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Teleilat Ghassul: Its place in the archaeology of Jordan

Teleilat Ghassul is situated at the southern end of the Jordan Valley about five kilometres from the north-east corner of the Dead Sea. It is about 20 kilometres east and slightly to the south of Jericho. The site is c. 295 metres below sea level. Today it is dry and hot but in recent years the area has been developed for market gardening and the soil is good. Tomatoes, beans and beetnjan are the chief crops—eucalyptus trees are at home around the site.

During the course of the first season (1967) a pedological survey was made by Derek Webley¹ and it suggested that, when founded, the settlement was built on sand bars in the midst of slow moving fresh water and surrounded by a luxurious growth of alder, sedge and moss.

The site covers an area of about 20 hectares and has been well known as a group of small *tells* which it was thought, at one stage, might have either temporal or technological significance. The results of our last season of work have indicated that Ghassul was not a group of small, closely tied settlements but one big settlement, as the small, apparently individual *tells* of the present day, are merely the result of late erosion.

Teleilat Ghassul was first excavated by the Pontifical Biblical Institute of Rome, 1929–38² and again in 1960, under the direction of Professor Robert North³. With the permission and blessing of the Pontifical Institute, the British School of Archaeology in Jerusalem commenced excavations at the site in 1967⁴ but the programme of work was interrupted by the war of that year. We were able to return to the site in 1975 and continued there, each year, until 1978. The major finance for the last three seasons came from the Australian Research Grants Council and the University of Sydney⁵.

Since the original discussions between Mallon and Albright

in the 1930s, there has been general acceptance of the Chalcolithic classification for the settlement at Teleilat Ghassul; but whether early, middle or late Chalcolithic has been undecided⁶. In general terms, with the discovery of the Ghassul/Beersheba sites and the growing evidence for Neolithic occupation in Jordan, Palestine, Lebanon and Syria, the Ghassulian occupation has been associated with the Beersheba sites as evidence for the period immediately prior to the Proto-urban and initial Bronze Age periods⁷.

The past four seasons of work have made it fairly clear that there is no demonstrable continuity from the settlement at Teleilat Ghassul into the Proto-urban period; but at the other end of the scale, the discoveries would suggest much closer links with the Neolithic period than has previously been recognised.

During the course of our work we opened up approximately 1,500 square metres in 10 different areas. Of these, three areas, A, E and F (FIG. 1) were carried down to virgin soil and the lowest settlements were uncovered over an area of approximately four hundred square metres.

Area A

Of the eight trenches opened in 1967⁸ all but two were abandoned, as earthquake activity in the past had made them an archaeologist's nightmare. A II and A III were excavated to virgin sand, a little over five metres below the present surface of the site.

The final phasing is not yet complete; but there appear to be about ten major building levels separated by camp floor occupations—those presumably occupied during the reconstruction of the settlement after each destruction. The architecture throughout nearly all the building phases was uniform: large rectangular single rooms up to 12 metres long and varying from 3.50 to 5 metres in width. The houses were

¹ Webley, D. A note on the pedology of Teleilat Ghassul, *Levant I* (1969) pp. 21–23.

² Mallon, A. et al. *Teleilat Ghassul I*, Rome (1934); Koepfel, R. et al., *Teleilat Ghassul II*, Rome (1940).

³ North, R. *Ghassul 1960*, Rome (1961).

⁴ Hennessy, J. B. Preliminary report on a first season of excavations at Teleilat Ghassul, *Levant I* (1969) pp. 1–24.

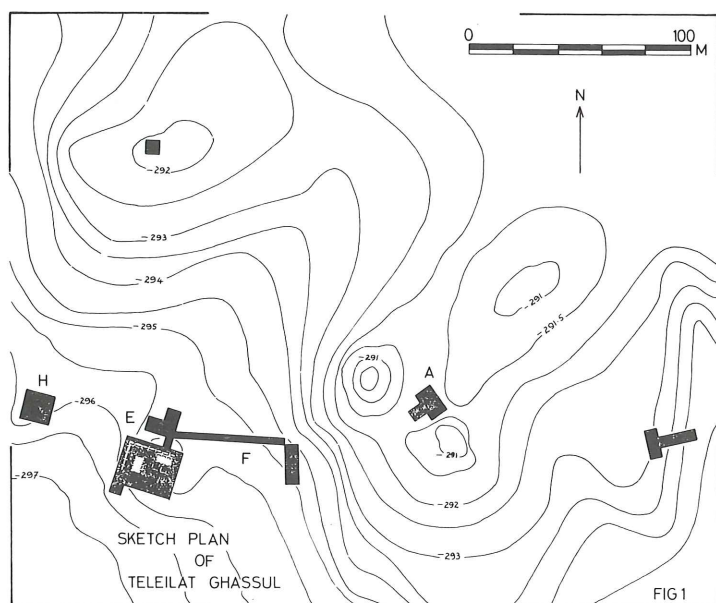
⁵ A generous grant was made by His Royal Highness, Prince Hassan towards the recovery of the wall-paintings.

⁶ Elliott, Carolyn. The Ghassulian Culture in Palestine: origins, influences, and abandonment, *Levant X* (1978) pp. 37–54; see also Moore, A. The Late Neolithic in Palestine, *Levant V* (1973) pp. 36–68; de Vaux, R. *Cambridge Ancient History*, Vol. I.

⁷ Perrot, J. *la Préhistoire Palestinienne* (Suppl. au Dictionnaire de la Bible) Paris (1968); Mellaart, J. *The Neolithic of the Near East*, London (1975).

⁸ Hennessy, J. B. op. cit.

1. Sketch plan of Teleilat Ghassul.



constructed of large bun-shaped mud bricks either on stone foundations or built directly on the earth's surface. Doorways were normally in the middle of one of the long sides. Floors were mostly of tamped earth; but occasionally a fine lime plaster covered walls and floors of both houses and courtyards. The only variation from this type of architecture was encountered in the lowest phase of occupation, where houses appear to have been circular with sunken floors. There appears also to be some evidence of pit dwellings. The circular, half-sunk house was surrounded by a low pisé wall and had posts in holes to support the roof. There was also evidence, at this period, of carefully laid pebble floors.

Two, quite notable, discoveries within this area, were a complete flint knapping floor with many chisels in varying stages of work and, immediately beneath, a wall painting which we were able to lift. The painting, in brilliant reds, yellow, black and white, shows a human procession of three full length figures holding hands. The leading figure carries a sickle-like object in his right hand.

Throughout this depth of occupation, both the ceramic and flaked stone industries showed changes but I must stress that nowhere, with the possible exception of the lowest levels, was there evidence of anything other than internal development.

A series of radio-carbon dates, uncalibrated and based on the Libby half life, may come as a surprise to some. The earliest building phases where the rectangular architecture was uniform, have given us dates of roughly 4600, 4500 and 4400 BC. These dates have been paralleled in other early occupied areas at the site.

Area E

A small, low mound, approximately 100 metres to the west of Area A was notable as the only area at Teleilat Ghassul where surface material was scanty, though a few rocks through the

surface soil suggested a building. Seventeen trenches were opened in the area and provided one of the most pleasant surprises at the site—what appears to be a sanctuary region.

There seems to have been only two buildings on the Sanctuary mound (FIG. 1) enclosed within a stone and mud-brick wall. The buildings were contemporary and fragments of pottery from one sanctuary joined to an almost complete vessel from the other. In general layout, the complex is very similar to the Ghassulian sanctuary at Ein Gedi⁹. A series of radio-carbon dates (taken from roofing beams), again uncalibrated and on Libby half life, gave a figure of 3700 BC for the final use of Sanctuary A.

Both buildings appeared to have been in use for some time and gave evidence of resurfacing of floors. Sanctuary A in particular, was a substantial building with floor level 60 cms below the contemporary surface. The walls, a metre thick, were composed of an outer line of heavy boulders lined with two rows of mud-brick and an inner face of smaller stones. The floor and walls showed evidence of plastering, white on the floor and painted a uniform orange colour on the walls. The second building had originally had a series of wall paintings, eight superimposed paintings were counted on one fragment but it was so shattered, the largest piece a few sq. centimetres, that recovery was not possible. Benches lined the south wall of Sanctuary B and outside the centrally sited doorway a wide platform of carefully selected small stones ran the length of the building. As with Sanctuary A, the doorway opened up on to a shallow flight of stone steps to the sunken floor. At the south end of Sanctuary A a small room ran across the width of the building. In addition, Sanctuary A also had two broad, equally spaced, windows either side of the central doorway. In both buildings the floor had been covered with large rounded stones, and then packed with mud, to give an even surface before the lime plaster was applied.

Both buildings contained cult vessels and pottery figurines of types represented at other Ghassulian sites¹⁰.

Beneath the buildings, the only evidence of earlier occupation were a series of fire pits, rich in animal bones, sheep, goat, pig, cattle but without pottery or flaked stone. Radio-carbon dates for these pits again suggest a figure of c. 4400 BC.

Similar pits were found beneath two building levels of occupation, to the north of the sanctuaries, outside the boundary wall.

The sanctuaries were isolated by a long wall on the northern and western sides, but any evidence of the wall had been completely eroded on the eastern and southern sides. There was no sign of any gateway in the surviving long walls.

Area F

Three trenches, 15 m. × 2.5 m., were excavated to connect

⁹Ussishkin, David. The 'Ghassulian' Temple in Ein Gedi and the Origin of the Hoard from Nahal Mishmar, *The Biblical Archaeologist*, Vol. XXXIV (1971) pp. 23–39.

¹⁰Amiran, Ruth. *Ancient Pottery of the Holy Land*, Jerusalem (1969) p. 302.

the lower slopes of Mound A with Mound E (the Sanctuary area). Occupation levels and the remains of houses were encountered at the eastern end of F III and the western end of F V; but the entire depth, 4.50 m. of F IV and most of F III and F V, gave evidence of a series of large wash-outs, which had taken place at varied stages of the mound's occupation. Much of the erosion was, no doubt, after the final abandonment of the site; but there is evidence of building over a valley of earlier erosion. One of the building levels at the western end of F V was apparently a painter's workshop, with a splendid bone palette and large clumps of various coloured ochres.

In general, the most recent seasons of work at Teleilat Ghassul suggest the following points:

- 1) The site was a large one, without any real evidence of technological specialisation in any area of the settlement. The only isolated region appears to have been the Sanctuary area.
- 2) There is no evidence of any temporal significance to the various mounds—all areas tested showed the same general sequence.
- 3) The site was occupied for about 1,000 years, ca. 4600–3600 BC. There is strong evidence, in some areas excavated, that at least one building phase had been eroded from the top of the site.
- 4) The basic culture assemblage shows changes throughout the 1,000 years of occupation; but nothing which could not be explained as simple internal change or development.

The pottery

Changes which do take place in the 1,000 year history of Teleilat Ghassul are most clearly seen in the ceramic industry. In general terms the changes were in shape and decoration, the fabric and firing of the pottery remained fairly uniform.

Buff wares tend to be more common in the earlier strata but even there the majority of the pottery is a red to grey ware with gritty inclusions and well fired. A notable feature of the developed Ghassulian ceramics is the technological skill of its manufacture. Many sherds show evidence of having been taken to a point of vitrification and held there. No wasters have been found on the site, and it is presumed that the firing took place outside the settlement area, probably nearer the foothills of the eastern range, where timber for the kilns could have been more readily available.

However, to return to the ceramic phases. Three major periods can be seen:

- 1) The earliest pottery, belonging to the period of the sunken round houses and earliest rectangular architecture, has the following features (FIG. 2):
 - a) Simple and plain rim, shallow bowls and jars.
 - b) Dark faced coarse ware but, as said above, with a notable percentage of buff clays.
 - c) Matt red slips (occasionally).

2. Pottery sections from Teleilat Ghassul.

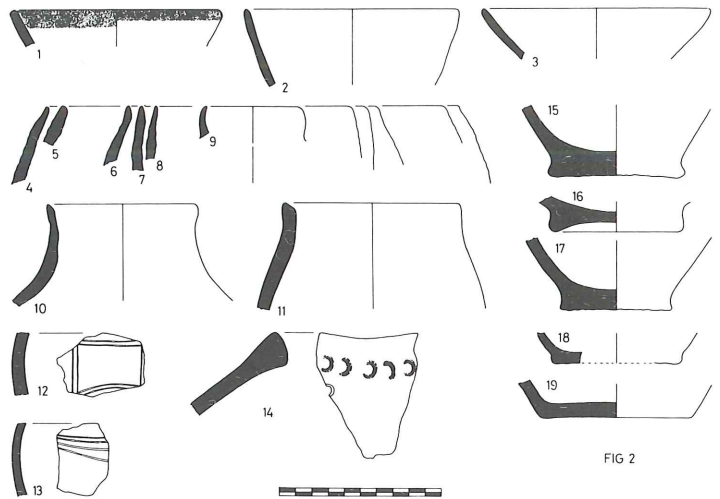


FIG 2

- d) Grass wiped or textured surfaces are common (FIG. 2 4–8).
 - e) Incised or stabbed decoration (FIG. 2 12–14).
 - f) Flat bases, often splayed, ring bases rarer.
 - g) Circular mat impressions on bases.
 - h) Painted decoration is extremely rare and confined to a simple thin red band around the rim of shallow bowls (FIG. 2 1).
 - i) Bow rims occur (FIG. 2 9) but are rare; as are burnished slips.
- 2) The middle phases of occupation¹¹ see:
 - a) An elaboration of rim shapes, the common appearance of the cornet shape (plain and heavy) and a uniform hard fired red to grey ware. Buff wares are less common.
 - b) Simple geometric painted ornament becomes more common, but is still comparatively rare. Chevrons, solid triangles and loops.
 - c) Mat impressions on bases change from a round weave to a square weave.
 - 3) In the upper levels¹²:
 - a) Smear wash and painted wares become common.
 - b) The cornet shape is very common and becomes lighter and is commonly decorated.
 - c) There is a great variety of deep and shallow bowls, jars and jugs and the common appearance of small multiple lug handles (absent in earlier phases).

Flaked stone

Distinctions within the flaked stone industry are less well marked, apart from a solid Neolithic content in the earliest phases, where there are:

- a) Blades with broad denticulation—but also fine denticulates.

¹¹ Hennessy, J. B. *op. cit.* FIGS 7b and 8.

¹² *Ibid.*, FIGS 5, 6, 7a.

- b) Notched blades.
- c) Serial flaked blades.

These three elements disappear with the appearance of rectangular architecture. Axes, chisels, points, burins, steep and flat scrapers (round or fan) are common in all periods, and I suspect chisels tend to become much longer and more slender as time advances. Certainly, on our evidence, hollow ground and polished cutting edges are a late feature.

We had no obsidian and all flaked stone work was on local chert and flint. A number of blanks were found and the knappers' workshop of Area A demonstrates that the flaked stone industry was a local one. Arrowheads, with or without tang, do occur.

As yet, the study of the faunal and floral evidence is not complete, but from observations in the course of excavation, there appears to be no major change. Varieties of wheat, barley, peas and olives are common and often found in large storage jars. Remains of pig, goat, sheep, deer and cattle are present at all levels. The suggestions of a mixed pastoral, agricultural and hunting economy would suit the evidence at Teleilat Ghassul well.

We had no evidence at all of metal production; but malachite was traded for beads—presumably with the area of the Wadi Feinan to the south of the Dead Sea. Some simple metal axes were found during the course of the Pontifical Biblical excavations.

The bone and ground stone industries remained uniform throughout the site.

Now, where does all this fit in? The C 14 dates, the Neolithic flaked stone types and the earliest pottery would

certainly suggest connections with the pottery Neolithic cultures of Jericho and the upper phases at Ard Tlaili, Middle and Late Neolithic Byblos and the southern Neolithic sites of the Beq'a, but nowhere, so far, are the connections sufficiently close to allow one to fit the earliest Ghassul sequence into a certain slot in the Late Neolithic/Early Chalcolithic cultures of the Levant.

Most of the normally accepted criteria for Late Neolithic—burnished wares, bow rims, herringbone incision, burnished red on cream wares are either missing or rare in the lower levels at Ghassul.

With a few notable exceptions (javelin and projectile heads and tanged arrow heads), the flaked stone industry is close to those Late Neolithic and Early Chalcolithic sites mentioned above, and right from the beginning chisels are a dominant feature. They occur by the hundred and they fit well into Copeland/Perrot's suggestion of an increased dependence on wood and woodwork from the beginning of the Middle Neolithic.

At the other end of the scale the relationships with the Beersheba sites are fairly clear; but there are a few points we should note. Cornets, which have an early origin at Ghassul are more common than they are on the western sites. On the other hand, churns which are comparatively common on the western sites are rare at Ghassul. In the four years of digging we had but one fragment. The smeared wash wares of Ghassul are again comparatively rare outside Ghassul.

It seems that the relationships between the western sites and Ghassul, are confined to those features which are common at Ghassul only in Phases A and B, the very final stages of occupation at the site.