the table of the dinner. Glass was added in one color wither in green or blue, as other colors were added for nourishment in later periods, pottery were received us from Umayyad period two types: pieces without glass for house using and large potteries soft and added to them glass with in blue or green color they were used to save food and water, one of these pieces used in it written statements in the Kofi letters which is the start of using Arab writing on Arab Potteries for nourishment. (Nayef, 1988, p.62)

**Foreign Studies**

James Sauer mentioned in his article "The Pottery Of Jordan In The Early Islamic Period" that Umayyad pottery were differ widely upon Bezant and Abbasid Pottery, but there are some features and distinguishes going ahead with this period and without any other. (Sauer 1986 : 331-332)

(Michaela Konrad) Mentioned in his article "Umayyad Pottery From Tetrapygium (Qseir as-Seileh), North Syria" about Umayyad pottery which were extracted in (Qseir as- Seileh) in North Syria at al Frat district. He said" according to this site he could compared Umayyad pottery with late Byzantine Pottery , from it appeared that Umayyad pottery and Byzantine were very similar but it was composed of different clay to use in treating the surface and ornaments, new patterns were added for some functional groups like basins which were similar to that in Umayyad pottery ages beside producing burned red block crisp, hard and burned but they were little effects from Byzantine Traditions as clay and there manufacturing and shaping which revealed about Umayyad Features." (Konrad 2001: 163-166)

(Tomas Waliszewskic) abducted a study addressed (Umayyad and Byzantine Pottery in(Khirbet edh-Dharih) site) mentioned that the pottery found in (Khirbet edh-Dharih) site divided into four groups divisions according to clay color and the used clay for most of the shapes in (Khirbet edh-Dharih)site with orange- red color as used the grey mud beside brown mud which may used in pitchers and they may be light or Pinkish in jugs manufacturing, but the fourth mud it was brown- red differ from the late that it was lighter and used in using weird and lights
UMAYYAD POTTERY IN (Khirbet edh-Dharih) Site

Prelusion:

Manufacturing

Ways that were used in manufacturing pottery were varied first of them manufacturing that need well homogenous mud, solid and highly soft to make the shaping operation easier. (Franken 1975 : 29)

The most important feature of handcraft pottery is the unorganized fingers spots on them on the inner side of the pottery. While pottery were manufactured by rundles appeared on them horizontal lines to approve that the rundles was used, but glows were made by molds.

Second: Umayyad pottery that were manufactured by rundles and had many shapes like veering. Plates, cups, cooking plates and jugs. Rundle was used to complete some edges specially containers, kettles and storage jugs. (Sauer1986: 305).

Handcrafts

Softy of the clay is considered at high degree of importance, to use them easily in manual shaping, it must be empty of air puppies, that will be completed in dividing the clay into two divides after mix them together after repeating and mixing the clay becomes homogenous and have solidity in high degree of softy to manufacture it manually easily. (Norton, 1965, p. 7)

Shaping completed in making ropes of clay put each one over the other one and the portions pressed together in using the slip and during put the ropes over each other the surfaces smoothing in using a piece of cloth with water to moistening the mud from outside and outer side and to prevent paces among the ropes.

Manufacturing in using rundles

It was popular to use rundles which worked by pushing in the feet and depend on a disc fixed in the stand or something other than the disc pressed key and arm moved in a circle way. (Norton, 1965, p. 22). Cups, viverrine, kettles and others in using the rundles.

Manufacturing in using molds

Manufacturing in using molds is useful and simple to produce many kinds of pottery which may be used in our daily life. The mold were made according to the model we need to produce (Hour Fourten, 1994, p 83) i.e. producing glows.

Molds were made of plaster because it has effects adding its solidity after drying them, it has porosity helping in absorbing water easily, we must know that all kinds of mud and materials deflation to some limits when they dry and put inside the oven in high
temperature because of losing a ratio of water and the mold must be bigger than the original size of pieces. (Norton, 1965, pp.193-195).

**Shapes of Pottery**
Umayyad pottery varied which is considered permanent continuity for Byzantine period but after short time the Umayyad pottery became independent in special type and special features distinguished in it, so shapes varied. To make us clearly know Umayyad pottery from others it has many kinds:

**Cups**
Cups were made from orange-yellow clay and have not any slat and the outer surface colored in red color, they have grandstand edges. They have without handles, circle bases or flat the other type made of dark metallic clay there outer surface colored in white color, the edge is simple and thin they have not any hands and there bases were flat. (Sauer1986:310)

**Viverrines**
There are many kinds of Ummayyad viverrines among them made of yellow clay toward red color they have not any handles and have many ornaments with many sizes.(Sauer1986:313)

**Types of viverrines**
Umayyad pottery or viverrines varied from them made of yellow clay forward red and they have not any handles contained open coin side a little but there walls they are verticals and the bases flat.

- Viverrine reddish in color and painted in white color they have not any handles with straight edge and deep walls they end with flat and wide base.
- Yellow color without slats and flat edges.
- Viverrines between black and grey colors with handles with spherical shape have ornaments with graved lines on the picture of waved lines cut from mud.
- Viverrine with coiled edge and half spherical with edge go outward with outward shape in the body. (Abu Sbiet, 1994, p. 77)

* Kettles:
Made from dark black and harsh clay, dark yellow and Brown, were made by rundles because there were lines appeared from the rundles. There edges thick and circle, their shoulders squared connected with the body but the base flat and has two ring handles expanded from the edges to the shoulders.( Sauer 1986 : 315, Smith 1973 :230-231 ).
• **Jugs:**

Large and small size jugs appeared in the Umayyad period, made by rundles, large jugs were used for saving water and food, made from yellow- orange clays without slats with flat edges or thick with angles and have circled handles appeared on the shoulders of the jugs.

(Sauer 1986: 216 ; Ata 1998:41)

Small jugs were made of yellow lay go forward orange, Pinkish, white or red, there edges simple, vertical necks circled body and have handles from them with slats and others without ornament interior in white or creamy with geometrical shapes in red color. (Baramki 1940 :66;Smith 1973 :234; Sauer 1986 :316; Ata 1998 :42)

• **Pitchers:**

Made of clay without slats with yellow color go forward orange, Pinkish, red or white, they have tall necks and vertical and circled body, there edges opened outward from them circled and go for outward and there bases flat, these contained have one handle over shoulders opposite with open end. Most of the used ornaments have geometrical shapes. (Ata 1998 : 47; Brosh 1986 :67)

• **Small containers of water:**

Made for pilgrimage travelling, they have yellow color go forward orange or red go forward brown, creamy or black there edges were simple and there handles two circled small rings. ( Baramki 1940 :80; MCNicoll, et al 1982 ;162, 168).

• **Glows:**

There many kinds of glows appeared in the Umayyad period and all made in molds from them oval and flat shapes and the handle in the shape of complex go for outward. They were made of creamy go forward white color clay and from orange-yellow, finally brown-black. Ornaments appeared on the outer surface for the glow in appeared shaped or in the shape of circles inside them plants or geometrical shapes. They contained oil hole in the middle and the open of the light in the front of the glow. (Baramki 1942:73; Brosh 1986: 71; Sauer 1986:325).

• **Handles:**

Many typed of handles appeared:

- Vertical handles
- Horizontal handles.

Most of the handles were circled or triangle and made manually (Abu Sbiet, 1994, p. 222).
UMAYYAD POTTERY IN (Khirbet edh-Dharih)

- **JUGS:**

**Figure (1)**
A piece of saving food body container and a piece from the base in 9cm diameter its thick between 1-5 mlm the open of the jug appeared a cute to outside the color of the clay is light red 2.5 Yr . 6/6 contains small soft lime granules, small and large quarts and soft granite granules beside it big pieces of lime as organic materials. Made between the two stages the first the body of the jug which made manually and the open which made by rundle it has not any ornaments and its well burned return to Umayyad period -From Areas H & K of the city of David (Magness 1992. fig (9:7).

Similar in shape and in the way it may be manufacturing (manually), in the burn and date and similar that they have not any ornaments.

![Figure 1](image1.png)

**Figure (2)**
A piece of water jug mouth and part of the body connected with the base its diameter 18 cm its clay is pinkish white, 5 Yrs contained small and large mild granules and quarts granules beside soft garnet as organic materials, made in one stage with the rundle, its burn is not well and return to Umayyad period.


Similar in shape and in the color of the clay and made (rundle) Umayyad period.

![Figure 2](image2.png)
Figure (3)

Piece of water jug without mouth and piece of the base its thick 6 mm the burned was appeared on the body and base made of red clay with light red color 2.5 yr contained small and large mild granules, granules of quarts and soft granites beside organic materials it was made in one stage with rundle beside it painted outside in dark brown oxide, the outer surface near the mouth was divided in to three frames the first frame contained on organized following lines and the second in waved lines. It was burned well, return to Umayyad date.

-Pella (Smith 1980. (P1.XXI:1)

Similar in shape and in manufacturing (rundle) burning and date and similar in the color of the clay

(Citadel of Amman (Harding. 1951. Fig (3:47)).

Similar in shape, in clay, and in the thick of the sample and manufacturing, date and burning.
Figure (4)

Piece from a mouth of saving jug with the neck and the body its diameter is 1-6 mmlm. The mouth of the jug going outward, the color of the clay is light red 6/6 2.5 Yr contained small and big granules of mold, quarts and soft granites beside organic matters. It was made in one stage it is the rundle, it was nourishment in curved lines from up to bottom in a shape like a frame and appeared under the frame nourishments in declined lines. This types of ornaments was repeated on the body of the container but its burned was not well return to Umayyad date.

(Brosh. N. 1986. Fig. (5:3).

Figure (5)

Piece from mouth connected with the neck and part of the body and handle in its diameter 10 cm its thick is between 3-4 mmlm the color of the clay pinky 7/4 5 Yr. contained small and large granules of mold, quarts and soft granites added organic matters. It was made in two stages the first the body of the jug and the neck in using rundle but the handle was made manually and nourished in declined lines in a frame with well burning return to Umayyad Date Pella (Smith. 1980. (Pl. XXI: 2)).

Similar in shape and in the diameter of the mouth 10 cm, burning and date and in the way it manufactured.

Pella (McNicoll, et al. 1982. (Pl. 141:2))

Similar in shape and ornaments and curved lines through a frame the manufacturing was completed into two phases and similar in burning and history.

Similar in shape and color of the clay and manufacturing the body and neck produced by the rundle and the handles made manually also similar in date and in burning.

Baramki.1942.Fig. (3:1).

Similar in shape in two phases the rundle and manually and in the diameter of the mouth, manufacturing and date.

Figure (6)

Piece for a water jug with a neck and a large portion of the body and the handle its diameter 4-6 mlm. The clay in gray color 5/1 10Yr. contained granules of quarts and small and large granites granules beside organic matters. The mouth, neck and body made by rundle but the handle made manually, nourished with organized lines at the neck but its burning is not good return to Umayyad date.

-Dayr Qatter (Holmgren, et al. 1997. fig (17-1)

Similar in shape and the diameter of the mouth, industry and date.

Pella (Smith. 1980. (P1.XXI (4)

Similar in shape and the way they produced also similar in the diameter of the mouth and function beside date.

-Aqaba (Melkawi, et al. 1994. fig (10: L))

Similar in shape and the diameter of the mouth, clay color industry and date.

-From Areas H&K of the city of David (Magness, 1992 fig (9:6)).

Similar in shape and industry, the body and neck in rundle and the handle manually as in date

- Pella (McNicoll, et al. 1982 (P1.62b))
Similar in shape and way of producing, function and the color of the clay.

Figure (7)

Pieces of base of saving jug and part of the body. The diameter of the base 15 cm, its thick about 1.2-6 mlm, the color of the clay pink 8/4 5 Yr. contained large and small lime granules, quarts granules and small and large granite beside organic matters. It was made manually. Its burning is not good, the date Umayyad.

- Similar in shape and diameter of the base in manufacturing and date Aqaba (Whitcomb 2001. fig (1: h)).
- Similar in shape, the color of the clay, thick, producing and date.

Artistic features for Umayyad Pottery (subject of the study)

Clay

Umayyad pottery (the subject of the study) made of light red color, pinky, white near pinky and grey clay some of them painted in dark brown oxide distinguishing in the smoothing of the outer surfaces, contained mold granules, quartz and granite added to them organic matters.
Way of producing

Some pottery were made manually (1-7) others made by using rundles while handles produced manually and then added to the body of the pottery.

executed ornaments:

appeared on some jugs and ornamented in curved and waved lines inside a frame and the frame contained similar and followed lines (4) others waved and declined graves inside repeated frame on the body of the jug (5) other appeared on them organized lines on the body of the jug (6)

Burning

some jugs with good burning (1.3.5) but some jugs had uncompleted burns (2.4.6.7) because there are another color other than the color of the surface or the interior surface for the jug.

Shape soft h edges:

Thick of the edges (subject of the study) between 1-6 mlm and the diameters of the edges were 8-18 cm some jugs edges may go outside (1.4) other with appeared shape on the mouth.

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