Examples of Town Planning in the Fayyum:
(Plates 8-18)

ABSTRACT

The Joint Archaeological Mission of Bologna and Lecce Universities has been working at the sites of Bacchias and Soknopaiou Nesos in the Fayyum since 1993. It is now possible to analyze and compare the plans and the stratigraphy of two of the best preserved town sites of the Fayyum: Soknopaiou Nesos and Bacchias. The survey allowed us to recognize new temples, public baths and granaries. Aerial photographs and satellite imagery also allowed us to examine the area in which these settlements were established. By comparing the new data collected through archaeological and topographical investigation with the record derived from hundreds of Greek and Demotic papyri, we are able to further our understanding and knowledge of these two important settlements and their role within the landscape of the North-Eastern Fayyum.

The Joint Archaeological Mission of Bologna and Lecce Universities, directed by S. Pernigotti and M. Capasso, has been working in Bacchias (Kom Umm el-Atl) since 1993, with P. Davoli as field director since 1995. The same Mission started working in Dime (Soknopaiou Nesos) in 2001. By 2004, the topographical surface surveys of Bacchias and Soknopaiou Nesos were nearly complete and the two georeferenced plans with contour lines and all visible buildings had been drawn. The Soknopaiou Nesos plan was completed during the 2005 season.

1 paola.davoli@unile.it. I would like to thank Timothy Renner for his comments on a version of this paper and for correcting my English.
2 The Joint Archaeological Mission completed its work in May 2004. At present, the Soknopaiou Nesos Project is directed by M. Capasso and P. Davoli of Lecce University. An expedition directed by S. Pernigotti of Bologna University continues to work at Bacchias.
3 E. Giorgi, "Il rilievo per la documentazione dei siti archeologici," (paper presented at the VI Conferenza nazionale ASITA, Varese, 2002: http://www.asita.it/
The method used in the survey has been the same in both sites. The project involved four teams: the first team was composed of surveying researchers from the Dipartimento di Ingegneria delle Strutture, dei Trasporti, delle Acque, del Rilevamento del Territorio (DISTART) of Bologna University Engineering Faculty; the second, of archaeologists from the Department of Archaeology of Bologna University; the third, of archaeologists from Lecce University and from AR/S Archeosistemi; the fourth team consisted of Papyrologists of the Centro di Studi Papirologici of Lecce University.5

The first task of the field project was to collect geographic and spatial information for both sites. The sites were georeferenced with GPS (Global Positioning System), using absolute and relative high precision geodetic positioning techniques, thereby establishing a common reference frame and a local network connected to the national cartographic system. This approach permitted the team to frame the measurements derived from the topographical surveys carried out with the total station. A series of metric images, taken at low altitudes using a specially equipped aerostatic balloon and a specially developed kite system with an electronic remote control, permitted the creation of a digital elevation model (DEM) and digital photogrammetric products, such orthophotos, high resolution contour maps and 3D plotting.6


4 The contour lines of the kom will be surveyed in the season 2006. The Soknopaiou Nesos plan has been completed by Lecce University in collaboration with I. Chiesi and S. Occhi of the AR/S Archeosistemi (Reggio Emilia).

5 G. Bitelli and L. Vittuari of DISTART, Bologna University carried out the GPS surveys and aerial and terrestrial photogrammetry. S. De Maria and his staff from Bologna University undertook the ground survey using a total station during the 2001 and 2002 seasons.

As of 2004, the topographic survey was nearly complete, and the first scientific, topographic plans of Bacchias and Soknopaiou Nesos are under development. These plans show contour lines and plans of all the buildings that are visible on the surface (Plates 8 and 13 show the portions of the sites that have been surveyed up to the present). The cartographic base for the plans derives from the total station and GPS survey of the site.

The second stage of the project, which is still in progress under the responsibility of DISTART, is to analyze the archaeological site and its surrounding area through satellite imaging at different geometric resolutions studied in tandem with low altitude photographs and the survey plan. Moreover, the office of SIBA (Servizi Informatici Bibliotecari di Ateneo) at Lecce University, a department that coordinates the computer services of the University, collaborates with the mission in elaborating the survey and excavation data from Dime.

The topographic survey has enabled us to learn a great deal about the two archaeological areas. For example, we have been able to compare contemporary levels of preservation for single buildings and the archaeological area as a whole with archival photographs, drawings and plans. This allows us to better understand earlier descriptions of ancient sites and to formulate hypotheses about the causes of site decay. Moreover, this scientific documentation is particularly important for the future, as it attests the present state of preservation of areas that continue to be eroded by the weather and plundered by local inhabitants and tourists.

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7 The only complete plan of Dime was created by Lepsius in 1843: K.R. Lepsius, Denkmäler aus Aegypten und Aethiopien I (Berlin 1849) B1. 52.

8 V. Valzano and her staff are working on this project in tandem with the Centro di Studi Papirologici.
Bacchias and Soknopaiou Nesos were similar settlements of the Graeco-Roman period.\textsuperscript{9} Until now, we have not had a clear and thorough archaeological understanding of both sites, although we know much about their economic life, society and religion thanks to a great number of papyri found between the last decades of the 19th century and the first half of the 20th century. Many Demotic papyri from Dime are still unpublished, but recently, they have attracted the attention of scholars.\textsuperscript{10}

Contemporary archaeological methods and aims are completely different from those of the past, and field research is significantly slower and more meticulous for numerous reasons. It is not possible to obtain a great amount of data from an extensive excavation that is only undertaken for a few years. For this reason the analysis of archaeological plans together with the available data from excavated sectors of the site is of great importance for understanding the urban development of the settlements. Such an analysis, integrated with data from written sources, is essential for a wide assessment of the individuals living in these settlements during the various periods and for understanding the causes of changes in settlement patterns and behavior.\textsuperscript{11} The analysis of Bacchias and


\textsuperscript{11} Numerous articles and studies have been published on the papyri and it is not possible to list them all here. On urbanism cf. S. Daris, "Urbanistica pubblica
Soknopaiou Nesos proposed in this article is based on my personal knowledge of the sites and on the data collected by the end of 2004 excavation season.\textsuperscript{12}

**Bacchias**

Bacchias measures ca. 500 x 600 m and is divided into two kiman, of which the largest is Kom North, where the main settlement of the Hellenistic and Roman periods stood. The second, Kom South, a small area situated near the modern village of Gorein where Late Roman and Medieval period settlement was centered, has been almost completely destroyed by the sebbakhin.\textsuperscript{13} A surface study of the Kom North together with the stratigraphic data collected during 12 seasons enabled me to understand the real situation of the area from the point of view of conservation. Kom North is characterized by the presence of long and high dunes of sand along the north-west, north and north-east edges, on which very few remains of buildings are visible.

In contrast, the central and south area of Kom North is almost flat, and preserves many standing buildings as well as a number of deep trenches. Stratigraphic analysis of the excavated sectors suggests that a massive destruction of a great part of the kom was carried out according to the sebbakhin method of dismantling, probably in the first half of the 20\textsuperscript{th} century. During this activity, the central and southern parts of the stratified settlement were destroyed, but some of the buildings of the Hellenistic period were left behind.

\textsuperscript{12} The discovery during the 2005 season at Bacchias of other two temples has been announced: S. Pernigotti, "La cronologia di Bakchias," REAC 7 (2005) 44-45. These temples will be evaluated and assessed after the publication of a scientific report by the excavator. In fact, we are still waiting for the publication of one building found in 1993 season, which has been questionably identified as an Iseion.

\textsuperscript{13} According to Pernigotti, Kom South should be identified as ancient Hephaistias, but there is as yet no evidence that can support this hypothesis: S. Pernigotti, Gli dèi di Bakchias e altri studi sul Fayyum di ètà tolemaica e romana (Bologna 2000) 34.
for unknown reasons. Among these preserved structures are the temples and auxiliary buildings of the sacred area.

The excavations of the Italian Mission were carried out in two sectors: the first was located on the north edge of Kom North and the second in its centre, focused around the main temple of Soknobkonneus found by B.P. Grenfell, A.S. Hunt and D.G. Hogarth in 1896. I will concentrate my attention on this latter sector, which provided significant stratigraphic and religious information that can be compared with evidence from the Greek papyri and with the archaeological remains of other sites.

As is well known, Bacchias differs from many of the other Graeco-Roman settlements of the Fayyum because the dromos and the temenos are missing. Many articles have been written about the existence of one or more temples in Bacchias, following the discovery of the temple of Soknobkonneus by the British Mission and that of the archives of Soknobraisis' temple by sebbakhin during the 1930s.

After eight excavation seasons in the temple area, I am able to propose a partial reconstruction of the principal building phases that occurred here. We can recognize seven building phases in five levels from the Late period to the Late Roman period. From the surface to the bottom they are:

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<table>
<thead>
<tr>
<th>Phase</th>
<th>Date (centuries)</th>
<th>Stratigraphic Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>ca. 4&lt;sup&gt;th&lt;/sup&gt;-6&lt;sup&gt;th&lt;/sup&gt; AD</td>
<td>Surface</td>
<td>Occupation following the abandonment of the temple</td>
</tr>
<tr>
<td>Phase II</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;-3&lt;sup&gt;rd&lt;/sup&gt; AD</td>
<td>Level I (30.50 m a.s.l.)</td>
<td>House construction in area</td>
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<tr>
<td>Roman period (III)</td>
<td></td>
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<tr>
<td>Phase III</td>
<td>second half 1&lt;sup&gt;st&lt;/sup&gt; – first half 2&lt;sup&gt;nd&lt;/sup&gt; AD</td>
<td>Level II (29.00 m a.s.l)</td>
<td>Construction of temple of Soknobraisis</td>
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<tr>
<td>Roman period (II)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Phase IV</td>
<td>end 1&lt;sup&gt;st&lt;/sup&gt; BC – beginning 1&lt;sup&gt;st&lt;/sup&gt; AD</td>
<td>Level II</td>
<td>Temple of Soknobkonneus raised and propylon constructed in front of it</td>
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<tr>
<td>Roman period (I)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Phase V</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; BC</td>
<td>Level III (25.80 m a.s.l)</td>
<td>Construction of temple of Soknobkonneus and minor temple XL</td>
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<tr>
<td>Hellenistic period (II)</td>
<td></td>
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<tr>
<td>Phase VI</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; BC</td>
<td>Level IV (25.20 m a.s.l)</td>
<td>Construction of houses in front of temple at different orientation</td>
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<tr>
<td>Hellenistic period (I)</td>
<td></td>
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<tr>
<td>Phase VII</td>
<td>pre-3&lt;sup&gt;rd&lt;/sup&gt; BC</td>
<td>(23.00 m a.s.l)</td>
<td>Pottery kiln near the north corner of temple of Soknobkonneus&lt;sup&gt;17&lt;/sup&gt;</td>
</tr>
<tr>
<td>Late period</td>
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To summarize the finds from the temple area (Plates 9 and 10): three temples were brought to light, two in mud-brick and one in sandstone blocks.<sup>18</sup> The largest is the temple of Soknobkonneus (41

<sup>17</sup> C. Tassinari, "Attestazioni di attività artigianali in età pretolemaica a Bakchias," Fayyum Studies 1 (2004) 57-68. The chronology proposed for the pre-Ptolemaic level (7<sup>th</sup> cent. BC) is based on the presence of one Canaanite amphora. Sherds from several unfired vessels were found near the kiln but were not examined or published.

<sup>18</sup> This reconstruction of the building phases is based on the interpretation of the complex stratigraphy found in front of the temple. For a different interpretation see Pernigotti, op.cit. (above, n. 12) 41-44, and figs. 2-3. In this article, how-
x 26, h 10 m, Plate 11.2), probably built in the 2nd century BC (Phase V) together with the smaller temple XL, dedicated to an unknown crocodile god (16.20 x 12.70, h ca. 3 m, Plate 12.2). After a period of decay during which the settlement was covered with sand from the nearby desert (probably at the end of the Hellenistic period), the floor of the temple of Soknobkonneus was raised three meters (Phase IV): the original rooms were filled with sand and new floors were set. A propylon in sandstone blocks was built in front of the renovated temple. The minor temple (XL) was completely covered by sand and was abandoned.

In the second building phase of the Roman period (Phase III), probably during the reign of Nero or shortly after, a new large temple (57.70 x 16.60 m) in sandstone blocks was built in front of the older one (Plate 12.1). Its position is quite unusual, but it seems evident that it was deliberately built in this way in order that the two gateways could be very close to each other. This latter temple has been dismantled considerably, as its superstructure was used as a stone quarry until very recently; only parts of the foundation walls survive. Elements of the decoration of the temple were found scattered throughout the destructions levels in the surrounding area: a lintel with an unfinished solar disc, several pieces of torus cornices,19 a capital of a small column,20 blocks decorated in rustica style21 and one block decorated in Egyptian style and bearing a hi-


21 These blocks were initially associated with the temple of Soknobkonneus because they were found before the discovery of the Roman temple: E. Giorgi, "I materiali da costruzione e le tecniche edilizie del tempio di Soknobkonneus," in S. Pernigotti and M. Capasso (eds.), Bakchias V. Rapporto Preliminare della Campagna di Scavo del 1997 (Pisa/Rome 1998) figs. 11-12.
eroglyphic inscription. The plan and the architectural style of the sanctuary are Egyptian, datable to the Roman period; a pylon of an estimated height of 10 meters preceded the temple. Although there is no conclusive evidence concerning the god to whom the temple was dedicated, present archaeological and papyrological evidence allows us to state with high probability that he was Soknobraisis. A new temenos was probably also constructed during this last building phase (Phase III). We do not know anything about the Hellenistic temenos, and only a few pieces of the Roman temenos remain due to the destruction caused by sebbakhin in this area; these survive in the area located in front of the Soknobkonneus' temple. Preservation of the east and south corners allows us to state that the temenos was about 96 m wide. In this Roman temenos, there were at least two gates, one placed in front of the entrance of Soknobkonneus' temple and the second one in front of the pylon of the Soknobraisis' temple.

The dromos has disappeared completely, but I think there must have been one or perhaps two dromoi in the Roman period, placed at right angles, one for each temple (Plate 11.1). If we examine the plan, we will realize that in both directions where the dromoi might have stood there are vast plundered areas with no buildings. It is

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22 The inscription has been dated to the beginning of the Ptolemaic period according to palaeography: S. Pernigotti, "Bakchias IV: le iscrizioni geroglifiche," in S. Pernigotti and M. Capasso (eds.), Bakchias IV. Rapporto Preliminare della Campagna di Scavo del 1996 (Pisa/Rome 1997) 53-54 and fig. 1. In my opinion, there is no real evidence to support this date. Instead, the block might have been part of the decoration of the Roman temple, as suggested by both the place where it was found (area AD) and its material (the same kind of sandstone used in the masonry of the Roman temple).

23 For a discussion of the archaeological and papyrological evidence cf. Capasso, op.cit. (above, n. 15).

24 According to Pernigotti, there are no traces of a temenos in satellite images of Bakchias: Pernigotti, op.cit (above, n. 12) 43 n. 27. However, sections of its east wall and two corners were found during the seasons 2002 and 2003: P. Davoli, "Dieci anni di lavoro a Bakchias, El-Fayyum: bilancio archeologico (1993-2002)," RISE 1 (2004) 53. The temenos seems to have had the same characteristics of that of the Karanis south temple, with sectors of different thickness and with outer walls of some houses served as temenos walls: A.E.R. Boak, Karanis. The Temples, Coin Hoards, Botanical and Zoological Reports. Seasons 1924-31 (Ann Arbor 1933) 30-35.
evident that sebbakhin worked extensively in these zones. The presence of the Soknobkonneus dromos is, in my opinion, quite certain. A hypothetical line, traced from this point, would pass through a square building that is similar in construction to the foundation retaining walls of a similar gateway. It seems to me that this small building served as the foundation retaining walls of a similar gateway, probably placed at the beginning of the street. The building has not been excavated yet, but the visible remains and their elevation suggest a building phase datable to the Roman period. To the south along the dromos line lies a building facing north that, to judge from its plan, may have been a temple. Perhaps, here, a kiosk in sandstone blocks was placed on the dromos. The remains of a building in sandstone blocks are visible on the surface on top of a small hill along the line of the dromos.

The second dromos, south of the pylon of the Soknobbraisis temple, is only hypothetical because the area was heavily exploited by the sebbakhin. Nevertheless, its presence in front of a monumental pylon is highly probable.

Of the numerous buildings spread over the area, we may notice that they follow a fairly regular orientation, the same of that of the three temples and of the two proposed dromoi. The elevation of these buildings suggests that they belong to different periods, ranging from Phase V (Hellenistic period II, 2nd century BC) to Phase II (Roman period III, 3rd/4th century AD). The earliest buildings (Phase VI, Hellenistic period I, probably 3rd century BC) had a different orientation. Some of these structures are apparent in the south corner of Soknobkonneus' temple (and in the deepest layer in the north sector that was excavated in 1995).25

In conclusion we may say that Bacchias was a pre-Hellenistic settlement. It was enlarged or refounded in the 3rd century BC during the project of land reclamation26 under Ptolemy II. After a period of time, probably during the 2nd century BC, the general ori-


entation of the settlement was changed: two temples were built in mud-brick, both dedicated to crocodile gods. The new rearrangement of the settlement and of the temple area followed a period of decay in which a heavy layer of sand covered streets and buildings. This crisis might have occurred during the reign of Cleopatra VII, when low floods are well attested by papyri. At this time, the main temple of Soknobkonneus was raised. Despite the crisis attested in the documentary sources, the Soknobkonneus temple continued to be the most important religious structure on the site, and the orientation of streets and buildings remained the same. Around the middle of the 1st century AD, during the reign of Nero or slightly after it, the temple area was enlarged and the temple of Soknobraisis and a new temenos were constructed.

Contemporary papyrological evidence attests the presence in Bacchias of the worship of Soknobkonneus from 3rd cent. BC (P.Enteuxes 54.1 of 219/218 BC) and of that of Soknobraisis from AD 113/114 (P.Berlin 21899). It is clear that the two gods were worshipped in two different temples, as BGU XIII 2215 and P.Yale 363 testify during the 2nd century AD. In particular the Berlin papyrus attests the presence in Bacchias of two "important temples" (hiera logima). This papyrological data has prompted significant scholarly discussion of the two temples at Bacchias. The discussion has focused either around the economic situation of the settlement, which often has been described as "a small and poor

27 No archaeological remains of previous temples were found in this area until the 2003 season. The existence of a "proto-Ptolemaic" temple in the same place of that of Soknobkonneus suggested by Pernigotti is not supported by any textual or archaeological evidence: Pernigotti, op.cit. (above, n. 12) 43.


29 According to stratigraphic evidence: Davoli, Oggetti in argilla, (above, n. 16) 28-29.


31 W. Brashear, Greek Papyri from Roman Egypt (Berlin 1976) 6-11.

village," or the absence of a second temple, as the British expedition discovered only one temple in 1896. The discovery in 1998 of the monumental temple in sandstone blocks and its associated pylon, all dated securely to the Roman period, allows the attribution of this structure to the god Soknobraisis.

Additionally the smaller Hellenistic temple XL was dedicated to a crocodile god, as some archaeological evidence testifies (the shape of the naos, several crocodile bones and a statuette of a crocodile found inside some rooms). Papyri of the Hellenistic period from Bacchias are scarce, however, and they do not mention any temples.33

Papyri from the Soknobraisis archives34 attest the presence of two other crocodile gods at Bacchias: Suchos and Pnepheros (P.Lund IV 1; P.Lund IV 9; P.Yale 363; P.Yale 902+906, P.Lund III 5, P.Lund III 6, P.Lund IV 2). We must keep in mind that the majority of the papyri found in Bacchias belong to the Roman period, and for this reason we are well informed about the religion and cults of this period but not of the previous ones.

Soknopaiou Nesos

Dime measures 640 m from north to south and 320 m from east to west. It is divided into two parts by a paved dromos six meters wide that originally would have been 400 meters long but now measures 320 m.

The central area of the town is lower than the periphery, where the buildings are still completely covered (for this reason, on the borders of the plan few buildings are visible, Plate 13). The presence of exposed buildings and of numerous round holes of various dimensions suggests that sebbakhin and plunderers were active on the site. The sebbakhin probably worked in the south-western part


of the kom, where the surface is now flat. We have found a similar situation inside the great temenos of the Soknopaios' temple.35

The sebbakhin have not worked on a massive scale at Dime since at least 1909; this is apparent when photographs taken by F. Zucker36 in 1909-10 and those taken by the University of Michigan Expedition37 in 1932 are compared with the present appearance of the mound.

Moreover, if we compare the town plan drawn by K.R. Lepsius in 1843 (Plate 14) with the new one, we can observe that Lepsius's plan is generally correct, and that the state of preservation at the site and of the buildings is almost the same. This evidence allows us to say that Dime was far less exploited by the sebbakhin than the other kimans in the Fayyum.38 The shape of the kom is mainly due to the original stratigraphy, which is lower in the middle;39 there may have been considerable differences in the elevation among the streets of the town.

The dromos, for example, seems to have been used from the time it was built until the town was abandoned. On the other hand, the living quarters excavated by the University of Michigan on both sides of the dromos show that the streets levels consistently rose over the centuries. The dromos itself was built on stone foundations which, as we can see along its western side, were deeper in the southern area. Along the dromos, the slope rises from 21 m above

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37 These photographs are now kept in the Kelsey Museum at the University of Michigan in Ann Arbor. Thanks to the kindness of T. Wilfong and R. Meador-Woodruff I have been able to examine most of them.

38 There were no reasons for large scale exploitation of sebbakh before Lepsius' visit in 1843: P. Davoli, Archeologia e papiri (Naples 2001) 4-7.

39 This happens also in other Graeco-Roman places in the Fayyum: cf. Davoli, op.cit. (above, n. 9).
sea level in the south to 24 m in the north, an increase in elevation of approximately one meter for every 100 meters in length.

In general, it is possible to assume that there was an increase in elevation along a north-south axis, with the northern end of the town at a higher elevation, probably due to the natural topography. The temple seems to have been built in the highest part of the settlement. Two other slopes were created over the centuries along both sides of the dromos through human occupation; the rising of the street levels was more apparent as one moved away from the dromos, which continued to be used.

The excavation of the University of Michigan (1931-32) took place in two sectors, one on the east side of the dromos and one on its west side, near the temenos. In the latter, five levels were found, dated from the 3rd century BC to the 3rd century AD. All the buildings of each level are oriented along the axis of the dromos. During the preliminary survey of the dromos undertaken by the Joint Archaeological Mission of Bologna and Lecce Universities, some relevant data were collected: at present, the street is 320 m long and the pavement is quite well preserved along its length with some marks chiseled on the surface. At a distance of 170 m from the south gateway there are two shallow steps across the street, 5 and 8 cm high and 51 cm large, rising to north (Plate 17.1). Immediately south of them, on the borders of the street, there are five columns drums of the same stone as the pavement (Plate 17.2). On the east side one drum is circular with a diameter of 70 cm and a thickness of 21 cm; a second one is probably a block (95 x 81 cm) for a corner with a semi-column with a diameter of 74 cm and a thickness of 28 cm; a third one is a drum with a rectangular appendix in which is a seating for a vertical cramp. This drum has a diameter of 70 cm and a thickness of 25 cm. On the west side are two drums; one probably belonged to a corner of a door jamb with a semi-column. This drum has a diameter of 75 cm and a thickness of 25 cm. The second is a block with a semi-column with the same dimensions.

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With the current state of preservation, it is difficult to imagine what kind of building these architectural fragments belong to. The most likely possibility is that the remains should be associated with a kiosk in this location, as is normal on processional ways. We can recall the two kiosks at Tebtunis, as well as the kiosks preserved at both Narmouthis and Dionysias: a single kiosk was discovered at each site. In Dime there seems to have been a shortage of space on the paved street; therefore, we should imagine a wider kiosk with walls and foundations on each side of the dromos. At present, there are two trenches full of clean sand flanking the street, and we cannot verify this hypothesis. I think, however, that the elements we have are sufficient to suppose the existence of a kiosk of small dimensions, probably located to the north of the two steps on the dromos.

Along the dromos, the slabs of the pavement are of different dimensions; the slabs located along the sides have an east-west orientation. On these side slabs, there are one or two parallel chiseled lines that probably mark the borders of the street. Another chiseled, but finer line, marks the middle of the dromos. Moreover, Greek letters are engraved on some slabs, particularly those along the border; until recently, it has not been possible to ascertain the purpose of these inscriptions. They may mark the positions where objects were placed; this may be the reason for the inscription Satabous, which was a common name at Soknopaiou Nesos. K. Lembke suggested that some of the statues found in Dime and now in the Cairo, Alexandria and Berlin museums may have been placed on the dromos, but we do not have evidence of this. The pavement of the dromos at Tebtunis does not seem to have these kinds of marks.

It is quite certain that the dromos reached the temenos and its main gateway, but in the gap of 75 m the only things we can see are fragments of sandstone blocks, quarters of drums and lumps of white mortar scattered in the sand. There are no traces of the slabs

41 The Dime columns (diameter 0.70 m) can be compared with those found in the Tebtunis kiosk, which measure 1.00 m: V. Rondot, Tebtynis II. Le temple de Soknebtynis et son dromos (Cairo 2004) 154-55.

of the dromos, and a deep, wide pit lies in front of the gateway. We can suppose the presence of a stone building of squared sandstone blocks and decorated with columns. The kind of stone used in it is the same as that of the temple ST 20 inside the temenos, a building that is discussed in more detail below. The hypothetical structure at the end of the dromos may have been a propylon, a kiosk or a vestibulum, as is the case at Tebtunis.43

The great temenos (122.30 x 84.37 m, h 12 m) is not well known from an archaeological point of view, and the Italian Mission decided to begin its exploration there in 2003.44 First we collected information on about twenty buildings that are still visible inside the walled area (Plate 15). In the middle of the area, three buildings can be identified as temples (labeled ST 18, ST 19 and ST 20) by their positions and plans.

ST 19 is a small, east-facing mud-brick sanctuary measuring approximately 14.30 x 9.96 m. Few of the limestone blocks from the doorway survive. This position of the building suggests that it was a mammisi.45 The presence of a mammisi at the site of Dime is attested by a religious text written in Demotic (P.Berlin P 6750).46

The main temple ST 18 (32.53 x 18.90 m) faces south, opposite the original gateway in the temenos and the dromos. This temple is preserved to a height of at least five meters and was built in rough slabs of the local marl limestone. The walls were originally covered with a thick layer of plaster moulded to resemble isodomic blocks, now partially preserved in the central rooms and on the original façade. The building is surrounded by a mud-brick wall, and its general plan (Plate 16) is similar to that of other small temples of the

45 For the discussion of this hypothesis, see P. Davoli, "The Temple Area of Soknopaiou Nesos," in Capasso and Davoli, Proceedings (above, n. 10). On religion and cults in Soknopaiou Nesos, see Widmer, op.cit. (above, n. 10); W.J.R. Rübsam, Götter und Kulte in Faijum während der griechisch-römisch-byzantinischen Zeit (Bonn 1974) 163.
46 Widmer, ibid. 175.
Hellenistic period in the Fayyum. This temple, however, has a second door in the northern wall, in front of the main entrance and at the rear of the naos. To the north of this door and in the middle of the enclosure, a large number of blocks and lintels of different kinds of local stone were discovered in an area that measures approximately 60 x 20 m. This situation leads us to believe that there might have been one or possibly more totally unknown monumental buildings present here (labeled ST 20). Travelers and scholars who previously worked at Dime noted and identified the ruins as a second temple. Further to the north of these ruins (Plate 15), we can recognize a colonnaded building: two rows of columns are visible, and each row preserves at least two columns and a half-column. A fragmentary naos is also visible in the sand.

The first two seasons of excavations (2003-2004) were concentrated on a sector of 20 x 7 m between ST 18 and the ruins of ST 20. A paved courtyard and two subsidiary buildings were found. The courtyard connected buildings ST 18 and ST 20, which are certainly parts of the same temple but were constructed during different periods.

At this stage, we can hypothesize that building ST 18 was the original temple dedicated to the crocodile god Soknopaios and founded during the Hellenistic period. Although the inside of temple ST 18 awaits excavation, we can recognize subsequent building phases, which gradually altered its plan. The five gateways, of which three are internal, were built with fine sandstone blocks on the longitudinal axis and probably can be dated to the last of these

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48 The surface of the floor is an average of 25.60 m above sea level.

49 Work on the temple is attested by Demotic papyri dated between 153 and 144 BC (reign of Ptolemy VI and VIII): E. Bresciani, L'archivio demotico del tempio di Soknopaiou Nesos nel Griffith Institute di Oxford (Milano 1975) 50, 51, 58.
restructuring phases. A fifth gateway was opened\textsuperscript{50} in the rear wall of the naos and led into the courtyard, which was uncovered in 2003 (Plates 18.1 and 18.2). On the opposite side of the courtyard and along the same axis, there was another gateway in the sandstone block wall of building ST 20. It is therefore likely that the courtyard, building ST 20 and the sandstone gateways in ST 18 are all contemporary and can be dated to the end of the Hellenistic period or to the beginning of the Roman period. At this stage in our research, we are unable to date this building phase more precisely.

As part of our investigation of building ST 20, we have brought to light the facade of the southern external wall, which measures 20 m in length, 1.44 m in width and is preserved to a maximum height of 1.53 m in seven courses of blocks. A door, measuring 2.40 m in width, was located at the halfway point along the wall (Plate 18.2). The wall was built with isodomic blocks (67-77 x 40 x 20 cm), bounded with white and pinkish mortar. Its southern face is quite rough, with blocks showing bosses surrounded by four chiseled bands. This part of the building was not completely finished: stylized letters of the Greek alphabet were engraved on the bosses of some of the blocks as mason's marks. The masonry, similar to those of other Fayyum temples (such as Bacchias, the southern temple at Karanis, Dionysias, and the Roman kiosk at Tebtunis),\textsuperscript{51} suggests that construction of this wall should be dated to the Roman period.

G. Vittmann has recently published a Demotic papyri from Dime, dated to the 1\textsuperscript{st}-2\textsuperscript{nd} century AD and now in the Vienna Collection (P.Wien D10100),\textsuperscript{52} that provides us with a description of the internal decoration of the temple of Soknopaios, which was carried

\textsuperscript{50} Similar doors were opened in the naoi of Ptolemaic temples at Philae during the reign of Ptolemy VIII, in the temple of Hathor, the temple of Arsenouphis, and the mammisi of Isis. See D. Arnold, Temples of the Last Pharaohs (Oxford 1999) 202-4 and figs. 120, 127 and 141.


\textsuperscript{52} Vittmann, op.cit. (above, n. 10).
out in the Egyptian style. This papyrus seems to record a copy of a Ptolemaic project concerning the ornamentation of the temple's interior. According to the papyrus, the interior decoration was subdivided into registers, with an unspecified Ptolemy as the offering king. Current archaeological evidence does not allow us to know with certainty which structure was decorated as part of the project outlined in the papyrus. Building ST 20 is likely dated to the Roman period on the basis of masonry, and it would be extremely interesting to compare the ruins of this temple with the papyrological description. In the next season, we hope to investigate the interior of ST 20; our research should reveal new data about the temples that we will be able to compare with the evidence coming from papyri.

Preliminary publications of other religious papyri written in Demotic from the temple archives illustrate the richness of these sources. Several documents from the 1st to the beginning of the 3rd century AD are copies of an earlier text with the Daily Ritual of Soknopaiou Nesos. According to this text, the priests had to pass five gates in a condition of purity and then enter into a broad hall and, finally, into the naos. If we compare this description with the buildings preserved in the temenos, we can provisionally suppose that the five gates mentioned in the text might refer to the five gates in ST 18, the Hellenistic temple transformed into a pronao. The broad hall mentioned might be identified with the paved courtyard between ST 18 and ST 20, the naos or the temple proper.

Conclusion

As a final point, I would like to make some observations on three temples areas in the Fayyum. The newly created, scientific plans of Bacchias, Soknopaiou Nesos and Tebtuni provide us with some interesting data about their temples, the temene and the dromoi. Some conclusions can be drawn from a comparison of their dimensions:

53 Stadler, op.cit. (above, n. 10).
54 Rondot, op.cit. (above, n. 41).
Tebtunis:
- Temenos: 113 x 63 m
- Temple: 37 x 20 m (reign of Ptolemy I)
- Dromos: 210 m long, 6.35 m wide
  (North-South orientation, constructed in three phases: 3rd century BC; 2nd century BC; reign of Augustus)

Soknopaiou Nesos:
- Temenos: 122.30 x 84.37 m
- Temple: 32.53 x 18.90 m (Hellenistic period)
- Dromos: ca. 400 m long, 6 m wide.

Bacchias:
- Temenos: 96 m ca. wide (Roman period)
- Temple I: 41 x 26 m (Hellenistic period)
- Temple II: 57.70 x 16.60 m (Roman period)
- Dromos: 100 m long (at least)
  (East-West orientation)

It can be noted that the dimensions of the three temples that were founded in the Hellenistic period are surprisingly similar. The presence of a dromos in the Hellenistic period is certain at Tebtunis (3rd century BC) and probable at Soknopaiou Nesos. Therefore we can suppose a comparable dromos at Bacchias, likely from the 2nd century BC on the basis of the settlement plan.

The dimensions of the 3 temene are quite similar also. We do not know the exact date of each foundation, but it seems likely that at Bacchias and Soknopaiou Nesos, the temene belong to the Roman period, and are contemporary with the construction of the new

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55 The wide temenos of Dendera was built during the Roman period: P. Zignani and D. Laisney, "Cartographie de Dendara, remarques sur l'urbanisme du site," BIFAO 101 (2001) 428-32. For a discussion of the possible date of the Soknopaios temenos see Davoli, op.cit. (above, n. 45); IG Fay I. 43 (24 BC).
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temples in isodomic sandstone blocks. Surprisingly, the temenos of Bacchias seems to be the widest of the three; its general dimensions suggest that it was also the greatest in size.

The dromos, or the street of the god, is one of the characteristic features of the Egyptian temples. Virtually every temple would have possessed a dromos that was used for processions and feasts associated with the god worshipped in the sanctuary. In towns and cities with more than one important temple there were different dromoi.\textsuperscript{56} The preserved dromoi at Tebtunis and Soknopaiou Nesos are paved and have approximately the same width. At Tebtunis, on both sides of the dromos there were sphinxes and trees, following traditional Egyptian practice\textsuperscript{57} and two kiosks were set along its length. At Soknopaiou Nesos, remains of two buildings with columns, perhaps two kiosks or a propylon and a kiosk, are visible on the dromos; on both sides of the paved road, there were wide spaces that were free of buildings, perhaps used to house monuments and trees. At Dionysias, the dromos was about 320 m long and 5.7 m wide, with a kiosk on its end and statues of lions on both sides.\textsuperscript{58} A similar situation might have also occurred at Bacchias.\textsuperscript{59}

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\textsuperscript{56} At Soknopaiou Nesos the presence of a dromos of Pramarres is attested by an inscription dated to 104 BC (IG Fay I 69).

\textsuperscript{57} Rondot, op.cit. (above, n. 41) 200-2; A. Cabrol, Les voies processionnelles de Thèbes (Leuven 2001) 453-67.

\textsuperscript{58} At present, these monuments are in a poor state of preservation: J. Schwartz and H. Wild, Fouilles franco-suisses. Rapports I. Qasr-Qarun/ Dionysias 1948 (Cairo 1950) 7 and plates II and VI.

\textsuperscript{59} The forelegs of a lion or sphinx in red granite was discovered in the Kom South: P. Davoli, "Materiali fuori contesto da Bakchias," in S. Pernigotti and M. Capasso (eds.), Bakchias I. Rapporto Preliminare della Campagna di Scavo del 1993 (Pisa 1994) 73 and fig. 2. Two smaller, additional fragments of statues of a lion or a sphinx in limestone were found inside and in front of the Soknokkonnes' temple during the 1997 season: P. Davoli, "Due frammenti di sculture dal tempio," in S. Pernigotti and M. Capasso, Bakchias V., op.cit. (above, n. 21) 79-83.
Plate 8: Bacchias, plan 2002.
Plate 9: Temple Area of Bacchias.
Plate 10: Temples of Soknobkonneus and Soknobraisis: building phases.
Plate 11.1: Proposed reconstruction of the temenos and dromoi at Bacchias.

Plate 11.2: View of the temple area from the east.
Plate 12 (to Davoli, "...Town Planning...")

Plate 12.1: Foundations of the temple of Soknobraisis and the gateway to the Soknobkonneus temple.

Plate 12.2: View of the Hellenistic temple XL from the top of the north corner of the Soknobkonneus temple.
Plate 14: Soknopaiou Nesos: Lepsius' plan 1843.
Plate 16: Soknopaiou Nesos, plan of ST 18 and the excavated sector (2004).
Plate 17.1: View of Soknopaiou Nesos and the dromos from south.

Plate 17.2: Soknopaiou Nesos: drums of columns on the dromos.
Plate 18 (to Davoli, "...Town Planning...")

Plate 18.1: Soknopaiou Nesos; building ST 18 and its north gateway, from north.

Plate 18.2: Soknopaiou Nesos; the paved courtyard and the façade of ST 20.