

Recent archaeological discoveries in Natka-Bila'e, central Tigray, northern Ethiopia



Abstract: This study documents recent archaeological discoveries at the kebele of Natka-Bila'e, located in Laelay Maichew Woreda, approximately 12 km south of Aksum, northern Ethiopia. Despite its high archaeological potential, the area has remained largely unexplored. The primary aim of this study is to identify and document archaeological sites within Natka-Bila'e, analyze their functional histories, and establish tentative chronological frameworks. The research methodology included an integrated literature review, pedestrian surveys, and interviews with purposefully selected community members. The investigation uncovered a wide range of artifacts, including the remains of ruined structures, fired bricks, potsherds, grinding and polishing stones, obsidian tools, iron slag, and column bases. A qualitative approach was employed for data analysis, revealing that the most commonly encountered materials were potsherds, grinding stones, and structural remains – indicators of settlement sites. By correlating these findings with material from other well-dated archaeological contexts, the sites at Natka-Bila'e are tentatively dated to continuous occupation from the Early Aksumite through the Post-Aksumite periods. In conclusion, the study identified numerous previously undocumented sites in the Aksum region, revealing a dense settlement pattern that had not been recognized before. These findings underscore the need for further detailed, interdisciplinary investigations to fully understand the scope of human activity in this archaeologically rich area.

Keywords: Tigray, Natka-Bila'e, archaeological survey, iron slag

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INTRODUCTION

Archaeological studies have shown that the center of the earliest state in the northern Horn of Africa was located in what is now Tigray and Eritrea (Fattovich 2010). Continuous social, cultural, and economic interactions occurred in this region over several millennia (D'Andrea et al. 2008). The earliest archaeological evidence of complex societies in the Horn of Africa dates to the 2nd millennium BCE, during the Pre-Aksumite Period, which was later followed by the rise of the ancient Aksumite state in the early 1st millennium CE (D'Andrea et al. 2023). Accordingly, the Tigrean Plateau is the location of many significant sites of this early civilization (Munro-Hay 1991).

Aksum, located on the Tigrean Plateau (at approximately 2100 m a.s.l.) in the northwestern highlands of Ethiopia, emerged as a state in the late 1st millennium BCE (see Bard and Manzo 2025). Aksum's civilization has been known to outsiders since at least the 1st century CE, with the earliest written references appearing in texts such as the *Periplus of the Erythraean Sea*. This document mentions the Kingdom of Aksum, its capital, the trading port of Adulis, and details the diverse trade goods imported and exported, along with its trading partners (Munro-Hay 1991). This early dating is further supported by research of scholars such as Bard and Manzo (2025) and D.W. Phillipson (2012), who also argue for Aksum's appearance in texts from the first half of the 1st century CE. Benefiting from its strategic geographical position, Aksum became a major empire, leveraging key trade routes that connected it to regions

northward along the Nile and eastward to the Red Sea (Munro-Hay 1991; Severin, Rehren, and Schleicher 2011; Bard et al. 2014). Its advantageous location facilitated a period of prosperity during the 3rd and 4th centuries CE, when Aksum controlled extensive territories and became a dominant trading power. Although Aksum engaged in international trade as early as the 1st century CE, it reached its peak as a major empire—comparable to the contemporaneous Roman and Persian empires—by the 3rd century CE (Munro-Hay 1991; Severin, Rehren, and Schleicher 2011). As a result, Aksum is widely known for its monuments, including funerary stelae, palaces, and other remains dating from the 1st to the 7th centuries CE. While the historical and cultural significance of Aksum is increasingly recognized, many more residential and commercial sites of the Aksumite Empire remain unexplored, promising to reveal further crucial insights into this remarkable ancient civilization (Munro-Hay 1991; D.W. Phillipson 1998). The Aksum-Yeha region, despite its rich archaeological potential, has received limited focused study, resulting in inadequate coverage (Fattovich et al. 2000). Most earlier research concentrated on areas near the main road. However, a significant and recent archaeological study by Sernicola (2017) was conducted in Seglamen and its surrounding areas, eight km southwest of Aksum and away from the main road. While new research is emerging, the broader archaeological potential of Aksum and its environs remains largely unexplored.

The present study area, the *kebele* of Natka-Bila'e, located in Laelay Maichew Woreda, approximately 12 km south of Aksum, contains abundant archaeological remains. However, due to limited research and a general focus on central areas, Natka-Bila'e has remained largely unexplored.

Only a small number of archaeological studies have investigated iron production sites in northern Ethiopia, particularly around Aksum. As a result, evidence remains limited, and significant uncertainties persist regarding ancient iron-smelting practices in the region. Scholars such as D.W. Phillipson (1993; 2012) and Mapunda (1997) have highlighted this issue, noting that while metal artifacts are common, the specific workshops responsible for producing iron objects remain largely unidentified (Munro-Hay 1989; Mapunda 1997; D.W. Phillipson 1998; 2012).

Robion-Brunner, Belay, and Angesom (2022) point out that knowledge of the history of metals in the Horn of Africa is limited compared to other parts of the continent. However, the presence of Egyptian, Nubian, and Arabian artifacts in Ethiopia, as well as Southern Arabian metal plates discovered at Yeha, suggests notable trade activities dating back to the 1st millennium BCE. Recent analysis of iron ore and furnace walls found in

Aksum suggest dates between the 3rd and 4th centuries CE and demonstrate that independent metal production began in Ethiopia during the first half of the 1st millennium CE (Severin, Rehren, and Schleicher 2011; Robion-Brunner, Belay, and Angesom 2022). Despite this, the physical evidence of production remains limited. Nevertheless, the Aksumite civilization's use of metal for coinage and architectural purposes—such as clamps and dowels used to secure stone blocks—indicates a significant reliance on metal technologies (Robion-Brunner, Belay, and Angesom 2022).

Further archaeological surveys in eastern Tigray have produced more substantial evidence of iron production. Sites such as Gud-Bahri (Hiluf et al. 2020), Edaga-Hamus (Humphris 2017), and Hawzien (Hailay 2020), located over 100 km from Aksum, have yielded significant quantities of iron slag. These sites are believed to be linked to the carving of rock churches during the Late Aksumite Period (6th–9th centuries CE), a time when the civilization was in decline. This suggests that ironworking activities continued in the region beyond the core Aksumite urban center. Therefore, the preliminary study at Natka-Bila'e aims to contribute to our understanding of ancient iron production and to explore other archaeological sites within the selected area.

OBJECTIVE AND METHODS

The objectives of the present study are to explore and document the archaeological potential of the *kebele* of Natka-Bila'e and to reconstruct a tentative chronology of the sites.

To achieve these objectives, both published and unpublished materials were consulted. In addition, interviews were conducted with 60 local residents of Natka-Bila'e who are believed to have

knowledge of the ethnohistorical and environmental aspects of the study area. Furthermore, pedestrian surveys were carried out to identify, document, and map the archaeological potential of the sites.

The information collected through literature review, interviews, and pedestrian surveys was analyzed using a qualitative approach, which is instrumental in examining the material remains of

newly identified sites and establishing broader archaeological interpretations. Accordingly, detailed descriptions and documentation—in written form and on photographs—were compiled by the researcher. These findings were then compared with data from previously published archaeological studies in order to establish a tentative chronology for the sites under investigation.

DESCRIPTION OF THE STUDY AREA

Natka-Bila'e is located at GPS coordinates E 1,546,723; N 467,857 (UTM zone 36N), at an altitude ranging from 1900 to 2071 m a.s.l. Nearby archaeological sites include Seglamen to the southwest (L. Phillipson 2012), Debre-Qal to the north, and Medogue to the northeast.

Natka-Bila'e is situated at the southern fringe of the Aksum Plateau and is geographically connected to the Dereka area [Fig. 1]. The Dereka area, located within the Aksum Plateau, consists of Oligocene trap basalts and Mesozoic Adigrat Sandstone (Hagos et al. 2010;

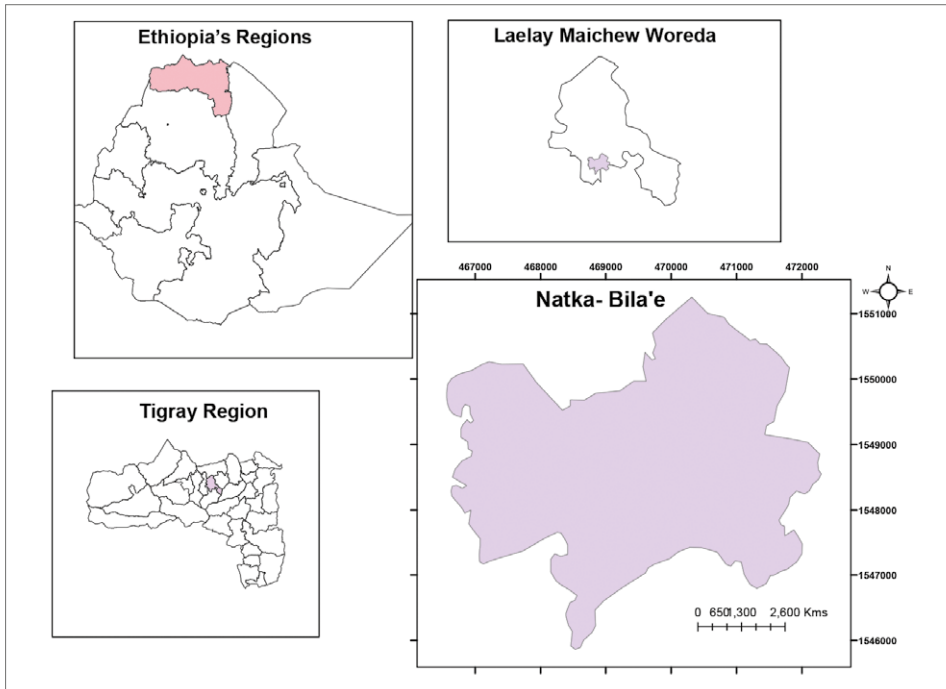


Fig. 1. Location of the study area (Aksum University | map S. Mekonen)

Hardt et al. 2023). Post-trap tectonic uplift in the region has caused extensive erosion of the flood basalts, producing numerous flat-topped mountains, locally known as *ambas*, as well as larger plateau complexes (Hardt et al. 2023). Similar to the Dereka area, the geomorphology of Natka-Bila'e is predominantly characterized by gentle slopes and flat-topped mountains. Colluvial processes—the gradual accumulation of weathered materials downslope due to gravitational forces—and alluvial processes resulting from flowing water appear to dominate the landscape, although further geologi-

cal investigation is needed to confirm this. The area features several valleys formed by water erosion, and the exposed walls of these gullies reveal variations in sediment grain size depending on elevation. As a result, alluvial plains have developed on the wide valley floors. Notably, northeast of the study area, the soil cover is shallow, frequently exposing the underlying bedrock. The area is rural and sparsely populated; the plateau is mainly used for arable farming, while the alluvial plains in the valley bottoms are reserved for grazing.

RESULTS AND DISCUSSION

The archaeological exploration conducted in Natka-Bila'e identified five archaeological sites, categorized based on the concentration of materials found, their locations, and local names, as described below.

TSELIM-BAYTA (TB-01)

The site is located within Natka-Bila'e, at GPS coordinates N 470,877; E 1,548,360, at an elevation of 1946 m a.s.l. It is situated on an uncultivated, gently sloping mound. According to local informants, the name



Fig. 2. Iron slag site at Tselim-Bayta (TB-01) (Photo B. Teklebrhan)

Tselim-Bayta is derived from two Tigrigna words: *tselim* meaning “black” and *bayta* meaning “place” or “spot”. The area is believed to have acquired this name due to the presence of numerous black-colored iron slag fragments. The mound, which measures roughly 70 m × 80 m, contains a high concentration of iron slag in various sizes [Figs 2, 3].

According to local oral traditions, the iron tools produced at the site were used for several purposes, including carving the monolithic stelae of Aksum, the stelae of the site itself (although no well-carved examples remain), and the column bases discovered at the site of Enda-Michael. The tool said to have been used for carving stone is referred to by locals as *Ebne Admas* (or *ibnā admas*). Elders in the area believe that this tool is buried somewhere in the vicinity, at an unknown depth, stating: “its apex is like a fire having a handle, and when you put it on the ground, it has a high capac-

ity to penetrate the ground”. However, the specific location of the buried tool is not known. Local mythology further claims that the people who carved the stelae placed their tools on large trees after completing their work to prevent them from touching the ground, as it was believed that contact with the earth would cause the tools to disappear into the ground. Hiluf Berhe (2015) also notes that *Ebne Admas* is an important object thought to have been used in the carving of Aksumite monuments and later buried in Aksum, although its exact location has never been discovered. He argues that no comparable tool has been identified to date.

Apart from a few small iron slag fragments found at Gobo-Dura (D.W. Philipson 1977) and Sib’at near Adwa (Tekle Hagos 2011), the locations of workshops that produced iron artifacts discovered at various Aksumite sites remain largely unidentified. This uncertainty raises the



Fig. 3. Samples of large-sized iron slag and iron ore from Tselim-Bayta (TB-01) (Photo B. Teklebrhan)

question of whether these iron objects were made locally or imported (Munro-Hay 1989; Mapunda 1997; D.W. Phillipson 1998; 2012). However, recent archaeological surveys have uncovered further evidence of iron slag at Gud-Bahri (Hiluf et al. 2020), eastern Tigray near Hawzien (Hailay 2020), and Sib'at (Tekle Hagos 2011). Notably, more substantial slag evidence was recently documented at Hadush-Adi, approximately 65 km east of Aksum (Teklebrhan, Amanuel, and Abrha 2024). Although this site still requires further study and dating to confirm whether it was active during the Aksumite period or later, the presence of slag at multiple sites supports the hypothesis that iron production in the region was likely local rather than imported. Nevertheless, further archaeometallurgical research is needed to confirm this. Most slag sites—except those at Hadush-Adi (as studied by Teklebrhan, Amanuel, and Abrha 2024) and Sib'at (as studied by Tekle Hagos 2011)—are concentrated in eastern Tigray near numerous rock-hewn churches dated mainly between the 6th and 9th centuries CE, especially in the Gera'alta-Hawzen region (Hagege 2000; Asrat 2002). These churches likely

required iron for carving tools and for producing structural components such as door hinges, clamps, and nails, as seen at the church of Abreha-We-Atsbeha. This suggests a continuation of local ironworking traditions that may have originated with the crafting of Aksumite stelae before the 4th century CE.

Therefore, the archaeological site of Tselim-Bayta (TB-01), located approximately 12 km south of Aksum, may provide valuable evidence of the ancient iron-smelting industry. This would help reduce current uncertainties surrounding the local production of iron objects. Based on comparisons with guide stelae dated to the late 2nd to early 3rd centuries CE (Ayele 1996), and in association with nearby sites, the site is tentatively dated to the 3rd century CE. However, scientific dating of slag samples—particularly radiocarbon dating of charcoal embedded within the slag—is needed to establish a more precise chronology.

TSELIM-BAYTA (TB-02)

The site is located approximately one kilometer west of the archaeological site of Tselim-Bayta (TB-01), with GPS coordinates N 470,688; E 1,548,431, at an eleva-



Fig. 4. Samples of sherds from Tselim-Bayta (TB-02) (Photos B. Teklebrhan)

tion of 1907 m a.s.l. The whole site covers an area of about 100 m × 70 m and lies within cultivated land in Natka-Bila'e. The site yielded both diagnostic (handle, rim, shoulder, and base) and non-diagnostic pottery sherds [Fig. 4], along with obsidian tools and a large number of rubble building stones. Sherds were found on the surface and within soil exposed by bulldozers to a depth of one meter, during recent road construction that cuts across the site in a west-east direction [Fig. 5]. A large concentration of pottery fragments, especially those with round-section vertical handles, was observed on the exposed surface of the site. The sherds display a range of colors. However, the most common types ex-



Fig. 5. Sherds exposed by bulldozer activity at Tselim-Bayta (TB-02) (Photo B. Teklebrhan)

hibit red (2.5YR5/8) coloring on both interior and exterior surfaces, as well as light reddish-brown (2.5YR7/4) on the interior and light red (2.5YR7/8) on the exterior. While most sherds appear undecorated, this may be due to abrasion. In addition, a large number of complete vessels were identified during the survey, showing a variety of colors, decorative styles, and forms.

The pottery from Tselim-Bayta (TB-02) is characterized by red fabric, circular handles, and generally rough internal and external surface treatments. These features are consistent with Red Aksumite wares, which are typically dated to the 2nd–5th centuries CE and are known for their moderately rough surfaces and circular handles (see Wilding 1989). A circular base, likely belonging to a jar, was also found, along with pierced long and thin handles thought to belong to high-necked jars. Similar jars with circular bases and tall necks have been recorded in both the Early Aksumite Phase (around 50 BCE–150 CE) and the Classic Aksumite Phase (around 150–400/450 CE) (see Fattovich 2010). Bard et al. (1997) and D.W. Phillipson (2000) have noted that the Classic Aksumite Phase is characterized by the presence of round basins with ledge rims and foot-rings, globular jars with high necks, and small bowls also featuring foot-rings and ledge rims, often decorated with vertical corrugations. Based on the typology of the potsherds, as well as the presence of complete bowls and basins, the archaeological site of Tselim-Bayta (TB-02) is tentatively dated to the Aksumite Period, likely ranging from the 1st to the 5th century CE.

ENDA-MICHAEL (EM-03)

The site is located in Natka-Bila'e, approximately 50 m southeast of the archaeological site of Tselim-Bayta (TB-01). Its GPS coordinates are N 470,819; E 1,548,315, at an elevation of 1929 m a.s.l. The site measures approximately 50 m × 50 m and is situated on cultivated land. According to local informants, a church known as Enda-Michael once stood at this location. It is said to have been built shortly after the introduction of Christianity to Aksum in the mid-4th century and later destroyed by Yodit (Gudit) in the 10th century. The name of the site is derived from this church, although the

precise dates of its construction and destruction remain unknown.

The site contains a large quantity of construction rubble stone, widely dispersed across the area. Notably, a linear foundation made of sandstone rubble is visible on the surface, measuring 0.10 m in height, 5 m in length, and 2 m in width. Additionally, a granite lower grinding stone was recorded, measuring 35 cm in length, 14 cm in thickness, and 18 cm in width. During the archaeological investigation, 12 column bases were also documented at nearby churches — Enda-Gabr, Enda-Megdelawit, Debre-Zeyti, and Enda Mariam-Refeda [Fig. 6]. Local informants



Fig. 6. Column bases collected from Enda-Michael and now found in neighboring churches (Photos B. Teklebrhan)

reported that these column bases were recently taken from the site of Enda-Michael. All interviewees recalled the removal of these elements from the site and their transportation to the neighboring churches. For instance, the column bases now located in the church of Enda-Gabr, approximately two km from the site, were reportedly moved there in 1976.

Furthermore, a stone bowl located in the church compound of Enda Mariam-Refeda, about four km west of the site, is also said to have been taken from Enda-Michael. This stone bowl, now repurposed as a baptismal font, rests on two column bases.

All the column bases taken from Enda-Michael and now found in the churches of Debre-Zeyti, Enda Mariam-Refeda, and Enda-Megdelawit share the same shape and dimensions as a column base from the Ta'akha Mariam palace in Aksum [Fig. 7], which is currently housed in the archaeological museum in Aksum. The Ta'akha Mariam palace has

been dated to the 5th–6th centuries CE, suggesting that the column bases from Enda-Michael may also belong to this period. The stone bowl from Enda-Michael also closely resembles another example discovered at the site of Sib'at by Tekle Hagos (2011), which is dated to the mid-5th to 7th centuries CE. Therefore, based on the typological and stylistic parallels of the column bases and the stone bowl, the archaeological site of Enda-Michael is tentatively dated to the Middle to Late Aksumite periods.

ENDA MARIAM-KELELA (EK-04)

The site is located in Natka-Bila'e, approximately four km west of the archaeological site of Tselim-Bayta (TB-01). Its GPS coordinates are N 469,308; E 1,548,040, at an elevation of 2071 m a.s.l. It is situated at the top of a gently sloping hill, accessible from the west. The site lies within cultivated land and extends over an area of approximately 500 m × 100 m. According to oral sources, the site once housed an an-



Fig. 7. Comparison of two column bases at Enda-Michael (left) with the Ta'akha Mariam column base in the Archaeological Museum of Aksum (right) (Photo B. Teklebrhan)

cient church called Enda Mariam-Kelela. Its name is said to derive from the belief that the church miraculously escaped destruction during the military campaign of

Ahmad ibn Ibrahim al-Ghazi. However, it was eventually abandoned, primarily due to its difficult access and remote location. As a result, a new church, Enda Mariam-



Fig. 8. Ruined structures and associated sherds at Enda Mariam-Kelela (Photos B. Teklebrhan)

Refeda, was established in 1705 at the base of the hill, approximately three km from the original site. Building materials from the ancient church were reportedly reused in the construction of the newer one.

The site contains archaeological evidence of an ancient settlement, including sherds, grinding stones, pounding stones, construction rubble, and the remains of circular structures. Both diagnostic (e.g. decorated body and handles) and non-diagnostic sherds were collected, displaying some variation in color. However, the majority exhibit dark gray (2.5Y4/1) on the interior and gray (2.5Y5/1) on the exterior, or reddish-gray (2.5YR6/1) on both surfaces. Most of the sherds have rough internal and external surfaces with inclusions of coarse-grained quartz and fine-grained mica.

The site features six circular ruined buildings within a larger circular compound measuring 25 m × 25 m. All the buildings have a similarly circular form, although their sizes vary. The smallest room measures 2.5 m × 2.5 m, while the largest is 5 m × 5 m. In some cases, sections of the walls survive with heights ranging from 0.10 m to 0.20 m [Fig. 8].

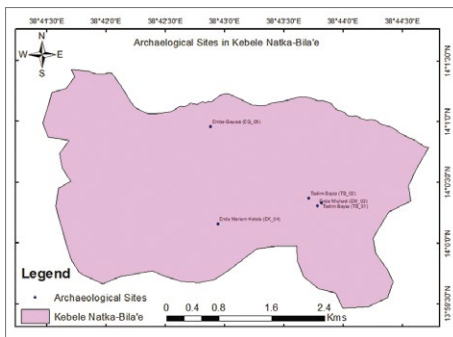


Fig. 9. Distribution of sites in the study area (Aksum University | map S. Mekonen)

The sherds documented at Enda Mariam-Kelela are primarily characterized by incised zigzag decorations on the necks and interconnected geometric patterns forming square motifs on the shoulders. These fragments appear to belong to medium-sized pots and bowls. The incised geometric decorations on the shoulders of necked spherical bowls are characteristic of Post-Aksumite ceramics (see Fattovich et al. 2000). Moreover, the dominant gray color of the ceramics corresponds to examples from the Aksum archaeological museum dated to the Late Aksumite Period. Therefore, based on the stylistic and compositional characteristics of the ceramic material, the site of Enda Mariam-Kelela was likely occupied from the Late Aksumite to the Post-Aksumite periods [Fig. 9].

EMBA-GUASOT (EG-05)

The site is located in Natka-Bila'e, approximately five km from the archaeological site of Tselim-Bayta (TB-01), with GPS coordinates of N 469,191; E 1,549,518, and at an altitude of 2030 m a.s.l. The entire site is situated on cultivated land, covering an area of about 40 m × 300 m.

The archaeological site of Emba-Guasot preserves a variety of artifacts, including grinding stones, stone slabs, fired bricks, sherds, and ruined structures covered with carefully arranged rubble stones. Among these, the fired bricks — categorized into rectangular and non-rectangular types— are the most prominent discoveries.

The rectangular fired bricks are meticulously crafted, measuring 20 cm in length, 10 cm in width, and 5 cm in thickness. The non-rectangular fired bricks vary in size,

with an average length of 15 cm, thickness of 3 cm, and widths ranging from 10 cm to 15 cm at different points. Several broken bricks display irregular shapes and sizes and are red in color. The rectangular bricks exhibit well-defined shapes and straight, smooth surfaces, suggesting they were purposefully fired for construction. In contrast, the non-rectangular fired bricks have rough surfaces and non-uniform edges. Aksumite sites are often characterized by the presence of fired bricks (D.W. Phillipson 1977; 1998; 2000; Tekle Hagos 1997; 2008). Major Aksumite sites with evidence of fired bricks include the Gudite Stele Field (Ayele 1996), the Dungur and Ta'akha Mariam palaces (D.W. Phillipson 1998), the Tomb of Brick Arches (D.W. Phillipson 2003), the Church of Arbaetu Ensessa (Tekle Hagos 2008) —all in Aksum— and Michael Sib'at in Adwa (Tekle Hagos 2011). Tekle Hagos (2008) notes that Aksumite fired bricks from the 7th century CE are characterized by non-uniform edges and rough surfaces. The non-rectangular bricks at Emba-Guasot reflect this description, while the well-shaped rectangular bricks resemble those from the Tomb of Brick Arches, dating to the 4th century CE (D.W. Phillipson 2000).

The sherds from the site exhibit a variety of colors, primarily reddish-gray (2.5YR6/2) on the interior, dark reddish-

gray (2.5YR4/1) on the exterior, and dark gray (2.5Y4/1) on both sides. In addition to the sherds, a complete jar has been documented; it is currently housed in the private residence of Ato Guesh. The jar stands 16 cm tall, has a diameter of 32 cm, and a mouth diameter of 5 cm. It is characterized by dark gray (2.5Y4/1) coloration on both interior and exterior surfaces. The jar features a long neck, a globular body, a round base, geometric dotted decorations, and a straight rim with a wall thickness of 2 cm. The sherds identified at Emba-Guasot are notable for their brown hues, which contrast with typical brown Aksumite wares dated to approximately the 5th century CE (see Wilding 1989). Furthermore, the dark gray jar —with its long neck, globular body, and round base— resembles the style of jars from the Late Aksumite Period (see Wilding 1989). Wilding also notes that gray and black Aksumite wares are typically adorned with pointed geometric patterns incised into their surfaces — a feature also present on the jar from Emba-Guasot. Therefore, it is likely that the site was occupied during the Middle to Late Aksumite periods. Based on the presence of fired bricks and associated potsherds, the site is tentatively dated to the Middle Aksumite Period, with continued use into the Late Aksumite Period.

CONCLUSION AND RECOMMENDATIONS

The preliminary archaeological exploration conducted in Natka-Bila'e identified five potential archaeological sites, categorized based on the concentration of materials, geographic location, and local names. The study resulted in numerous findings,

including ruined structures, fired bricks, sherds, grinding stones, obsidian tools, stone bowls and iron slag, and column bases. By correlating these findings with previously dated materials from other sites, the sites in the study area are tentatively dated

to between the Early and Post-Aksumite periods. Moreover, the diversity of finds — such as iron slags, column bases, stone slabs, fired bricks, stone slabs, sherds, and grinding stones— both across the sites and within individual sites, suggests the presence of communities with varied social roles, including ceramic producers, metalworkers, and food producers. The concentration of Aksumite-period settlements in the interconnected *kebele* of Debre-Qal, along with the similarity of material remains to those from other Aksumite sites, indicates that the study area was likely a major center within the Aksumite Empire.

The research team recommends conducting comprehensive, multidisciplinary scientific studies. These should include archaeological excavations, radiocarbon dating, archaeometallurgical analyses of slag and artifacts, and paleoenvironmental reconstruction through palynology and soil analysis. Additionally, the team suggests documenting local oral histories, raising public awareness about the cultural value of the sites, and implementing robust conservation measures to protect and preserve the archaeological remains within the selected area.

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