

Introduction

In 2012, 2014 and 2015 three seasons of excavations were conducted at Tell Abu Sarbut under the auspices of Groningen University, the Netherlands. The project was sponsored by the Nour Foundation, located in Leiden, The Netherlands and directed by Noor Mulder-Hymans, Jeannette Boertien and Margreet Steiner. Eveline van der Steen joined the project in 2014.

1.1. Site location

Tell Abu Sarbut is located in the central Jordan Valley in the Hashemite Kingdom of Jordan, approximately three kilometres west of Tell Deir Alla (Figs. 1.1, 2). It lies amidst agricultural fields irrigated by small canals branching off from the main Ghor canal. Directly south of the tell, running approximately east-west, a small canal runs along the edge of the tell. At the north side, running parallel to the canal, is a road which leads from the main north-south road in the Jordan Valley in the direction of the Jordan River. The tell measures about 250 m east-west and 125 m north-south. From the highest point, -248 m (below sea level), it gently slopes to -252 m at the east and south sides and to -255 m at the north and west sides.

Grid reference 35° 36' E & 32° 12' N
 Jadis 2017021
 MegaJordan nr. 9494

1.2. Previous work on the tell

Between 1988 and 1992 a team from Leiden University, the Netherlands conducted four seasons of excavations at Tell Abu Sarbut under the direction of Hubert de Haas, Edouard LaGro and Margreet Steiner. The aim of the project was to excavate a rural site from the Islamic period. Therefore, only the upper layers of the tell were exposed. The final report of this projects was published in 2008; several n more articles were published over the years, and

two Ph.D. dissertations were written on the Abu Sarbut material – see list of publications below.

In the first season of this project, in 1988, excavation started at the eastern top of the tell. Here a thin layer (ca. 60 cm thick) of Mamluk remains was uncovered, under which occupation layers with red ribbed pottery were found. We assumed that this pottery hailed from the Roman period and therefore finished the excavation there. During the following three seasons work centred on the west side of the tell, where thick deposits of Ayyubid-Mamluk occupation were present.

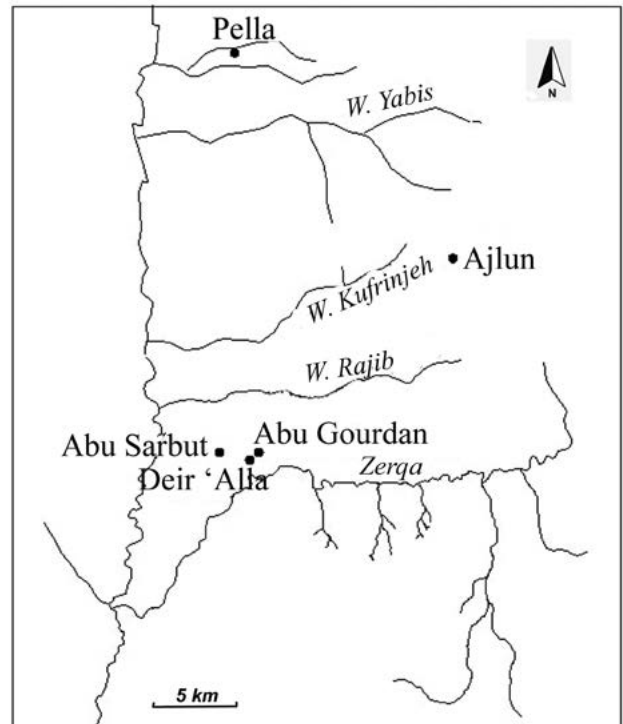


Figure 1.1. Map of Jordan Valley.



Figure 1.2. Photograph of the tell looking west.

The earliest remains excavated there consisted of some remains from the Roman period (Phase A). Digging stopped when this phase touched. Unexpectedly it was found that all layers from later occupation levels on top of the Roman building had been dug away when the site became an industrial centre in the Ayyubid/Mamluk period. This extensive levelling operation provided a large horizontal working surface for some kind of industry (Interface B). Excavated on top of this surface were thick layers of ash running up to a small building with mud brick walls, some with low stone foundations (Phase C). The ash layers had clearly been dumped there, as the surfaces on which they were found were not burnt at all. It remained unclear which industry had generated the ash. At first it was thought that they constituted the remains of a pottery workshop, but no wasters were found anywhere on or near the tell. What was found were many sugar pot shards. Sugar pots are large conical and sack-like industrial jars, used in the sugar industry. Of course the sugar industry generates a large amount of ash, as the juice from the sugar cane has to be boiled for a long time to become a thick syrup. It is known from historical sources that sugar cane was grown in the Jordan Valley during the Ayyubid/Mamluk period, and it is certainly possible that Abu Sarbut was a sugar production center then. Analysis of the botanical remains present in the ash could not confirm that sugar cane was processed on the tell.

On top of the mud brick building a much larger building was erected, its heavy stone walls still standing up to one meter high (Phase D). It consisted of a series of rooms around a large courtyard of at least 18 x 10 m, access to which was gained through a four meter wide entrance with an impressive stone threshold. During excavation this building was called the “sugar building” because some 90% of the pottery shards found on its floors and in its debris consisted of sugar pots. This building was either a storehouse for the refined sugar, or a sugar factory where the actual process of boiling the cane and refining the syrup took place. No ash, however, was found in connection with this building. One room contained five conical sugar pots set into a low bench. It is unclear what their function was. LaGro suggests that not only sugar was processed and/or stored on the tell, but also indigo (LaGro 2001).

Several ostraca were discovered in the debris on the floor of this building, their writing only partly decipherable. They contained contracts or messages about certain quantities of (unknown) goods that had been or had to be delivered or paid at a certain date (LaGro 2016). The word “sugar” is, alas, not mentioned. Analysis of the faunal remains has shown that 7.5% of the identifiable animal bones came from dromedary, which was probably used as a pack animal for transporting the sugar (Van Es 1995).

At a certain moment this building fell out of use and its debris was (again) levelled to provide a large working area (Interface E). On this plastered surface thick layers of alternating black and yellow soils were deposited, probably (again) the remains of some industrial process. Botanical

analysis of the contents of the black layers did not provide a clue as to their origin. Some houses and courtyard with bread ovens were excavated, belonging to the people who were living amidst this industrial rubble (Phase F).

Then the tell seems to have been abandoned for some time, as borne out by a hard grey layer extending over all earlier levels (Phase G). How long this period lasted is unknown, but after some time the site was again occupied. The pottery is still clearly Mamluk, but the site seems to have changed from an industrial site into a village (Phases H and J). Its inhabitants were no doubt still working in sugar cultivation and production as sugar pot shards continued to be found. Most household pottery was undecorated, although some glazed wares were present. Among the common wares were many specimens of what is called “Arab Geometric Ware”, the handmade painted pottery so common all over the Levant. Besides pottery many other objects were found made from glass, metal and stone.

No later levels of occupation were discovered at the site. As with so many other villages, Tell Abu Sarbut seemed to have been abandoned when the sugar industry in the Jordan Valley declined during the 15th century. However, new research on the Mamluk pottery dates this decline at Abu Sarbut in the early 14th century (this volume, Chapter 7).

To examine the connection between the 3 m thick deposit of Ayyubid-Mamluk remains at the west side of the tell and the shallow layer of remains from this period at the eastern top, in 1990 we excavated two trenches in the ‘valley’ in between, Trenches 4 and 5. Mostly wash layers were found in these trenches. A small part of Trench 5 was excavated to any depth, and here Roman remains were encountered. The finds consisted of a heavily burnt mud brick building, of which parts of three rooms were exposed. The state of conservation of this building was exceptionally good. The walls still stood to a height of one meter and the rooms were filled with objects (Figs. 1.3a,b).

The pottery consisted of ordinary household wares (bowls, cooking pots, storage jars), which were then provisionally dated to the Late Roman period (2nd-3rd centuries AD) but which can now be re-dated to the Early Roman period (1st century BC till the 2nd century AD) as this building seems to be part of the buildings excavated in the renewed excavations (see below).

1.3. The renewed excavations 2012–2015

The aim of the renewed excavations were:

- establishing the lay-out and context of the earlier Roman occupation layers
- excavation of the eastern top of the tell where a longer sequence of Roman / Byzantine occupation was to be expected
- research into the economic context of the finds on various levels: buildings, site, region.

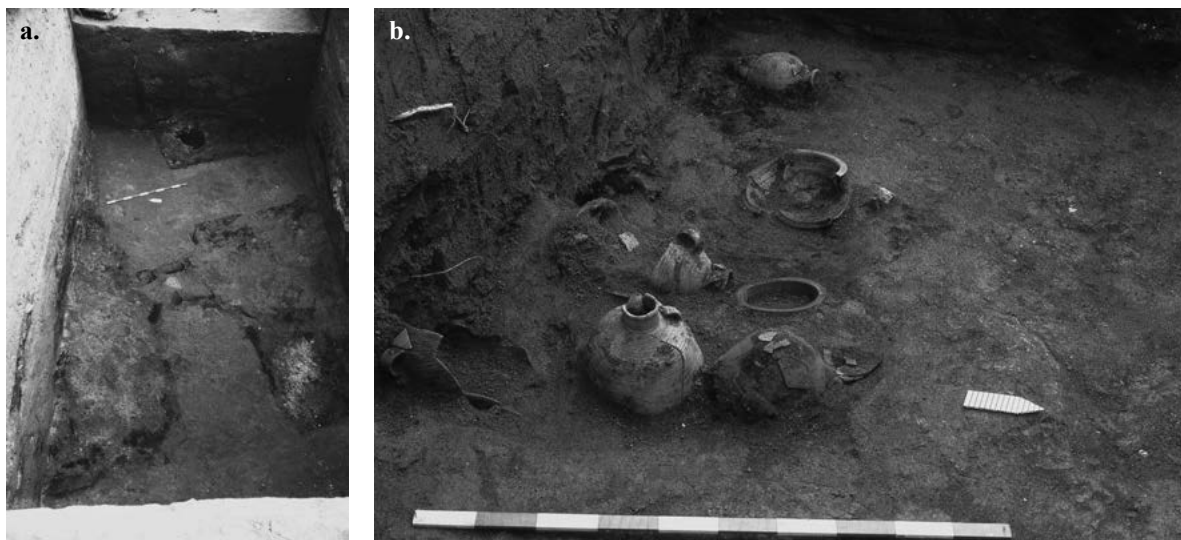


Figure 1.3a-b. Roman remains excavated in 1990.

Although we did expect to find (and did find) Roman and Ayyubid-Mamluk material, as we had in the 1988–1992 excavations, the results of the new excavations were surprising nonetheless. The Roman buildings excavated could be dated to the Early Roman period (1st century BC - 2nd century AD), which is a period not often encountered in the eastern Jordan Valley. The eastern summit of the tell did not harbour a sequence of Late Roman and Byzantine layers, as originally thought, but more than three meters of Early Islamic occupation from the 7th till the 10th century AD. Much Roman material was present in these layers because the inhabitants of the buildings had strengthened their floors with fragmented Early Roman pottery and small objects. Finally, finds from several rooms and pits from the Ayyubid-Mamluk period, from the latest occupation phase on the tell, allowed us to establish the end of the occupation at Abu Sarbut with more confidence in the early 14th century.

1.4. Stratigraphic method

Several squares measuring 10 x 10 m have been opened at the site. During the first excavation season in 2012, parts of two squares were excavated: Square F on the eastern summit and Square H in the depression between the eastern and the western summits. In 2014 two new squares were opened: Square X west of Square F, and Square G west of Square H. The last year Square N was laid out, east of Square H. South of Square F a small extension was excavated to search for the south side of a large wall (Fig. 1.4). The squares were not completely excavated. In total an area of ca. 200 m² was uncovered, often to a depth of some three meters.

The squares were excavated by hand, using the Kenyon-Wheeler stratigraphic method of excavation. Every deposit that could be distinguished in a square on the basis of colour, texture or composition, regardless of the origin of that deposit, was called a 'layer'. In each excavation square the layers were numbered consecutively. So in

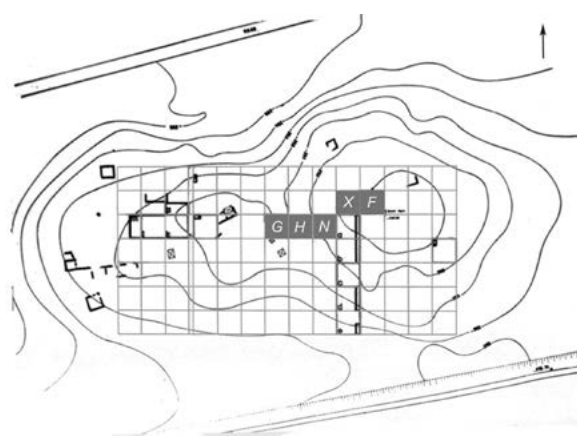


Figure 1.4. Excavation squares.

Square H the first layer excavated was called H1, the next H2 and so forth. Walls, ovens and other installations were also numbered according to this system. Later the layers were grouped into strata and phases. A phase includes all architectural elements and deposits in use or resulting from activities during the same time period. When the architecture or the lay-out of the site underwent a major change, a new phase started. A stratum includes all phases of a certain historical period.

1.5. Levels

Levels were measured from the fixed point which was installed in a corner of Square F at -250,66 m (below sea level). This is the same fixed point which was set in concrete in 1988 and which was still present on the tell. All levels in this article are given in meters below this point.

1.6. Stratigraphy

The site seems to have been occupied for the first time in Late Hellenistic or Early Roman times. A long sequence of walls and floor layers was excavated, signifying occupation from the 2nd or 1st century BC till the 2nd century AD.

Table 1.1. Strata and phases

Stratum I	Early Roman occupation
<i>Ia</i>	<i>Earliest occupation in test trench in square G</i>
<i>Ib</i>	<i>Building A and Courtyard B</i>
Stratum II	Early Islamic occupation
<i>Ila</i>	<i>Building C and early remains in square F (Umayyad)</i>
<i>Ilb</i>	<i>Courtyard D and Building E phase 1 (Late Umayyad)</i>
<i>Ilc</i>	<i>Building E phases 2–6 (Abbasid)</i>
Stratum III	Middle Islamic occupation
	<i>Rooms, installations and pits</i>

Kitchens with cooking installations, courtyards with bread ovens, and small rooms show that these were domestic buildings.

The site had been abandoned possibly as the result of an earthquake or large fire as the floors of the uppermost Roman buildings were heavily charred and a thick layer of burnt debris covered the remains.

The next phase of occupation can be dated to the Early Islamic period (7th-10 centuries), when a series of buildings was erected on top of the earlier debris. These buildings also seem to be domestic in nature, with courtyards with bread ovens and small alleyways between the buildings. The first phase of this stratum yielded Umayyad pottery and was destroyed by a fierce fire, possibly connected with the earthquake of 747. A building was then erected on the eastern top of the tell which continued into the 9th and 10th centuries. It is as yet unclear how this occupation phase ended.

In the Middle Islamic (Ayyubid-Mamluk) period a new phase of occupation started at the west side of the tell, and gradually spread over the earlier ruins at the east side. This occupation was connected with the cultivation of sugar cane in the Valley. After its desertion in the early 14th century the tell was never occupied again.

1.7. This publication

As everybody knows who has ever published an excavation report, the result is never as good as anticipated. In our case the usual disturbances occurred: finds that got mislaid during the years we worked on this project, scholars who were eager to publish part of the material but then life got in the way, students who decided not to finish their study of the pottery, sickness, death, lack of funding, lack of time. In the end we decided not to wait anymore and to publish the material that has been analysed. That means that this report may appear to be somewhat unbalanced. Especially the Roman material did not get the attention it deserved.

Most chapters were written in collaboration by the four authors, while some were an individual effort. We are grateful to Barbara Borgers, Katarína Mokránová and Tatiana de Vries for their specialist's studies. We hope that

this publication will shed light on life in the Eastern Jordan Valley in the periods excavated.

1.8. Acknowledgements

First of all we want to thank Dr. Monther Jamhawi, then Director-General of the Department of Antiquities of Jordan, and his staff for the permit to excavate the tell and for their unwavering support. Badr Aladwan (2012) and Rami Frehat (2014 and 2015) acted as representatives of the Department. The successive directors of the Madaba Museum where we could store our finds, Ali al-Freyghat and Badr Aladwan, were gracious with their assistance. Thanks are also due to the staff of the Faculty of Archaeology and Anthropology at Yarmouk University, especially to then dean Prof. Nabil Atallah, and to Ali Omari who acted as the surveyor on the project.

Hussain Salem Mohamed Khalaf al-Gharageer represented the eleven owners of the tell and allowed us not only to dig there but also guarded the tell during the excavation. Many thanks go to Ahmed Faris, keeper of the Deir Alla Station for Archaeological Studies, and to Fatma al Jooda, our great cook. We appreciate the interest and friendliness of the people of Deir Alla. Without our local workforce we could not have managed the project. ACOR, Amman, was our second home and we appreciate the support they gave us. Many thanks goes to the ACOR Conservation Cooperative and its amazing restorer Naif Zaban. Munjad Qassem made the drawings of the registered objects.

Our colleagues at the Faculty of Theology and Religious Studies and the Institute of Archaeology at Groningen University inspired and assisted us. Student and volunteers worked with us in the field and in the camp, helped with the photographing and drawing of finds, and with research of the finds. Sufyan al-Kharameh translated into Arabic the text of the information poster we made for the people in the village (Fig. 1.5).

A special word of thanks goes to the three anonymous reviewers of the book for their insightful comments and to the staff of BAR Publishing for their help.

We are grateful to all of them.

1.9. Looting

The tell has been severely looted in the years between the excavation seasons of 2012 and 2014, and again before the final season in 2015. Several deep to very deep holes were dug in the surface of the tell and in one of the excavation squares (Fig. 1.6a). Two stone pillars were encountered on the top of the tell. The first one, a broken pillar of whitish stone, was lying on the surface of the tell in 2012, and was still present in 2015, although its location was different every year we came back (Fig.1.6b). This pillar had not been excavated by us and we doubt very much it belongs to Tell Abu Sarbut, as hardly any stone architecture has been excavated so far.

Tell Abu Sarbut تل ابو سربوط



حفريات عام 1988-1992م Excavation 1988 - 1992

موقع التل Location of tell

فخار من العصر المملوكي Mamluk pottery

Old excavations

From 1988 to 1992 Dutch archaeologists worked at Tell Abu Sarbut. They excavated a village from the Mamluk period (1250 – 1550 AD). Sugar cane was grown in the Jordan Valley, and the farmers lived at Abu Sarbut.

الحفريات السابقة

عمل علماء الآثار الهولنديين في تل ابو سربوط من عام 1988 و حتى عام 1992م. و قد تم التنقيب عن قرية تعود الى العصر المملوكي (1250-1550م). حيث عاش المزارعون في تل ابو سربوط بينما كانوا يزرعون قصب السكر في وادي الردين.



New excavations

In 2012 work was resumed at the tell. Now the earlier Roman layers are being excavated (1st – 4th centuries AD). Abu Sarbut was a small village, where farmers were growing food for Pella and other large cities in the area. The project will continue in the following years.

الحفريات الجديد

في عام 2012م استمر العمل في التل. اما في الوقت الحاضر فيجري حفر الطبقات التي تعود الى العصر الروماني (من القرن الأول و حتى القرن الرابع الميلادي). كان ابو سربوط قرية صغيره و كان المزارعون يزرعون المحاصيل الزراعيه و يرسلونها الى مدينه (طبقة فحل) و المدن الكبيره الاخرى. وسف يستمر العمل في هذا المشروع في السنوات القادمه.



Roman cooking pot

درسة الفخار Pottery reading



فريق عام 2012م The 2012 team



فرن للخبز (الطابون) Bread oven

وعاء الطبخ من الفترة الرومانيه

Figure 1.5. Poster distributed in the Dayr Alla region.

In 2013 a pinkish coloured pillar of more than a meter long was found lying on the surface of the tell, but it had been gone in 2014 (Fig.1.6c). It is our hypothesis that these pillars were looted from other sites and temporarily ‘stored’ at Tell Abu Sarbut. We don’t know from which site the pillars came.

1.10. Publications on the 1988–1992 excavations of Tell Abu Sarbut

Boulogne, St. K., 2008, *Les bijoux au Bilâd al-Shâm des Ayyoubides aux Ottomans: le cas des bracelets de verre coloré, étude comparative de matériel archéologique*. Unpublished Ph.D. Dissertation. Paris: Sorbonne.

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LaGro, H.E. 2016. *Tell Abu Sarbut in the Jordan Valley; Excavations 1987–1992: Observations on Pre-Islamic Pottery, Metal, Stone, Ostraca, Fauna and Flora*. Leiden: Deetje Publications+.

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Figure 1.6a-c. Looting on the tell. a) Hole dug after the excavations season 2012; b and c) Pillars found on the surface of the tell.

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Steiner, M. L. 2008b. n Analysis of the Islamic Glass Bracelets found at Tell Abu Sarbut. Pp. 231–240 in: M/L. Steiner and E. J. van der Steen (eds.), *Sacred and Sweet; Studies in the Material Culture of Tell Deir ‘Alla and Tell Abu Sarbut*. Leuven: Peeters.

van Es, L. 1995. Faunal Remains from Tell Abu Sarbut, a preliminary report. Pp. 88–96 in: H. Buitenhuis and H.-P. Uerpmann, *Archaeozoology of the Near East, Vol. II*. Leiden: Bakhuis Publishers.

1.11. Publications on the 2012–2015 excavations

Kropp, A., E.M. Witmer and G.W. Tol, 2014. “De Romeinse kookpotten van Tell Abu Sarbut (Jordanië).” *Paleo-Aktueel* 25: 57–64.

Mokránova, K. and M. L. Steiner, forthcoming. Material entanglements in the Early Islamic southern Levant (650–1000 CE): A view from the rural site of Tell Abu Sarbut, Jordan. In: J. Vroom, H. Nol, and I. Simpson (eds.), *Material Entanglements in the Islamic World: New Approaches to Islamic Archaeology & Ceramics, Symposium held at Leiden University on November 19th–21st, 2018, Medieval and Post-Medieval Mediterranean Archaeology Series*, Turnhout: Brepols.

Steiner, M.L., N. Mulder-Hymans and J. Boertien, 2013. Een joods huishouden in Perea? De resultaten van de eerste opgravingscampagne op Tell Abu Sarbut in 2012. *Tijdschrift voor Mediterrane Archeologie* 50: 38–44.

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