

# The Aksumite site of Wakarida, in the region of Tigray, Ethiopia: first results of archaeological investigations



**Abstract:** The site of Wakarida is situated near the eastern edge of the Tigray plateau, dominating the Afar depression. The study of the site started with a short archaeological and geophysical survey in 2011. During the three campaigns of excavations between 2012 and 2014, carried out in two areas, archaeologists unearthed typically Aksumite buildings accompanied by abundant ceramic material, with a significant proportion of fine ceramics. The buildings have been dated between the 3rd and the 6th century AD, confirmed by  $^{14}\text{C}$  analyses. In several places, the remains of walls visible on the ground surface and the scattered pottery sherds testify to the existence of other ancient structures. The site of Wakarida, covering some 9 ha, was probably a small city or a village during the Aksumite period. A survey of the region has enabled a study of the landscape, mostly shaped by man, and has led to the discovery of other archaeological sites, two of which are comparable in size to Wakarida.

**Key words:** Aksumite civilization, Tigray, Ancient Ethiopia, archaeology, Ancient African civilizations, Red Sea

Until recently, archaeological research on the kingdom of Aksum and its urban settlements was focused on the capital and the two major towns, Matara and Adulis. Excavations and studies concentrated mainly on monumental architecture, while studies of vernacu-

Iwona Gajda<sup>1</sup>  
Julien Charbonnier<sup>2</sup>  
Xavier Peixoto<sup>3</sup>

<sup>1</sup> CNRS, UMR 8167 Orient et Méditerranée, Paris

<sup>2</sup> Archaïos, Paris

<sup>3</sup> INRAP, Paris

## Note

This article deals with the first results of our research carried out in 2012 and 2013, and then in part in 2014. Subsequent investigations were carried out after this initial phase.

## Team

*Directors:* Dr. Iwona Gajda and Dr. Fabienne Dugast, co-director between 2012 and 2014 (both CNRS, UMR 8167 Orient & Méditerranée, Paris)

*Local representative:* Ato Hailay Teklay (TCTA, Mekele)

*Archaeologists:* Dr. Julien Charbonnier (Archaïos, Paris; 2012–2014); Dr. Xavier Peixoto (INRAP; 2012–2013); Dr. Sabina Antonini (Perugia, Italy; 2012–2013)

*Ceramics expert:* Dr. Anne Benoist (UMR 5133 ArchéOrient/Université Lyon Lumière 2; 2012–2014); Dr. Vittoria Buffa (Rome; 2011)

*Documentalists:* Cécile Verdellet (Paris; 2012) and Vincent Bernard (Vinzieux; 2013)

*Specialists:* Dr. Olivier Barge and Emmanuelle Régagnon (cartography, GIS, UMR 5133 ArchéOrient/Université Lyon Lumière 2, 2012–2013); Prof. Yann Callot (geographer, geomorphologist, Université Lyon Lumière 2, 2013); Dr. Bruno Marcolongo (geographer, CNR, Padova, 2012); Xavier Crapery (topographer, Altea, Lyon, 2011–2013)

*Geophysicists:* Dr. Christian Camerlynck and Quentin Vitale (UMR 7619 Sisyphe–Université Paris 6, 2011)

*Epigraphers and historians:* Dr. Iwona Gajda (CNRS, UMR 8167 Orient & Méditerranée/Paris); Ato Yohannes Gebre Sellassie (PhD candidate, Université Paris I, 2011)

*Staff:* Ato Amare Setotaw, Ato Temachachew Fitur and Ato Simeneh Bacha (drivers); Ato Godana Yohannes and Ato Sisay Getatchew (logistics)

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lar architecture at Aksum did not start until 1994 (D.W. Phillipson et al. 1996; D.W. Phillipson 2000/II: 267–418).

Systematic surveys also concentrated on the regions close to the capital, in the area between Aksum and Yeha (Michels 2005; Fattovich et al. 2010). In the last decade, surveys have been undertaken in northeastern Tigray, in the region of Gulo Makeda and in western Tigray, in the Shire region (Finneran et al. 2005; D'Andrea et al. 2008; Harrower and D'Andrea 2014). Many sites have been discovered but have yet to be extensively excavated.

Our knowledge of urbanism in the kingdom of Aksum is thus limited to Aksum, Matara and Adulis. The impressive sites of Aksum and their spectacular monuments reflect the power of its kings and the prosperity of the kingdom: monumental stelae and tombs, large complexes of buildings identified as “palaces”, thrones and inscriptions. However, as the site is partly built over, extensive archaeological investigations have often been difficult and it is not easy to obtain a good understanding of the organization of the metropolis. As for the site of Matara, the excavations carried out over a large part of the site give some idea of an Aksumite town with its imposing complexes of

buildings, which could be palaces or mansions with outbuildings, and its churches. The organization of the town is, however, not really known. In the port of Adulis, excavations conducted in different places have revealed churches and large complexes of buildings (Paribeni 1907), and recently also small parts of domestic and craft districts (Zazzaro 2013; Zazzaro, Cocca, and Manzo 2014). Aksumite urban settlements other than this handful of major sites are barely known (for a preliminary inventory see Godet 1977). The smaller urban settlements are not known: either their appearance or organization, or how the common people lived. We do not know the territorial organization of the Aksumite kingdom or even its exact extent.

It would thus be interesting to investigate an Aksumite urban center distant from the capital, to study its chronology, organization, living conditions of its inhabitants, and its place in the local economy, as well as to understand the role it played in the kingdom of Aksum. For the organization of the region to be studied, researchers need the results of a systematic survey. The site of Wakarida was chosen because it conforms to the criteria of a research program of this kind.

## THE SITE

The archaeological site of Wakarida is situated in eastern Tigray, on the eastern edge of the highlands, 2342 m asl, about 70 km northeast of Wukro and 27 km east of Edaga Hamus (geographic coordinates: 14.2830° N, 39.7255° E). It lies in a remote valley, deep in the mountains, near passes leading east, towards

the Afar region and the Red Sea coast. It belongs to the administrative district Sa'esi'e Ts'ada Emba woreda, and to the ward (*kebele*) of Sewne [Fig. 1].

The site occupies a rocky outcrop, which overlooks a large valley surrounded by mountains. The valley, called May Ayni, is almost entirely cultivated

and the major part of the site is today covered by fields, with a few scattered farmhouses. According to archaeological evidence exposed or visible on the surface, the site was a built-up area of some 9 ha.

Fieldwork at the site of Wakarida and in its region is part of a French-Ethiopian project “Archaeological and epigraphic investigations in the Tigray region (1st millennium BC–7th century AD)”, initiated in 2010 by Iwona Gajda and Fabienne Dugast. The general aim of this project is to contribute to research on the formation, evolution and expansion of ancient Ethiopian states,

including transitions between different historical periods, relations between the capital and remote regions, and contacts between ancient Ethiopia and South Arabia and other countries situated along the Red Sea, the Mediterranean Basin and the Indian Ocean.

The site was recommended by Ato Kebede Amare Belay, General Manager of the Tigray Culture and Tourism Agency at Mekele. It was first visited in 1996 by Ato Habtamu Mekonnen and Ato Tekle Hagos (Mekonnen 2004: 76).

The project is financed by the French Ministry of Foreign Affairs, the UMR 8167 “Orient & Méditerranée” (CNRS,



Fig. 1. Map showing Wakarida and the main pre-Aksumite and Aksumite sites (Map O. Barge)

Paris) and the programme LABEX Res-Med. It is also integrated into the scientific programme of the French Centre for Ethiopian Studies (CFEE, Addis Ababa), providing administrative and logistic assistance. This research is actively encouraged by the Authority for Research and Conservation of Cultural Heritage (ARCCCH/Addis Ababa), the Tigray Culture and Tourism Agency (TCTA/Mekele and the Wukro Branch), and the local administration. Investigations are the result of a collaboration of specialists and besides archaeologists, the team included illustrators and topographers, geographers in charge of reconstructing past environments, geophysicists surveying the settlement, as well as epigraphers and historians. On site, our work was made possible by representatives of the local authorities and we were helped by drivers and cooks from the CFEE.

Field investigations are facilitated by the fact that a large part of the site of Wakarida is today uninhabited, if largely cultivated, with only a few modern farmhouses situated at the edge of the site. It is thus possible to plan the excavation of an almost entire settlement in order to try to determine its spatial organisation and the functions of the different structures.

Besides the excavation of Wakarida, a systematic survey of the surrounding region was conducted by Olivier Barge and Emmanuelle Régagnon all over May Ayni valley and in other neighbouring valleys. Its aim was to discover and register other settlements and to observe anthropogenic landscapes in this region.

This article presents the results of the excavation of the settlement of Waka-

rida, conducted between 2012 and 2014. The two main objectives of the excavation were:

**To understand the spatial organisation of an Aksumite site.** What can we say about Aksumite urbanism? Can we identify specialised areas inside the settlement (domestic, commercial, etc.)? How did the site develop spatially? Was it planned, perhaps by the Aksumite rulers or did it extend progressively in response to demographic and economic growth?

**To record the stratigraphy of the site and to reconstruct its chronology.** When did it start to develop and when was it abandoned? The excavation allowed the recording of stratigraphic sequences and collected pottery which could be used for dating other sites in the region, especially those identified during the survey of Wakarida's territory. The archaeological investigation of the site should provide sufficient material to establish chronological markers, especially in pottery typology, which are still lacking; covering the transition between the pre-Aksumite, Aksumite and post-Aksumite periods. Also, the study of material culture provides opportunities for estimating the date of the christianisation of the region (see Benoist, Bernard, and Verdallet 2020, in this volume).

Two excavation areas were opened in 2012: Area 1 on the northeastern edge of the site and Area 2 on top of a hill [Fig. 2]. They were investigated down to the bedrock and have revealed buildings and structures that can be dated to the Aksumite (classical Aksumite–late Aksumite, 3rd–7th centuries AD) and post-Aksumite periods.

## EXCAVATIONS AT WAKARIDA IN 2012 AND 2013

Two main periods of occupation (I and II) have been distinguished in Wakarida. Period I corresponds to the Middle and Late Aksumite period between the 3rd and the 7th century AD. A post-Aksumite reoccupation is attested in Area 2 (Period II). A sample of charcoal collected in hearth 1032, in locus 4, Structure E belonging to the end of Period I was radiocarbon-dated to between AD 350 and 537 (1625  $\pm$  30, cal. BP (Ly-16201).

### EXCAVATIONS IN AREA 1 (PERIOD I)

A massive and carefully built Aksum-

ite edifice (Building D) surrounded by a dense pattern of rooms and courtyards was excavated in Area 1 by Xavier Peixoto. Two major phases of occupation (Level 1 and Level 2), both dated from the Aksumite period (Period I), can be distinguished in this Area.

### 1. First occupation phase (Level 1)

Remains belonging to the first phase of occupation were reached in probes alone [Fig. 3], thus limiting knowledge of Level 1. No complete plan of any structure was obtained. In the present state of



Fig. 2. The site of Wakarida showing the two areas excavated in 2012 and 2013 (Plan X. Craperi)

research, Level 1 seems to have included two distinct parts: a large building to the east (Building F) and a settlement area to the northwest (Settlement Area G).

The existence of Building F is suggested by the discovery of a thick wall, M 1047, later covered by the west wall of Building D (Level 2) unearthed initially by local inhabitants. Building F seems to have been levelled during the next occupation phase, before the installation of Building D.

The settlement area extended to the northwest of Building F from which it was separated by a narrow space, maybe

a path or a street (locus 20). It included at least two rooms, loci 6 and 17, and a courtyard bordering them to the west (locus 18). The occupation floors of the two rooms, Loci 6 and 17, were not preserved: they seem to have been destroyed during later occupation. Locus 6 was accessible from locus 20 by a staircase (1063) leading to a doorway, which was blocked during the next stage. This staircase suggests that during the first occupation the floor inside the room was at a higher level than the one in the nearby path.

To the west, the courtyard (locus 18) included two successive layers: a floor of

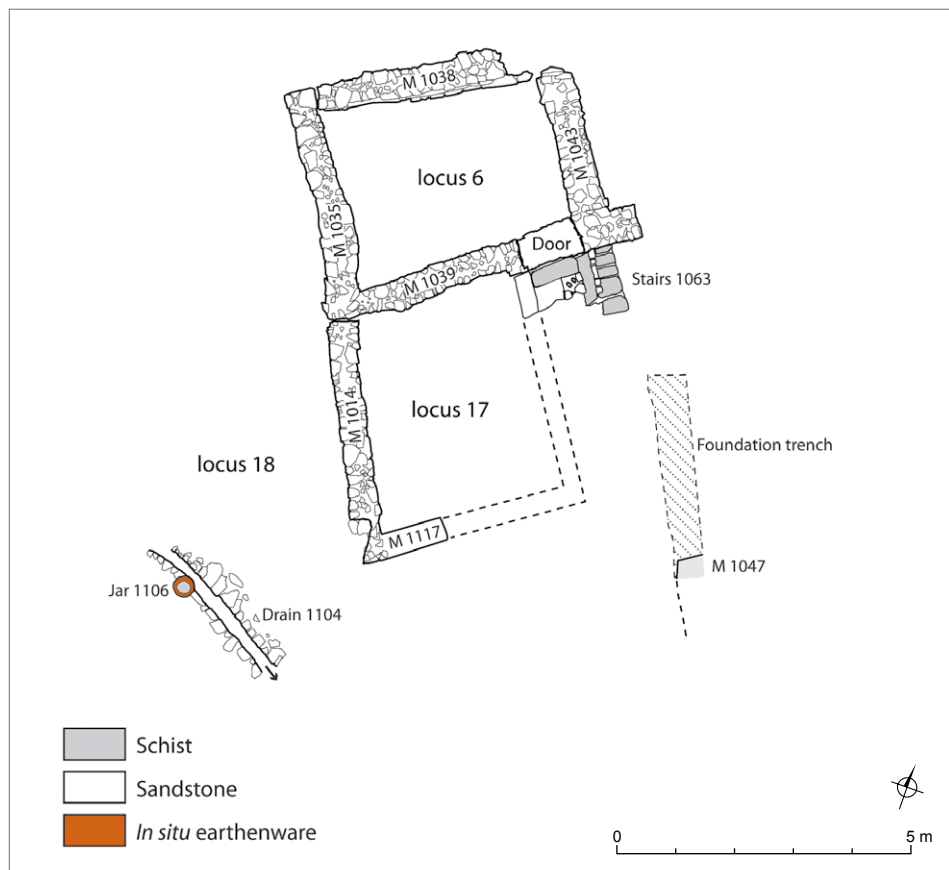


Fig. 3. Area 1: plan of the first occupation phase (Level 1) (Plan X. Peixoto)



small stones (1096 and 1098) later covered by windborne sediments (1088 and 1097). In the deeper layer, a stone-built drainage channel, dug into the floor, ran from the northwest to the southeast (1104). A storage jar (1106), covered by a circular stone lid of schist, was also buried in this layer [Fig. 4]. The limits of the courtyard to the north and south have not been revealed, but it seems to have formed a large space, of which some 60 m<sup>2</sup> have been unearthed.

## 2. Second occupation phase (Level 2)

During the second phase of occupation, Area 1 was occupied by a large and well-built structure to the east (Building D), and by a more irregularly shaped settlement area to the north and west (Settlement Area/Structure E), which were visibly connected [Fig. 6A–B].

### Building D (loci 7–10, 14, 16)

Rectangular in plan, the building meas-

ured 12 m by 9 m and included six rooms, four of which had been unearthed and partly rebuilt by local people before the present investigation of the site (loci 7, 8, 9, 10); so that their original floors were not preserved. Three of them had been totally emptied, the last one still had the remains of a rectangular pier located in the centre of the room (1.66 m by 1.40 m, height 1.35 m) that was first photographed in 1996 (Mekonnen 2004: 60–76) but has been seriously damaged since. This pier probably supported the upper floor of the room as well as the roof. The two last rooms were not damaged but they have yet to be fully excavated; only the outline of the walls has been traced so far.

The ground plan of Building D has recesses and projections, as it is often the case in other Aksumite buildings of higher status. The walls are made of roughly dressed masonry set without clear courses in a weak mud mortar with rubble infill. The outer walls are stepped and marked



Fig. 4. Area 1, Level 1: drainage channel and a storage jar (Photo X. Peixoto)



by string-courses of slabs of metamorphic limestone and blue-grey schist [Fig. 5]. The central rectangular pier, the remains of which survived in the centre of the locus 7, is consistent with examples from Aksum and Matara.

Building D could be entered through three doorways. The main access was in the east wall of the structure, leading to the corner room with a central pier (locus 7). Another entrance existed in the southern side, through a doorway leading into the central room (locus 10). A third small door was discovered in the axial room on the northern side of the building (locus 9).

A probe in the northeastern corner of Building D revealed the presence of another small room (locus 15), which was added to the building. It appeared to be a porch in front of the door giving access to Building D (locus 9). An intrusive tomb has prevented the excavation

of this room; the burial is not dated, but it certainly post-dates the second occupation phase and the abandonment of the building. The tomb, made of schist slabs, was built against the east wall of locus 15 (M 1110) but the silt covering contained no datable anthropogenic elements.

### **Structure E (dwelling and services)** (loci 1–6, 11–13, 15)

Structure E stands to the northwest and southwest of Building D and its layout and construction techniques are rough and less elaborate in comparison to it. The walls are less regular in that they are not always straight and do not always form right-angled corners. They are made also of roughly hewn stone set without clear courses in a weak mud mortar with a rubble fill.

These construction techniques are consistent with Late Aksumite masonry of “non-élite” structures excavated by



Fig. 5. Area 1: pathway (locus 1) between Building D (on the right) and Structure E; note the appearance of an outer wall, stepped and marked by string-courses of slabs of metamorphic limestone and blue-grey schist (Photo X. Peixoto)





ter was separated from Settlement Area E by an L-shaped path or alley (locus 1) that provided access to the courtyard, loci 19 and 6 (Structure E) and to Building D (locus 7). The pathway (locus 1) has, over a levelling backfill (1061), a sequence of light brown silty floors (1075, 1074, 1073, 1060), with two small hearths dug into the floor (1076, 1084).

During this second occupation phase, locus 6 was still in use. Its initial doorway was blocked and, inside the room, the previous levels were removed in order to install a cellar below the upper floor. From the latter, the cellar could have been accessed probably via a hatch. Seven jars were found buried in the floor of this space. To access the upper floor from outside, a new staircase was installed in the corner of locus 1. The upper floor itself was destroyed and it is only suggested by the projected height of the staircase leading up to the room.

A second storeroom, locus 12, was located to the north of locus 6 and five jars, with their schist lids, were found buried in the floor [Fig. 7]. Their contents will be sifted and sampled during the next season in order to recover plant and microfaunal remains or pollen.

During the second phase of occupation a new room, locus 5, with a floor of tamped earth and containing a grindstone and pottery vessels, was added to the west of locus 6. To the southeast, this room opened onto a large rectangular space (locus 19), probably a courtyard. A small fireplace bordered with stones was installed in this courtyard, on a floor of tamped earth (floor 1092). To the south, a wall separated locus 19 from locus 2, which has yet to be clearly defined as a room or an open space.

In a later stage (Level 2B), the courtyard (locus 19) was divided in two by a low wall (1093), defining two new spaces, loci 3 and 4 [see Fig. 6B]. Several



Fig. 7. Area 1: storeroom (locus 12) (Photo X. Peixoto)

facilities in locus 4 suggest cooking and food preparation: a hearth installed in a pit (1032) to the southeast, and two small structures bordered by vertical stone slabs (1042 and 1031) along the north-eastern wall but the function of these structures is not known. They could be a kind of trough. To the southeast, locus 3 yielded a concentration of pottery with several complete vessels, which may have been a dump. This small space might have been used as an outhouse associated with locus 4. Whether or not loci 3 and 4 were roofed is not yet clear and these spaces might have been a kitchen with its courtyard where food preparation took place.

Locus 2 has been partly excavated. This space had no constructed floor, the occupation level has very few anthropic traces (small potsherds) and might have been another courtyard or an enclosure for domestic animals.

Excavation south of Building D and Structure E uncovered another open space (locus 13), which had suffered significant erosion due to runoff. Buildings must have been few or absent from this flat area, since rainwater does not seem to have encountered any obstacle.

## **EXCAVATIONS IN AREA 2 (PERIODS I AND II)**

The excavations in Area 2 were supervised by Julien Charbonnier and Sabina Antonini. During the Aksumite period (Period I), Buildings A and B succeeded one another in this area, which is located at the top of the hill at Wakarida. The full excavation of Building A, which corresponds to Level 2, took place during the 2012 and 2013 campaigns. Some walls belonging to Building B (Level 1) started

to appear once the floors of Building A were removed, but too limited to be reasonably discussed here.

Building A never underwent any alterations and only a single occupation phase was recorded. A sample of charcoal, which was collected in a hearth located in room-locus 5, has been radiocarbon-dated to between AD 245 and 389 (1725  $\pm$  25 cal. BP (Ly-16201). The edifice was abandoned before its destruction, considering how relatively few objects were found in the occupation layers, and it shows no trace of violent destruction, but its ruins were reoccupied after its collapse, as shown by a squatter layer found on top (Level 3 – Period II).

### **Building A (Period I, Level 2)**

The walls of Building A were partly visible before excavation. They are preserved to a height of about 1 m to the west and south of the building, but have suffered from erosion to the east. The building is nearly square in plan and measures approximately 12.50 m by 13.50 m [Fig. 8]. The outer walls are characterised by recesses and projections, the latter being located at the corners, their external facing stepped.

Building A appears to have been built on a low platform, and floors and thresholds are located 10 cm to 70 cm above bedrock. Other Aksumite edifices generally exhibit stone-built foundations but they are usually higher. The low height of the platform of Building A results in fact from its location, at the top of the hill.

### **Main entrance and staircase**

The building could be accessed only from the northeastern façade via a 4.30 m long staircase that faced the settlement. The







while the southern and eastern parts of Building A were serviced by locus 6.

### Elevations and roofs

The walls of Building A are made of roughly shaped blocks, mainly of sandstone. Courses are not regular and are bonded with an earth-and-straw mortar. The outer walls measure from 0.72 m in width at their foot to 0.66 m at their top. Internal walls are about 0.62 m thick and are built on the sandstone bedrock. The lower parts of the walls were coated with lime.

Save for locus 6, all of the rooms had a slab of schist, 50–60 cm long, squarely in the centre of each room, flush with the floor. The slabs are placed on footings formed by subcircular stone piers lying on bedrock. Wooden posts, supporting the roof, used to stand on top of the slabs. The span of the beams between the walls and the central post was between 1.70 m and 2.00 m.

In every room, apart from locus 6, which is highly eroded, there was a 15 cm-to-40 cm thick layer of medium brown silt mixed with many small stones, located between the occupation and destruction layers. Modern houses in Tigray have a roof made of a similar layer of earth, resting on tree branches and supported by wooden beams. It is suggested, therefore, that Building A had such a flat roof composed of earth. The weight of these roofs explains the presence of a central post.

Locus 6 presents a foundation of large stone blocks, 40–50 cm in length, instead of the central post. The room was badly eroded making this arrangement difficult to interpret, but the foundation suggests

a heavy structure that was supported on it [Fig. 9]. Three slabs made of metamorphic limestone are located in the centre of the room, against the threshold of the door leading to locus 1. They seem to be the remnants of a wall and/or threshold that may have divided this locus into two halves. Francis Anfray noted the presence of similar foundations at the corners of some buildings in Matara and suggested that they had supported staircases (Anfray and Annequin 1965: 54). This interpretation appears very plausible in the context of Building A and the slabs located in the centre of the room could correspond to the first step of a staircase leading to the roof.

### Doors and wooden frames

With the exception of the entrance doorway, which was not preserved, and the doorway to the central room (locus 5), all of the doors were located in the corners of the rooms. Their width seems to have been about 1.45 m save for the door between loci 1 and 5, which was significantly wider (about 1.80 m). In all likelihood, the doors were mounted in wooden frames. Indeed, two horizontal wooden beams, one on each side of the wall, were located at the base of each door, some having been preserved by desiccation [Fig. 10]. Their length was about 2.00 m, apart from the one at the bottom of the door leading to locus 5 (on the side of locus 1), which stretched along the entire length of the wall (approximately 4.00 m). These beams were inserted into sockets delimited by dressed slabs of metamorphic limestone and schist, and the space between the beams was filled with small stones and earth mortar. Topping it was



Fig. 9. Basement of room-locus 6 (Building A) seen from the northeast; initially, the entire surface of the room was covered with stone blocks (J. Charbonnier)

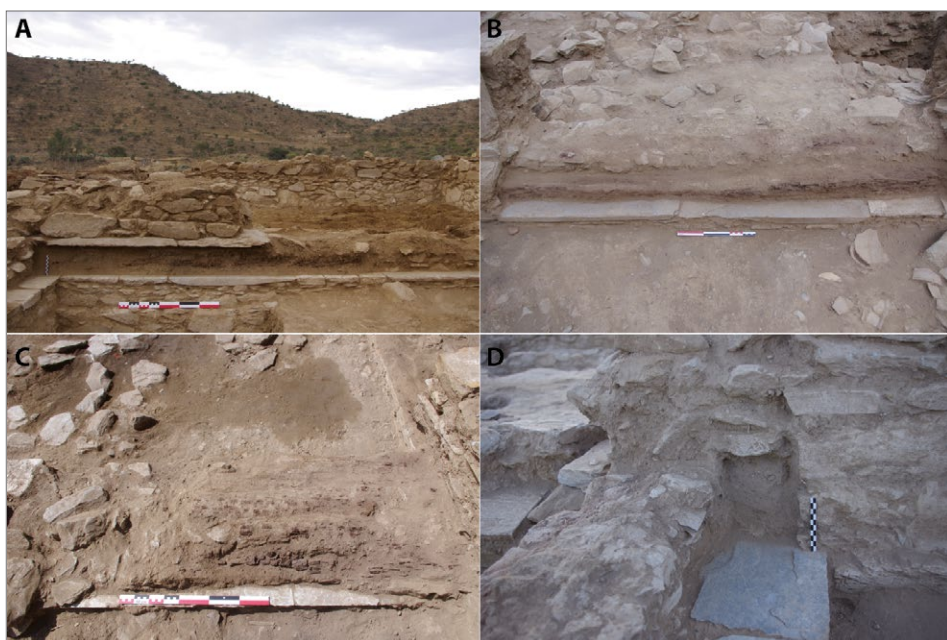


Fig. 10. Wooden beams preserved by desiccation: A – door in wall M 2018 seen from locus 1; B – door in wall M 2018 from locus 5; C – door in wall M 2010 from locus 8; D – socket for a beam in wall M 2004 from locus 3 (Photos J. Charbonnier)

the third wooden beam, constituting the threshold. This is clearly visible in the case of the doors between rooms-loci 7 and 8, where this beam was partly preserved. The thresholds were thus located 25 cm to 30 cm above the surface of the floors. Similar thresholds, built of wooden beams, can be seen on present-day houses in Tigray. This lends support to the idea that the door jambs of Building A were also made of wood, as is the case nowadays.

### Floors and structures

In every room floors were made of beaten earth on a foundation layer of silt and small stone blocks. The superimposed occupation layers were only a few centimetres thick. Relatively few sherds were collected from the floors, while several complete bowls and jugs were found at

the base of the destruction layer. This suggests that they were located on shelves or had been hanging from pegs on the walls.

The most frequent features either in or on the floors of Building A were fireplaces, recorded in seven of the rooms. Three types could be distinguished:

- small circular or oval hearths dug into the floor (loci 1 and 5: F 2053, F 2056 and F 2062), used probably to keep people and possibly food warm, as is the case nowadays also in Wakarida [Fig. 11:B].
- evidence of burning over a small area on some floors (loci 3, 4, 7 and 8), suggestive of temporary fireplaces. In room-locus 4, a 70 cm by 70 cm fireplace (F 2118) was located against the perimeter wall (M 2012) [Fig. 11:D]. Many burnt bones found in a thick layer of ash inside this fireplace suggest that it had been used for cooking. Similar fireplaces can

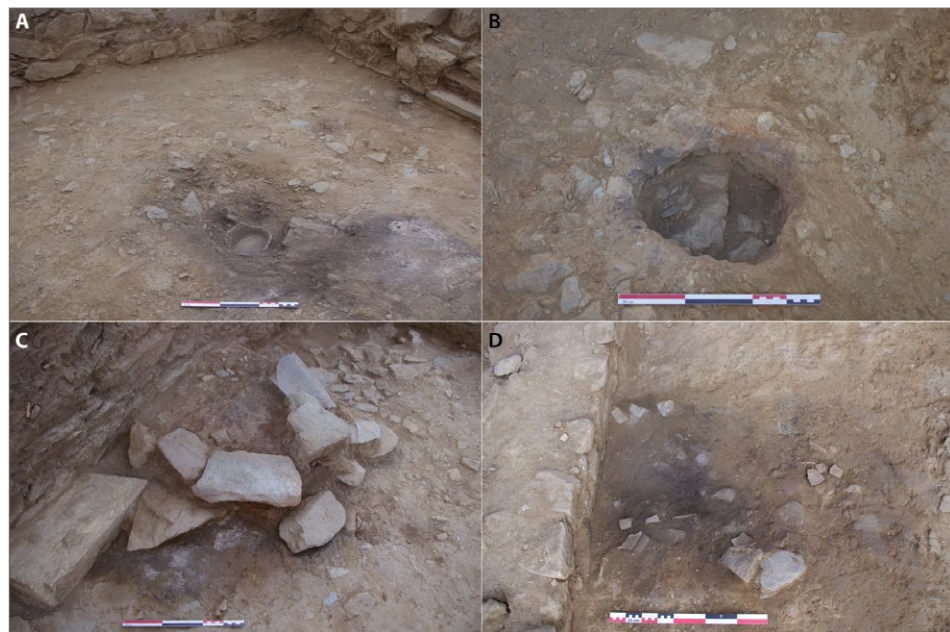


Fig. 11. Fireplaces in Building A: A – F 2052 (locus 5); B – F 2053 (locus 5); C – F 2099 (locus 9); D – F 2118 (locus 4) (Photos J. Charbonnier)



be seen in the kitchens of present-day Wakarida.

– two small hearths in room-locus 9, against wall 2011, built on top of small platforms of stone blocks (F 2099 and F 2105) [Fig. 11:C].

Other features included two low platforms located in room-locus 4. The first one (ST 2101) is semicircular and is built against M 2004. It is made of small blocks jointed without mortar and measures approximately 1.40 m by 0.80 m. The



Fig. 12. Trough ST 2102 seen from the northwest (top) and from above (Photo J. Charbonnier)

second one was also a semicircular pile of stone blocks, located at the corner of walls 2006 and 2007 (ST 2119). It measures about 1.20 m by 0.90 m.

In room-locus 3, a double trough made of six dressed stone slabs (ST 2102) was located against wall 2004 [Fig. 12]. A complete saddle quern was found in the eastern part and a shallow basin, dug into the floor of the room, occupied the western one.

Finally, a small enclosure (ST 2106), made of roughly stacked stone blocks, was built in the western corner of this room once a small hearth was abandoned.

It is clear that some of these structures (enclosure ST 2106 and platforms ST 2101 and ST 2119) were introduced over time because they were found lying on top of the occupation layer.

### Room function

The function of most of the rooms remains unknown and they may well never had well-demarcated functions. New light may be shed on the question by the results of an ongoing pottery analysis, which might reveal different distribution patterns for the coarse and fine wares or for vessel shapes. For the moment, we can suggest that locus 4 was used at some point as a kitchen. Many bones were found on the floor of this room in context with a large fireplace described above, which is similar to fireplaces in use today. Domestic tasks seem to have taken place in the adjacent room, locus 3, where a trough and a complete quern-stone were discovered. Room-locus 3 is therefore likely to have been devoted, at least to some extent,

to milling activities but the use of the small basin remains unclear as nothing was found inside it.

No storage vessels were found in the building but grain could have been stored in an annex. Aksumite edifices similar to Building A are indeed surrounded by annexes, generally disposed around a courtyard, and walls visible on the surface northwest of Building A (to be excavated in the future) could correspond to such structures. Some annexes could also have been located northeast of the building, in front of the staircase, an area that is currently cultivated.

Greater importance seems to have been attached to the central room (locus 5) as its door, wider than the others, is located on the axis of the building entrance. The assumption is that it was used as a reception area for guests, but whether in a professional or domestic capacity remains a matter of conjecture.

### Artifacts

A quantity of pottery, presented in a separate article (Benoist, Bernard, and Verdellet 2020, in this volume), numerous grindstones and other artifacts were recovered from the two sectors excavated at the site of Wakarida. Most of the artifacts are associated with household activities. The 163 objects collected in 2012 and 2013 comprise 85 grindstones (rectangular, sub-rectangular or oval with either a flat or a concave-convex profile), top stones (generally oval), hand stones (generally round in shape and biconvex in cross-section), pounding stones and pestles, polishers and whetstones. The materials include dense fine-

textured basalt, vascular basalt, quartzite and “granitic stones”.<sup>1</sup>

A few lithic artifacts were recovered from the excavations, including obsidian tools, such as scrapers, and manufacturing debris.<sup>2</sup>

The few metal objects comprise two iron utensils and three bronze (or copper alloy) objects: a bracelet, a small ring and a pair of earrings.

A number of beads of different shapes and materials were recovered from the site. The most common material is glass, mostly black, but also blue, green, yellow and red. The usual forms are disks, barrels and cylinders. Other beads include a truncated biconic carnelian bead, a spherical quartz bead and an elliptical glass mosaic bead with eye-spots. *Cypraea moneta* shells were also used as ornamental beads.

Anthropomorphic and zoomorphic terracotta figurines were found on the surface of the site and during the excavation. The zoomorphic clay fragments are small and not easily identifiable.

Among the anthropomorphic objects, a headless feminine figurine, with large breasts and folds of abdominal fat, resembles the one found at the Mai Adrasha site (Finneran et al. 2005: 21–22, Fig. 6). Another anthropomorphic terracotta figurine of a female head preserved to the base of the neck shows rather styl-

ized features. A series of etched dots decorates the chin and the base of the neck, possibly intended to represent a necklace.

A clay human figurine was found on the surface of the site [Fig. 13]. Oval and flat, it might have been an amulet hung from a string attached along a deep groove around the figure’s neck. The body features and other decorative or functional elements are marked by sharp incisions.

Last but not least, a feminine statuette in limestone, recovered from the excavation in Area 1, Building A, locus 6, recalls a statuette found at Matara in an Aksumite context [Fig. 14]. The figurine is 8.0 cm high and represents a standing naked woman with her right arm stretched out along her side and her left arm bent behind her back. The missing head was attached with a peg placed in a hole at the base of the neck. The jewellery—a necklace, bracelets and a belt—is carved in low relief.<sup>3</sup>

One coin of an anonymous king dated to the 4th century AD, which has been identified with king Ezana, came from excavations in Area 1, Structure E, locus 5, level 2. A few other coins were collected on the surface, including coins of an anonymous king dated to the 4th century AD, and a coin of king Yoël dated to the 6th century AD.

1 As Laurel Phillipson (2012) explains, the preference for a specific stone material depended on the type of grain that had to be ground into flour or paste.

2 These artefacts resemble some types dating to the Aksumite period described by Phillipson (2000; 2009). We are indebted to Prof. Francesco Fedele for his preliminary observations on the obsidian artifacts.

3 A similar statuette (height 7.0 cm), excavated in Matara (Eritrea), is dated to the 6th–8th centuries AD (Anfray 1968: Pl. 7, Fig. 13).





Fig. 13. Clay figurine found on the surface, front and back (Photo J. Charbonnier)



Fig. 14. Female statuette in limestone from Area 1, Building A, locus 6 (Photo J. Charbonnier)

## TENTATIVE INTERPRETATION OF BUILDINGS A AND D

The two main buildings excavated during the 2012 and 2013 campaigns in Wakarida, A and D, can both be dated to the Aksumite period and more precisely from the 3rd to the 7th centuries AD. This dating is supported by an analysis of architectural style, radiocarbon dating of hearths and a study of the ceramic assemblage (see Benoist, Bernard, and Verdelle 2020, in this volume).

Buildings A and D include features typical of Aksumite architecture. Their ground plan, square or rectangular, presenting recesses and projections, is similar to that of the central pavilions of the large complexes of Matara or Aksum, often called “palaces”. Other architectural features are also similar: the walls are made of roughly hewn stone set in random courses, bonded in a weak mud mortar. The outer walls are stepped and marked by string courses of slabs of metamorphic limestone or blue-grey schist. In Building A, similar finely cut stone blocks reinforce the corners. A stone pier, topped by a large slab of schist originally supporting a wooden post, was located in the centre of almost all the rooms of Building A, and this again recalls the edifices from other Aksumite sites. As is the case of other Aksumite buildings, the doors of Building A were probably hung from wooden frames. Wood has been used in association with stone since the pre-Aksumite period in Tigray (Gerlach 2013: 265–266). In the Aksumite and post-Aksumite periods,

it was mostly used for doorframes and posts, in roofs as it is still used today, and also in walls (Manzo 1997: 159; Anfray 2012: 15–16; Anfray and Godet 2012: 30–31).

Building A has a square ground plan, divided into nine rooms arranged three by three, very similar to the central buildings of complexes B and C at Matara (see Anfray and Annequin 1965: Pls XXIII, XXXIX; Anfray 2012: 20–23), Dongour palace (Anfray 2009: Fig. 1) or Ta'akha Maryam (D.W. Phillipson 1998: Fig. 34). A structure visible on the surface northwest from Building B, not yet excavated in 2013, might have been an annex of Building A, as it is very often the case for similar Aksumite edifices (D.W. Phillipson 1998: Fig. 34; Anfray 2009: Fig. 1; Anfray and Godet 2012: Pl. VIII).

Building D is rectangular in plan and divided into six rooms. The architecture of Building D presents features similar to the monumental architecture of the Aksumite buildings excavated at other sites,<sup>4</sup> but its dimensions are much smaller than those of most complexes (“palaces” or “mansions”). The associated Structure E included a courtyard, service rooms and storerooms. They might have formed utility rooms associated with Building D as was the case in Matara and Aksum. The closest parallel to Building D and Structure E is group (“tertre”) A of Matara, with three wings arranged around a central pavilion (Anfray 1963: 97, Pl. CXII).

4 For a description of features of Aksumite architecture see, for instance, Conti Rossini 1928: 229–232; Manzo 1997: 157–164; Anfray 2012: 15–16.

The functions of Wakarida's buildings are still uncertain. It seems that Buildings A and D were both residences of wealthy people, as suggested by their size and the quality of their masonry, as well as by comparison with other structures excavated in Ethiopia and Eritrea. Evidence for domestic activity found in the rooms of Building A tends to reinforce the idea that it was a residence rather than an official building. Its position on top of the hill of Wakarida, its monumental entrance facing the site and the quality of its architecture, characterised by the use of wooden beams, could indicate that its owner had a preeminent position within Wakarida's community. This, however, must remain an assumption. A larger part of the site will have to be excavated before this hypothesis is tested and accepted.

The architectural and material evidence from the site of Wakarida suggests

that this was a middle-sized settlement of Aksumite culture, perhaps a village or a small town. The buildings present architectural features similar to those of the manor houses (also called "élite" or middle-rank structures, D.W. Phillipson et al. 1996: 122–125, 142–143; D.W. Phillipson 2000: 273, 290, or "maisons de maître", Anfray 2012: 20) from the main Aksumite cities like Aksum and Matara, but their dimensions are smaller. The artifacts are similar to those known from other Aksumite sites, but there are also local types (see the artifacts and the pottery description, Benoist, Bernard, and Verdelle 2020, in this volume).

The spatial organization of this settlement has still to be understood. Two dwelling areas were excavated but workshops and markets as well as cultic places such as churches have still to be discovered.

## CONCLUSION

According to the preliminary results of the excavations at Wakarida, the site developed from the 3rd to the 7th century AD, that is, the Classical/Middle Aksumite period. There is no earlier evidence of occupation in that location and it is not yet certain when the first settlements appeared in Wakarida and in the surrounding region, in the 3rd–4th centuries AD or before, possibly simultaneously with Aksum or even earlier. Further investigations may bring a response and the survey conducted by Barge and Régagnon have enabled us to identify older sites. Some post-Aksumite layers have been identified in Area 2 at Wakarida and it will be interesting to date them more accurately in

order to precisely define the chronological boundaries of this period. The nature and spatial organisation of the post-Aksumite settlement would also have to be defined: was it a simple squat or a village?

During the Middle and Late Aksumite periods, Wakarida was clearly related to the Aksumite kingdom and must have had close ties with the capital, located some 100 km to the west. Although the site was situated far from the centre of the kingdom at the edge of the eastern highlands, its material culture presents typically Aksumite features such as the architecture of local buildings (plan, elevation and organisation), and the artifacts (see the pottery study, Benoist, Bernard, and Ver-

dellet 2020, in this volume). Wakarida thus seems to have been politically part of the Aksumite kingdom but the role it played is unknown. It could have been simply a local power centre, possibly subordinated to Aksum, or perhaps an outpost of the Aksumite kingdom in the eastern highlands, or a kind of relay station or checkpoint, even if it is not situated on the main commercial routes. Was the development of the ancient settlements in the May Ayni valley and surrounding valleys a result of political and economic expansion of the kingdom of Aksum or was it a more or less independent settlement which took advantage of the emergence of Aksum? These are questions for which answers will be sought in future seasons.

Archaeological surveys around the site have shown that Wakarida was not isolated during the Aksumite period. Several sites have been discovered in both the valleys, May Ayni and Ka'ebile, and some of these seem to have preceded the Wakarida settlement. Very much like Wakarida, the site SAZ-42 may have had a similar purpose, guarding Ka'ebile valley. Moreover, many ancient sites (mostly Aksumite) have recently been discovered during surveys organized by the TCTA in Mekele. A systematic survey conducted in the eastern highlands of Tigray, followed by investigation of chosen sites, will add to the present knowledge of economic, social and political aspects of the Aksumite kingdom.

#### Dr. Iwona Gajda

CNRS, UMR 8167 Orient et Méditerranée, Paris  
iwona.gajda@cnrs.fr

#### Julien Charbonnier

<https://orcid.org/0000-0003-3172-6237>  
Archaios, Paris  
julcharbonnier@gmail.com

#### Xavier Peixoto

INRAP, Paris  
xavier.peixoto@inrap.fr

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