Zeidan Kafafi

The Pottery Neolithic in Jordan in Connection with Other Near Eastern Regions

Archaeological evidence shows that various cultures within the small area of Jordan and Palestine were contemporary with one another, and that some sites shared some cultural traits with their neighbours. Moreover, recent archaeological research in the Near East shows conclusively that during the Neolithic period Syria, Lebanon, Palestine and Jordan formed a wide cultural province which was distinct from that of Egypt, Mesopotamia, and perhaps more closely related to Anatolia (FIG. 1). Exchange relations between Jordan and Anatolia were established at an early date, and starting about 8,000 BC, obsidian was sent as far south as Jericho and Beidha. The first contacts between Egypt and the Near East date back to the Epipalaeolithic (c. 10,000 BC) when a culture related to the Natufian was founded at Helwan, south of Cairo.

In the later stages of the Neolithic period, pottery came into common use. The earliest known pottery vessels were made in Anatolia during the 7th millennium BC, but they did not become common until about 6,000 BC (Mellaart 1966: 1. Map showing major Neolithic sites in the Near East.
The introduction of pottery into Jordan may have occurred a little later. However, most scholars agree that this could have taken place around 5,500 BC. This period, in which pottery was first made in Jordan, was named 'Pottery Neolithic', which is the topic of this paper.

Now, looking at what could be considered as the end of the period, we must admit that it is very difficult to draw a clear line between the last phase of the Neolithic period and the beginning of the Chalcolithic period. This is due to the fact that no dramatic changes happened between both periods, except that farming became more established and man used copper objects in the Chalcolithic period. The implementation of copper, from the Jordanian archaeological point of view, makes the term Chalcolithic acceptable for this period, which follows the Neolithic. Since the first appearance of copper tools in Jordan was noticed at Tuleilat el-Ghassul, we may consider it and other contemporary sites such as Beer Saba' as being representative of the Chalcolithic culture.

Communication routes
The location of Jordan as part of Bilad es-Sam has been described as a land bridge between Asia, Africa and Europe. Thus, Jordan may be considered as one of the paths of communication between the cultures which appeared or were founded in the ancient Near East—such as the Anatolian, Mesopotamian, and Egyptian. One can say that there is no geographical boundary between Jordan and Palestine, Syria and Lebanon. Two communication routes may have played a big role between Jordan and Palestine and the surrounding areas within the Neolithic period. This could be traced by archaeological material excavated at sites in those countries. The first route is the Mediterranean Coast, and the second route is to the east of the Asia–Africa rift, over the North Syrian Plain, going by the main range of the anti-Lebanon into the oasis of Damascus, then to the Jordanian upland. (Mellaart 1966: 3).

Pottery Neolithic in Jordan
The earliest Near Eastern pottery dates to the 7th millennium BC. Pottery was commonly used only in the beginning of the 6th millennium BC. Though we still lack the exact date when pottery manufacture started in Jordan and Palestine, most scholars agree that it began here no earlier than 5,500 BC (Mellaart 1966: 10; de Vaux 1966: 15; Moore 1982: 16). Scholars also agree that some Pre-Pottery Neolithic B sites such as Beidha, Wadi Fellah, and the terrace of al-Khiam were completely abandoned after this period. However, other sites such as Jericho, Sheikh 'Ali, and Munhatta revealed in their excavated strata later occupations, after some interruptions. Meanwhile, at the site of 'Ain Ghazal, near Amman, it is not certain if there is a gap from the Pre-Pottery Neolithic period through to the Pottery Neolithic (Rollefson: Personal Communication). It has also been argued that new settlers who reoccupied the sites mentioned above arrived in Palestine and Jordan with a pottery industry (de Vaux 1966: 15). However, it seems that this theory is very complex and we lack many elements to enable us to unravel the confusion. Thus more archaeological excavations at Pottery Neolithic sites should be undertaken to enable us to say if the pottery production was brought, or if it was initiated locally. The idea that the pottery was first made in, let us say, Anatolia, does not necessarily mean that it started later in Jordan, based on the fact that we have not found the same type of pottery manufacturing in both lands.

The so-called Dark Faced Burnished Ware, which is hand-made, is the earliest pottery manufactured in the Levant. It was first found in Anatolia, and now we find it at Palestinian coastal sites, Jubel and in the Damascus basin. This kind of pottery has been found at Tuleilat Batashi (Kaplan 1958a), Wadi Rabbah near Jaffa, Kfar Gil'adi (Kaplan 1959: 9ff.) and Tell Turmus (Perrot 1963: 559) in Marj Ibn 'Amer plain, and Tell Abu Zureiq and Tell Kiri (Perrot 1963: 559ff.) in the Carmel range, and is present in the Jordan Valley at Sheikh 'Ali (Praunitz 1960a, 1960b, 1970, 1975). A few sherds of this type were recently found at 'Ain Rahub, 12 km north-east of the city of Irbid in Jordan (Kafafi: Report in preparation). A few DFBW sherds were excavated from Tell esh-Shunah North in the northern part of Jordan Valley (Gaubue: personal communication). Those from Jordan could be considered to represent a fine and thin ware of the same kind as the Dark Faced Burnished Ware. In other words, the sherds found in Jordan seem to be comparable to the fine DFBW sherds found in the Amuq area. Meanwhile DFBW is a difficult question, and more technical studies should be undertaken.

Before the use of pottery vessels, man used utensils which have been called 'vaisselle blanche'. These kinds of vessels are part of the assemblage of the PPNB culture. At 'Ain Ghazal, vessels of this type were excavated (Kafafi 1984, 1983, 1986b). It is interesting that 'vaisselle blanche' was originally thought to be a northern feature; it seems now to be present as far south as Jordan.

The Pottery Neolithic culture may be divided into two major periods, the Late Neolithic 1 and the Late Neolithic 2. This is based on the stratigraphic sequence of excavated sites in Jordan and Palestine. The Late Neolithic 1 includes the Yarmukian culture and Jericho PNA/ix, and the Late Neolithic 2 includes Ghrubba and Jericho PNB/viii. Sites related to the first period in Jordan are 'Ain Ghazal, Abu Thawwab and 'Ain Rahub (Yarmukian), and Dhr'a (Jericho PNA/ix). Those related to the Late Neolithic 2 in Jordan are Ghrubba, Tell esh-Shunah North, Abu Hamid, Tuleilat Ghassul and Sabah (Ibrahim 1983/84), in addition to many other sites surveyed in the Jordan Valley (Kafafi 1982).

Late Neolithic 1
a. Yarmukian culture
The site el-Qabwanah (the arabic name for Sha'ar ha-Golan) situated at the mouth of the Yarmouk River, represents the first occurrence of this culture (Stekelis 1950–51, 1972). In the last two years, sites excavated in Jordan which produced
2. Yarmukian Pottery from Abu Thawwab and 'Ain Rahub.
archaeological remains from the Yarmukian culture are: Abu Thawwab (Kafafi 1985a, 1986), 'Ain Ghazal (Rollefson: personal communication) and 'Ain Rahub (Gebel and Muheisen 1985).

The excavated pottery objects at those above-mentioned sites were mostly identical in terms of the surface treatment. They are characterized by red painted slipped ware with herringbone design incisions, and a few notched sherds. The recognizable pottery forms are simple bowls, cups, hole-mouth and globular jars (fig. 2). These have ledge, knob, and loop handles, and flat, rounded and disc bases (Kafafi 1985a, 1986).

The Yarmukian type also appears at sites on the Palestinian coast and on the sites of the Marj Ibn Amr plain, near Tell Kiri (Anati 1963: 264), and also on the sites in the Jordan Valley, such as Munhiba (Perrot 1963a, 1963d, 1964, 1964a, 1965a, 1965b, 1966a, 1966b, 1968, 1968a) (above the PPNB levels), and further south at Khirbet es-Soda (Tzori 1958). Further north and at Jubel, similar pottery objects were excavated in the Early Neolithic levels (Dunand 1973: Pl. I).

It has been argued by scholars that the so-called Yarmukian pottery has a rather limited regional distribution (Anati 1963: 264; de Vaux 1966: 20; Moore 1982: 20). But after the data that we have collected at Abu Thawwab and 'Ain Ghazal, we can say that this category of pottery was spread over a very large area from Jubel in the north to 'Ain Ghazal in the south. The Yarmukian Jordanian sites show a relationship with other sites, whether in Palestine or in Lebanon and Syria. We can add that in the levels where Yarmukian pottery has been found, at both Abu Thawwab and 'Ain Rahub, some sherds from DFBW and RFBW have also been found. Scholars agree that the origin of this kind of ware seems to be the 'Amuq area, thus, we may argue that there were relations between Jordan and the northern neighbouring countries in this period.

The chipped stone assemblages of the Yarmukian culture show in some cases that they were in the tradition of the PPNB, but there were modifications of both the raw material and the typology. As is known from Abu Thawwab, the most common flint tools were arrowheads and sickle-blades, and they resemble the assemblages found at sites in Palestine (Giv’at Haystersa), Lebanon (Jubel) and Syria ('Amuq). The arrow-heads are mostly tanged and retouched with squamous pressure-flaking.

Yarmukian art is represented by human, animal and symbolic figures. At Abu Thawwab, part of a Yarmukian head with coffee-bean eyes was found (Kafafi 1986a), which resembles those found at al-Qahwaneh 'Sha'ar ha-Golan' (Stekelis 1952, 1972) and Byblos. Also, other schematic objects representing the sexual parts of both sexes were excavated at Abu Thawwab and el-Qahwaneh. One of the objects is a phallic symbol, which may indicate that this art was connected with a fertility cult; it was made of clay. Moreover, incised pebble figurines found in the vicinity of the Yarmouk River, comparable with others found in Lebanon (Jubel) and Hacilar V in western Anatolia, point to the relation between those areas (Dunand 1953). A bovoid clay figurine found at Abu Thawwab shows a resemblance to those found at Jubel (Dunand 1973: Pl. XIII).

Mediterranean shells excavated at Abu Thawwab show that there was also trade or some other relationship between these sites and coastal sites. Cowrie shells from the Red Sea were found in a very small quantity at Abu Thawwab. In addition to this, the bone tools found at Yarmukian sites in Jordan represent connections with Syrian coastal sites as far as Jubel (Dunand 1973) and the 'Amuq A (Braidwood and Braidwood 1960).

Abu Thawwab and 'Ain Ghazal produced rectilinear and rounded buildings. They were constructed of unhewn stones, because this is the material most readily available, with hard-packed earth floors (Kafafi 1985b; Rollefson: Personal Communication). No plaster floors from the Late Neolithic 1 were used, in contrast to the preceding period. Rectangular buildings from the same period, constructed with stones, were excavated at Jubel, and those have polished white plaster floors (Dunand 1973: 10).

A large quantity of pits used for storage or filled with domestic rubbish were excavated at Abu Thawwab in Jordan (Kafafi 1985a; 1985b). Similar pits used for the same purposes were

3. Flint Tools from Abu Thawwab.
also found at Labweh (Copeland and Wescombe 1966: 9) in Lebanon, and Ramad III (Contenson and van Liere 1966: 16), Ras Shamra (Contenson 1962: 509) and the Ceramic Neolithic at Abu Hureyra (Moore 1975, 1975a) in Syria.

b. Pottery Neolithic A/Jericho IX

As indicated by the Munhatta sequence, Jericho PNA/IX forms the next stage. According to Kirkbride it is contemporary with 'Amuq A/Early B (Kirkbride 1971: 285). The pottery of this period (culture) is characterized by simple forms such as plain bowls, and globular jars with lug, knob, loop and ledge handles; it is straw-tempered and often burnished. The decoration consists of triangles, lines and zig-zags in red paint on a cream slip (Ben-Dor 1936: 77–91; Kenyon and Holland 1982).

On the East Bank of Jordan only one excavated site, namely Dhra' is representative of PNA. The site is located about 15 km north of the famous Early Bronze site Bab edh-Dhra'. It was first investigated in 1976 by T. D. Raikes (Raikes 1980) and then in 1979 soundings were excavated by C. Bennett (Bennett 1980). The published pottery from this site all comes from Area IV, (FIG. 4) immediately below the topsoil. The pottery corpus is parallel to Jericho PNA/IX (Kaplan 1959: 83) and Giv'at Haparsa (Olam, Burian and Friedman 1977). In Lebanon, globular jars and hemispherical bowls similar to those from Dhra were found at Jubel (Dundar 1973).

The structural remains of this culture found in Jordan and Palestine are characterized by pit-dwellings, with roofs of timber, branches and reeds. In Jordan and in Area I at Dhra', pit-dwellings were found with floors, the edges of which had thin walls of pisé and stone. Mudbrick was also used (Bennett 1980: 33, 36). In Palestine, Jericho (Kenyon and Holland 1981), Munhatta (Perrot 1968: col. 415), and Tel el-Batash (Kaplan 1958a: 83) produced the same type of pit-dwellings.

The flint tool industry of the Pottery Neolithic A culture is mostly a continuation of the Yamnukian culture. Deeply dentilated sickle-blades and arrowheads continued to be the most dominant types. The flint tools published from Dhra' are not sufficient to be connected with other PNA sites (Bennett 1980). One can say, based on material from Palestinian sites, e.g. Jericho, that the technology and typology of the chipped stones from this area resemble assemblages on sites in Syria and Lebanon. However, local differences may also be distinguished. In addition to the site of Dhra' in Jordan, other sites dating to this phase have been discovered in the al-Azraq basin, such as Azraq 1, 2, Uweinid and Kharraneh 2 (Garrard and Price 1977: 114, 116, 120). It seems to us that long distance contacts declined somewhat in the Pottery Neolithic A period. No obsidian or white ware vessels were found from this period in Jordan.

Late Neolithic 2

Based on her excavations at Jericho, Kenyon identified two Pottery Neolithic phases, A and B. These two different pottery assemblages were found in the Pottery Neolithic pits: Phase A, identified with Garstang's IX, and B, with VIII (Kenyon 1957: 85; Kenyon and Holland 1983). De Vaux argued that the PNA strata at Jericho overlapped with PNB ones, and because of this uncertain stratigraphy he preferred to include both in one single pottery period (de Vaux 1966: 17). New excavations at Munhatta (de Vaux 1966: 17) in Palestine and Tuleilat el-Ghassul (Hennessy 1982) in the East Bank of Jordan, however, have produced PNB sherds in contexts other than those associated with the PNA (at Munhatta) or Ghassulian material (at Tuleilat el-Ghassul). This reinforces our point of view that the PNB culture is a part of the Neolithic period, if only a very late one.

Ghruba, a site located on the Wadi Shu'eib where it joins the Jordan River, produced archaeological material (Mellaart 1956) which should be dated to the beginning of the Late Neolithic 2. The pottery assemblage of Ghrumba was excavated from an oval pit, measuring 5 x 3 m, and sixteen layers were dug into the pit. Layers 5–16 produced a homogeneous collection of sherds which were mostly handmade; a slow wheel technique was also noticed on some sherds (Mellaart 1956). Painted decoration consisted mostly of simple lines, triangles, chevrons and dots. Mellaart argued that Ghrumba represented a different painted pottery tradition than that of Jericho, comparing it with Hassunian archaic painted ware (Mellaart 1956: 31).

The vessel forms include the bow-rim jars similar to those from Jericho PNB/VIII. This kind of jar is found at Wadi Rabbah, Mersin, 'Amuq B, Jubel and sites in the Beqa' region such as Tell el-Jisr, Tell 'Ain Nfaikh and Tell Ard Tlali (Copeland and Wescombe 1966). However, the pottery in the Late Neolithic 2 was better made than in the Late Neolithic 1, various new shapes were introduced and some new styles of decorating were used. The Pottery Neolithic B of Jericho consisted of a fine ware and a coarse ware. Many vessels were decorated with red slip which was sometimes carried over the rim. A few samples have incisions in herring-bone designs, in particular a band just below the rim. Some examples have
been found at Wadi Rabbah (Kaplan 1958B), Munṣṭatta 2A (Perrot 1968), Sheikh ‘Alī, and other Late Neolithic sites in Jordan, Palestine and the Beqa’ area. ‘Aμq D was another site which produced red-washed ware, which spread to Ras Shamra and south to Palestine. At Jibeil, the same period as the Neolithic Recent is present.

The flint tool assemblage of the Late Neolithic 2 in Jordan and Palestine consisted of axes, adzes, chisels, picks, scrapers, sickle-blades, and borers. Arrowheads were rare or absent. This was proved by the collected flint tools from surveys in the Jordan Valley (Ibrahim, Sauer and Yassine 1977), Chisels published from Byblos (Cauvin 1968) are comparable to others found in the Jordan Valley (Kafafi 1982).

Obsidian was still traded but on a small scale, from Anatolia to sites in Lebanon, e.g. to Jibeil, but this is not the case in Jordan. However, in Palestine three pieces of obsidian were found at a site near Abu Zureiq ‘Hazorea’ (Wright and Gordus 1969: 81).

It may be mentioned here that the people preferred to settle in dwelling-pits. Examples were uncovered at Tell Shuneh North, Abu Habil, Sahab (Ibrahim 1983/84) and Ghrubba. Rectangular mud-brick houses have not yet been excavated in Jordan, but such architecture was found in Palestine at Jericho (Kenyon and Holland 1981), Wadi Rabbah (Kaplan 1958b) and Tell Turmus (Dayan 1969). Similar structures were found at Jubeil and Ras Shamra.

Recent excavations have modified and expanded our understanding of the late 5th–4th millennium BC. So far, evidence on three sites on the Plateau indicates new eastern limits for this horizon. To summarize, the archaeological material of the Pottery Neolithic culture in Jordan indicates that there was a strong relationship between this land and other cultures found in the Levant during this stage. Local communities were in close contact with their neighbours, especially in Palestine and other countries to the north of Jordan.

What we have to do now is to make good, quantitative and comprehensive analyses of all the facets of the Late Neolithic culture in the area. So for Jordan, extensive surveys and controlled excavations must be pursued to distinguish between purely regional elements and the greater cultural themes of the broader area.

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