HIPPOS - SUSSITA

Fifth Season of Excavations
(September – October 2004)
And Summary of All Five Seasons

Arthur Segal
University of Haifa

Jolanta Młynarczyk
Polish Academy of Sciences

Mariusz Burdajewicz
National Museum, Warsaw

Mark Schuler
Concordia University, St. Paul, MN

Michael Eisenberg
University of Haifa

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The southwest residential quarter of Hippos
- preliminary results of a topographical survey

Introduction

At the invitation of Prof. Arthur Segal, director of Haifa University's Hippos project, the German Protestant Institute of Archaeology in Jerusalem joined the Israeli-Polish-American team for the first time, in order to conduct a short survey. While the on-going investigations concentrate primarily on public buildings and churches of the city, our intention is to learn more about the private living conditions of citizens of this important Decapolis city. For this undertaking, Hippos offers ideal conditions. On the one hand the city and its residential quarters were completely destroyed by the 749 AD earthquake and never again re-inhabited. On the other hand, 900 years of the town's history offer an ideal opportunity to study all long term developments regarding house architecture, social structures and the living conditions of its inhabitants. In addition, as our survey revealed, the state of preservation of the residential buildings appears to be very promising. The main goal of our undertaking in the coming years is to investigate a complete insula, studying all its phases of use from Hellenistic, through Roman and Byzantine, to the Umayyad periods. In preparation for this project a topographical survey has been undertaken in the southwest residential quarter, the most auspicious area of the city.

Topographical situation

The area under investigation stretches from the Forum to the western peak of the mountain (270 meters) and from the decumanus maximus to the southern city wall (130 meters), an approximate surface area of 3.6 hectares (fig. 1, 2). The terrain slopes gently towards the West from a height of about 125 meters above sea level near the forum to about 105 meters. Towards the southern and western edge of the mountain and the corresponding line of the city walls there follows a narrow strip with a steep incline. The whole area, including the outer slopes, has been completely built up providing two different stages of preservation. The areas on the plain are dominated by high

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1 The survey lasted from 24 November to 4 December 2004. Participants were M. and Dr. D. Heinzelmann and Mr. R. Rosenbauer as surveyor.
accumulations of stones derived exclusively from building materials of the collapsed houses. Mostly they are not covered by any accumulation of earth. At various points emerging from the debris, the upper edges of walls are preserved up to a height of three meters, whereas the interiors of the rooms are completely filled with collapsed building materials from the upper floors of the houses. This creates a highly undulating surface with higher areas corresponding to walls and slight depressions to the rooms. The peripheral slopes illustrate another image where the building material of the collapsed houses has fallen downwards. Since the earthquake, a layer of humus with sod has developed here. In this area the walls display a very poor state of preservation and belong mostly to substructures.

**Methodological approach**

During this first season the entire area was surveyed from east to west at intervals of approx. 2-3 meters. Measurements were taken of all visible wall structures by means of a total station. The walls were differentiated into three categories (fig. 3):

1. As secured building structures, all walls of which at least one front wall was clearly visible.

2. As probable walls, all structures were documented which still show a more or less compact formation of headers and stretchers, disturbed from their original masonry bond but still indicating the former wall.

3. As assumed, walls were registered as higher accumulations of debris forming linear structures.

At various points door posts were still *in situ* possibly indicating doorways. Cisterns, columns and other architectural fragments were systematically registered (fig. 4).

First, the measurements were taken in the existing local system for excavations and registered on the AutoCAD base. In a second step, the results were transferred onto the Israeli Grid which integrated them onto a digital relief map from the Israel Antiquities Authorities. This relief map however, is based on a coarsely meshed interpretation of aerial photographs and as a result is not very accurate. Here, the presented digital terrain model (fig. 5), based on more than 1500 individual measurements, is a more accurate
mirror of the actual topographical situation. This present model will be refined in future seasons.

**Preliminary results**

The survey revealed a high number of wall structures which sometimes can be re-assembled into single rooms or sequences of rooms, but it was not possible to reconstruct a complete ground plan of a building. The alignments of the single walls allowed us to draw some general conclusions concerning the orientation of this densely built up area. The buildings on the gently inclined main area depict an orthogonal orientation following the alignment of the *decumanus maximus*, whereas the houses in the area of the steeper slopes show different and individual orientations according to local topographical demands. This difference in topography appears to cause a difference in the exploitation of the available surface. The main area seems to be subdivided by at least 5 or 6 terrace walls perpendicular to the *decumanus*, creating a series of terraces to provide even level ground for the buildings. In contrast, the houses along the steeper slopes seem to have been built on individual substructures with heights up to 5-7 meters. Presumably these peripheral buildings belong to a later phase of expansion.

Some observations concerning the road system should also be mentioned. The *decumanus maximus* is clearly traceable according to the buildings flanking it, and an uncovered part of its pavement which remains near the western edge as a straight line for a distance of about 210 meters. On its northern side at about 30 meters west of the Forum, the surface of a base *in situ* and the associated stylobate are visible. It seems therefore, that this section of the main street was flanked by a portico. In contrast there is no evidence for an equivalent portico on the opposite side of the street. Here the outer walls of the adjacent buildings reach to the border line of the street and leave no space for a portico. At the present state of the investigation we do not exclude the possibility that these walls belong to a late phase during which a conjectural portico was enclosed or replaced, but according to first inspection this possibility seems unlikely. It would indicate at least, that the western part of the *decumanus maximus* was not designed as a uniform colonnaded street but rather, was flanked by limited sections of porticos.
Beside the *decumanus maximus* the crossing of a secondary *decumanus* and *cardo* has been detected in the western area. At a width of only 1.90 m they are only small alleys. Their orientation is parallel and at right-angle to the *decumanus maximus* indicating that at least parts of the road network in this quarter followed an orthogonal structure. A second *cardo* seems to be traceable immediately east of the *cardo* mentioned above. The dimensions of the *insula* created in this manner would be ca. 27.5 x 19.5 meters. It is questionable as to whether this size is representative for the rest of the quarter as at other points where we would expect further *cardines* there are clearly identifiable walls. This would mean that the distribution of the buildings and roads in this quarter, are not the result of a single and homogeneous conception of an orthogonal grid system, but their orientation is determined in a more generic way by the line of the *decumanus maximus*.

Concerning the dating of the building structures in the region, some vague indications can be deduced from the wall techniques. Many of the building structures have re-used *spolia* intensively and must therefore be rather late. Perhaps they can be ascribed to Byzantine alterations of older buildings or to reconstruction work after the severe earthquake of 551 AD. On the other hand, numerous walls show the characteristic pseudo-isodomic ashlar masonry of the late Hellenistic-Roman period, which proves that at least parts of the houses in this residential quarter, preserved a considerable proportion of their original building fabric.

Apart from the wall structures a large number of column shafts and fragments were detected, but rarely *in situ*. Most are made of local basalt or occasionally of limestone. No single marble column has been found. All the columns registered in this area have a diameter of less than 0.50 m indicating their domestic provenance rather than attribution to a public building. This would mean at least some of the houses would have had atria- or peristyle-like features, indicating a higher architectural standard of at least some of the residences. The small doorways as well as the rather modest width of the walls also reflect private domestic architecture, which probably in most cases did not exceed two storey. The many fragments of flour mills and grinding stones spread evenly over the whole area are additional hints to the residential character of the buildings. Indeed the survey has revealed no positive evidence for the existence of further public buildings in the area. Finally worth mentioning is a building in the very west of the quarter, located
immediately above the steep slope of the mountain in a spectacular position overlooking the Lake of Galilee. The building is distinguished by a high concentration of column shafts of which two are made of grey Egyptian granite, by an originally stuccoed Ionic capital, as well as a cornice block fragment. Considering its privileged position and the elaborate architectural decoration, this building could well have been the house of a wealthy citizen. The clarification of this question remains for further archaeological investigation.

PD Dr. Michael Heinzelmann,
German Protestant Institute of Archaeology in Jerusalem
Fig. 3, Hippos, general plan of the southwestern domestic quarter showing streets and buildings.
Fig. 4, Hippos, general map of the southwestern domestic quarter. Distribution map of architectural fragments.
Fig. 5, Hippos, digital terrain model of the southwestern domestic quarter looking southeast.