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Report on Archaeological Investigations at Ethio-Sabaean Sites Nearby Wuqro (2017, 2019)

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ABSTRACT

Report on Archaeological Investigations at Ethio-Sabaean Sites Nearby Wuqro (2017, 2019)

Kristina Pfeiffer, Hanna Hamel

Archaeological research continued in 2017–2019 at ʿAddi Akawəḥ near Wuqro/Tigray, yielding Ethio-Sabaean building remains (8th–6th cent. BCE) underneath the church of Abunä Gärima. Resumed work on the exposed monumental building of Ziban Adi provided new results on the building size.

KEYWORDS

Ethiopia, Tigray, Ethio-Sabaean, Abunä Gärima, Ziban Adi

KRISTINA PFEIFFER, HANNA HAMEL

Report on Archaeological Investigations at Ethio-Sabaean Sites Nearby Wuqro (2017, 2019)

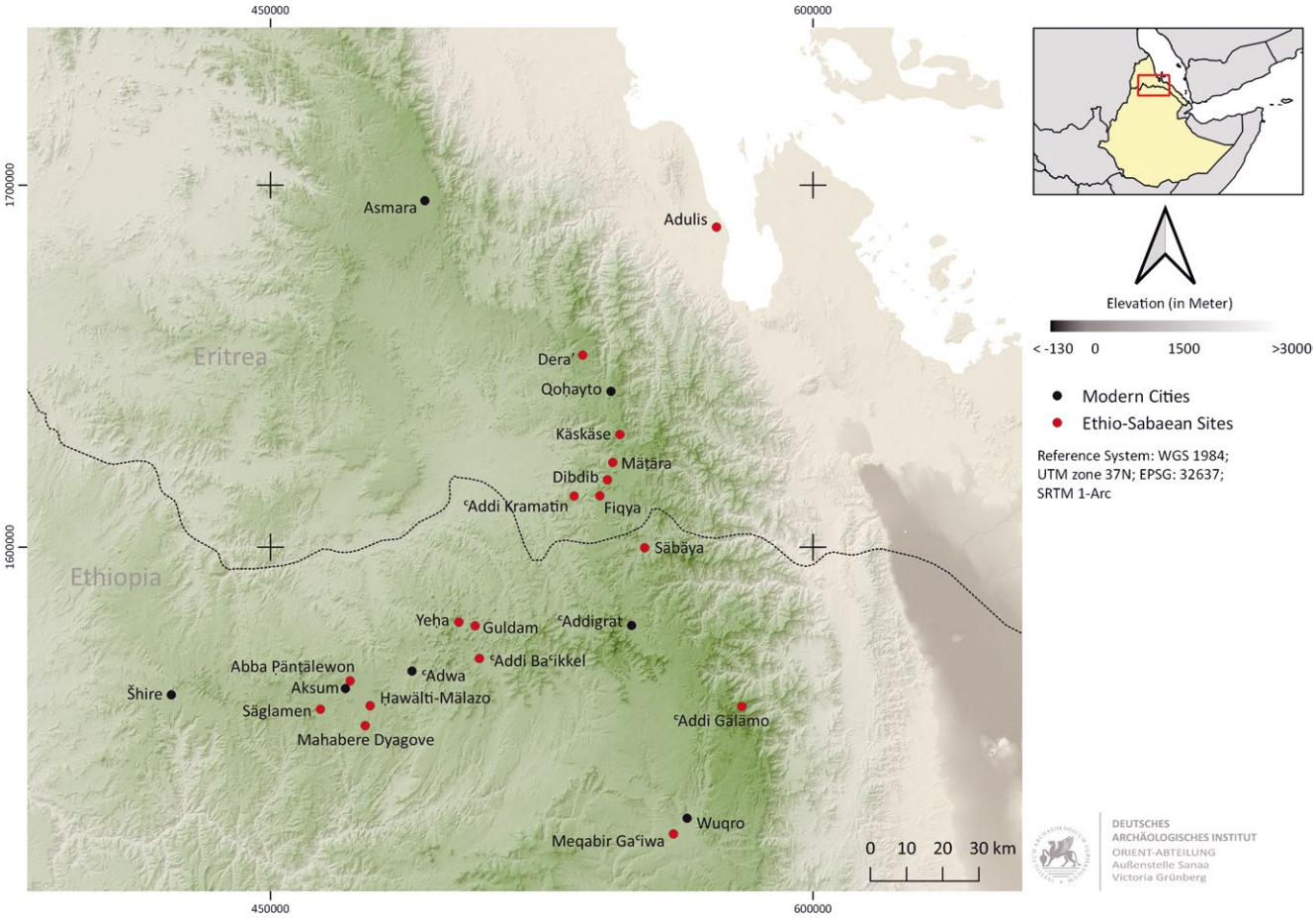
1 Introduction

1 The cultural contact between South Arabia and the northern Horn of Africa during the early to mid of the 1st millennium BCE is not yet fully explored – especially with regards to the indigenous population on the African side, their architecture, material culture and the understanding of their economy, trade and religion. In contrast, research on the Sabaean culture of the 1st millennium BCE in South Arabia is already advanced and can therefore also provide important information for the interpretation of the cultural legacies in the northern Horn of Africa. The origins, motivations and aims of the Sabaean communities to extend their sphere of influence to regions in the Eritrean-Ethiopian highlands are still largely unclear. However, based on extensive archaeological and epigraphic research results, it is assumed that mainly economic interests such as resource supply and exchange of goods can be interpreted as reasons for migration movements to the Horn of Africa.[1]

2 Amongst scholars, the nature of the cultural contacts between Sabaeans and the indigenous populations has controversially been discussed.[2] This is due to the fact that the Sabaean influence on the Ethiopian and Eritrean Highlands appears in regions only and does – yet – not apply supraregionally. However, taking the state of research into consideration, further investigation in the Ethiopian and Eritrean Highlands are obligatory and the current state of knowledge allows different interpretations. However, evidence of interaction processes as well as cultural contacts between Sabaean groups and the indigenous population of northern Ethiopian-Eritrean regions in the Horn of Africa can

1 Gerlach 2023, 15–43.

2 See for summary Gerlach 2013, 254, n. 1; Gerlach 2014; Gerlach 2023; Nebes 2023a; Nebes 2010a; Benoist et al. 2020, 19–36; Wolf – Nowotnick 2010a; Wolf – Nowotnick 2010b; Phillipson 2009, 268–271; Finneran 2007, 109–144; Fattovich 2009; D'Andrea et al. 2008; D'Andrea et al. 2023; Harrower et al. 2010; Japp et al. 2011, 145–147; Schnelle 2012.



1

Fig. 1: Map of Tigray showing modern cities and Ethio-Sabaean sites

الشكل ١: خريطة تيغراي تُظهر المدن الحديثة والمواقع الإثيو-سبئية

be traced both archaeologically and epigraphically.[3] The Ethio-Sabaean[4] polity can be assigned to a period in which Sabaean cultural characteristics were well visible: thus, in the Ethio-Sabaean culture in the Ethiopian-Eritrean highlands, Sabaean influences are evident in epigraphic, religious, administrative contexts, but also in craft and iconographic aspects.[5] Considering the current state of knowledge, this Ethio-Sabaean entity had spanned from Säglamen in the west to ʻAddi Gälämo in the east and from Asmära and Adulis in the north, situated in Eritrea, to Wuqro in the southeast (Fig. 1).[6] To date, Wuqro represents the southeasternmost point of this Ethio-Sabaean polity. As P. Wolf stated in 2013, the majority of Ethio-Sabaean sites is located along prominent antique trade routes and trade paths that were crucial for the overland exchange of trade goods.[7]

3 In the area of ʿAddi Akawəḥ nearby the town of Wuqro, more than 20 sites were detected of which four were studied. Three of them can be dated into the first half of the 1st mill. BCE and proved to be of pre-Aksumite date and can be assigned to

3 For epigraphic evidences see: Nebes 2023a, 135–142; Nebes 2023b; Nebes 2010a, 232–233; Nebes 2010b; Nebes 2011; Robin – de Maigret 1998, 793–794.

4 Due to the close cultural interlocking that resulted from the contacts between the indigenous population in the Ethiopian highlands and the Sabaean groups, one can speak of an "Ethio-Sabaean" cultural horizon, which can be proven in eastern Tigray by numerous findings and finds. The term "Ethio-Sabaean" describes this cultural expression, which can be dated into the first half of the 1st millennium BCE. The term is common sense which allows comparability of archaeological and epigraphic evidence. The authors are aware of the controversial discussion surrounding the term, but nevertheless choose it because it currently describes a genuine situation in the archaeological research of the northern Horn of Africa, the exploration of which is in process.

5 Gerlach 2021, 147–156; Gerlach 2023, see Nebes 2018, 36–37; Nebes 2021, 317–326.

6 See also Benoist et al. 2021, 111–153; D'Andrea et al. 2008, 151–176.

7 Wolf – Nowotnick 2010a, 166; Curtis 2004, 57–70; Curtis 2008, 329–348.

the Ethio-Sabaean cultural horizon.[8] Both the archaeological and epigraphic evidence indicate that ʿAddi Akawəḥ was an important site that had close affiliations to the Ethio-Sabaean centre in Yeḥa. Several artefacts and inscriptions indicate even strong relations to the Sabaean heartland in Yemen. The discovery of the Almaqah temple at Mäqabər Gaᶜəwa (8th–6th cent. BCE) in 2007,[9] the discovery of an extended multistoreyed timber-frame building at Ziban Adi (2010)[10] and the recent discovery (2017) of a timber-frame building underneath the church of Abunä Gärima displayed buildings with specific construction techniques: this construction technique consists of mud mortar-bonded rubble stones in a timber framework construction with vertical and horizontal beams. Since it corresponds to other Sabaean monuments, such as the Grat Beᶜal Gəbri in Yeḥa and sites in Mälazo and Sirwah in Yemen, it can be described as Ethio-Sabaean architecture style.[11] Associated find assemblages such as the cult inventory and inscriptions of the central libation altar of Mäqabər Gacəwa displayed clear Sabaean manufacture, type and ductus. However, parts of the pottery assemblages and also stylistic aspects of the epigraphy suggest strong local cultural traditions as well.[12]

4 After the local antiquities' authority made test soundings in 2007 as part of rescue measures that brought to light cult inventories that clearly resembled South Arabian parallels, further research at the site was continued. Survey and preparatory (rescue) excavations began in 2008 under the auspices of a cooperation between the Tigrai Culture and Tourism Bureau (TCTB), the Ethiopian Heritage Conservation Authority (EHCA),[13] the Orient Department of the German Archaeological Institute and the Friedrich Schiller University of Jena, directed by Pawel Wolf and Ulrike Nowotnick. The field studies were founded on reported incense burners with Ethio-Sabaean inscriptions that were in the village of ʿAddi Akawəḥ and are stored in the church of Abunä Gärima. Studies of these stored artefacts have been published since the late 1970s.[14] Together with altar fragments and the spolia in the church walls of Abunä Gärima, these artefacts indicate the presence of at least one Ethio-Sabaean sacral building.[15]

5 The excavations at the temple of Mäqabər Gaᶜəwa revealed a libation altar with Sabaean iconography and an inscription naming the ruler WᶜRN[16]. In addition, figurines of characteristic Sabaean style, material and craft were found. Based on epigraphy and paleography the persons mentioned in the inscriptions, and underlined by Radiocarbon dating, the temple can be dated into the late 8th to 7th cent. BCE.[17] The Wuqro region also played an important role in supplying building materials for the monumental Great Temple in Yeḥa.[18] Limestone ashlars used to build the Great Temple in Yeḥa, most likely came in part from quarries nearby Wuqro. Geological studies on current limestone mining quarries in a river valley nearby Wuqro that included provenance studies of the ashlars in Yeḥa and raw material in Wuqro displayed identical

8 Wolf – Nowotnick 2011, 204. Besides the indigenous communities that underwent cultural interaction with Sabaean groups there is also a profound evidence of other sites in the region of Tigray and in Eritrea that date pre-Aksumite and display either none or only little evidence for contact with the Sabaeans. See D'Andrea et al. 2023; D'Andrea et al. 2008; Phillipson 2000; Schmidt et al. 2008; Phillipson 2009a; Phillipson 2009b; Phillips 2004; Sernicola 2008.

9 Berhe 2009, 15–23; Wolf – Nowotnick 2010a, 168–169; Wolf – Nowotnick 2010b; Wolf – Nowotnick 2011; Wolf et al. 2015.

10 Matthews – Büchner 2016, 14–21.

11 Cf. Schnelle 2013; Schnelle 2019, 101 fig. 7.3. 102–115. 117–118; Menn (in prep.), Melazo: The Excavations in Area B; Schnelle pers. communic.

12 Wolf – Nowotnick 2010a, 180–188; Nebes 2010a, 214–237; Wolf – Nowotnick 2010b; Wolf – Nowotnick 2011.

13 Former name: Authority for Research and Conservation of Cultural Heritage (ARCCH).

14 Godet 1977, 35; Anfray 1991, 43.

15 See Pfeiffer et al. 2018, figs. 1. 3.

16 Dedicating the altar to his God Almaqah. See Nebes 2010a, 216–227. See also Gajda et al. 2009, 33–48.

17 Wolf – Nowotnick 2011, 172; Nebes 2010a, 233–234.

18 Schnelle 2022.

geochemical signatures.[19] It has been assumed that the quarried blocks were transported to Yeḥa, where they were demonstrably shaped into the desired form under the guidance of South Arabian stonemasons. It should be noted that although the distance between Wuqro and Yeḥa is only 80 kms as the crow flies,[20] the route – which due to the lack of waterways inevitably had to be overland through the highlands – was much longer and more difficult due to rugged relief and differences in altitude in this landscape. It is not clear yet how the blocks were transported, but it is plausible that they were transported by manpower.[21]

6 From 2008 onwards, P. Wolf and his team worked consistently at the site of Mäqabɔr Gaʿɔwa, extended surveys were carried out and parts of Ziban Adi were excavated in 2010 and 2015. One of the incense burners that have been stored in the church was reported to be found here.[22] Wolf described that the surface of the flat mound of Ziban Adi and the surrounding agricultural fields were densely covered with potsherds.

7 After the conclusion of the first project phase, a second project phase was begun in 2016 under the direction of K. Pfeiffer. The cooperation between the TCTB, the EHCA, the Orient Department of the German Archaeological Institute and the Friedrich Schiller University of Jena was continued.[23]

1.1 2017 Season

8 The church of Abunä Gärima in ʿAddi Akawəḥ village is located on an exposed elevation at the southern edge of the village (Fig. 2). The church walls show significant cracks due to unstable building ground which was already supposed to be a pre-Aksumite predecessor building. During a visit on the site in 2016 and the dialogues with the priests the urgency of soon-to-be archaeological rescue excavations became quite clear. The walls of the church show the usage of spolia of Ethio-Sabaean libation altars. Inside the church, three large Ethio-Sabaean incense burners are stored that have rulers' inscriptions from presumably the end of 8th and 7th cent. BCE.[24] Personal communication with the priests revealed that these objects were found during the construction of the church in the 1970s, respectively one of the pieces was found at the site of Ziban Adi, 500 meters away. Due to the request of the TCTB, archaeological rescue excavations at the church were carried out in 2017. These works had the aim to assess the static situation and to enable restauration and building modifications.

9 It was decided to conduct three archaeological soundings at the church building (Fig. 3). The location of the trenches was chosen in consideration of the wall cracks and an assessment towards the consolidation of the church. Additionally, their setting was selected due to expected diagnostic architectural features that serve as indicators for the layout and location of a pre-Aksumite building underneath the church. Heavily burnt debris of a characteristic Ethio-Sabaean building that consisted of burnt timber and limestones was found in all three trenches. Its location and dimension allow us to estimate a building size of at least 20 m length and 14 m width. However, only Trench II revealed these *in-situ* remains of an Ethio-Sabaean building; hence, in the following only those results are presented.

19 Weiß et al. 2012, 54. See also Weiß 2014, 21–24.

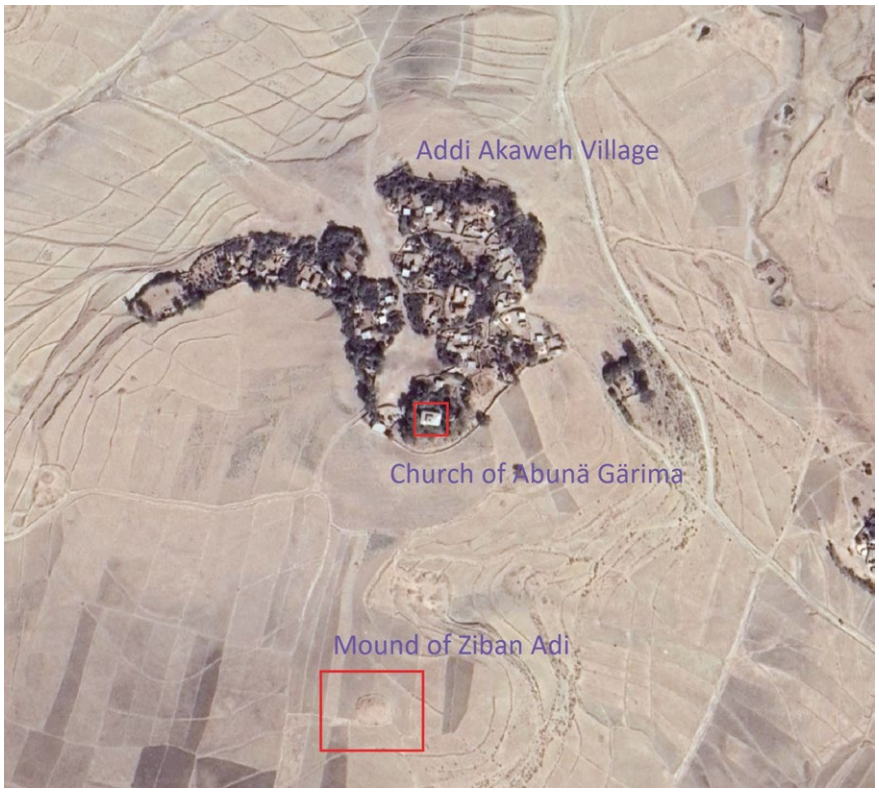
20 Schnelle 2017, 267; Schnelle 2022, 141; Weiß et al. 2012.

21 Schnelle 2022, 147–150.

22 Wolf – Nowotnick 2010a.

23 Sincere thanks are due to my Ethiopian and German team members, the Ethiopian and German Authorities, Ato Yonas Desta, Ato David Hailu, Brikit Gebremedhin, Mulugheta Feseha, Iris Gerlach, Norbert Nebes and the Yeḥa-Team; Pawel Wolf, Steven Matthews, Saskia Büchner and the people of ʿAddi Akawəḥ. Our thanks also go to the Gerda Henkel Stiftung that made these investigations possible.

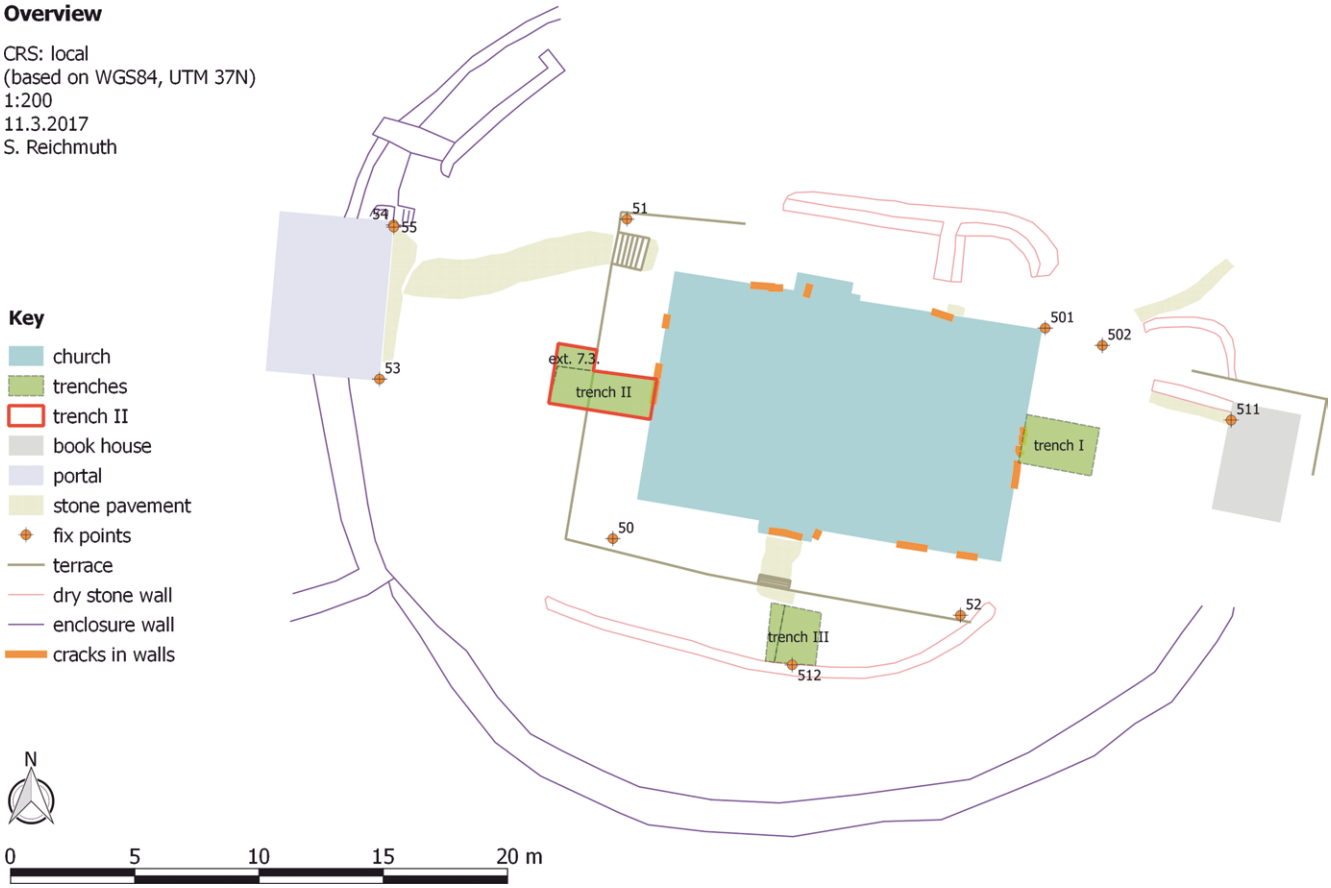
24 Wolf et al. 2015, 11; Gajda – Gebre Selassie 2009, 49–61; See also Nebes 2010a, 214–237, esp. 230–231. Bernand et al. 1991, RIÉ I. RIÉ II. See for overview Nebes 2023b.



2

Fig. 2: Location of ʾAbunä Gärima in the vicinity of the village of ʿAddi ʾAkawəḥ

الشكل ٢: موقع أبونا غريما بالقرب من قرية عدّي أكاوح



3

Fig. 3: GIS Plan of the site of ʾAbunä Gärima with the three Trenches and the church hill

الشكل ٣: خارطة نظام المعلومات الجغرافية (GIS) لموقع أبونا غريما مع الأسبار التنقيبية الأثرية الثلاثة وتلّة الكنيسة

Fig. 4: Wall Loc. 12 (left, white, unburned) with core Loc. 19 and wall Loc. 31 (right, red, burned). Note the beam niche in the middle and the corner in the west. View towards south-west

الشكل ٤: الجدار (Loc. 12) (إلى اليسار، باللون الأبيض، غير محترق) مع النواة (Loc. 19) والجدار (Loc. 31) (إلى اليمين، باللون الأحمر، محترق). لاحظ الكوّة الصّماء ذات العوارض الحجرية في الوسط وامتدادها حتى الزاوية الغربية. لقطة باتجاه الجنوب الغربي

4

10 In Trench II, recent and sub-recent graves were located in the entire area. They belong to the use of the church hill as a burial ground. Twelve graves or, respectively, features containing human bones were defined and documented.

11 Underneath thick rubble layers with the recent graves, well preserved but heavily burnt Ethio-Sabaean masonry and wall debris became apparent. Both the colour and the brittleness of the lime stone plates found and the reddish burnt mortar indicate quite clearly, that the collapse of the building was a result of a fire. The loose composition of the debris stones has led to numerous holes and cavities between the stones. These were found either empty or filled with reddish rubble which simply explains the instability of the building ground of the modern church.

12 The intact masonry in this entity builds a massive L-shaped wall which extends over the entire length of the trench. It features a long wall and a corner in which the walls are interlocked. The corner is located in the westernmost area of the trench. From there, the alignment runs towards the east and also bends towards north (Fig. 4). Due to the character of the debris on both sides of the wall faces, it can be assumed that the rubble collapsed into rooms and hence, this wall is inside a building and not part of the outer wall. The excavated parts of the east-west wall measure a length of 3.55 m, a width of 1.0 m and a height of 18 stone courses. A recessed layer in the wall face implies a horizontal niche in which a wooden beam was once horizontally placed. Residues of the charred beam were still *in situ* and were taken for sampling (Fig. 5).

13 In a distance of 1.70 m from the western corner toward the east is a small niche approximately 25 cm long and 15 cm deep. Here, a wooden beam had once been set vertically but it is not preserved at all. To the east of the niche, the wall continues another 1.60 m until it terminates due to disturbance by the sub-recent grave pit and by the modern church foundation. The wall's continuation to the east could not be determined, but it is quite probable that it continues straight eastwards running underneath the church.

14 The remains of wooden structures are evident in the north-south running wall. The wall displays a preserved height of 1.6 m, the excavated 14 stone courses are mortared with the traditional local ‘chiqa’ mortar – a mortar that is still used in Tigray. In the northern part of the wall, a second vertical beam niche of approx. 30 cm

5

Fig. 5: Charred beam residues in a horizontal layer in the wall Loc. 31. View towards south-west

الشكل ٥: بقايا عارضة خشبية متفحّمة في طبقة أفقية في الجدار (Loc. 31). لقطة باتجاه الجنوب الغربي

Sample name	Lab. no.	Age ^{14}C
WUQ17 AGI 19 38	Poz-99178	2525 ± 30 BP
WUQ17 AGII 31-25	Poz-99061	2495 ± 35 BP
WUQ17 AGI 19 38 R_Date(2525,30) 68.2% probability 788BC (25.1%) 749BC 684BC (10.4%) 667BC 640BC (27.5%) 589BC 578BC (5.2%) 567BC 95.4% probability 796BC (32.4%) 729BC 693BC (14.6%) 658BC 653BC (48.4%) 542BC		
WUQ17 AGII 31-25 R_Date(2495,35) 68.2% probability 766BC (12.9%) 735BC 689BC (11.1%) 663BC 648BC (44.2%) 547BC 95.4% probability 790BC (94.6%) 507BC 501BC (0.8%) 490BC		

6

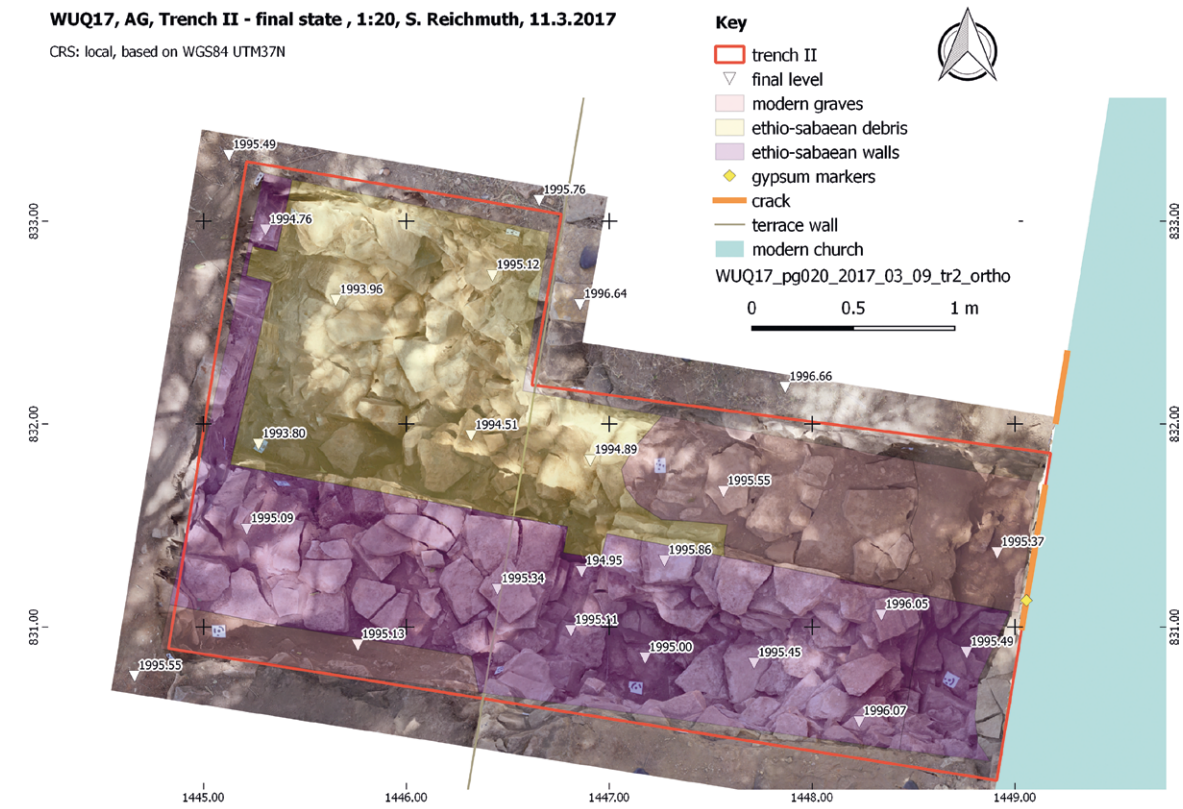
Fig. 6: Radiocarbon dates of two charcoal samples from the excavation (ʾAbunä Gärima Trench I and II)

الشكل ٦: بيانات الكربون المشع لعيّنتين من بقايا الفحم من موقع الحفريات (أبونا غريما، السبرين التنقيبيين I و II)

length, 30 cm width and 10 cm depth was found. Imprints from wooden beams were recorded in the heavily burnt mortar lumps that are scattered in the interior corners of the niche.

15 Based on ^{14}C dates from charcoal residues of a charred beam in wall Loc. 32, the building can be assigned to the Ethio-Sabaean cultural horizon within the pre-Aksumite period: sample 1 dates between the 8th–6th cent. BCE cal., sample 2 dates between the 7th and 6th cent. BCE cal.[25] (Fig. 6).

25 Taking the results from all trenches into consideration (Poz–99178, Poz–99061; measured by T. Goslar, Poznán Radiocarbon Laboratory; OxCal v4.2.3 Bronk Ramsey [2013]; IntCal 13 atmospheric curve (Reimer et al. 2015)).



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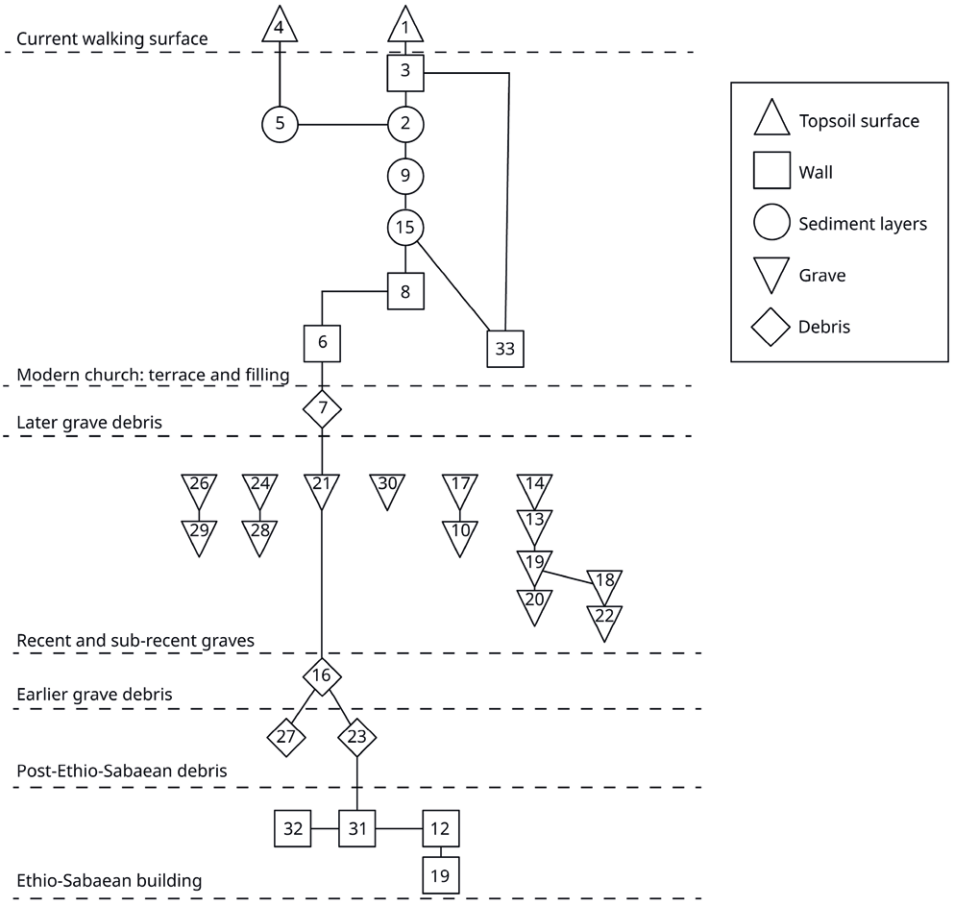


b

7

Fig. 7: View of the final state of Trench II with underlying orthophotography with the current features in colours (top); stratigraphic matrix of Trench II (bottom)

الشكل V: مشهد للوضع النهائي للسّبر التنقيبي II مع الصّورة الجويّة المتعامدة والمصحّحة مُعلّمة بالألوان الدالّة على المميزات الحاليّة للسّبر التنقيبي (في الأعلى)؛ وكذلك مصفوفة التعاقب الطبقي للسّبر التّنقيبي II (في الأسفل)

16 However, apart from the ^{14}C dates, the assignment of the building to the Ethio-Sabaean horizon is made primarily on the basis of the characteristic architecture: timber-frame masonry with massive horizontal and vertical wooden reinforcement and solid wooden beams set at regular intervals. Corresponding features in Yeḥa, Mälazo and in South Arabia underline the Ethio-Sabaean character of the building.[26] Due to the small size of the sounding and the evidence architecture in this trench only, no further knowledge can be gained so far about the function of the building, nor about its building phases, construction and the preserved height.

17 Fieldwork in Trench II was concluded (Fig. 7 a–b) and due to the current sacral use of the church grounds, no further field investigations could be carried out ever since.

1.2 2019 Season

18 The 2019 season concentrated on the continuation of the research at the site of Ziban Adi, a site ca. 250 m southwards of the village of ʿAddi Akawəḥ. Ziban Adi is a circular mound with a diameter between 25–28 m, its height measures approx. 3–3.5 m. A topographic depression divides the mound from the village and the church of Abunä Gärima (Fig. 2). Previous surveys, geophysical prospection and soundings in 2010/2011 and 2015 (directed by TCTB and Dr. P. Wolf) revealed well-preserved remains of a large rectangular building (21 × 16 m). The team found out that the building had been constructed using the characteristic timber-frame masonry with horizontal and vertical solid wooden beams. Residues of burnt wooden beams were found *in situ*, in association with collapsed and burnt beams from the upper floor/ceiling. In addition to these results, it was also found out that the walls are preserved with a height of up to 4.0 m. Rich find inventories, consisting of e.g. beads, a bronze beaker, other bronze artefacts and obsidian flakes allowed the team to assume that the building had a residential function.[27]

19 When the excavation work was re-launched in 2019, the season aimed at enlarging the stratigraphic, chronological and constructional understanding of the building of Ziban Adi. Since the building displays massive walls of timber-frame masonry, shows several smaller rooms and has a prominent localisation, it can be suggested that Ziban Adi could have been a building of a considerable status, possibly with administrative function. It displayed monumental dimensions and at least a height of two storeys. In combination with the former excavations and surface clearings (2010, 2011, 2015) the excavations were carried out in order to yield further information about the dating, type, construction tradition and function of the building.

2 Ziban Adi Excavation

20 Based on its drawn record from 2015,[28] the three trenches of 2019 season were planned at the western flank of the mound aiming at the study of the outline and dimension of the building (Fig. 8), the incorporation into the global UTM grid and the study of the entrance area of the building.

2.1 Ziban Adi Trench 1

21 Trench 1 was defined at the entrance area in the western part of the mound (6.0 m × 5.0 m). The massive stone-built walls of the monumental building of Ziban Adi

26 Schnelle 2019, 95–118 with further literature.

27 Matthews – Büchner 2016, 14–21.

28 Matthews – Büchner 2016, 19.

8

Fig. 8: Trenches and excavated architecture in Ziban Adi 2019. Trench 1 at the entrance area, Trenches 2 and 3 at the western and southern outer walls and corners

الشكل ٨: أسبار تنقيبية وبنى معمارية مكتشفة في زيبان أدي ٢٠١٩. يتموضع السبر التنقيبي I في منطقة المدخل، بينما تتموضع الأسبار التنقيبية II و III عند الجدران الخارجية والزوايا الغربية والجنوبية

appeared directly underneath the topsoil.[29] The unearthed wall constructions in this area consist of two major walls that flank the entrance/passage of the building and two narrow wall parts that were built in the entrance in North-South direction, reducing the width of the entrance to 1.0 m only.

22 The northern flank wall of the entrance (Loc. 3)[30] runs in East-West direction, it was excavated with a length of 3.45 m, a width of 1.30 m and a preserved height of 1.20 m. The wing of the wall bends to the north with a 92° angle and then forms the western outer wall of the building. It is a massively built stone wall with two wall faces and the front edges of the stones at the wall face were hewn and smoothed. The wall displays 12 stone plate courses, set in 'chica' mortar layers. Along the heavily burnt wall, niches can be observed, in which wooden beams were once installed. These niches show wide square dimensions of 20 cm width by 20 cm depth and were made for solid wooden beams. The niches partly revealed preserved mortar lumps with wooden beam impressions. Interestingly, both vertical and horizontal beam installations can be detected, two vertical ones with a distance of 75 cm to each other and two horizontal ones were found, one of those possibly led horizontally through the wall (Fig. 9).

23 The southern flank wall of the entrance area (Loc. 4) runs parallel in a distance of 3.60 m. The wing of the wall bends to the south with a 90° angle and then forms the western outer wall of the building. Due to the pressure load of the debris, the

29 Both the successively unearthed walls (north and south) and high volumes of dense soil as well as the unexpected compactness of the soil led to a reduction of the Trench dimensions down to 3,0 m (N–S, limited by walls Loc. 3 and 4) by 3.50 m (E–W, nearby door area).

30 Loc. 3 of the 2019 excavation can be put into concordance with contexts of the 2015 excavation, when it was labelled M20016.

9

Fig. 9: Wall Loc. 3, view along one of the once horizontally installed wooden beams, note the beam impressions in the mortar and the subsided stone layers in the rear part

الشكل ٩: الجدار (Loc. 3)، منظر على طول أحد العوارض الخشبية التي كانت مثبتة أفقياً، لاحظ انطباعات الروافد الخشبية على الملاط وطبقات الحجارة المنهارة في الجزء الخلفي

10

Fig. 10: Wall Loc. 4, the southern flank of the entrance area, note the vertical and horizontal wooden beam installations and the wall Loc. 8 abutting Loc. 4

الشكل ١٠: الجدار (Loc. 4)، الجانب الجنوبي لمنطقة المدخل، لاحظ تموضع الروافد الخشبية العمودية والأفقية والجدار (Loc. 8) الملاصق للجدار(Loc. 4)

western part of the wall slopes towards the west. Altogether 16 courses of lime stone plates were unearthed, both construction type and material are identical with counterpart Loc. 3. Occasional traces of 'chiqa' mortar plaster were recorded and this wall also displays three vertical and two horizontal wooden beam beds within the masonry. Also here, one beam possibly led horizontally through the wall (Fig. 10).

Fig. 11: Vertical plan of Trench 1, entrance area with scaled architectural features (Loc. 3 & 4, Loc. 7 & 8) of the entrance construction

الشكل ١١: مخطط رأسي للسّبر التنقيبي I، مع منطقة المدخل مع معالم معمارية مقاسة تابعة لمنطقة المدخل (Loc. 7 & 8 , Loc. 3 & 4)

11

24 In between the entrance flank walls, narrow walls were excavated that close the entrance to a 1.0 m wide passageway (Fig. 11). While the narrow northern wall (Loc. 7) runs against Loc. 3 and limits the doorway to the north, the southern narrow wall (Loc. 8) runs against wall Loc. 4 and limits the doorway to the south. None of the mentioned wall joins show traces of interlinkage which indicates that Loc. 7 and Loc. 8 were built later than Loc. 3 and 4, and therefore belong to a later construction phase. The doorway walls are partly tilted to the west, which is why the original widths of probably 60 cm have been doubled. The stone courses reveal mortared joints, installed in a simple layer technique. Wooden beam beds were not found.

25 Three debris layers were defined during the excavation in this trench, the debris is a homogeneous mixture of collapsed stones of the building and crumbly reddish burnt mortar. During excavation works in all the debris layers, several remains of charred wooden beams were found, the density and length of these increased with further depth of excavation. Both the composition and colour of the excavated material in Trench 1 gives evidence of apparently so high temperatures during the burning and subsequent collapse of the building that the built limestone was converted to quicklime (around 900 °C).

2.2 Ziban Adi Trench 2

26 Trench 2 is an elongated trench covering large parts of the southern outer wall. The objectives of the work in Trench 2 were the tracing of the outer wall and

outer wall edges, the investigation of the western corner of the building and the wall foundation.[31] Directly underneath the topsoil wall stones and cap stones of the southern and western external walls were uncovered.

27 The preserved height of this wall is 1.70 m, it was excavated with a length of 10.40 m and a width of 1 m. The orientation is east-west and it builds a corner with the western outside wall. Whereas the linear wall parts are quite well preserved and only slightly tilted, the outline of the wall corner is strongly collapsed and shows significant traces of high temperature fire. High accumulations of ashes and charcoal were found and the mortar in between the stones is of red colour. Several very compact debris layers were excavated, they revealed pottery fragments, few animal bones and charcoal fragments. Since it is known that the building was erected in a mixed construction of horizontal and vertical wooden beams and stones, wall corners had a particularly high proportion of wooden beams due to the constructional interlocking. Whereas interlocked beams guarantee a good stability of corners during the period of use of the building, in case of fire, the destruction of corners is consequently quite severe since major parts of the building material burn and vanish. Hence, it could be expected that corners fall apart more than linear parts of the building walls. During further excavations, in the very south-western corner (Loc. 9) of Trench 2 two new walls appeared (Loc. 10 & 11) that were previously unknown. One wall (Loc. 10) was excavated with a length of 1.80 m, its width is 0.82 m. In runs from north to south parallel to the main outer wall and consists of a narrow massive stone wall of limestone slabs. It shows strong burn marks and interlocks with the other previously unknown wall Loc. 11. The latter is a 1.3 m long and 1 m wide narrow massive stone wall. It is a later extension of the southern outside wall Loc. 6. and runs westwards where it interlocks with wall Loc. 10. A possible western continuation is unclear. Since these walls were hitherto unknown and found as new features during the 2019 season, their extension and function have to remain unclear so far. However, they might either indicate the extension of the building or even represent the outer walls which would prove greater dimensions of the building than it was known and expected before (Fig. 12. see also Frontispiece).

28 A deep sounding (1.5 × 1 m) was excavated at the outside area in order to reach the foundation level of the Ziban Adi southern wall (Fig. 13). At the bottom of the wall, regular neat placed base plates stick ca. 10 cm out of it, they were found embedded in a >3 cm thick brownish-loamy soil horizon. In a distance of 75 cm southwards big rough worked stones are located in a thick yellowish mortar bed. Whether these indicate further structures in the outskirt area of the building or an auxiliary construction for the construction process of the building is not clear yet (Fig. 14). The wall foundation and stone row at the southern edge of the sounding are on the same level and the narrow loamy hardened surface between them measures a width of ca. 50 cm.

29 It cannot be excluded that this loamy soil strip between the rising masonry and the stone setting at the southern edge of the deep trench might have served as a narrow walking horizon which led around the building of Ziban Adi.[32] This hypothesis would include that the mentioned stone setting could be the top level of a surrounding glacis.[33] Even if the small area of the deep trench is not sufficient as evidence and can only be considered representative to a limited extent, parallels from Yeḥa might support the hypothesis of the pathway and the glacis. The monumental building Grat Beᶜal

31 Since parts of the area were excavated already in 2010, pottery was not collected.

32 The trampling surface was reached at a level of approximately 1987.30 m a.m.s.l. Taking a levelled horizontal foundation area of the building into consideration, ca. 180 cm are to be excavated until the bedrock or virgin soil can be reached.

33 Person. comm. Schnelle; vgl. Schnelle 2013, 95–96; Schnelle 2019, 97–98. 108.

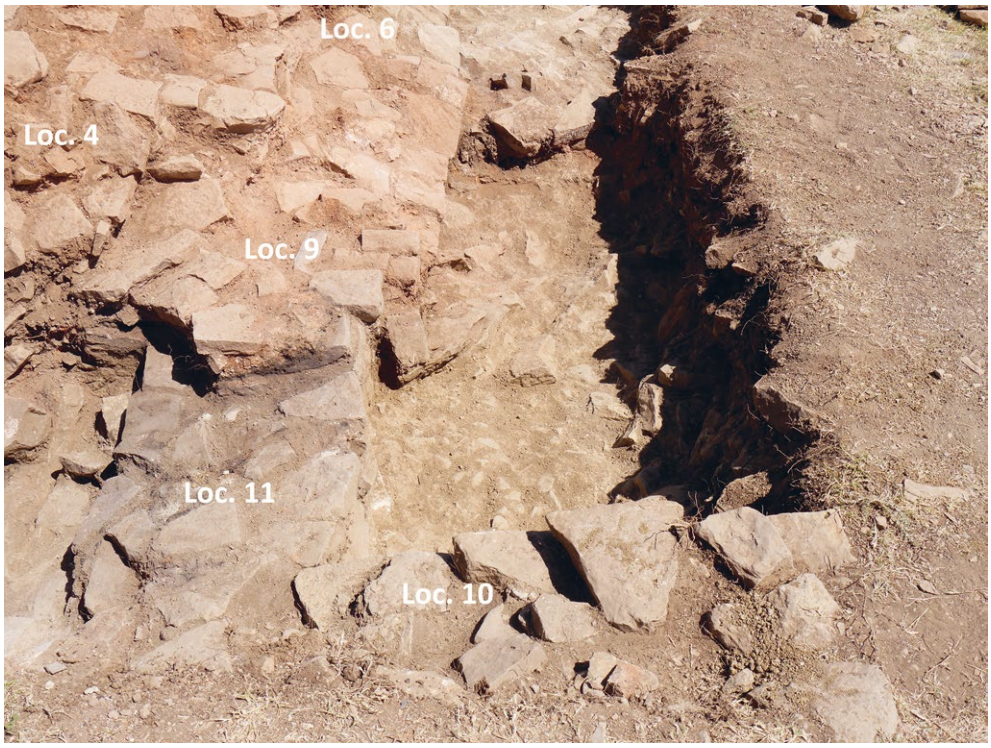


Fig. 12: View towards the western extension of the outer building wall Loc. 11, Loc. 10 in the foreground, view towards east

الشكل ١٢: لقطة باتجاه الامتداد الغربي للجدار الخارجي للبناء (Loc. 11) يتقدّمه الجدار Loc. 10، منظر باتجاه الشرق

12

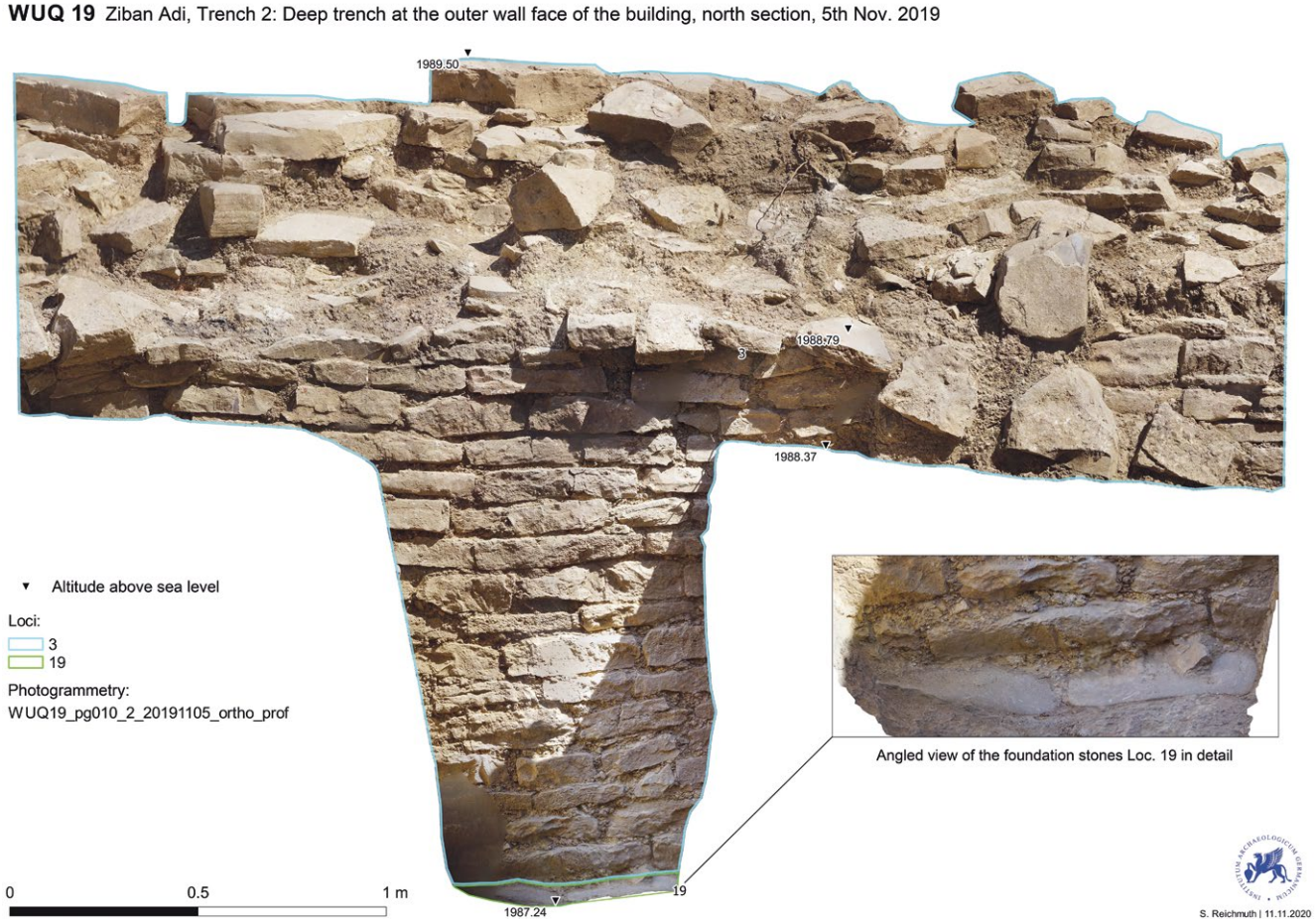
Fig. 13: Foundation structures of wall Loc. 6: loamy horizon Loc. 17, stone accumulation Loc. 18 and wall foundation of rectangular stone plates Loc. 19

الشكل ١٣: بنية أساسات الجدار (Loc. 6): طبقة طّمي (Loc. 17)، ركام من الحجارة (Loc. 18) بينما يتكوّن أساس الجدار من ألواح حجرية مستطيلة (Loc. 19)

13

Gəbri in Yeḥa displays a massive stone built glacis with steep steps. This stone glacis surrounds the building completely. It was built in front of the massive stone built podium which served as high-platform that had put the building significantly higher than the surrounding buildings. Additionally, a narrow hard loamy horizon is located at the transition of the rising masonry and the upper edge of the surrounding glacis. On this surface one could walk around the building at the level of the upper edge of the glacis, in particular this trampling surface was found at the risalites of the building.[34]

34 Person. comm. Schnelle; vgl. Schnelle 2019, 108–111.



14

Fig. 14: Trench 2, Northern section of the deep trench

الشكل ١٤: السّبر التنقيبي II، المقطع الجانبي الشمالي من السّبر التنقيبي العميق

2.3 Ziban Adi Trench 3

30 Trench 3 was defined as connecting Trench between Trench 1 and 2. The location of the trench was chosen in order to study the front façade of the building with the entrance, and to find out whether the façade was constructed with special architectural or constructional features.

31 Further parts of the outer wall (Loc. 4) were studied that showed disposal towards west and two horizontal beam beds along each wall face. The beam beds consisted of very regularly set stone plates building an elongated bed for a beam and were originally visible at the facades. On both beam beds remains of charred wood and imprinted mortar remains were found.

32 In the southernmost part of Trench 2, one side of the corner between wall Loc. 11 (Trench 2) and Loc. 4 (Trench 3) is marked by a sort of jamb construction. In addition, a lower stone row at the northern face of wall Loc. 11 together with the jamb stones might be interpreted as a horizontal beam bed. Construction details on the other side of the corner might mark a door leading through wall Loc. 4 and therefore is possibly a second opening aside of the main entrance. Also the disposal direction of the stone courses in the wall underlines this hypothesis. Whereas the majority of stone courses run straight from north to south, in the area of the presumed door they strongly drop. This feature resembles a dropping door lintel after the wooden door lintel beam had collapsed. The peculiarity of this finding is the fact that this door-like opening in the masonry is not evident on the opposite side of the wall. The door may have been blocked later, but then the contours would also be visible on both sides of the wall. However, a horizontal beam bed construction leads from the masonry bond between Loc. 4 and Loc. 11 westwards.

Fig. 15: Work shot of situation between walls Loc. 11 and Loc. 4, note the lintel collapse wall Loc. 4 and the jamb and beam bed at the northern face of Loc. 11

الشكل ١٥: لقطة أثناء العمل بين الجدارين (Loc. 11 و Loc. 4)، يمكن ملاحظة انهيار ساكف الباب في الجدار (Loc. 4) ومكان تموضع الدعامة والعارضة الحجرية على الواجهة الشمالية للجدار (Loc. 11)

15

Since the walls are not interlocked, in terms of building history though the feature proves that the extensions (Loc. 11 and 10) were built later than the main building (Fig. 15).

3 Summary

33 The new excavations concentrated on the entrance and exterior areas of the building within the framework of three trenches. The aim was to preserve possible characteristics of entrances and exterior façade design of Ethio-Sabaean monumental buildings in order to put them into typological and chronological relation with the features at Yeḥa and Mälazo.

34 The masonry of the heavily burnt, large building (21 × 16 m) is made of timber-framed masonry displaying a construction technique of quarry stone walls reinforced by vertical and horizontal wooden beams.[35] The massiveness of the rubble as well as heavily burnt chunks of clay mortar and charred beam remains indicate a destructive event by fire, which Ziban Adi has in common with other Ethio-Sabaean buildings in Tigray.[36] In addition, narrow walls were built in order to reduce the size of the entrance which is also characteristic for such monumental buildings and has parallels with the Grat Beᶜal Gəbri, too.[37] Additional masonry, which was previously unknown, both showed that the building has a larger ground plan than previously assumed and might display different building phases.

35 At the southern outer wall of the building, the foundation layers were found at a depth of 1.70 m. Here, construction features came to light that could possibly be interpreted as a running horizon around the building sitting on the uppermost stone setting of a circumferential stone construction. Due to the elevation of Ziban Adi, it seems quite

35 Cf. Schnelle 2019, 95–118.

36 E.g. Abunä Gärima, Mälazo and Yeḥa (Grat Beᶜal Gəbri); see Gerlach et al. 2022, 83.

37 Schnelle 2013, 97; Kinzel – Schnelle 2011, 41–42; Schnelle 2012, 391. 395–396.

plausible that the excavated stone setting was either a static auxiliary construction for the building, or – similar to the monumental Grat Beᶜal Gəbri in Yeḥa – possibly part of a stepped glacis surrounding the building.[38]

36 The western outer wall shows an architectural detail near the southwestern corner of the building which indicates a modification phase of the building. A door lintel with a length of ca. 1.0 m, which probably consisted of a horizontal beam and overlying layers of stone, was found collapsed. The beam had probably burnt down and the stones have sunk sharply. Only on the southern side underneath the former lintel, the finding suggests a door soffit. Since there is no passageway on the inside of the wall, the find is referred to as a niche. The niche is adjoined by a bench-like stone construction. Considering the timber-frame architecture, beam beds could also be reconstructed here, but this does not explain the shape and location of the feature. However, wall niches with benches are not known to date in Ethio-Sabaean type buildings in the Tigray: hence, the finding in Ziban Adi might represent an early element of Ethio-Sabaean architecture and therefore requires further investigation.

37 In the southwest corner of the Ziban Adi building, further wall connections were discovered during the excavations, which change the previous state of research on the ground plan as well as the size of the building. At the southwest corner of the building, another wall section was uncovered. This extends the southern outer wall to the west and then runs south and north. The further course of the wall leads into the trench border and was therefore not followed up. The findings were not completely uncovered, but due to the wall connections, they indicate that these might be walls from a later construction phase.

4 Report on Finds

38 Both the season in 2017 and 2019 yielded only very little amounts of small finds. The assemblages of the 2017 season at the church of Abunä Gärima are exclusively of recent date. The only find material was found in the sub-recent graves and therefore has no relevance for the presentation of the Ethio-Sabaean cultural layer.[39]

39 The number of small finds from the 2019 season in Ziban Adi was also very low. Some obsidian chips as well as hammer and grinding stones were found in the upper debris layers of the trenches.[40] During the excavation in the debris westwards of the passageway wall in the entrance area, a copper alloy object was found. It is an elongated bronze bar, one of the short edges is broken and widens at the point of fracture, and the other short edge is rounded. The length of the bar is 6.5 cm, its width measures 2.1 cm and it is 0.55 cm thick. It is slightly bent and slightly plano-convex in cross-section, the surfaces are smooth and none of the edges are worked into a blade. Due to its proximity to the entrance it can be interpreted as door latch fragment and might therefore indicate the location of the entrance door (Find WUQ19_ZA1_2_3) (Fig. 16).[41]

38 Person. Comm. Schnelle; vgl. Schnelle 2013, 95–96; Schnelle 2019, 97–98. 109.

39 For ethical reasons regarding the local community, the discussion and pictorial representation of the grave goods is omitted.

40 Due to the fact that the surface of the hill was widely excavated at its topsoil in earlier field seasons, the mentioned finds most probably originate from backfilling soil, which deprives them of archaeological value.

41 Possible parallels are findings in the monumental building of Grat Beᶜal Gəbri in Yeḥa. During the old excavations under the direction of Anfray in 1997, bronze bands were uncovered in the area of a passageway. These bands were made of copper and were found forming a square shape. It is assumed that these copper bands had enclosed wooden beams that were attached to a door (Anfray 1997, Pl. VI). On the importance of bronze and copper in Ethio-Sabaean contexts, see Gerlach 2023, 26.

Fig. 16: Door latch found in Ziban Adi, Trench 1 (find WUQ19_ ZA1_2_3)

الشكل ١٦: مزلاج باب تم العثور عليه في زيبان أدي، السبر التنقيبي (WUQ19_ZA1_2_3) I

16

4.1 Pottery 2017

40 A total of 556 fragments of pottery have been studied from the excavations at Abunä Gärima in 2017 with varying numbers for each trench. The pottery seems to be basically sub-recent. No complete vessel has been found. Most of the sherds are heavily fragmented body sherds measuring less than 5 × 5 cm. They were counted according to fabric and drawings were made of the diagnostic sherds.

41 All pottery at Abunä Gärima was handmade. The majority was fired under a reducing atmosphere or has been regularly used on open fire so that it appears in grey to black colours. Some sherds have brownish colours, few are brickred to orange. Most of the pottery was tempered with white rectangular inclusions (lime), multicoloured sand and mica (silver and gold). Organic temper does not occur on a regular basis.[42] Very fine mica is often used with the wet finishing of the surfaces. This leaves a shiny, metal like appearance on the surface. The surfaces of some vessels are burnished and can be polished to seal the surface and give it a smooth feeling. Often this is found on the inside of vessels that are rough and untreated on the outside. Different patterns of decoration were incised into the wet clay before firing (cf. Fig. 19 a–b), only one potsherd had incisions that were made after firing. The decoration consists of horizontal and vertical lines or rounded notches.

42 A modest collection of sherds derived from Trench II (171 pieces). The percentage of the different vessel parts is more or less the same and no relevant variety was noticed. However, very few sherds might be dated to more ancient periods but those, too, come from disturbed contexts with mixed pottery. Just one context in Trench II revealed a tiny assemblage of three sherds that is significantly different from all others (Find# WUQ17_AGII_27) (Fig. 17) and can most likely be dated to the Ethio-Sabaean period.[43]

Fig. 17: Plain bowl (WUQ17_ AGII_27_1), Ethio-Sabaean

الشكل ١٧: طبق مسطّح إثيو-سبئي (WUQ17_AGII_27_1)

17

42 Many fragments of local and regional origin have previously been analysed: Daszkiewicz – Schneider – Bobryk in: Wolf – Nowotnick 2010a, 193–203.

43 One rim – the only diagnostic fragment from the assemblage – can be compared to Wolf – Nowotnick 2010a, 187, fig. 18i. The fabric, too, seems similar, cf. Fabric 06 below, but has a coarser temper. Cf. D'Andrea et al. 2023, 23, fig. 10d, type I.3 which are obviously made of a different fabric but share the same shape.

4.2 Pottery 2019

43 From Ziban Adi, almost 1,000 sherds have been studied in 2019. No complete or in situ vessels were found. As expected, most of the sherds were body fragments (923 pieces), but quite a number of rim fragments (64 pieces) was also present as well as three handles. Bases were hardly identified because most of the vessels had simple rounded bases that cannot be distinguished from body fragments.

44 The systematic description of fabrics that was introduced in 2017 was used in this study again. Fabrics 01, 02, and 04 are very similar to one another but the amount and size of temper increases. All have variants ranging from red to black. Micaceous temper and other minerals are also present in these fabrics whereas organic temper is only occasionally used and seems to be a marker of the more recent pottery. Fabrics 03 and 05 are tempered with lots of small to middle-sized lime particles whereas mica is not visible. A rather rough temper with grey stone grits is characteristic of Fabric 07. Body sherds of a very soft pinkish fabric and with very fine mica temper were assigned to Fabric 06 (Fig. 18)[44] and were also found in Yeḥa, for example. In all contexts Fabrics 01, 02, and 04 represent the largest amount of sherds, in total more than 90 % of the whole collection. It is very likely that this fabric-group is the locally made pottery[45] which uses similar clay sources and techniques from the ancient periods to modern times.

18

Fig. 18: Fine soft Fabric 06 (WUQ19_ZA2_8_K20)

الشكل ١٨: كِسرة فخارية ذات بنية ناعمة دقيقة 06 (WUQ19_ZA2_8_K20)

45 Most surfaces were carefully wet finished, sometimes leaving decorational traces (Fig. 19 a). Some fragments were nicely smoothed. Incised decoration is by far the most frequent, impressed, applied, and attached decorations are also identified although less common (Fig. 19 b).[46]

46 Almost all sherds found in Ziban Adi in 2019 can be connected to the destruction debris of the building. It is very probably that the pottery is not connected to the last phase of use of the building.[47] The sherds were spread in between the collapsed stones and no complete vessel was identified. There were fragments of typical pre-Aksumite bowls with incised decoration on the inner part of the vessel (notches, wavy, and zigzag lines) (Fig. 20).[48] This type of decoration is well represented among assemblages from "both central Tigray, in particular Aksum, from the fourth century BC until the first century AD, as well as in eastern Tigray, in the pre-Aksumite assemblages [... and] also appears among 'Ancient Ona' pottery."[49] Another easily recognizable ware is the so-called black-topped ware (Fig. 21) which is also characteristic of pre-Aksumite contexts.[50]

44 The fabric is similar to a jar Type 4100 found at Mäqabər Gaᶜəwa which is now on display in the Wuqro Museum (Wolf – Nowotnick 2010a, fig. 18e. 26). For a full discussion of this fabric cf. Porter in Wolf – Nowotnick 2010a, 203–208. Cf. Japp – Köster 2020, 353, Cat. no. Yeha 01.

45 The same is stated by Matthews – Büchner 2016, 20: „However, with the application of chemical analyses, we found that the clays used to produce this pottery all largely came from the local production area. Therefore, while the shapes and decorative styles of the pots were widely shared across the different regional polities, very few actual vessels were traded beyond their area of manufacture."

46 Wolf et al. 2015, 34, see also D'Andrea et al. 2023, 23–24, fig. 10k, type II.1.

47 No inventories of certain rooms were found during this field work. Previous excavations yielded an immense amount of finds that lack final publication until now. See Matthews – Büchner 2016, 20 for a short overview of the finds.

48 Benoist et al. 2021, 27–29 fig. 7:1. See also bowls in Wolf – Nowotnick 2010a, fig. 17 f–h; D'Andrea et al. 2008, 164, fig. 7b; D'Andrea et al. 2023, 22–23, fig. 10a–c, type I.2.

49 Benoist et al. 2020, 29.

50 For the occurance of black-topped ware in the first half of the 1st millennium BCE, cf. Köster 2021, 397 with further references. The fragment shown here is one of the „tulip-like beakers". Black-topped ware was scarcely found at Mäqabər Gaᶜəwa (Wolf – Nowotnick 2010a, 181); see also Japp – Köster 2020, Cat. nos. Yeha 58. 59. Cf. Benoist et al. 2020, 29: As the bowls with wavy lines, these can be found in pre-Aksumite contexts at many different sites.

19

Fig. 19: Different surface treatments (a: WUQ19_ZA2_8_K4 and b: WUQ19_ZA1_2_K5)

الشكل ١٩: زخارف سطحية متنوعة (a: WUQ19_ZA2_8_K4 و b: WUQ19_ZA1_2_K5)

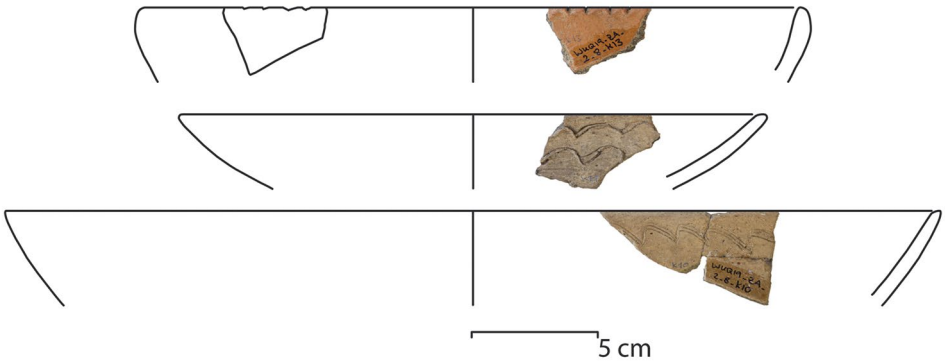


Fig. 20: Decorated bowls (WUQ19_ZA2_8_K13, K11 and K10)

الشكل ٢٠: أطباق مزخرفة (WUQ19_ZA2_8_K13, K11 و K10)

20

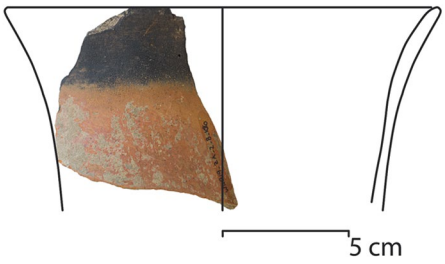


Fig. 21: Black-topped ware tulip-like beaker (WUQ19_ZA2_8_K16)

الشكل ٢١: كأس على شكل زهرة التوليب من نمط الشفة المطلية باللون بالأسود (WUQ19_ZA2_8_K16)

21

47 All identified fragments can be related to the pre-Aksumite period, presumably the first half or middle of the 1st millennium BCE. The pottery is very well comparable to the ceramics found in the Grat Beᶜal Gəbri in Yeḥa.[51]

51 Person. comm. Marlene Köster. Following Benoist et al. 2020, 32: "similarity between the pottery from Armengela and Mangagebit and other pre-Aksumite sites across the east, including Mezber and Ziban Adi, as well as 'Ancient Ona' sites, suggests cultural continuity throughout the pre-Aksumite period." The assemblage can also be paralleled by the pottery of the Middle Phase at Mezber, cf. D'Andrea et al. 2023, 25.

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ZUSAMMENFASSUNG

Bericht über die archäologischen Untersuchungen äthio-sabäischer Stätten nahe Wuqro (2017, 2019)

Kristina Pfeiffer, Hanna Hamel

Die archäologischen Forschungen wurden 2017–2019 in ʿAddi ʾAkawəḥ bei Wuqro/Tigray fortgeführt und erbrachten äthio-sabäische Gebäudereste unter der Kirche ʾAbunä Gärima. Wieder aufgenommene Arbeiten am exponierten Monumentalgebäude von Ziban Adi resultierten in neuen Ergebnissen zur Gebäudegröße.

SCHLAGWORTE

Äthiopien, Tigray, Äthio-Sabäisch, Abunä Gärima, Ziban Adi

الخلاصة

تقرير حول التحريات الأثرية في مواقع إثيو-سبئية بالقرب من وقرو (٢٠١٧، ٢٠١٩)

كريستينا بفايفر ـ هانّا هامل

استمرّت الأبحاث الأثرية في عدّي أكاوح بالقرب من وقرو/تيغراي في الفترة بين ٢٠١٧ و٢٠١٩، مما أسفر عن اكتشاف بقايا مبانٍ إثيو-سبئية (من القرن الثامن إلى السادس ق.م) تحت كنيسة أبونا غريما. واستُؤنفت الأعمال على البناء الأثري البارز في زيبان أدي، مما أسفر عن الحصول على نتائج جديدة تتعلق بحجم البناء.

الكلمات المفتاحية

إثيوبيا، تيغراي . إثيو-سبئي . أبونا غريما . زيبان أدي

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