The architecture, pottery and small finds from sector SA V1 North were presented in this volume, focusing on Level 3, and the aim of this last chapter is to further place these data into context within the complete town site. SA V1 North is located in the northernmost part of the New Kingdom fortified town of Sai. The mud brick architecture along the enclosure wall is dominated by modest buildings of small size, but with multiple periods of use. Dating from the mid to late 18th Dynasty, Level 3 is the best documented phase; this was the period when the Pharaonic town of Sai flourished, probably acting as the headquarters for the viceroy of Kush and equipped with Temple A and nearby pyramid cemetery SAC5. The status of Sai as an Egyptian administrative centre is well traceable in the remains in the southern sector SA V1 – with the governor’s residence and large magazines – but is harder to grasp in SA V1 North. As will be argued in the following, this is not so much a specific problem of the sector and its remains, but rather a consequence of how little is at present known about the internal structure of New Kingdom temple towns in Nubia.

Sector SA V1 North is situated close to the eastern sandstone cliff of the island, and therefore also with proximity to the presumed landing place and the 18th Dynasty sandstone quarries. It is also a short distance from the nearby Meroitic and Post-Meroitic cemeteries, which probably explains the appearance of pottery and other finds from these periods. However, most common amongst the Post-Pharaonic remains is the Christian material. As discussed, deep pits were cut into the Pharaonic mudbrick structures, especially Enclosure Wall N4 (see I.3). Some of the walls in SA V1 North are Post-Pharaonic in date, possibly constructed in the Medieval period or in more recent times (cf. IIC.3). SAV1 North is dominated by Enclosure Wall N4 – with a thickness of 4.26m and a presumed original height of ca. 8m, the town wall was the characteristic feature of the site, probably long after the end of the New Kingdom. It is therefore not surprising that both the contemporaneous and later structures used this major structure for multiple purposes: for orientation and as “landmark”, but also as foundation for new constructions and a source for building material. Other than a general reflection of the east–west orientation of N4, there is little of a systemic grid seen in the layout SAV1 North. This contrasts markedly with the southern part of the town, excavated by Azim. However, another Egyptian settlement in Upper Nubia compares in some respects to SA V1 North: the southern part of the 18th Dynasty temple town of Sesebi combines clear east–west lanes in a roughly orthogonal plan with a less systematic construction of walls and rooms in a slightly different orientation. Thus, the fact that the general pattern is not as clearly defined in SAV1 North as in the houses of the southern sector (SAV1) is not unusual within an Egyptian settlement and certainly does not prohibit the idea of urban planning.

The architecture, ceramics and finds suggest a functional interpretation of SAV1 North in connection with domestic activities, but also with workshops and storage installations. However, it must be stressed that, as demonstrated at other sites, rooms and units within Egyptian houses were frequently used for multifunctional purposes. It is therefore likely that SAV1 North also had multiple functions, representing a space for diverse activities in the New Kingdom and subsequent periods. Some of these possible activities and functions will be discussed in the following.

633 Budka 2015b.
634 This landing place and quarry was in use until Christian times, cf. Haffaas-Tsakos and Tsakos 2012.
635 Cf. Geus 2004; Francigny 2014.
636 Cf. Adenstedt 2016, 29 for comments on the height of the town wall.
637 Azim 1975; Adenstedt 2016.
638 Cf. Spence, Rose et al. 2011, 34, fig. 1.
640 von Pilgrim 1996e; Arnold 2014, 166.
1 The architecture of SA V1 North

SA V1 North is an interesting sector in many respects and illustrates the diverse character of architecture within the town wall, contrasting significantly from the southern sector, SA V1 (cf. I.4). The latter is completely Egyptian in character, follows a clear grid system and finds direct comparisons in houses in Egypt. Whereas tripartite and courtyard houses prevail in the northern sector, Houses 1–3 of SA V1 are considerably larger and fall into Bietak's category of "snail" houses, which are not attested in SA V1 North. The remains in sectors SA V1 East and SA V1 West are still being excavated and any comparison with SA V1 North is preliminary. However, whereas SA V1 East already contrasts to SA V1 North, with one substantial administrative building (Building A), the western sector does show parallels. A narrow wall street and houses of half-brick thickness have been documented at SA V1 West east of the town enclosure wall and are very similar to the remains in the northern sector, also including storage installations/silos.

In the area of Temple A, immediately south of SA V1 East, domestic architecture was revealed by Azim. These structures are slightly earlier than the Level 3 building units at SA V1 North, perhaps instead contemporaneous with Level 5/4. Up to six rectangular blocks of mud brick buildings (G1–G6) have been identified by Azim, which predate the temple founded by Thutmose III and are thus earlier than the reign of this king. They are similar in room arrangement to the houses in SA V1 and follow a grid plan. Unit G1 comprises three contiguous dwelling units covering a total surface of nearly 200 m (11.58 × 17.04m). The individual abutting houses are similar in size to Houses 1–3 of SA V1 (G1a: 63m; G1b: 50m and G1c: 84m), and thus much larger than the buildings in SA V1 North (see I.4). This planning pattern corresponds to what Michael E. Smith called "semiorthogonal urban blocks," where individual houses abut one or more neighbouring houses, forming dense sectors. Interestingly, each house within G1 is equipped with a sub-rectangular silo. Even though silos are also common at SA V1 North, this high concentration of storage installations is different, like the "block"-arrangement, and contrasts to the building units discussed in this publication.

All in all, SA V1 North and its architecture nicely illustrate the high level of potential diversity according to sectors within a fortified space, like the New Kingdom town of Sai. As mentioned above (I.1), formation processes at the site are very complicated, making the understanding of the remaining structures difficult. Pl. 4 illustrates the differences in height in the present excavated state of SA V1 North. With reference to the current topographical features, N27 stands out from building units N24 and N25 (V.1.2), seemingly some kind of central building at a very low level, while building unit N12 appears to be another special case (see V.1.1). Without the possibility to reconstruct the formation processes of the northern sector in detail, the question of whether all the buildings attributed to Level 3 actually belong to the Pharaonic phase must remain. This uncertainty is further maintained by another characteristic of SA V1 North – as Doyen stressed in Chapter II, many different brick formats were used within the building units. By contrast, only two formats are known at SA V1, with some additional formats deriving from reconstruction phases in the magazines. The variability in brick formats at SA V1 North (with no clear pattern for usage, see IIA.3 and IIG) may simply indicate a functional or planning difference to SA V1. More likely, however, is that these various bricks are indicative of continuous restoration phases at the site, raising doubts that everything presented here as Level 3 is actually Pharaonic in date.

Research conducted as part of AcrossBorders from 2015–2016 has further illustrated the rich potential of SA V1 North. In 2015, a total of five

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641 Cf. ADENSTEDT 2016.
642 See also FITZENREITER 1999, 120; ADENSTEDT 2016.
643 BIE TAK 1996, 24, fig. 1 (Type IIa, Group A).
644 Cf. BUDKA 2015b.
647 Azim compared them to the Kerma rural settlement of Gish el-Arb; see AZIM and CARLOTTI 2011–2012, 35, note 59. See also BUDKA 2014, 61.
profiles were taken here by Miranda Semple, providing soil blocks for thin section manufacture and micromorphological analysis. Processing of these data was conducted in 2016 by Sean Taylor and Sayantani Neogi. Although the detailed results will be published elsewhere, some of the most important information from these samples is present here, providing new ideas about the possible function of SAV1 North.

1.1 N12 as a case study

N12 is probably the best preserved of the Level 3 excavated structures in SAV1 North. It has provided important information for the pottery corpus (III.5.2) and its complex phasing clearly illustrates the short-lived periods of use in buildings at SAV1 North.

As already mentioned (I.4), though the ground plan of N12 is completely Egyptian, the internal surface area of about 27m² makes it much smaller than other examples of tripartite houses. However, N12 does find parallels in Nubian fortresses (e.g. Uronarti and Buhen), suggesting that its size is not a coincidence, but rather suggestive of its use and users (see below, V.3).

Although N12’s original construction phase is clearly associated with Level 3, the major rebuilding phases, like that of Wall 42S, are more difficult to date. The ceramics indicate that the last phase here correlated with Level 3 is actually already a later abandonment phase and the deposits found within N12 testify the use of the structure as waste area – something that is rather unlikely to have happened during the proper use life of the building. The main purpose of the micromorphological sampling programme was acquiring additional information on the functional interpretation of the structure. From the archaeological perspective, the installations within N12 all appear related to the preparation of bread: the (long-term) storing of grain (N12D), the temporary storing of grain ready to be processed (N12E and N12F), grinding implements to produce flour (N12C), and finally, an oven room in which to bake bread (N12A). This seemingly straight-forward interpretation of N12’s installation was now scientifically tested against the micromorphological evidence.

As mentioned in Chapter II, the southeastern part of building unit N12, in particular the so-called oven room N12A, showed deposits interpreted in the field as ashy and charcoal rich layers (IID.5.1.1).

To get a better understanding of this feature, three samples were taken in N12A: Samples 8.1 and 8.2 (along Wall 42S) and Sample 7 (at the corner between Walls 42S and 42E).

An important outcome of this sampling is that among the most striking properties of these occupational deposits are articulated phytoliths, as well as chaotically and randomly distributed single phytoliths. These had been misinterpreted as ash-rich deposits because of their low bulk density, silty texture, colour (often pale grey, similar to ash) and most importantly because of their elevated calcium carbonate content. These accumulations of phytoliths are in general considered characteristic signatures of domestic anthropogenic refuse. Ethnographic and archaeological studies have shown that plant waste accumulates on sites for a multitude of reasons, producing large quantities of phytoliths within archaeological deposits. To this end, plant residues associated with the stabilizing and feeding of domestic animals, grain storage, threshing floors, remains of matting and bedding, roofing or thatch and bark and chaff-mud plaster are just a few of the possible scenarios. Certainly, at least some of the phytoliths from N12A can be associated with animal activity as there are dung fragments and spherulites intimately associated with this line of evidence. For the others, grain storage and possibly matting/roofing are also probable sources in the case of N12A.

The interpretative data of the two samples taken from a thick deposit against Wall 42S, the southern wall of N12 (IID.2.1), can be described as follows. Sample 8.1 is a very porous deposit dominated by the presence of articulated phytoliths. The dominance of phytoliths suggests that this had been a very organic

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653 As these results were obtained subsequent to the excavation itself (August 2016), they were not available for inclusion of the architectural report by F. Doyen, submitted in April 2016.
655 See already BUDKA and DOYEN 2013, 177.
656 The following data is based on the report by S. Taylor and S. Neogi.
rich deposit – almost certainly a midden – that was subsequently subjected to geochemical transformations. The other lines of evidence supporting this interpretation are the frequent charcoals and spherulites from animal dung, as well as bone and plant tissue.\textsuperscript{660} Although there are certainly fragments of wood charcoal and a proportion of ash within the deposit, the perceived ashy properties recognised in the field were due to the elevated quantities of opal silicate phytoliths. Furthermore, the calcium carbonate is largely derived from the decomposition of bone rather than that of wood ash.\textsuperscript{661}

Like Sample 8.1, Sample 8.2 is also characterised by the presence of large quantities of phytoliths. The presence of occasional dung fragments associated with spherulites supports the hypothesis that at least part of this midden deposit\textsuperscript{662} was formed by the waste from stabling or animal holdings.\textsuperscript{663} The third sample in N12A was taken from the deposit against the southeastern corner, at the junction of Walls 42S and 42E (IID.5.1.1). Sample 7 shows the incorporation of a wide range of anthropogenic refuse, mostly organic in nature. These include charcoal fragments, ashy fabrics, and fragments of pottery and bone. The micromorphological evidence suggests that this deposit is most likely to have formed, not during the use life of the building, but rather during the abandonment phase when buildings can be convenient places to deposit waste.\textsuperscript{664} Beside the anthropogenic refuse, the presence of various pedofeatures is indicative of many post-depositional processes active at the midden, and in turn on the site. Bioturbational features, along with excremental fabrics, suggest post-depositional decomposition and reworking of the sediments by fauna.\textsuperscript{665}

To conclude, the micromorphological evidence from N12A attests to domestic refuse. The fragments of bones and pottery suggest that this layer was associated with daily household activities related to food preparation. The argument is further strengthened by the high quantities of organic residues observed in this layer, probably also resultant from domestic activities.

All in all, the interpretation of N12A as an oven room and its connection with bread making and grain corresponds to the micromorphological evidence. However, the microarchaeology illustrates certain caveats concerning two aspects: 1) formation processes, especially distinguishing deposits of an abandonment/post-use phase from the prime use; 2) functional interpretation. The problems of the latter in Pharaonic mud brick houses were already stressed by von Pilgrim and others: room functions were almost never exclusive, several activities took place in the same room, and activities might change from time to time or have seasonal aspects.\textsuperscript{666} Furthermore, sometimes activities may be traceable in rooms other than their primary location. For example, even if there is a space specifically for stabling animals, the animals must enter and leave this room, potentially also leaving traces of their existence in other areas of the structure.\textsuperscript{667} In addressing the former point (1), the first results from micromorphological samples in N12A are highly relevant, as they clearly prove that the rebuilding phase of Wall 42S was built directly upon an area full of domestic waste.\textsuperscript{668} Furthermore, the suggestion to associate some of the so-called ashy layers in N12A – actually mostly plant remains (phytoliths) – with fills from the abandonment phase rather than the concrete use of the room would correspond to the ceramic analysis, which indicates that contexts attributed to Level 3 comprise up to five or six generations.

Much potential for the functional analysis of complicated sites with multiple formation processes, like SAV1 North, therefore lies in the implementation of a micromorphological sampling programme. This line of research should be strengthened in the future at settlement sites in Egypt and Nubia.

\subsection*{1.2 N27 as a case study}

Building unit N27 represents another special case in SAV1 North and, other than N12, it does not find close parallels in Egyptian house types. Although Doyen compared N27 to Type I of Bietak’s Group B (IIF.1),\textsuperscript{669} its architecture should be regarded as rath-
er unusual. This may correspond to the before-mentioned dissonance of houses from “standard types” (I.4), which is likely to have been a common and integral part of dynamic ancient societies other than previously thought, mirroring individual choices in shaping houses. However, it is also possible that the present state of N27 actually represents a compendium of several different building phases. Finally, it is also possible that N27 is simply a functionally different structure, as discussed below to illustrate the diverse evidence. N27 does not correspond to any known ground plan of Egyptian houses from other sites, especially at its eastern entrance area.

Another unusual feature is the installation N27A, a so-called storage bin that is unfamiliar to comparable pieces from SAV1 North or other sites like Elephantine. Doyen proposed to connect N27A with the stone protruding from the wall in room N27/3, labelling them together as a “grinding emplacement” (IIF.5.3). Neither the stone nor the “bin” seems to fulfil the requirements of this interpretation. Rather, it is possible that N27A is instead the foundation of a stone basin, which has since been removed. The stone in N27/3 could also be related to some now lost installation. Without scientific sampling and analysis, the reddish material described by Doyen in the interior of N27A, presumed to be connected to heating activities inside the bin, remains unclear. Similar reddish materials as coatings/plaster were observed in SAV1, in both the governor’s palace and the magazine area.

Though the unusual ground plan of N27, especially its eastern part, has no parallel in Egyptian housing, a comparison can be drawn with certain structures at Amarna. Here, Ian Shaw has documented animal pens that are characterised by a semi-circular entrance area, as well as the incorporation of stone and wood as building material with the mud brick.670 Both stone (see N27/3) and wood (Wall 35W) were also integrated into walls of N27. Use as animal pen could explain the unfamiliar layout of the entrance area towards the east, although it was not semi-circular in shape,671 and may also elucidate the proposed stone basin in N27A. Furthermore, the character of the archaeological deposits as described at Amarna is an intriguingly direct comparison with SAV1 North; the pens in Amarna were built on an “accumulation of organic rubbish”672 and dark organic layers were documented as fills. At SAV1 North, organic rich deposits were documented in the neighborhood of N27 and in N12 (see above), while Level 3 was generally described as “characterised by a distinctive brown colour.”673 Moreover, rubbish heaps were also documented next to the animal pens at Amarna, potentially explaining the large amounts of waste accumulated in the area of N12.

However, several other aspects of N27 challenge the interpretation as animal pen: no coprolites were documented during excavation and no stone bases were found associated with the structure, other than the possible foundation N27A. Furthermore, the ceramics found in N27, including a complete squat jar of mid-18th Dynasty date (Fig. 81), are more likely to be connected with a domestic use of the structure.

To conclude, N27 illustrates the major problems connected with functional interpretation of architecture in cases lacking proper understanding of the formation processes through multiple-phases of use. For N27, the most probable interpretation is as a domestic unit suitable for various household activities, especially in the large open courtyard N27/1, but also in which animals were (at least temporarily) sheltered, perhaps in the side rooms. The latter usage may likewise also apply to the very small side rooms along the western wall of N26 (see IIE) – the lack of preserved access to N26/2 may indicate its function as small pen for goats or sheep, which are known to have narrow perimeter walls without opening.

2 Material culture of SAV1 North

Even more than the architecture, the pottery and objects from SAV1 North are responsible identifying the site as part of an Egyptian town. As highlighted in Chapter III, the pottery compares well with material from Elephantine and Abydos, with some features attesting to a local style. This style is not exclusively Nubian, but shows aspects of hybridity. The same holds true for the finds, which are mostly Egyptian in character, but contain features like incised decoration on Egyptian female figurines that

670 Shaw 1984.
671 A semi-circular structure of Post-Pharaonic (probably Medieval) date was set in Square 180/2270, against the southern side of Enclosure Wall N4. Together with the deep pits in the enclosure wall and thanks to similar evidence from SAV1 West, it is possible that this later installation is also connected with animal pens/shelters.
672 Shaw 1984, 40.
673 Budka and Doyen 2013, 175.
probably have Nubian origins. These hybrid vessels and finds indicate a complex entanglement of the Nubian and Egyptian cultures at SAV1 North, probably pointing towards a mixed society with various social elements (see below). Recent works have stressed that “hybridisation and entanglement have a temporal dimension” and a diachronic approach to the Egyptian-Nubian relations on Sai is necessary. For example, the quantity of Nubian vessels seems to decrease slightly after Thutmoside times, perhaps reflecting a stronger degree of Egyptianisation than in the early 18th Dynasty.

In general, stone tools are the most common category of finds (60%) from SAV1 North. These macrolithics are comparable to finds from Egyptian New Kingdom sites, but also find parallels in the Nubian cultures. Unfortunately, due to the difficulties in dating them, these tools can only be used for functional interpretations of closed and well-dated contexts, which are rare at the site (see building units N24 and N12).

Despite of the lack of seal impressions from SAV1 North, the sporadic discovery of scarabs indicates that goods were packed and sealed at the site. This corresponds to activities in Egyptian and Nubian towns in general, and may also relate to the function of Sai as an administrative centre. Net-weights (IV.2.1) attest to fishing activities and the predominance of the so-called axe head type, finding parallels in Elephantine and Askut, suggests a degree of formal control of fishing on Sai, mirroring the character of the town as a state controlled foundation.

3 THE CHARACTER AND FUNCTION OF SECTOR SAV1 NORTH

Almost two thirds of the New Kingdom fortified town of Sai is still unexcavated and a detailed assessment of the entire town’s evolution is therefore not possible (Fig. 1). However, as outlined here, the understanding of the internal structure of the town was much improved by establishing the character SAV1 North and comparing it with other sectors of the site. In general, the buildings of the northern sector show individualised properties, but are essentially Egyptian types of domestic buildings. The use of Egyptian house types is per se, however, not an indication that Egyptians were necessarily the occupants – they could also have been Egyptianised Nubians, living in the Egyptian centre of Sai Island and therefore in Egyptian architecture (see below).

SAV1 North illustrates that, though an Egyptian temple town may need its representative stone cult building (Temple A), administrative units (Building A and the governor’s residence SAF2) and associated structures including large storage rooms (sector SAV1), space for general household activities is still required. SAV1 North was obviously not the main residential area within the town, but rather a sector facilitating multiple functions of daily life, such as the stocking and storing of goods, food production, food serving and consumption and animal husbandry.

Level 3, the focus of the present publication, represents the heyday of Pharaonic Sai. Certain characteristics of the site, and SAV1 North specifically, are particularly addressed through the ceramics – from Thutmoside times onwards, a high variability of ceramic wares can be observed including imports from Egypt, the Western Oases, Canaan and the Aegean world (see III.2.5). This corpus is very similar to the 18th Dynasty and early Ramesside material from Elephantine, placing Sai within the New Kingdom empire stretching as far as the Fourth Cataract and beyond. However, the connection between these “luxury wares” and the occupants of Sai remains unclear:

- Was it perhaps appealing for the Egyptians living on Sai to be perceived by the local inhabitants as cosmopolitan Egyptians?
- Was the range of painted ceramic vessels, so different from the Nubian pottery style, used to demonstrate the sophistication of the officials?
- Or was it perhaps important for an Egyptian himself, living abroad, to surround himself with things and objects from home, evoking the international sphere from cities like Memphis and Thebes?
- And finally, could this also hold true for Egyptianised Nubians working for the Egyptian administration and living in an Egyptian-style town?

Apart from the attractive, but unprovable, idea of an active role for ceramic vessels in creating a...
“Pharaonic lifestyle” on Sai Island, it is also possible that imported and nicely decorated vessels were simply regarded in Upper Nubia as pretty “knick-knacks with exotic cachet.” In the end, it is infeasible to attribute a single meaning to an entire object type and it remains to be tested how the ceramic corpus of New Kingdom Sai contributes to the reconstruction of lifestyles on the island. This will be undertaken through the ongoing analysis of material from all sectors of the town, especially the new excavation areas SAV1 East and SAV1 West.

At present, it is still too early to provide conclusive answers about the inhabitants of Sai during the New Kingdom and their cultural identity. However, from the detailed assessment of SAV1 North, some thoughts are possible. The architecture of the northern sector is dominated in Level 3 by buildings with half-brick thickness, most of which contain open courts and likely had only one storey. Given the small size of these buildings, living space was therefore probably quite restricted. It is notable here that small tripartite houses are also known from Nubian fortresses, where they have been interpreted as standardised units for military occupants. It is thus possible that the original small units of SAV1 North, set up at the same time as the construction of Enclosure Wall N4, were intended as quarters for Egyptians who settled and worked in Sai, arriving in connection with the new building programme after the defeat of the Kerma Kingdom. In this early phase, it is likely to assume that these settlers included various officials of military rank, as well as craftsmen and others – probably travelling within small, labour related communities and not with their own families. Kate Spence has convincingly argued that at Amarna, second storeys of houses (which are more common than previously thought) were spaces for female family members and generally dedicated to family life. Could the layout of the small building units in SAV1 North relate to the lack of women in this part of the town? The larger, more standardised houses of the southern sector (SAV1) are comparable to the Amarna houses and a second storey is here more likely, perhaps indicating that higher officials were living there together with their families. The brief phases of the building units in SAV1 North could therefore relate to changes on the social level, possibly supporting the idea that individuals had much impact on creating living room, even in a state-controlled town like Sai. These dynamics are also clearly reflected in the material culture, in particular the pottery.

With many unsolved questions and a range of possible scenarios connected with the occupants of Sai and, in particular SAV1 North, one should keep the following in mind: Rather than drawing artificial borders between Egyptians, Nubians, and their respective lifestyles, the aim should be to reconstruct social, economic and cultural identities at the local level. Such identities change, interact and merge, allowing a more direct approach to diverse aspects of life than a stereotype perspective derived primarily from textual references. As hopefully demonstrated throughout this publication, SAV1 North has the potential to highlight the complexity of life in the Pharaonic town of Sai and further contribute to the understanding of settlement patterns in Upper Nubia.

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681 Barrett 2009, 226.
682 In general, houses of half-brick thickness would have been able to support a second storey; for example, similar to the pilasters at SAV1 North buttresses are attested at Amarna and have been interpreted in this way: Spence 2004, 129.
684 Evidence from the pyramid cemetery SAC5 (see Minault-Gout and Thill 2012) attests to family burials from the reign of Thutmose III onwards, clearly indicating the presence of women and children in the New Kingdom town of Sai.
685 See Budka 2017.