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Archaeological Rescue Excavations
at
Aksum 2005-2007

By:- Tekle Hagos

The Ethiopian Cultural Heritage Project

Addis Ababa

July 2008.

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Tekle Hagos

Part I

Archaeological Excavations at the Ezana Stone Thrones Site (Sado), Aksum, Ethiopia.

Abstract:

Archaeological excavations undertaken at the Ezana Stone Thrones Site (Sado) also known as Arbaetu Ensesa at Aksum, Ethiopia, in 2006 and 2007 show two phases of church construction. The earliest one is a three aisles rectangular Basilica late Aksumite church with a semi-circular construction apse sanctuary dating between the 6th and 7th centuries AD. The second phase of church appears to date at least to 19th century AD. A thick ash layer with burned bricks show that the Aksumite church was destroyed at about the 7th century AD when Aksum was at war with internal and external enemies.

The excavations also yielded a 7th century AD Aksumite coins, cross, glasses, pottery and an evidence of Aksumite glass industry together with four pieces of fragments of brick tuyer and unfinished glass fragment that was on the process of production. These were discovered in the deepest levels of the excavated trenches inside the vestibule of the Church of Arbaetu Ensesa.

Key words:
Tumulus, aisles, apses, plinth, tuyer, niche, inscriptions, pier, kiln, Basilica.

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Archaeological Excavations at the Ezana Stone Thrones Site (sado), Aksum, Ethiopia.

1.1. Location and Present Condition

The Ezana Stone Thrones site (Sado) has a total area of 9,750 square m. It is currently fenced by stonewalls, metal and barbed wires. It is situated in the archaeological core zone of Aksum (Fattovich.*et.al.*, 2000; de Villard, 1938). It is located in the Southern Eastern Stelae Field adjacent to the old Aksum market, Gangua Edaga, at the south eastern foot hill of Mai Qoho (2335 m high asl) to the east of Abraha and Atsbaha Elementary School. Furthermore, it is also located to the north west of the rock-cut shaft Tomb named after the legendary Aksumite King Bazen on the edge of the main road leading from Aksum to Aduwa. Moreover, such a site is also found in a parallel or opposite view from the Main Stelae Field and the Church of Mariam Tsion to the northwest. It is located at 1561393 northing and 047007 easting. The altitude of the same site varies from 2146 m above sea level (asl) in the lower terrace to 2459 m asl in the upper terraces.

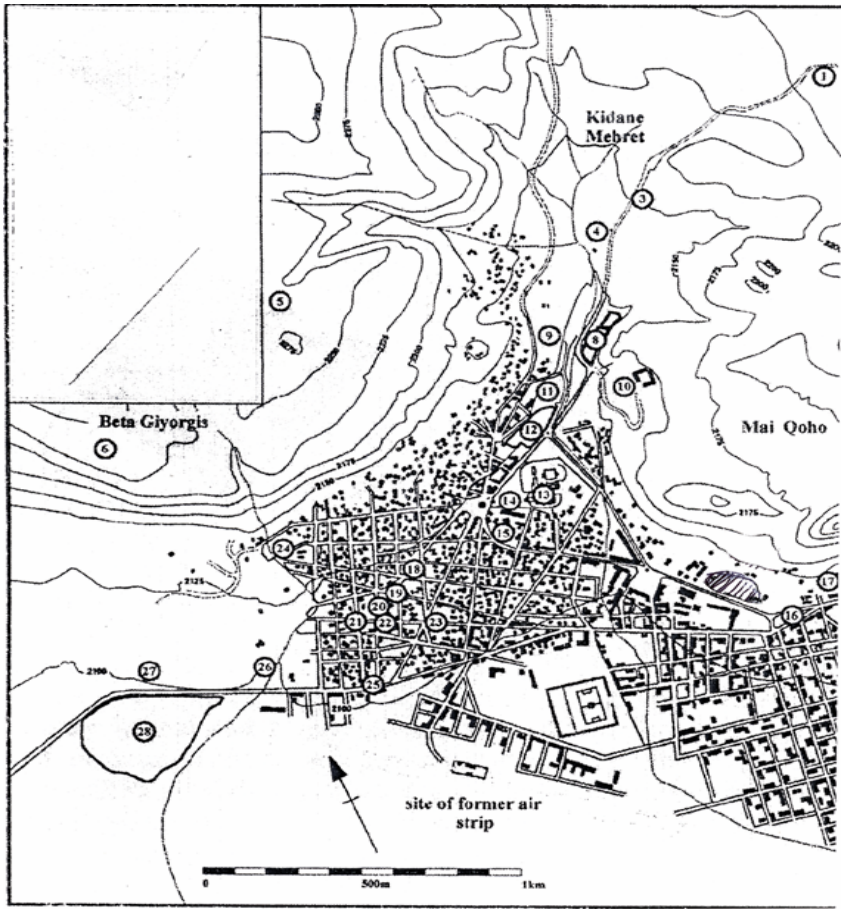


Fig 1. Map Showing the location of Ezana stone throne (after Phillipson 2000)

This site was plowed for many years. It was also a settlement area until very recent past. Cultivation activities in the same site were interrupted at least before ten years ago when metal and barbed wires fenced it by the local and Federal cultural authorities. The local people, particularly the schoolchildren used it as public toilet. Furthermore, grasses and bushes covered the same site. It was also used as grazing place of sheep and goat even after fencing before the excavations of 2006. It was thus not attractive and accessible for the public.

The surface of the site preserves local Akusmite and imported pottery. A large mound that appears to be an old structure is also found on the upper terrace of the site. The mound was disturbed by natural and cultural formation process exposing a section of an ancient wall that is 1.6 m thick. Therefore, for the reasons mentioned above the site was in a bad state of preservation and hence there was a need to rescue the visible structure before it was destroyed by cultural and natural formation processes.

There are also four stone thrones and remains of disturbed stone monuments between the lower and the upper terraces of the site. One of the thrones is complete with its base and throne but it is slightly displaced from its original position. The remaining stone thrones are either broken into two pieces or slightly moved from their original position by cultural activities and erosion. Furthermore, slope deposit that came from the Mai Qoho hill covered some of the stone thrones and their bases.

Therefore, the site was not accessible and attractive for visitors in particular and to the public in general. For similar reason, there was a need by the local population, regional and federal cultural authorities for proper management of the site to be used for sustainable economic benefits for the local population in particular and for the population of the country as a whole. Archaeological excavations and conservations were undertaken in the same site in 2006 and 2007 to address the need of the local people.

1.2. **Previous Researches undertaken at the Ezana Stone Thrones Site**

The site under discussion is variously known as *Me'eraf, Sado, Arbaetu Ensesa*, *Mebtak Fetli* and *Gangua Edaga* according to oral tradition and documentary sources (Rossini, 1907, 1910; Perruchon, 1893).

According to oral tradition, this site is named after *Me'eraf* who was one of the founders of the town of Aksum. It is believed that the same person used to live in this place and that this plot of land belonged to him. *Me'eraf* is located where archeological excavations were conducted in 2006 and 2007 according to the topographic map prepared in 1910 by the German Archaeological Mission (Rossini, 1907, 1910; de Villard, 1938).

The site is also known as *Sado* (Bent, 1896) at least since the beginning of the 4th century AD. The pre Christian inscription of an Aksumite King Ezana, which is currently placed at the nearby garden, was originally located in this site (Littman *et.al.*, 1913; Phillipson, 1997). In this pre-Christian inscription, the same king declares that he set up three statues, one of gold, one of silver and one of bronze at *Sado,* near the recently excavated Church of *Arbaetu Ensesa* for his father the creator, the war god, Mahrem (Sergew, 1972; Bent, 1896). Moreover, in this inscription, the same king declares that he also donated this plot of land (estate) for the same god (Bent, 1896; Sergew, 1972).

It appears that Ezana's *Sado* and the site excavated by this author in 2006 and 2007 are similar as this site preserves stone thrones and remains of throne bases with Geez inscriptions. For similar reasons the author designated the same site as Ezana Stone Thrones site.

The same site was known as *Mibtak Fetli* (cutting cord/thread) since medieval times according to some documentary sources of the 15th and 16th centuries AD. Such historical sources mention that this place was the eastern entry point for the Ethiopian medieval kings who used to go to Aksum for coronation ceremony. It was a starting place for coronation ceremony where the Ethiopian medieval kings used to cut the cord to enter to the town of Aksum to conduct the same ceremony. King Zara Yaqob (1434-1468) revived the ideological importance of this site by beginning his coronation ceremony in the same place (Finneran, 2007). Furthermore, the same ceremony of another medieval Ethiopian King Libine Dingle also started on *Hidar* 19 (November 28) on 1535 in a stone throne in the site under discussion (Perruchon, 1893). Moreover, King Sarsta Dingle who built his palace at Guzara, in what is now the northern Gondar administrative zone, entered Aksum on *Tir* 15 (January 22) on Saturday in 1579 to conduct coronation ceremony. He entered Aksum through the stone monument that contains Greek inscription in a place called *Mibtak Fetli* to the east of Aksum Tsion church (Rossinni, 1907, 1910; Perruchon, 1893; Munro-Hay, 1991). The chronicle of Emperor Sartse

Dingle describes the coronation ceremony of the same king in the site under discussion as follows.

> "Here the Abuna (bishop) and all the clergy were awaiting him (to Sartsa Dingle)…the grandees dismount and range themselves in two rows… leaving a wide path between which is covered with large, rich carpets. The Emperor too dismounts and walks over the carpets but is met and stopped by three maiden whom they call maidens of Zion".

The ceremony was followed by royal drum and musical chants of St.Yared of the 6th century AD (Munro-Hay, 1991).

Furthermore, the site was also named as the Church of *Arbaetu Ensesa* according to the Book of Aksum translated by Contini Rossini in 1910 indicating that the same church was located in the same place in antiquity (Littman, *et.al*., 1913; Rossini, 1910; de Villard, 1938). However, the same book also mentions that there was another church of *Arbaetu Ensesa* at Godif inside the enclosure of Church of Mariam Tsion. According to other legendary sources, Adyam Seged Eyassu who is the son and successor of King Fasiledes built such a church in the 17th century AD. It was said that such a church was destroyed in antiquity and rebuilt in the 1960's.

Moreover, the same Book mentions that another church of *Arbaetu Ensesa* was located in a place called *Me'eraf* between the legendary place names known as *Nafas* and *Akoro*. Furthermore, the topographic map of Aksum prepared in 1910 by the German researchers show that the recently excavated Church of *Arbaetu Ensesa* is found at *Sado* where the pre-Christian inscription of Ezana was originally located (Rossinni, 1910; De Villard, 1938).

Finally, this site is also called as *Gangua Edaga* showing that a market was located near or in the same site in recent past.

Chronicles and travelers have left general description of this site since the 15th century AD. Emmanuel Barradas reported that the stela that consists of the inscription of Ezana and the stone thrones in this site for the first time in 1624 (de Villlard, 1938). James Bruce reported 133 pedestals (bases) of stone thrones that consist of metalmarks. Bruce suggested that statues stood on top of these metalmarks of the pedestals (Bruce, 1790). Henry salt deciphered the inscription of Ezana in 1805. In the late nineteenth

century AD, J. Theodore Bent also documented inscription in the same site (Salt, 1814; Bent, 1896).

However, in spite of the above general remark, the Ezana Stone Thrones Site (*Sado*) has never been thoroughly studied by archaeologists. Only four archaeological research projects undertook modern archaeological survey and test excavations at the same site in the early and late twentieth century AD.



An Aksumite stone throne located at the foot hill of Mai Qoho

The German Archaeological Expedition (D.A.E.) led by Ettno Littman conducted the first modern systematic archaeological test excavations and survey from January 15-20 and February 5-7 in 1906. The team saw a small church named *Arbaetu Ensesa* (four beasts) in the site in 1906. The church that was used by nuns and women at that time was a *tukul* with one storey (*sekela*) covered by grass. The German researchers documented that the name of the same church originated from a previous church of *Arbaetu Ensesa*. Moreover, it was said that such a church seems to have been situated in the same site. For the same reason the site was called as *Arbaetu Ensesa* in 1906 (Littman *et.al*. 1913; Phillipson, 1997).

A total of six inscriptions were recorded in this site up to 1906: one monumental inscription of King Ezana, three inscriptions of Hatsani Daniel, the Sabean inscription of King Ala-Meda and the Geez inscription in the baptimisal stone located near the church of *Arbaetu Ensesa* (Littman *et.al*., 1913; Fattovich *et.al.*, 2000; Phillipson, 1998). Emmanuel Barradas, Salt, Bent, and Littman recorded such inscriptions in 1624, 1805, 1896 and 1906 AD, respectively. Particularly the monumental inscription of Ezana was known at least since medieval times (Rossinni, 1907). The Italians moved this inscription to its present location during the road construction in the Second World War (Phillipson, 1997). The stone monuments that consist of Sabean and Geez inscriptions mentioned above were transported to the Church of Mariam Tsion after 1906 (de Villard).

The German researchers from January 15-18 in 1906 recorded five Stone Thrones and designated them as Throne numbers 21, 22, 23, 24 and 25. Only four thrones and their bases are found in the site at present. The Italians moved throne number 25 and other throne bases to the Ezana Garden in the 1930's (Phillipson, 1997).

Littman and his team conducted archaeological test excavations at Stone Throne No.23 near the church of *Arbaetu Ensesa* for four days in 1906. Such excavations revealed and confirmed three Geez inscriptions in the base and Throne No. 23. The Germans confirmed through excavations that the same throne and its base were almost at about their original locations (Littman, *et.al,* 1913).

The three inscriptions were designated as inscriptions numbers 12, 13 and 14. Inscription Nos. 12 and 13 were found on the base of the throne that is broken in two pieces and placed upside down. The other inscription is found in the throne itself, which is slightly moved from its original location. The team copied these inscriptions and backfilled the trench. The Germans correctly reported that the inscriptions are badly preserved.

According to the same and present researchers, such inscriptions are not contemporary with the stone throne and its base. Vowels and dots that date later than the 4th century AD are some of the characters of the same inscriptions. They were inscribed by one of an Aksumite general who took power from the last Aksumite king in the beginning of post Aksumite period (Sergew, 1972; Phillipson, 1997, 1998; Littman *et.al.*, 1913). Littman's team also documented a tumulus near the original location of the

inscription of King Ezana in 1906 near the Church of *Arbaetu Ensesa* (Littman *et.al.*, 1913).

The second mission was an Italian archaeological Project led by Monnert de Villard, who came with the invading Italian army to Aksum, also recorded the same tumulus in 1937. However, the Italian invading army for the construction of a road leading from Aksum to Aduwa destroyed it in the same year (Fattovich *et.al.*, 2000). Monnert de Villard (1938) who prepared topographic map of Aksum and its surroundings speculated that such a structure might have been the tomb of King Ezana. Further archaeological excavations are required in the future to confirm such a proposition.

Furthermore, Monnert de villard also conducted archaeological survey at Gangua Edaga and its surroundings to facilitate the road construction for the transportation of the second largest stela from Aksum to Italy. Accordingly, he concluded that the significant archaeological remains in the site under discussion were destroyed in 1937.

The third mission that conducted survey in 1974 in this site was an American archaeological mission led by W. Michels from Pennsylvania State University. Michels published the details of his findings after 30 years in 2005. Michels documented cultural remains such as ruins of stone building (rubbles), shards, jasper artifacts, cut stone slabs, column supports, stone thrones bases, evidence of mounding and artificial terrace in the same site in the southeastern foot hill of Mai Qoho dating from the Damat culture (800-400 BC) to the post Aksumite periods (700-900) AD (Michels, 2005). At Gangua Edaga he recorded a middle pre-Aksumite site that he designated as 43-34-082. This site is now destroyed by modern construction activities.

Furthermore, Michels also quoted the report of the German researchers that there was a church of *Arbaetu Enesesa* at the southeastern side of the foot hill of Mai Qoho in 1906. He further reported that a ruin of square building measuring 30 m long and wide seem to have existed in antiquity at the Ezana Stone Thrones Site. However, the author does not yet locate the structure that he mentioned. It appears that further investigation is necessary to identify the same structure.

Finally, David Phillipson, the Cambridge based archaeologist conducted archaeological surveys in the same site in late 1990's to asses its condition and to evaluate the sketch plans of the Germans and the topographic map of Aksum including the site under discussion that was prepared by Monneret De Villard in 1938. Phillipson

confirmed that the Ezana inscription was originally located at the Ezana site near the church of *Arbaetu Ensesa* and that the Italians moved it to its present location in the 1930's. Phillipson also reported that Throne Number 24 was moved from the Ezana Stone Thrones site to the Ezana Garden by the then invading Italian army (Phillipson, 1997).

The preceding section has outlined an introductory background on the location, description and history of research on the Ezana Stone Thrones site to prepare the agenda for the presentation of archaeological excavations and discoveries of 2006 and 2007 in the same site.

2 Archaeological Excavations and Presentations in 2006 and 2007.

The Ethiopian Cultural Heritage Project Aksum Site Planning and Conservation sub-component under the direction of the author conducted archaeological excavations at the Ezana Stone Thrones site (Sado). The excavations were undertaken for two field seasons in February-March 2006 and February - March 2007. This site is found opposite to the Abreha and Atsebeha Elementary School at eastern Aksum to the north of the main road leading to Aduwa along the foot of hill of Mai Qoho as discussed above.

2.1. Objective of the 2006 and 2007 excavations

The objectives of the excavations of 2006 and 2007 conducted at the Ezana Stone Thrones site (Sado) at Gangua Edaga were

1. To determine and identify the significance of the archaeological ruin located in the upper terrace that was exposed on the southern section of the terrace, about 1.6 m thick.
2. To establish the relationship between the Ezana Stone Thrones and the same archaeological ruin and the Ezana inscription.
3. To justify the proposal of the Aksum Site Planning and Conservation sub-component of the Ethiopian Cultural Heritage Project of stonewalls fencing of the site.
4. To protect the site from further cultural and natural formation processes
5. To make the site accessible to local and international visitors.
6. To address the demand of the local people to protect and upgrade the archaeological site and its ruins.
7. To train Ethiopian scholars (both regional and federal ones) on techniques of archaeological excavations, making profile and planning of archaeological finds,

profile reading and interpretations, documentation of archaeological finds and theodolite reading, drawings of archaeological finds and GPS reading.

2.2. Planning and organizations of the Archaeological Project

The Archaeological Excavations Project of the Ezana Stone Thrones Site was part of the Aksum Site Planning and Conservation sub components of the Ethiopian Cultural Heritage Project that was financed by World Bank loan known as Learning and Innovation Lone (LIL). An Italian company, Hydea, which won the international bid for the Site Planning and Conservation and the Inventory and Documentation sub-components, conducted the excavation on behalf of the Ethiopian Cultural Heritage Project. The Ethiopian Cultural Heritage Project of the Federal Democratic Republic of Ethiopia covered all financial and logistic expenses for the excavations for two field seasons in 2006 and 2007.

The archaeological excavations undertaken in 2006 and 2007 at the Ezana Stone Thrones Site at Gangua Edaga was directed by the head department of Cultural Inventory and Inspection in the Authority for Research and Conservation of Cultural Heritage of the Federal Democratic Republic of Ethiopia under a contract employment of an Italian private Company Hydea.

Eleven cultural experts from Aksum municipality, Tigray Tourism and Culture Commission, Amhara Culture and Tourism Bureau, Dilla University and the Authority for Research and Conservation of Cultural Heritage participated in the archaeological excavations project from 2006 to 2007. All of them were assigned to different tasks such as supervision; documentation of finds and planning that were indispensable to the success of the project. Particularly, Ato Yonas Kenea from the Authority for Research and Conservation of Cultural Heritage carefully prepared the plans, sections and drawings of pottery, lithics, glasses and metals while Selamawit Gidey from the Aksum municipality prepared topographic map of the site.

A maximum number of thirty daily laborers were employed in the excavations in every field season. Five of them were trained as amateur excavators to conduct test excavations at Aksum archaeological sites under the supervision of Tigray Tourism and Culture Commission to facilitate development plans in the same town.

2.3. Methodology

The archaeological excavations undertaken from February 6, 2006 to March 18, 2006 and from February 27, 2007 to March 18, 2007 at the Ezana Stone Thrones Site employed the following techniques.

The site under discussion was designated as Ezana Stone Thrones for reasons that were discussed in under the title of previous researches undertaken in the Ezana Stone Thrones site. The term EST was used as an arbitrated form of Ezana Stone Thrones site. Therefore, all excavated trenches were designated as EST. Furthermore; all excavated trenches were recorded as Ax2007 EST 1 where Ax, 2007, EST, 1 refers to Aksum, year of excavations, Ezana Stone Thrones and the name of the trench, respectively.

The archaeological team used picks, shovels, spades, trowels, brushes and theodolite for the excavations and recording at the Ezana Stone Thrones Site.

Initially, test trenches were opened to uncover significant archeological structures. The trenches were extended according to the nature of finds or new ones were opened according to noticeable areas of interest. In other words, all excavated trenches were opened following features that were uncovered on the courses of the excavations. Therefore, the 2006 and 2007 excavations at the Ezana Stone Thrones were dictated by the discovery of archaeological structures, features and the topography of the site. For the same reason, the positions of the trenches were not dictated by grid system.

All theodolite measurements for documenting elevations of features and structures were taken from a benchmark that is located at 1561381 northing 0470064 easting and 2153 m above sea level. Furthermore, the modern surface level was also taken as benchmark to measure the depths of excavated features and structures.

Plans of excavated structures were carefully made through theodolite measurement in 1:20 scales. Detail plans and sections were made in 1:100 and 1:20 scales. Moreover, finds were documented in color and digital photographs and slide films. A topographic map of the site was also prepared in 1:20 scale. Furthermore, excavated structures were reconstructed in 1:100 scales. Finally, the most important archaeological artifacts discovered on the courses of excavations were photographed and drawn in 1:1 scale.

A sample of stratigraphic section was left unexcavated in the central aisle of the church to show its historical evidence. Furthermore, a large number of burned bricks were also left unexcavated in the northern aisle to show how the church of *Arbaetu*

Ensesa was destroyed in antiquity. A large pottery was also left *insitu* to be exhibited in the uncovered underground treasury room of the church.

No destructions of structures were undertaken on the course of the excavations. The two phases of church constructions were left *insitu*. Only, soil deposits and rubble fills from collapsed structures were removed from the site on the course of the excavations. The two phases of construction of the Church of *Arbaetu Ensesa* and other related structures were left undisturbed in their original positions to show continuity in history. Walls of the excavated structures were un-cleaned from mud or soil to protect future damages coming from natural and cultural formation process.

All excavations were undertaken in every 0.15 m spits. The vertical and horizontal excavations were also related to soil types or stratigraphic units. Separate plastic bags were used to collect pottery, glass, bones, metals, stone tools and grinding stones at the intervals of every 0.15 m depth. Excavated pottery was washed on the site. Rims, bases, necks, decorated shards; handles etc were selected on the site.

The chronology for the excavated structure was determined by pottery and cross typology and coins excavated in the deepest trenches in the same site. Imported pottery excavated in 2006 and 2007 in the deepest trenches were also used for dating the excavated structure. Architecture or building style or plan of the excavated structure was also used for age determination.

3. The excavations and restorations of the stone thrones in 2006 and 2007

3 .1. Restorations and excavations at the stone thrones.

3.1.1. Restoration and Documentation

Five stone thrones and other stone monuments were recorded in 1906 by the D.A.E at the Ezana Stone Thrones Site as mentioned above. In addition to these, there are two remains of stone monuments at the lower terrace in the western side of the same site near the edge of the road leading to the Church of Aksum Tsion.

The first remain of stone monument from the west is found at 1561577 northing, 470185 easting and at an altitude of 2148 m above sea level. The second one to the east of the first monument is located at 1561568 northing, 470208 easting and at an elevation of 2148 m above sea level. Both of them are displaced from their original position and seem to have been remains of significant archaeological structures in antiquity.

Only four stone thrones are found around their original positions at the Ezana Stone Throne Sites at present.

Stone throne No. 22 is found between the upper and lower terraces near the former foot track that used to pass through the middle of the site to Mai Qoho hill. It is located at 1561577 northing, 470206 easting and at an altitude of 2150 m above sea level. It is a complete monument with its base and throne. It is slightly displaced. It was cleaned and raised to a horizontal level with stone base support in 2006. The road to the hill of Mai Qoho is closed and its eroded surface was refilled and leveled to make the site clean and attractive for visitors.

The second stone throne, No. 21 is found at 1561558 northing, 470217 easting and at an altitude of 2152 m high above sea level in the lower terrace of the site near the main road leading to the church of Aksum Tsion. It is partially buried and displaced. Three fragments of the same throne that may have been supporting pillars are found displaced beside it. The seat of this throne was taken to the Ezana Garden. It is used as a base of a stela at present in the Ezana Garden (Phillipson, 1997). Its base and pillars were cleaned and raised to a horizontal level, with stone base support in 2006 by the author to make it attractive for visitors and to protect it from destruction coming from natural formation processes.

The third throne is No. 24. It is not clear when this throne was disappeared. This throne was not present When Monnarrate de Villard surveyed the site in 1937 (Monnnarret de Villard, 1938). There are no visible remains of the same throne and its bases in its original location at present. It seems appropriate to conduct test excavations in the site to determine the original location of the same in the future.

The last throne, which is still found in the same site, is throne No. 25. It is found in a raised topography near a house partially covered by vegetation at 1561535 northing, 470265 easting and at an altitude of 2153 m above sea level. Its base seems to have been deliberately broken into two pieces that are found far apart from each other. Its throne is not found. It seems to have been moved to the Ezana Garden in the 1930's by the Italian invading army. Its broken base was restored in 2006 by joining the two pieces together and supported with stone base to make it more attractive and to protect it from destructions coming from cultural activities.



Conservation work of stone throne at the foot hill of Mai Qoho

3.1.2. Excavations at Throne 23.

Throne No. 23 is found at 1561534 northing, 470223 easting and at an elevation of 2153 m above sea level to the north of the lower terrace and to the east of the upper terrace of the same site. There were reports by the local people that this throne contain inscription. For the same reason the Aksum Tourism and Culture Office requested the author to conduct test excavations in the original location of the same throne to confirm the presence of the reported inscription.

Accordingly, a single trench, designated as EST 5 was opened on February 2006 to uncover the inscriptions in the same throne and its base. The trench measured 2 m by 4 m. It was excavated up to the depth of 0.90 m below modern ground surface level. Archaeological excavations conducted by the author in the same throne showed that the local communities dug it in recent times. Moreover, the excavations carried out in the same throne in 2006 confirmed that a modern slope deposit that is 0.90 m thick covered Throne Number 23 and its bases. This throne is 0.95 m long and 0.75 m wide. It was

found slightly displace from its base on the western side facing to the same direction. On its top, it was inscribed in Geez language.

At the end of the excavations the two base split of the throne were completely exposed. The base of the throne was sunk in the ground and supported by a granite slab that is 1.75 m long, 0.50 m wide and 0.24 m high. The base measures 2.20 m by 2.20 m. It appears that a statue was placed in the same throne. Remain of a statue leg found in the base of the throne measures 0.25 m high and 0.10 m wide. The two splits of the throne base revealed two Geez inscriptions written in vowels, dots and consonants.

It appears that the base of Throne 23 may have been deliberately broken into two; turned up side down and its seat displaced in antiquity by opposition forces of the last Aksumite king. The throne appears to have been deliberately broken in antiquity to indicate that it ceased its original function. In other words, it may indicate shift of power from an Aksumite king to an Aksumite general.

The base and the seat (throne) are made from separate stones. The base and the seat of the throne have three Geez inscriptions discovered in 1906 by Littman as discussed above. The same researcher recorded them as inscriptions numbers 12, 13 and 14 (Littman *et.al.*, 1913).

Inscriptions numbers 12 and 13 were partially buried and were not known to the public while the other was completely buried in the ground. The first two inscriptions were inscribed on the base of the throne number 23 that is broken into two. Both splits have the inscriptions of an Aksumite warlord known as *Hatsani* Daniel. In both inscriptions, *Hatsani* Daniel mentions about the revolt and his conquest of the Welkite and Kassala populations. The same seat has also an inscription of the same person. In the last inscription that is inscribed in the throne, *Hatsani* Daniel declares that he deposed the last Aksumite king and made himself the supreme leader.

Mr. Jhon Dexeter from The GTZ, The German technical cooperation in Ethiopia, kindly translated the German texts of these three inscriptions into English in 2006. Ato Alemu Haile from The Authority for Research and Conservation of Cultural Heritage translated the inscription from Geez to Amharic langauge in the same year to examine the content of both texts. The Amharic and German texts were compared and have no consistency in meanings. Furthermore, the public has never known the significance and content of the inscriptions of *Hatsani* Daniel. It seems that the Amharic language

translation is more precise than the German text. The author translated the Amharic text into English as follows.

3.1.2.1. Inscription No. 12.

This inscription is not complete. It is difficult to decipher the whole text. At present, we cannot read the whole inscription and the text that was copied by the Germans in 1906 is used for the following translation. It was translated to Amharic and the German text was also translated into English. The author's translation from Amharic to English is as follows:

1. In the name of the Father, the Son
2. And the Holy Sprit
3. I *Hastani* Daniel
4. The Son of Debre Efrem Wrote (this)…..
5. *Hatsani* Karuray…. came to me….
6. They encircled me and I was determined to fight them
7. … by myself …….
8. I captured…. 608 people, 10,000 oxen
9. 130 donkeys.
10. I called their….
11. Servants (army)…
12. Except 30 people
13. Nobody listen to me….
14. All of them went to Kassala
15. …without leaving any message to me
16. They declared to go where they wanted….
17. I asked those who went to Kassala…..
18. And surrounded them to pay tribute
19. I captured 103 slaves
20. 200 sheep and donkeys.
21. I defeated them
22. Forever…
23. They spoke to me…

24. Your land (country) is under attack
25. I was surprised…. with this news…
26. Through…. my interpreter…?
27. I advised them to obey my declaration…
28. They became hostile to me…. And… I went to them
29. I decided… to fight them
30. I killed them…
31. At a place called Se-abere…
32. In a spectacular manner…
33. I captured 11070 people
34. 10, 030 cattle and
35. 30 merchants.

From this inscription, it seems that *Hatsani* Daniel was engaged in three battles (campaigns). The first one was fought with *Hatsani* Karuray who may have been one possible Aksumite warlord or general rival to *Hatsani* Daniel. *Hastani* Daniel defeated him. The second campaign of *Hatsani* Daniel was against the people who lived in the western border of the Aksumite territory. They revolted and refused to pay tribute and went to Kassala. *Hatsani* Daniel went up to Kassala and defeated them.

When *Hatsani* Daniel was at Kassala he received a message that his country, possibly Aksum was under attack. He returned from Kassala and advised his enemy to settle the conflict peacefully. However, as they were hostile to him he fought and conquered them. It follows that Aksum was in a civil war when the same author inscribed this inscription.

3.1.2.2. Inscription No. 13

This inscription that was inscribed on the base of the stone throne was also copied and deciphered by the Germans in 1906. The same text was used for the following translation.

1. In the name of The Father, Son
2. And the Holy Sprit
3. I *Hatsani* Daniel
4. The son of Debre Efrem……

5. The Hasel people from the land of Welkayit
6. Became renegade….
7. They came to Aksum and destroyed its beauty
8. They violated the human right of the people and became harsh
9. I fought them…
10. I captured 500 people and 802 cattle
11. I let them spent 7 months
12. And time…
13. There, I brought back the lost land
14. I went to our father's land named Maya Tseletsel? I gave gift
15. I captured 10,000 sheep
16. 300 cattle
17. I arrived while my army
18. Made robbery, encircling and attacking
19. At the day of our entry
20. They paid tribute in the beginning
21. …captives……
22. We waited at the enclosure
23. I plundered them.

From this inscription, it seems that *Hatsani* Daniel fought two battles. The first one was fought with the people of Welkayit who came to Aksum and destroyed its beauty. The second one was fought at the land of Maya Tseletsel. This also indicates that Aksum was in a state of civil war when *Hatsani* Daniel inscribes it.

3.1.2.3. Inscription No. 14

This inscription is inscribed in the throne that is slightly displaced from its base. The original Geez text, which was copied and deciphered by Littman, is used for the following English translation.

1. The king came when I was at Aksum
2. Like his fathers….
3. Manner he wanted to become a king
4. I captured him in a heroic battle ….

5. I went outside Aksum …..
6. I scared and captured my enemies
7. Before bloodshed …….
8. I subjugated the king of Aksum
9. I released him to administer Aksum
10. As the country of my reign
11. I sent him to the field …I let him remain in power.

This inscription shows the transfer of power from an Aksumite king to a warlord or general. The power shift took place in a battle fought between the last Aksumite king and a general with minimum causalities.

The date of the inscription of *Hatsani* Daniel is very controversial. The late Schneider dated this inscription to the 9th century AD according to epigraphic and linguistic evidence (Phillipson, 1998). However, circumstantial evidence seems to suggest that the same document dates to the seventh century AD. These inscriptions are very rough and have no resemblances to the royal inscriptions of Aksumite kings between 4th and 6th centuries AD (Finneran, 2007). It appears that such inscriptions date prior to the 9th century AD. They refer to the period when Aksum's importance had greatly declined and lost its importance and challenged by its subordinates and to a period of civil wars when the last Aksumite king lost his power to his subordinate like in the Ethiopian Era of the Princes in the 18th century AD. Moreover, the 7th century AD Aksumite coins emphasize the importance of peace confirming the dating of the same inscription to the same century (Phillipson, 1998, Munro-Hay, 1989).

These inscriptions have unique historical significance of power transfer from an Aksumite king to a military leader. The broken base of stone thrones and its seat and the orientation also shows probably the same significance. For the same reasons these archaeological resources were made accessible to the public as the archaeologists found them. The Ethiopian Cultural Heritage Project the Aksum Site Planning and Conservation sub component built a round traditional house to protect throne number 23 and its inscriptions in March 2006.

The newly discovered massive building, the three inscriptions, and their identification to *Hatsani* Daniel, an Aksumite warlord or general of the late Aksumite times also added the cultural and scientific values and the significance of the same site.

For the same reason, the site was fenced by traditional wall in 2006 replacing the existing metal wires.



A shelter of the Hatsani Daniel inscription built in 2006

4.Archaeological Excavations at the church of *Arbaetu Ensesa*.

4. 1. Results of the excavations.

A total area of 390-meter square was excavated in ten weeks in 2006 and 2007 at the Ezana Stone Thrones Site to uncover the structure that was buried in the upper terrace at Gangua Edaga. The excavations were undertaken to the maximum depth of 2.5 m below modern ground surface level. An Aksumite Church, glasses, metals, coins, beads, grinding stones, polishing stones, stone tools, bricks and a glass industry were uncovered on the course of these excavations discussed in detail in what follows.

4.2. Architecture of Aksumite buildings and churches

It seems appropriate to study the ground plan and the architecture of the Aksumite buildings in general and Aksumite churches in particular before presenting in detail the excavated structure at the Ezana Stone Thrones Site. Therefore, the following architectural descriptions on Aksumite buildings and churches by various scholars are essential to understand the structure uncovered at Gangua Edaga.

The Aksumite construction is a local technique that continued from the Damat architectures as we can infer from the different sites of the same culture such as the palace of Grat Be-al Gibri and the temple at the town of Yeha daing to about the 5th

century BC (Finneran, 2007). The practice of monumental building with monumental stairs that began at the temple of Yeha by the Damat civilization continued into the Aksumite architecture. Furthermore, the use of wooden beams in the construction of the palace of Grat-Be-al Gibri have also continued in the later Aksumite buildings (Finneran, 2007).

This indigenous Aksumite construction method is variously known as the "monkey head style"and "binders" (Buxton, 1947). In this local construction method, walls are built with bricks, small polygonal or rectangular stones, and mud and lime mortar strengthened by horizontal wooden beams fixed to the walls. The wooden beams were laid down on the external and internal faces of Aksumite buildings penetrating the walls in cross section and projecting from the surface as we can infer from the largest decorated Aksumite Stelae such as stelae numbers 1, 2 and 3 in the Main Stelae Field at the town of Aksum. Furthermore, the monkey head style is also clearly shown on the ancient churches building of Abune Aftse at Yeha and the monastery of Debre Damo located in Central Tigray. The external projecting parts of the timbers are also called the monkey head. The function of the monkey head technique was to decorate and to reinforce Aksumite walls. Furthermore, the corner stones of Aksumite buildings project while the wall recess (Buxton, 1947; Mordini and Mathews, 1959; Munro-Hay, 1989; Tekle Hagos, 1997).

Aksumite buildings are built on massive masonry podia with at least five steps or stone plinths that have a series of narrow stepped sides as we can infer from the elite structure at Dingur Addi Kilte, the reconstruction of the 6th century Aksumite palaces of Enda Mikael, Enda Semon and Ta'aka Mariam (Connah, 1987). The earlier Aksumite palace foundations are square in plan while the late church foundations are oblong with indentations of walls with at least two long sides (Buxton, 1947).

The Aksumite buildings are characterized by rebating. Rebates consist of shelves of thin cut slate like stone that were perfectly done (Fattovich *et.al.*, 2000) As the walls ascended the rebates reduce thickness by external rebated steps each toped usually by a thin slate stringcourse (Munro-Hay, 1989). Aksumite rebates were originally found on the outside surfaces of the buildings. They were rarely found inside rooms on foundation levels. Moreover, gray granite stones, slate like slabs were used in horizontal layer.

Simple mud mortar, lime-mortar and bricks were used as construction materials by the Aksumites during the first seven centuries AD as discussed above (Munro-Hay, 1989).

The methods of construction of early Ethiopian churches belong to the pre-Christian traditions that are peculiar to Ethiopia. Foundation of Aksumite churches consists of stone plinth like that of the Cherqos Agulae (Phillipson, 1998) or podia like that of the foundation of The Aksum Tsion (Tekle Hagos, 1997; Phillipson, 1998). Furthermore, corner stones of Aksumite church building project while their intervening walls are recessed like that of the church of Debre Damo (Buxton, 1947, 1971).

However, the form and layout of the early Ethiopian churches is basilica similar with those of the Mediterranean basilica of Roman and late Byzantine times. A basilica plan differs from that of an indigenous Aksumite square not only in its elongated foundation but also in having a large principal space divided by two rows of columns known as the aisles and naves (Buxton, 1947; Finneran, 2007)). It appears that the basilica church plan influence came to northern Ethiopia particularly to Aksum from Syria in the late 5^{th} and early 6^{th} centuries AD with coming of the Nine Saints and with the evangelizations mission to rural Aksumite populations (Mathews and Mordini, 1959).

The basilica church plan was practiced on both the early built up churches and rock-hewn churches of Tigray. One of the best examples of three aisled basilica rock hewn churches is Mariam Addi Qosho in eastern Tigray (Buxton, 1971). The other example of three aisled basilica rock hewn churches is the church of Tekle-hymanot at Housien. It has four squared rock cut pillars and is the best example of early basilica Aksumite rock hewn churches (Tekle Hagos, 1997).

However, it appears that the basilica church plan began to be replaced by the modern Ethiopian church plan by the 14^{th} and early the 15^{th} centuries AD. This proposition is confirmed at the monastery of Gunda Gunde in the eastern escarpment of Tigray. Unlike in the basilica plan, the sanctuary was separated from the eastern side of the main building and was built in the central position of the monastery (Buxton, 1971).

Mordini and Mathews described that basilica churches are rectangular. They have common form with three aisles separated by two rows of walls with an apsidal sanctuary at the east end. On each side of this, there was a small room for the use of the clergy. At the west end where the entrance was located was the narthex or anteroom communicating with the aisles (Mathews and Mordini, 1959).

Phillipson, the Cambridge based British archaeologist, who is the leading scholar in Aksumite archeology in particular and African archaeology in general summarizes the architecture of Aksumite churches as follows. Aksumite churches have many features. They are rectangular in plan built on top of massive plinths or podia. They have variations in size and are basilica in form with three with the exception of the Aksumite church of Mariam Tsion of Aksum that has five aisles (Phillipson, 1998).

According to Buxton (1971) who is the authority on the architecture of Aksumite and medieval churches of Tigray, the earliest churches of northern Ethiopia are simple basilica with aisles separated by longitudinal colonnades bearing either lintels or arches. At the west end, there was a narthex entered from the western side of the building and opening eastward to the middle aisle of the church proper. The extremities of the narthex might be portioned for other purposes. Southern and northern entrances had stairs as necessary. At the eastern end, there was a raised central sanctuary in line with the aisle from which it was approached through a sanctuary arch. Buxton further argues that the Akusmite churches sanctuaries were almost semi circular apes.

The Canadian scholar M. Gerves, in one of his articles on the medieval churches of Ethiopia, forwarded almost similar opinion like scholars mentioned earlier on the architecture of northern Ethiopian churches. According to him, the ground plan of the so-called Aksumite church is rectangular in form divided into three aisles by two sets of pillars. At each end of the central of the square, this frame incorporated a tripartite division of space corresponding to the layout of the three aisles. At the east end, the sanctuary stood as continuous of the central aisle and was flaked to the north and south by rooms accessed from the sanctuary and or the side aisles that served as sacristies. At the west end, a central entrance vestibule was situated between two chambers with access to the northern chamber from the vestibule and to the southern from the southern aisle. In addition, to the west entrance, there were northern and southern entrances that opened into the western most aisle of the central square (Gerves, 2003).

The above have outlined the forms, plans and building styles of the Aksumite churches and the characteristics of Aksumite buildings and their construction materials from the available archeological literatures. We now compare the structure excavated at the Ezana Stone Thrones Site with those mentioned earlier.

The form, plan and building style of the newly excavated structure at the Ezana Stone Thrones Site is almost identical with those mentioned above by various scholars. Furthermore, the construction materials used to build this church in the same site are almost similar with those discussed earlier and with the Aksumite archaeological literatures.

The ground plan and architecture of the structure that was excavated in 2006 and 2007 was compared with other Aksumite church ground plans such as the churches of Cherqos Agulae, Debre Damo, Adulis, Kohaito, Mariam Tsion etc. The ground plan of the structure that was excavated at Ezana Stone Thrones by the author is almost similar to the churches mentioned above.

The new structure excavated at *Arbaetu Ensesa* has massive foundation plinths like that of the Aksumite church at Cherqos Agulae (Phillipson, 1998). It is also rectangular in form with three aisles similar to that of Agulae (Connah, 1987). In general, the church of *Arbaetu Ensesa* is similar in architecture with almost all Aksumite churches. Like the majorities of Aksumite churches, it is basilica in form. It has an apsidal sanctuary that is semi-circular like arch, found on the eastern side of the same building. Furthermore, the same church has an entrance from the south with stairs and a window to the west in the vestibule.

The walls of the same structure have rebates made from thin black slates. Block of cornerstones that are typical in Aksumite architecture is common in the recently excavated building.

Finally, with the above introductory background descriptions on Aksumite churches and the architectural similarity of the recently discovered structure with the former, it seems plausible to include the recently excavated structure to the list of the late Aksumite churches. We now move to the detail description of the church that was excavated at Gangua Edaga in 2006 and 2007.

4.2.1. The Church of *Arbaetu Ensesa*.

As discussed above, the Church of *Arbaetu Ensesa* was located in the Ezana Stone Thrones Site at Gangua Edaga in antiquity according to local traditions and the Book of Aksum. The German researchers who surveyed the site in 1906 saw a small church called *Arbaetu Ensesa* at Gangua Edaga confirms this legend. The same team

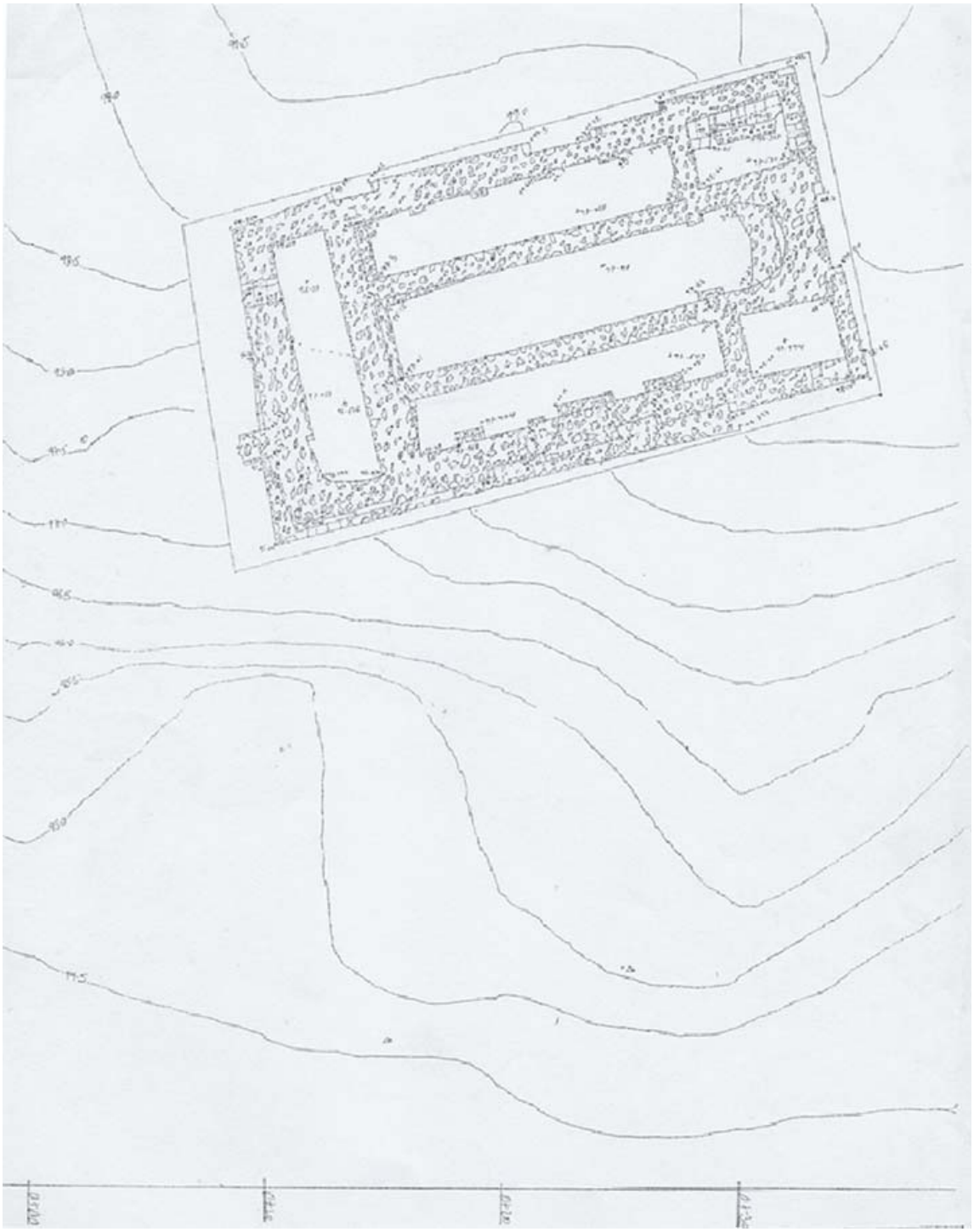
documented why such a church was there in 1906. The local people told the team that an earlier Church of *Arbaetu Ensesa* was said to have been located at Gangua Edaga. Even at present local elders know this site by the same name (Littman *et.al.*, 1913).

Archaeological excavations undertaken at Gangua Edaga in 2006 and 2007 confirm that a large late Aksumite church was built in the same site in antiquity. These excavations also uncovered the remains of a relatively recent church that seems to have been recorded by the Germans in the same site in 1906. The excavator therefore, designated the recently excavated structure in the same site as the church of *Arbaetu Ensesa*.

This late Aksumite church is a stone built up. It is 26 m long from east to west and 13 m wide from north to south. It is almost similar with the Aksumite church at Cherqos Agulae that is 25 m long from east to west and 14 m wide from north to south (Finneran, 2007).

The four corner coordinates of this church are 1561387 northing, 0470089 easting and at an altitude of 2145 m in the southwest, 1561382 northing, 0470118 easting and at an elevation of 2156 m in the south east, 1561400 northing, 0470098 easting and at an altitude of 2155 m in the northwest and 1561392 northing, 0470124 easting and at an elevation of 2159 m above sea level.

The church was excavated up to the maximum depth of 2.20 m below modern ground surface level on its southeastern corner. The excavation confirmed the height/ depth of the plinth/podium of the church. Like all Aksumite buildings the church of *Arbaetu Ensesa* was built on top of a massive plinth that is 1.10 m high from the eastern side. However, unlike the Church of Mariam Tsion its plinth is built with small rough stones mixed with mud mortar. Two dressed corner stones mark the southeastern corner of the same church.



Scale 1:100

Topographic map showing the Church of Arbaetu Ensesa.

On the western side, it was excavated up to the natural soil to the maximum depth of 3.2 m and 2.5 m from the outside and inside surfaces, respectively. The southern side of the church building was excavated up to its plinth without completely exposing it

to avoid further destructions coming from cultural and natural formation process. Its northern side was also exposed only up to the maximum depth of 0.75 meters below modern ground surface level.

The outside walls of the Church of *Arbaetu Ensesa* are characterized by rebates that are executed in excellent fashion. The average distance between the rebates in the outside walls of the church is 0.50 m. The average width of the rebates is 0.08 m. The same building has also dressed corner stones from the outside. The church has a total of eight piers. There are four piers inside the southern aisle while the other four are found inside the northern aisle. The piers in the northern aisles are parallel to those of the south.

The church has a total of eight rooms including three parallel aisles, one vestibule probably with two rooms, and one sanctuary with semi circular apse connected to a single room to its south and an underground treasury room to its north and one additional room in the southeast outside the main church building.

The vestibule is located on the western side of the church. It is 9 m long from north to south and has a variable width of 2.64 m in the north and 2.59 m in the south from east to west. There are three later wall annexes to the vestibule; two to the west and one to the north. All of them stretch from east to west to the section of the upper terrace. The upper terrace obscures the first one, which is located to the southwestern side of the church. It is 1.50 m long from east to west, 1.15 m high and 3 m wide. It is built with large sized round stones and has one visible rebate. Another later annex is found 3.8 m to the north of the first one and stretches towards west to the section of the upper terrace. The third annex is found in the northwest of the vestibule. It has similar style of construction with the main church. This seems to indicate that there is another Aksumite structure to the west and north west of the church that needs investigation in the future.

The northern part of the vestibule was not completely excavated. It is 2.64 m wide and 4.3 m long. Excavations terminated in this room at the depth of 0.63 m below modern ground surface level to protect further destruction of the western and northern annexes of the same building.

The southern side of the vestibule was completely excavated in 2006. This part measures, 2.59 m wide from east to west and 4.45 m long from north to south, 1.78 m deep below modern ground surface level and 1.57 m thick. The southern side of the

vestibule is destroyed in modern times and in antiquity by natural and cultural formation process.

The western wall of the vestibule has five rebates. All corner stones of this wall were deliberately destroyed in antiquity. The western side of the vestibule, which is 2.30 m high, was destroyed from the outside. From the outside, this wall is 2.40 m high 9 m long and 1.40 m wide. The inside room of the same is 1.80 m high, 2.60 m wide and 6 m long. There is one corner stone inside this room, where a kiln of a glass industry was uncovered in 2006 on the course of excavations.

It appears that the vestibule has two rooms, as gate marks are visible on the northern section of the same. Such a section was left unexcavated to save the same evidence. The vestibule has a single window that is 0.80 m wide and 0.32 m deep.

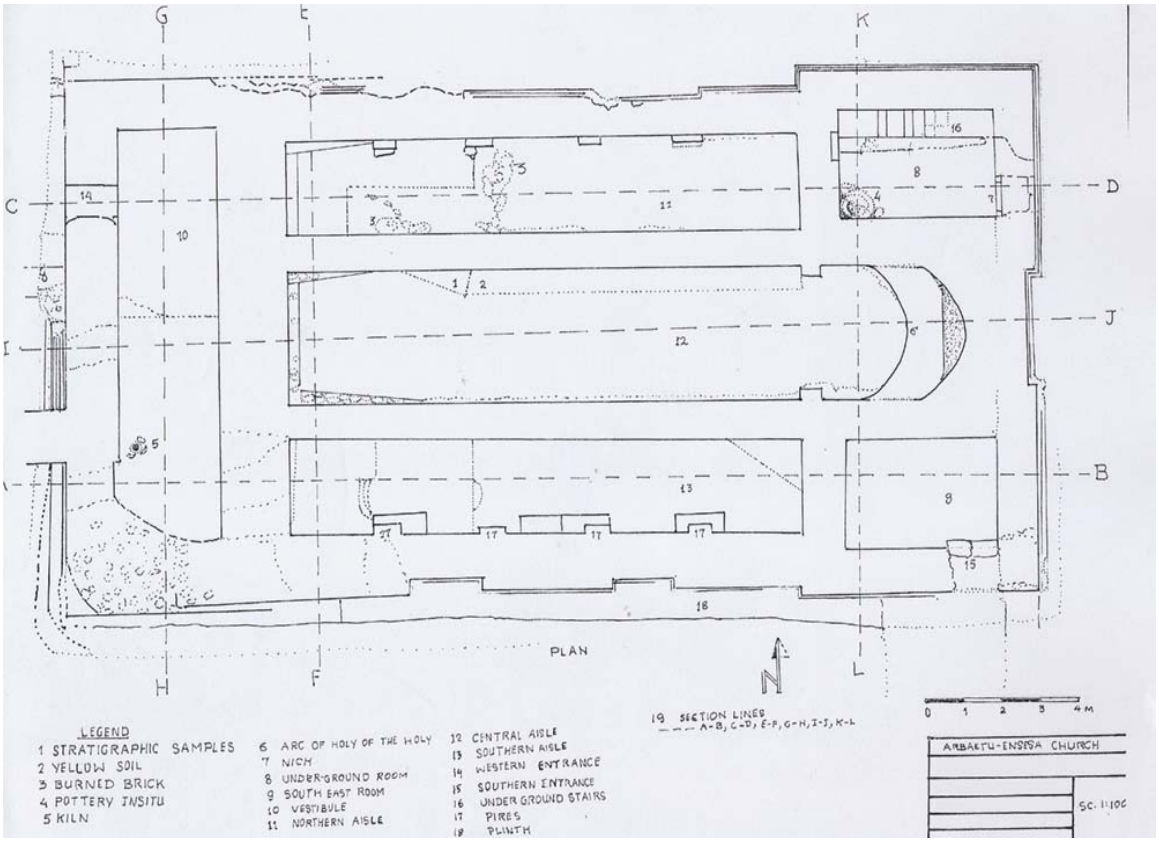
The vestibule is separated from the church proper or the three aisles by a north south wall that is destroyed in the south. It measures 10 long, with a variable width of 1.5 m in the north and 1.8 m in the south and 1.21 m deep in the north below modern ground surface level. The three parallel aisles and the two walls that form the aisles of the church, stretch from this wall from west to east direction and join the underground treasury room, the sanctuary and the southeastern room in the east.

The vestibule seems to have been an activity area for the Aksumite clergy. It seems to have been a cooking place as fire ash together with thick undecorated black pottery of functional purposes were excavated from its top to lowest levels in 2006. Furthermore, grinding stones and polishing stones that might have been used for preparations food staff of the clergy were also uncovered on the deepest level of the vestibule. In addition, an imported amphora uncovered 2.05 m deep below modern ground surface level in the vestibule show that this room has multiple purposes.

The southwestern side of the vestibule was destroyed in antiquity. Only remains of the wall foundation of the same survive at present For the same reason, after the late Aksumite church ceased its religious function, this side of the vestibule seems to have been used for the production of glasses by the late Aksumites. A kiln that was used for production of glass that was marked by a rectangular stone structure was excavated 2.35 m deep below modern ground surface level. Below this structure a darkened soil, charcoal, polished red pottery, smoothed quartz and pebbles, brick made tube fragments (tuyer) and a melted glass fragment of a base (bottom) that was on the process of

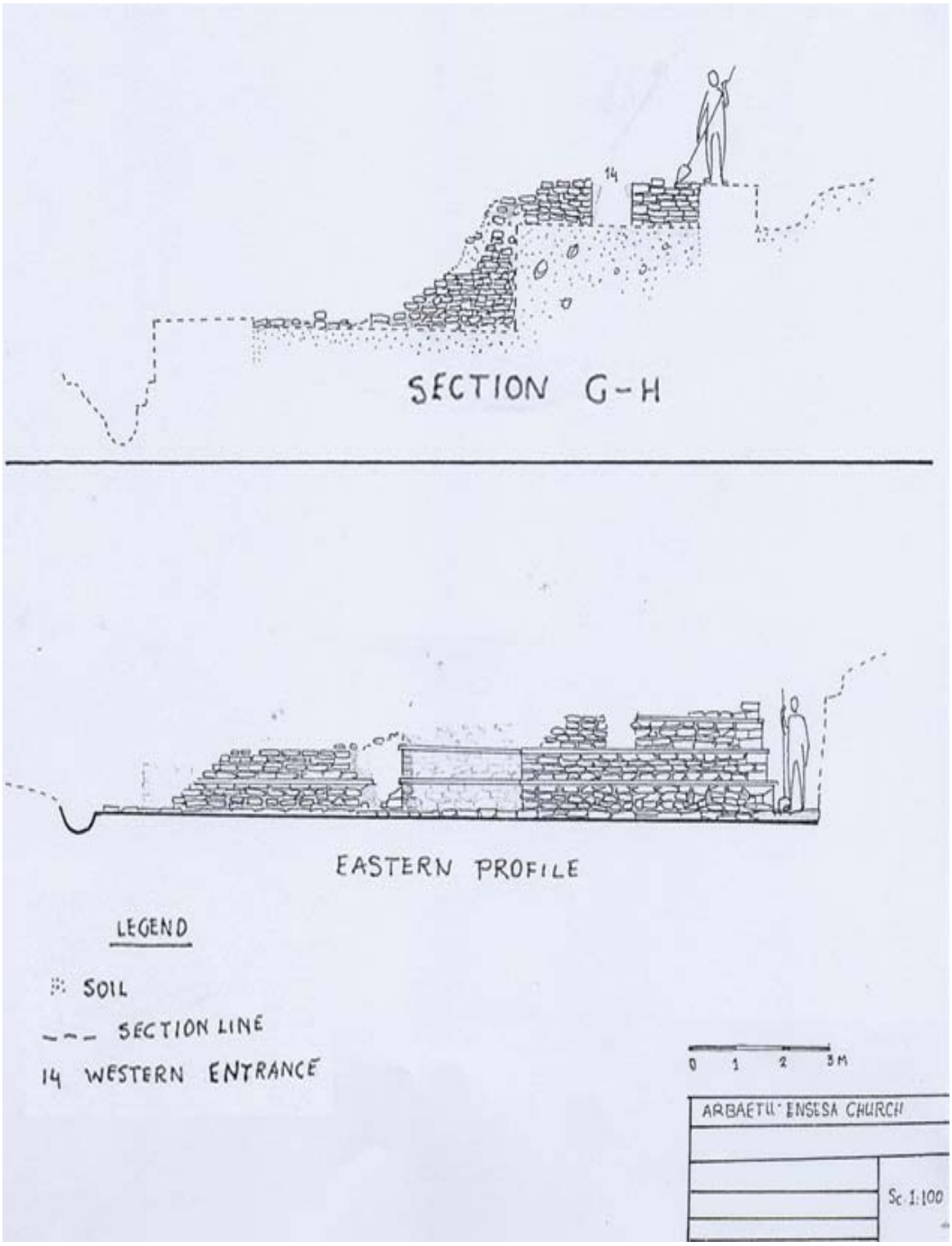
production were excavated in the kiln inside the vestibule in its floor beside the western side of the wall.

The northern wall of the same church is 26 m long, 1 m wide with a visible maximum depth of 0.75 m below modern ground surface level. The depth of this wall is not completely excavated in this side to avoid further destruction of the same wall as humans deliberately destroyed its corner stones in the past. Furthermore, metal bars that supported the new shelter of the church made it impossible to continue excavations on this side.



The outside surface of the same wall is characterized by the presence of several rebates while its inner side has four piers facing south parallel to those of the southern ones. The first one, which, is located on the extreme west of the same wall, is found 2.32 m to the east of the north south wall that separates the vestibule from the church proper. It measures 1.35 m high, 2.15 m wide and 0.66 m long. The second pier is found 1.91 m to the east of the first one. It is 0.76 m long, 0.20 m wide and 1.29 m high. The third one is located 1.94 m to the east of the second pier. It measures 0.22 m wide, 0.74 m long and

1.20 m high. The last pier is located 2 m to the east of the third one and is found 2.25 m to the west of the underground room. It is 1.12 m high, 0.20 m wide and 0.73 m long.





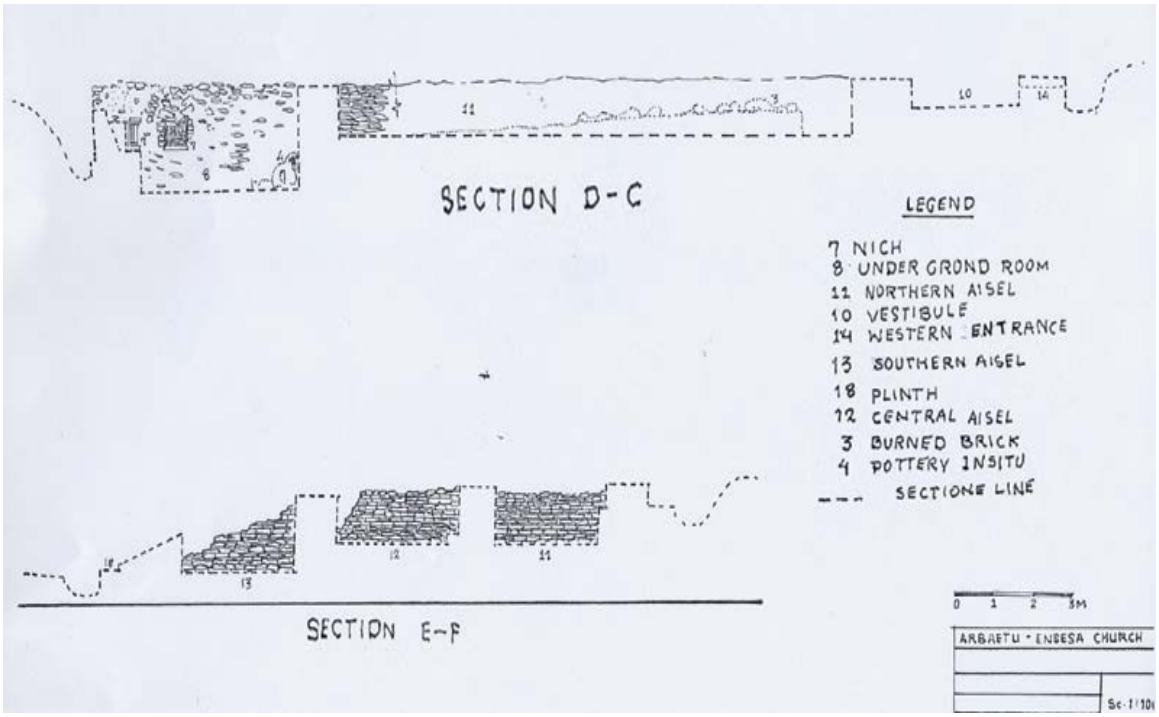
Apier of the church of Arbaetu Ensesa

A wall that stretches from the vestibule from west to east forms the northern aisle. It is parallel to the northern side of the church and joins the underground treasury room in the east. It also separates the northern from the middle aisles. This wall directly joins the pier, which marks the entrance of the apsidal shaped sanctuary to its north. This wall measures 0.90 m wide, 1.14 m high and 13.35 m long.

The northern aisle is 2.28 m wide and 13.35 m long narrower than the central aisle. This aisle was covered with thick-burned ash layer and several blocks of burned bricks. Some of the burned bricks were left unexcavated in the northern aisle to show how the church was destroyed in antiquity. Furthermore, a baulk of stratigraphic section as a sample was left unexcavated in the southern section of the wall that divides the northern with the central aisles to the show the history of the church.



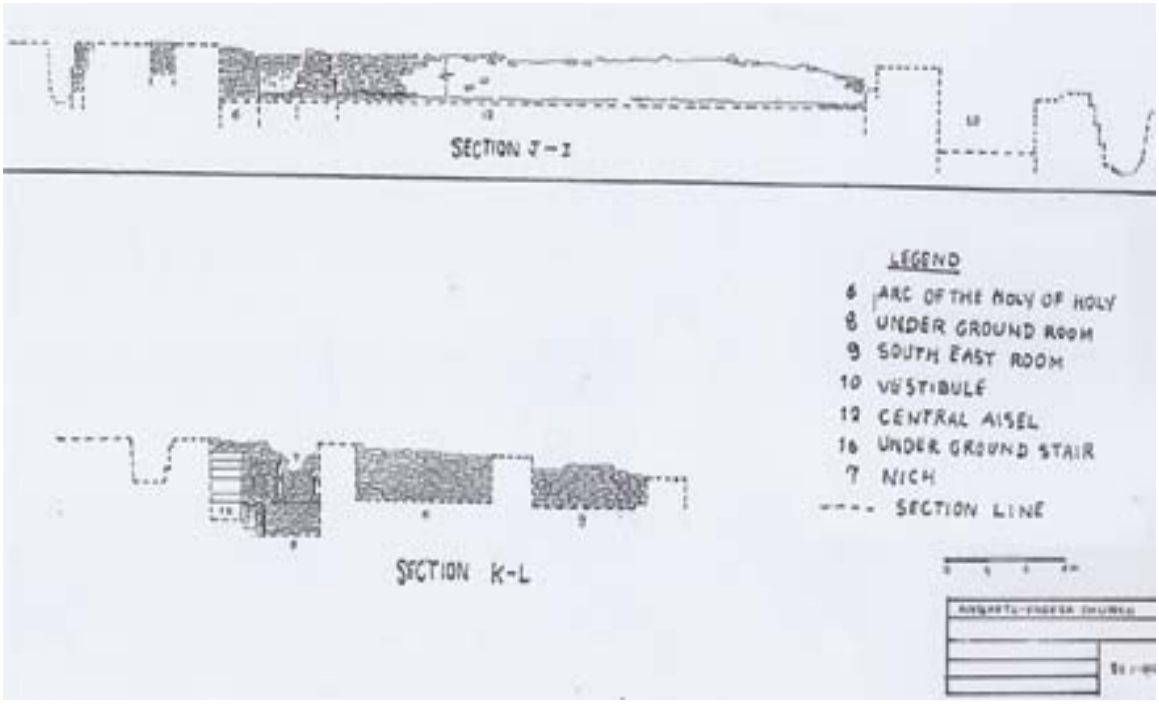
The four parallel piers in the northern aisle facing south



This stratigraphic sample is 1.40 m thick consisting of three stratigraphic units. The top layer, SU-1, which is 0.12 m thick, is disturbed by modern cultural and natural formation process. Below SU-1 is the second stratigraphic unit (SU-2) that is 0.90 m thick. Such a unit consists of burned bricks, ash, bones and pottery. The last one, SU-3 that is 0.36 m thick is a yellow soil. The construction of the church is contemporary with last stratigraphic unit while the second stratigraphic layer shows the destruction of the church in antiquity.

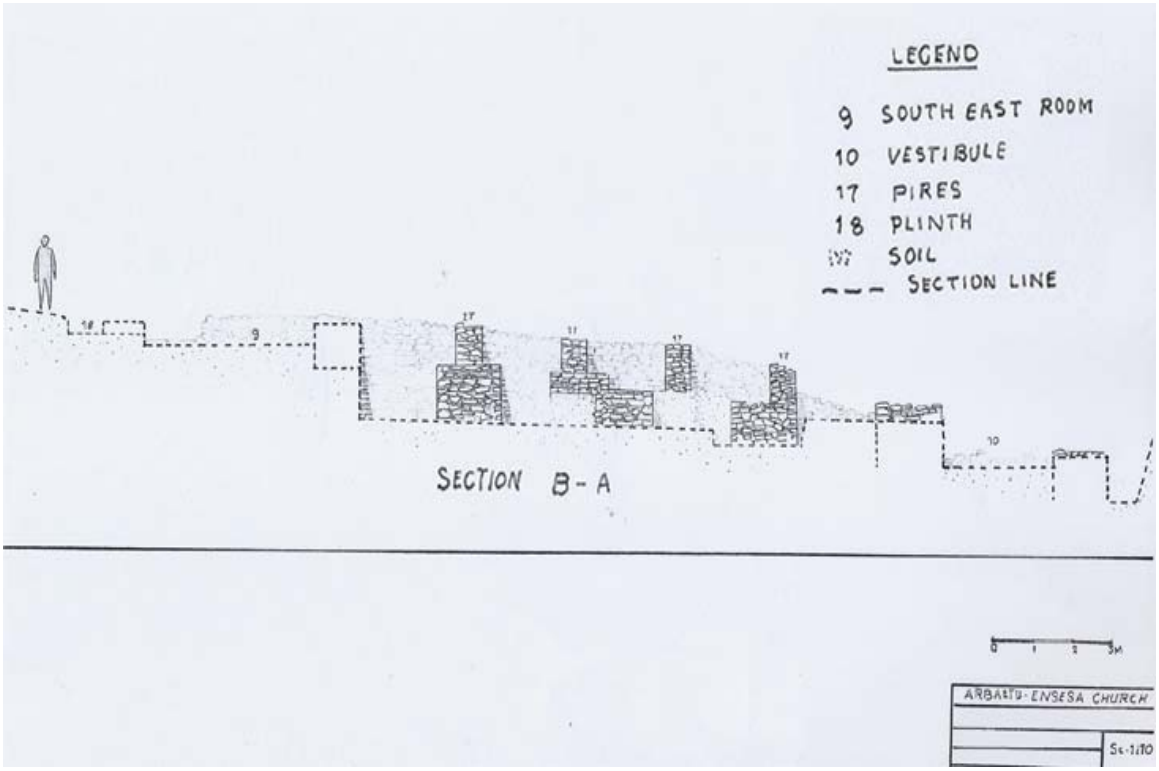


Sample of un excavated stratigraphic section in the central aisle of the church of Arbaetu Ensesa



A second wall stretches from the vestibule from west to east and separates the southern and the central aisles of the church. It is 1.08 m high and 0.90 m wide and 13.36 m long up to the pier that marks the entrance of the semi circle arched apse sanctuary. It directly opens to the sanctuary. There are three foundations of piers in the southern section of this wall parallel to those of the south. These piers were built with rough small stones embedded in the soil fill of the podium. Similar piers that seem to have supported the columns at the ground floor were excavated from Aksumite structures at Bete Giorgis (Fattovich *et.al*, 2000). The piers in the same church seem to indicate that they were built as foundations of three parallel monumental pillars, which were placed on top of the same wall. Moreover, there must have been additional, three monumental pillars on top of the east west wall that separates the northern from the central aisles parallel to those of previous ones. It follows that the same church seems to contain six monumental pillars between the northern and southern aisles that are parallel to each other, three each in the south and north directions. The monumental pillars that are found on the Ezana Garden seem to have been moved to their present locations together with the inscription of Ezana and other stone monuments in the 1937 by the Italians. The decorations of these monumental pillars and those found in the niche of the underground treasury room are similar. In both cases, limestone was used as raw material for the construction of both.

Such pillars seem to suggest that the same church has an upper story. The upper building might have been strengthened with wooden beams, which projected with wooden beams in the interior of the church. The stone columns and wooden poles seem to have supported upper storey inside the room (Fattovich *et.al*, 2000).

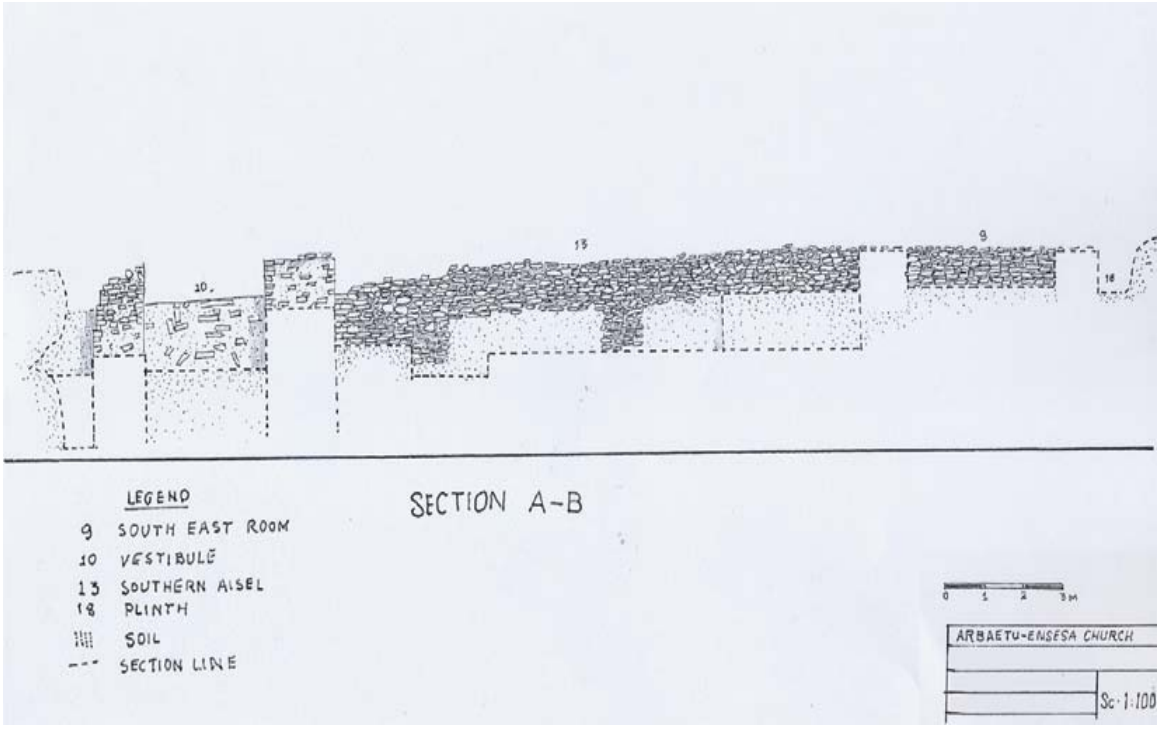


The central aisle is wider than the northern and southern aisles. It is 3.38 m wide and 13.26 m long. This aisle was almost covered by burned ash layer together with burned bricks, few bones and pottery.

The southern wall of the church and that of the central aisle form the southern aisle. The southern aisle is 13.26 m long from east to west and 2.20 m and 2.40 m wide from north to south including and excluding piers, respectively. Like those of the northern aisle, four piers are found facing to the north. Such piers correspond to four blocks of corner stones from the outside of the same wall. They are built against the southern wall of the main church.

The first pier to the east is located to the west of the wall that separates the southern aisle from the southeastern room. Its foundation is 1.70 m long, 1.23 m high and

0.50 m wide and is made up of rough stones with mixed mud mortar. The actual pier is 0.85 m high, 0.65 m long and 0.22 m wide.

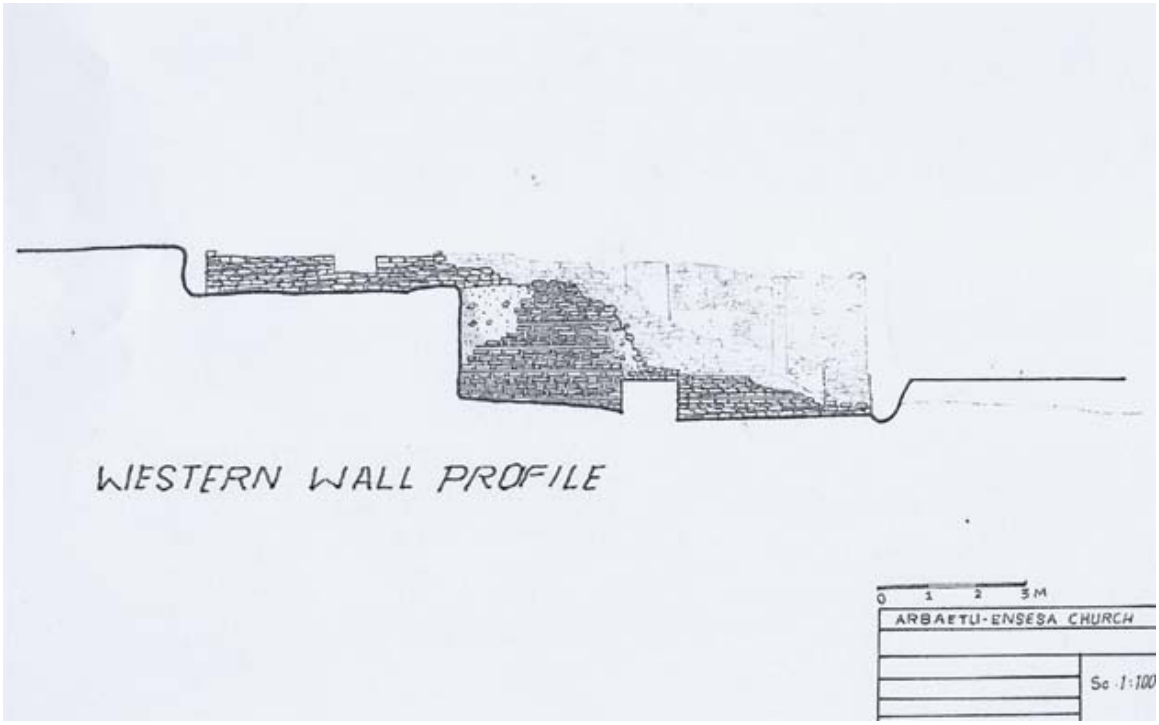


The second pier is found 1.10 m to the west of the first one. The foundation of the same is 2.57 m long, 0.57 m wide, 0.97 m and 0.50 m high in the west and east, respectively. It is made up of rough stones with mixed mud mortar. On top of its eastern edge, a well-built pier is 0.90 m high 0.60 m long and 0.25 m wide.

The third pier is located 0.37 m to the west of the second one. Unlike the rest, this one has no foundation. It is built on top of the dark reddish soil. It measures 1 m high, 0.70 m long and 0.26 m wide.

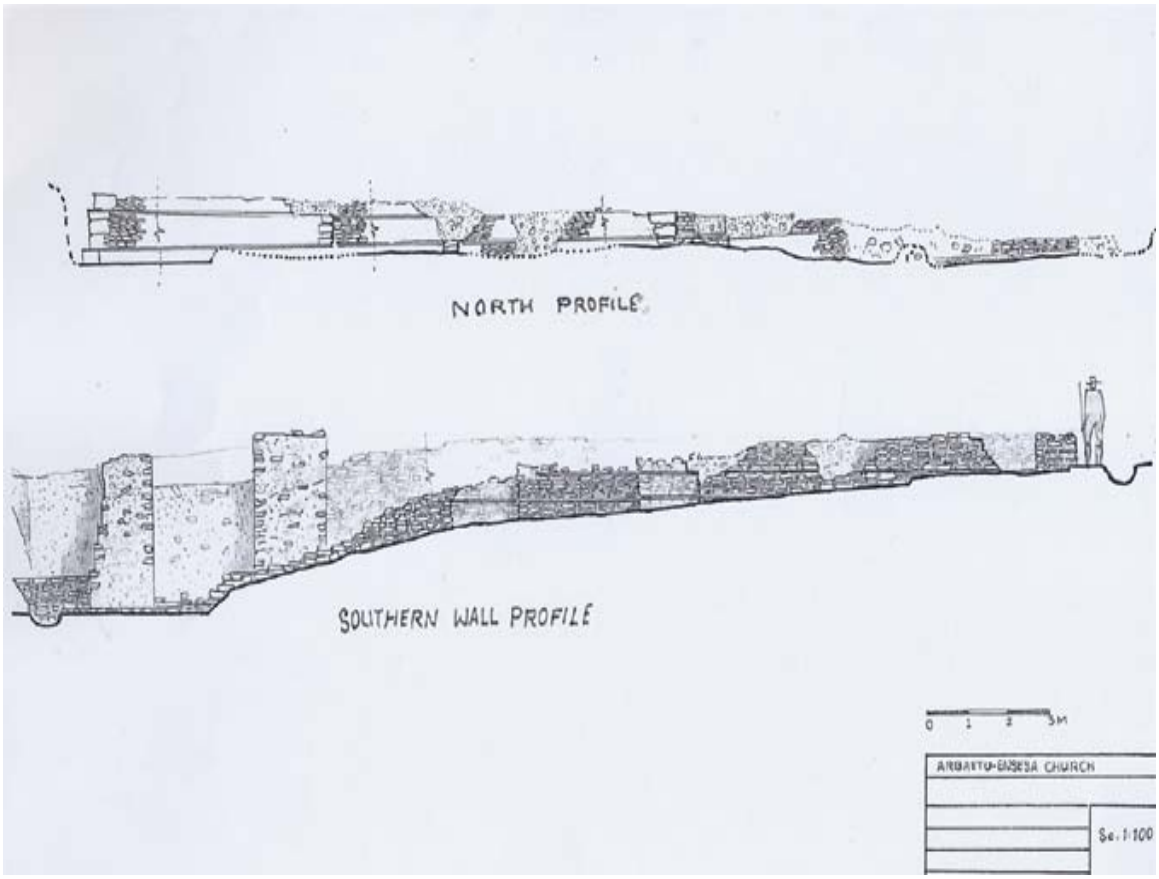
The last pier in this aisle is found 1.20 m to the west of the third pier. Its base is 0.50 m wide with same height and width of 1.40 m. It is made up of rough stones and mixed mud mortar. A well-refined pier is built on top of its western edge. Such a pier measures 0.84 m high, 0.64 m long and 0.25 m wide. It is found 2.20 m to the east of the wall of the vestibule that separates the main church and its aisles.

The southern aisle was excavated to the maximum depth of 2.50 m below modern ground surface level. Its inner side is made up of stones and plastered with mud and mortar.The depth of the foundation and the main wall is 1.20 m and 0.80 m, respectively.



This wall has an average height of 0.90 m from the outside and a maximum width of 1.40 m. The width of the same wall from the outside including the piers is 1.70 m wide and 1.20 m in the corners. The visible plinth of the same wall was built with small rough stones. On the same side, the wall is 0.60 m wide and 0.60 m high. A maximum of two rebates are found in the southern side of the wall of the main church building. The southwestern side of the same wall that is 6 m long is completely destroyed by cultural and natural formation processes beginning from antiquity up to modern times. Furthermore, the same wall had seven blocks of corner stones that were deliberately destroyed in antiquity. Most of the destroyed blocks of the corner stones were left at about their original positions indicating deliberate human destruction in antiquity by opposition forces.

The sanctuary of the same church is represented by two phases of constructions. The first one, which is contemporary with the original church, is connected with the outside wall of the main church and joins with the treasury and the southeastern room of the original church.



The sanctuary where the *tabot* was kept is located to the east of the building between the southeastern room in the south and the underground treasury room in the north. It opens or joins directly to the central aisle. Two parallel piers that are located to the south and north of the sanctuary mark the entrance of the same from the central aisle in the west. The entrance of the sanctuary located to the west of the same is 1.20 m wide. Its diameter is 3.55 m. It is semi-circular with an apse or arch like in shape. It was excavated up to its base to the depth of 1.35 m below modern ground surface. The sanctuary was full of ash layer together with burned bricks. Its base is built on top of the yellow soil similar to the main building that makes it contemporary with the same. Its eastern side is built together with the main building and is difficult to separate them.



The east west view of the central aisle and sanctuary of Arbaetu Ensesa church

The second construction phase of the church was excavated inside the earliest sanctuary. A semi circular structure represents such a phase. It is located between the main wall of the building to the east and the earliest semi circular apse to the south and north. Its western side opens towards the earliest sanctuary. It measures 2.78 m long, 1.10 m wide and 0.95 m high. It is built with rough basalt stones and seems to be the remains of the Church of *Arbaetu Ensesa* that was recorded by the German researchers in 1906 (Littman *et.al*., 1913).

It appears that the entrance of this church was on the eastern side above the eastern niche of the treasury room. The top part of the same niche was destroyed in antiquity probably for the construction of a gate of the same church. Fragments of metals that might have been used as handle and for locking gate were excavated on top of the eastern niche. Furthermore, modern bottles were also uncovered on the same context confirming that the gate of the 19th century church was on the eastern side on top of the treasury room.

The southeastern room of the church is found to the south of the sanctuary. It is separated from the southern aisle by a wall that runs from the north in the sanctuary and to the south to the main wall of the building. It was excavated up to 2.20 m deep below modern ground surface level on its eastern side. Its foundation is 1.10 m deep. The widths of the walls of the same room are 1.07 m, 0.95 m, 0.95 m and 1.18 m in the west, north, east and south, respectively. It is rectangular in form and its interior measures 4 m by 3 m.

It is interred from the south where there is a large slab that marks the entrance from the inside and another dressed block of stone from the outside of the main building. This gate is connected to a room, which is annexed to the southeastern corner of the main building from the outside. It measures 1.40 m by 3.80 m. Its floor, which is highly disturbed, is covered with flat black slates. On top of the floor, a large number of bricks were unexcavated in the same room. Ruined steps marked by remain of two flat stones, 0.60 m by 0.38 m in size were excavated on top of the plinth of the same room in the main church building from the south. Humans deliberately destroyed the gate that is found on the eastern corner of the church in antiquity. For the same reason, it is difficult to measure its actual width. From the visible remain it appears to be 1.10 m wide.



The southern gate of the church of Arbaetu Ensesa

The southeastern room seems to have ceremonial functions such as baptimisim. Fragments of luxurious objects like glasses, imported pottery, special decorated pottery, cones and faience were found in the same room unlike the rest with exception of the underground treasury room. Because of this importance, it was robbed in antiquity as we can see from the destruction of its corners, gate and wall. Furthermore, modern bottles were excavated in the lowest level of the same room confirming its disturbance.

The underground treasury room is found to the north of the sanctuary between the northeastern corner and the northern limit of the eastern sidewall of the main church. It

was excavated up to 2.28 m deep below modern ground surface level. Its interior is 2.60 m wide, 4 m long and 2.28 high.

It is interred from the northeastern corner of the building through eight flat steps (one of them destroyed) made of black slates, leading to its floor pavement, which is found in an excellent condition. The first step from the top was disturbed and the slates were misplaced. However, they were restored to their original position at the end of the excavations in 2007.

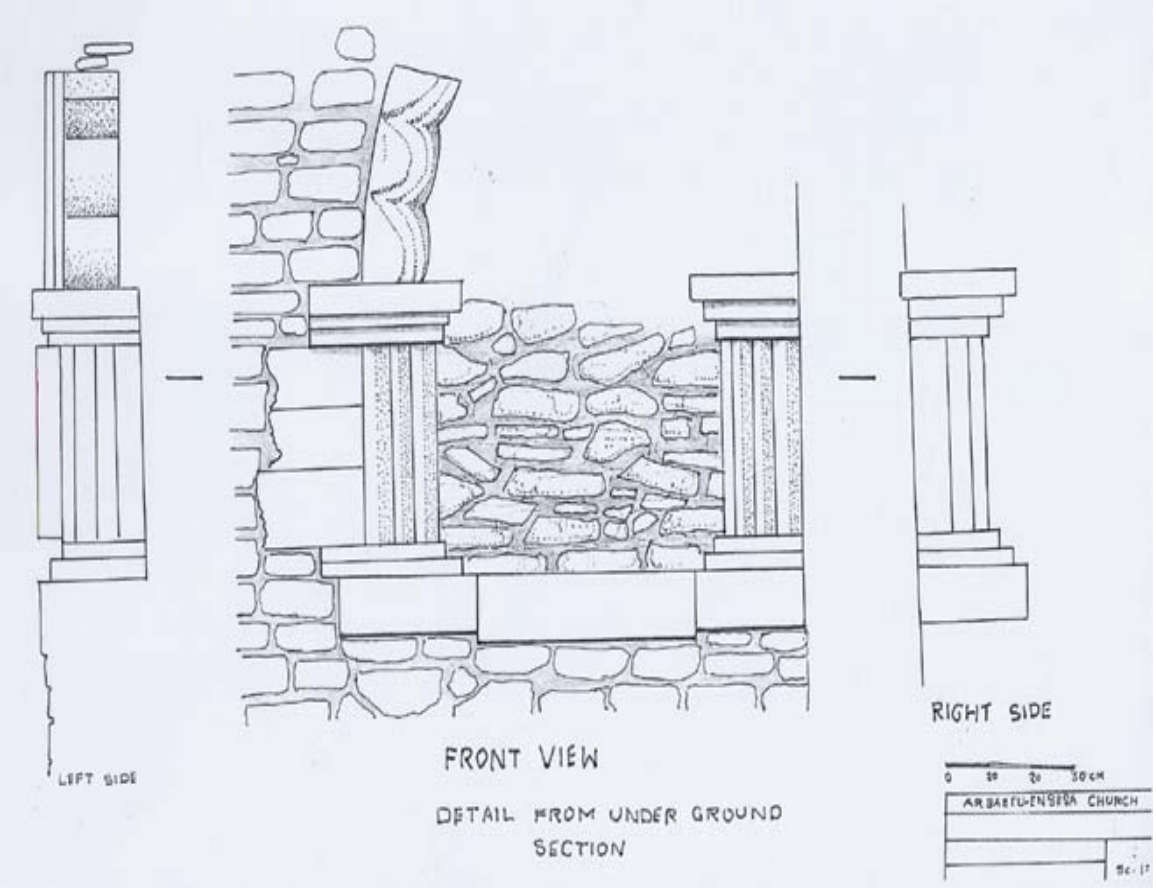
The surviving seven stairs were measured beginning from the top to the bottom as follow. The first step from the top is 0.19 m high, 1.5 m wide and 0.78 m long while the second step measures 0.20 m high, 0.51 m wide and 0.0.78 m long. The third one is 0.77 m high, 0.32 m wide and 0.78 m long whereas the fourth step is 0.19 m high, 0.25 m wide and 0.78 m long. The fifth stair is 0.38 m high, 0.72 m long and 0.30 m wide while the sixth one is 1 m long, 0.74 m wide and 0.20 m high. The last stair is 0.73 m long, 0.39 m wide and 0.20 m high.



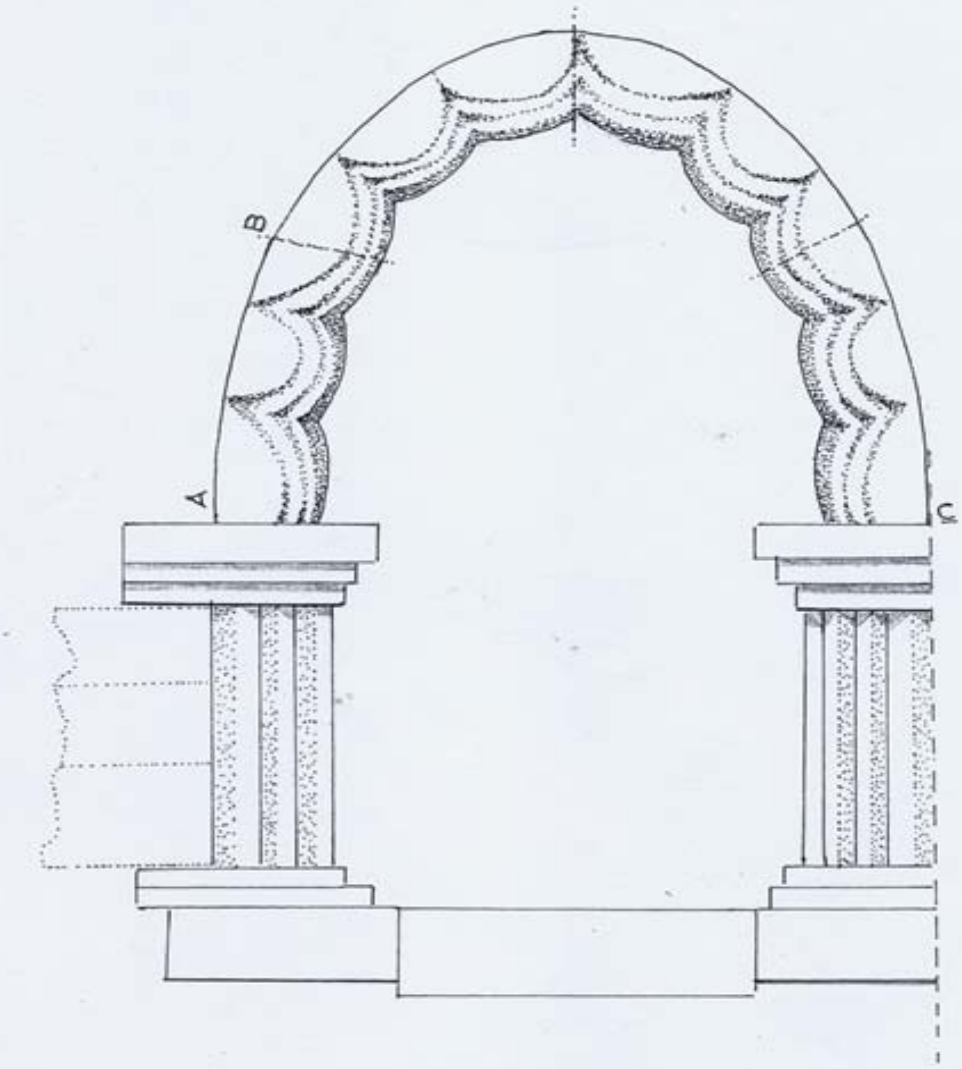
Stairs leading to the treasury room of the church of Arbaetu Ensesa

A wall that is 2.37 m long, 0.95 m high and 0.53 m wide from below support the existing seven monumental stairs. There is a narrow space to north of the eastern niche below the first stair of the underground room on the eastern side of this structure. Furthermore, a burned spot was documented on the floor of this narrow space probably used for preparing ritualistic materials by the clergy.

The underground room of the Church of *Arbaetu Enesesa* that is found adjoining the sanctuary of the same seems to have been a treasury room. This proposition is confirmed by the discovery of large cross, glasses, coins, decorated pottery and other objects in the same room on the course of excavations in 2007. Mordini and Mathews (1959) recorded similar functions in the monastery of Dabre Damo that the room adjoining the sanctuary on the northern side was used as a treasury room. Moreover, large crosses and hand crosses were stored in the same room at the monastery of Debre Damo. Furthermore, according to these scholars the treasury room of the monastery of Dabre Damo was also used as a mausoleum. The same room contains the coffin remains of the medieval Ethiopian king Libine Dingle (1508-40).



Furthermore, a large jar was found placed on top of the floor pavement in the western corner of the treasury room in the church of *Arbaetu Ensesa*. Such a pottery was left *insitu* to be exhibited in the same room. When the church was destroyed in antiquity the ceiling of this underground room that was made up of large dressed flats stones sunk down towards its floor.



LEGEND

-·-·-·-·- JOINT OF THE ARCH

A–B THE OID ARCH

B–C RECONSTRUCTED ARCH

– – – – BIULDING

RECONSTRUCTED ARCH DRAWING
FROM ARBAETU ENSESA CHURCH
AXUM

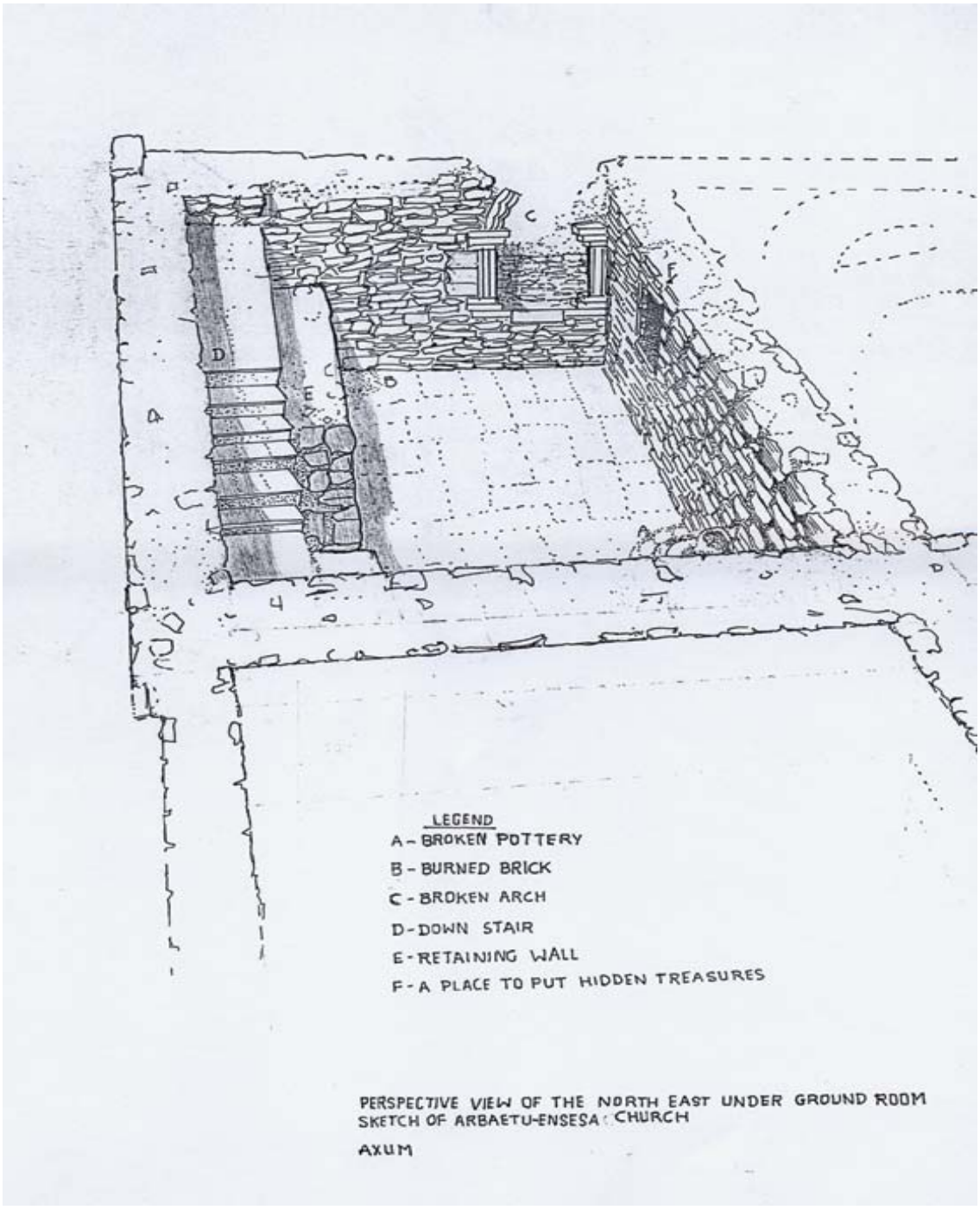
Sc.1:10



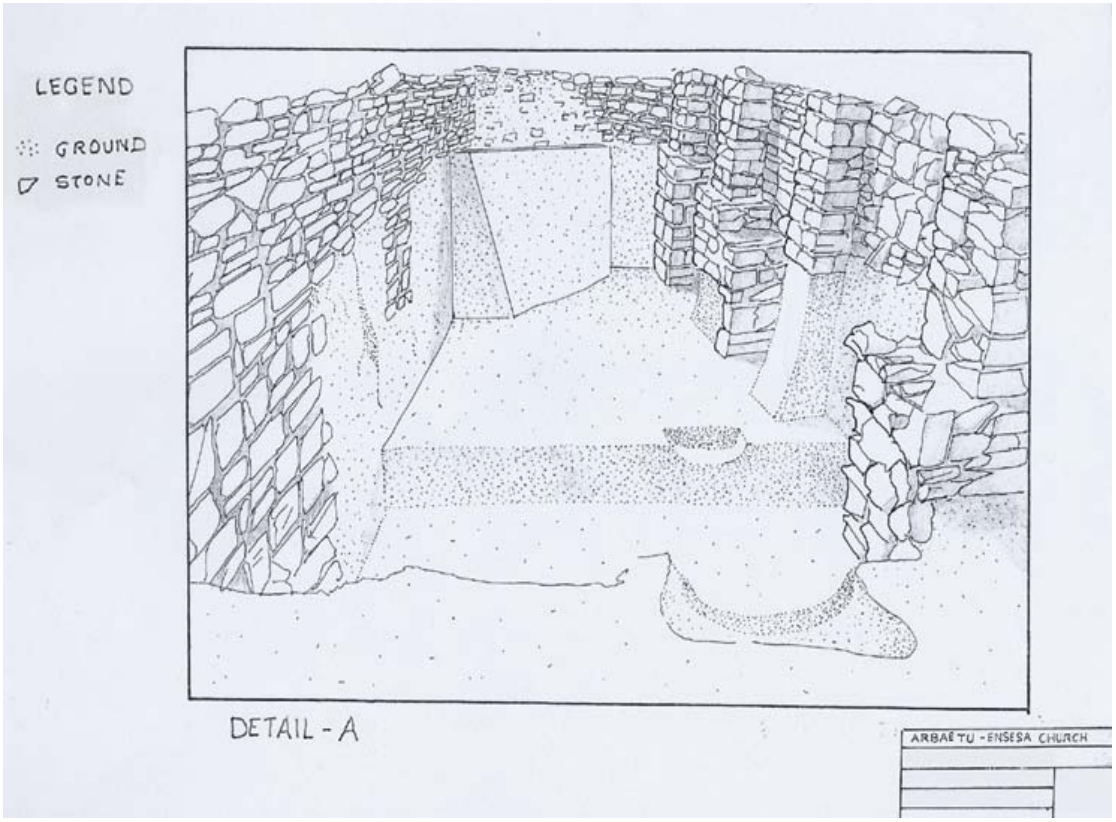
Pottery insitu at the treasury room of the church of Arbaetu Ensesa

This treasury room was also disturbed in modern and ancient times. It seems that the robbers interred to the same room from the east by destroying the main wall of the church and the upper side of the decorated arch like niche or the treasury room was disturbed during the second phase of construction of the same church as discussed above. For similar reasons, the top part of the same niche that is arch like in shape was destroyed or lost forever. Modern bottles and metals excavated on top of this niche show that the treasury room of the church of *Arbaetu Ensesa* was disturbed in modern times either for looting or for the construction of the 19th century AD church.

This room like that of the south eastern one yielded blue and green glasses, iron fragments, a single large sized bronze cross with its fixing nails and grinding stones. Furthermore, special decorated potteries were uncovered in this room indicating that the priests used it as a treasury room.



The walls of this room from the west and south sides are plastered with white mortar. Phillipson (2000) documented similar evidence of mortar in the 4th century AD Aksumite mausoleum in the Main Stelae Field. The stairs and a wall that supports the same cover its northern side. The southern wall has a niche that is 0.66 m long (deep) and



0.50 m wide. Only two metal nails were found in the same niche. The lintel of the same niche has a crack that might have been the result of high weight when the church was collapsed on the course of burning in antiquity.



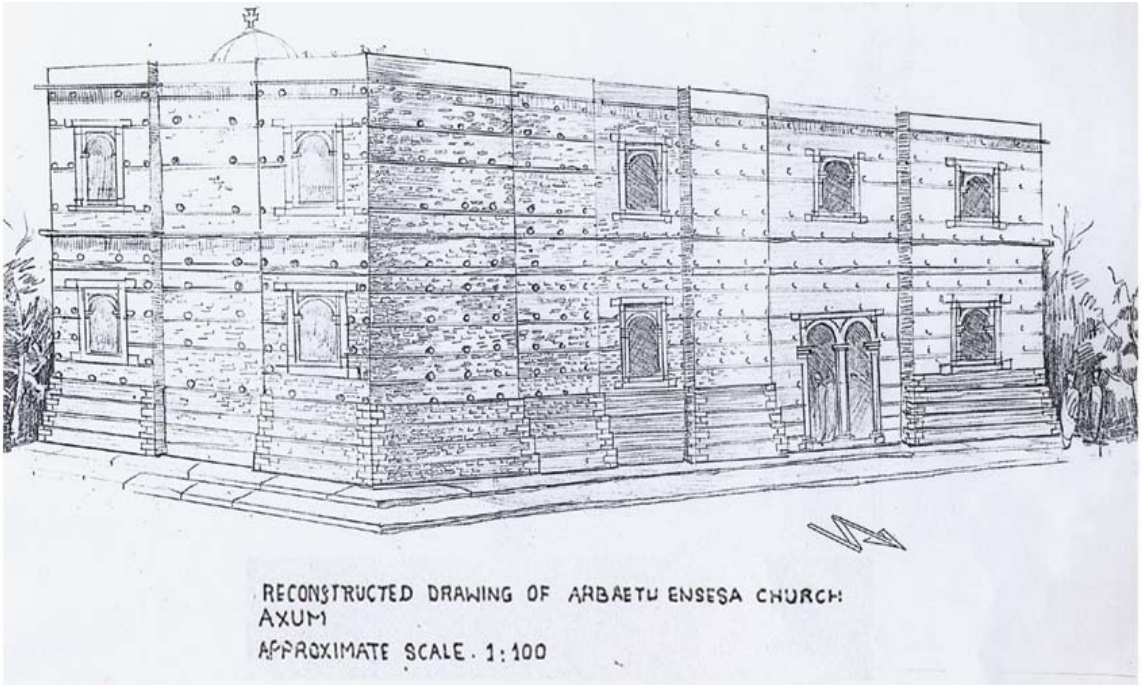
Southern niche of the treasury room of the church of Arbaetu Ensesa

There is another niche on the eastern side of the wall of the underground treasury room, which, is built against the main wall of the church. It is 0.67 m long, 0.60 m high and 0.22 m wide from the inside. It has an arch like shape that is 0.44 m high and 0.16 m wide. It has a unique decoration that has never been so far documented in any Aksumite structure. Only half of the arch like structure is preserved while robbers or second phase construction of the church destroyed the other half in antiquity or modern times. It was robbed by destroying the eastern side of the main building of the church. Two parallel monumental decorated stones support the lower section of the same structure.



The eastern decorated and disturbed niche of the treasury room

The outgoing section has outlined the description of the Church of *Arbaetu Ensesa* to prepare the ground for the presentation of its chronology.



Reconstruction of Arba'etu Church

4.2.2.The chronology of the Church of *Arbaetu Ensesa*

The Church of *Arbaetu Ensesa* was excavated in the upper terrace of the Ezana Stone Thrones site. This terrace is 78 m long from east to west. The top part of the same is 2153 m high while its bottom is 2148 m asl. This terrace was highly disturbed by cultural and natural formation process before the excavations of 2006 and 2007.

The mapping coordinates of the terrace where the excavations started in 2006 are 2153 m altitude, 15613900 northing and 0470104 easting. Such excavations began from the top of the terrace from the same elevation mentioned above at every 0.15 meters spit.

Several stratigrahic units were excavated beginning from the top of the surface of the terrace up to the foundation of the church. However, only three important stratigraphic units were excavated inside the church that are important in relation to the history of the church are discussed beginning from the recent to ancient times, from the top of the terrace to the bottom of the excavated trenches as follows.

The first stratighraphic unit (SU-1) from the top is a plowing horizon. It is yellowish red soil ($5YR^{5}/_{6}$). It is very thin layer as the result of natural and cultural formation process such as erosion, modern digging and grazing. Its thickness varies from trench to trench with an average thickness of 0.20 m. This horizon is very compact in some trenches and loose in others. It consists of modern and ancient pottery, stones and chalk. No finds were collected from this horizon, as it was highly disturbed by nature and humans beginning from antiquity up to modern times. Such a layer represents the recent activities that have destroying and conserving effect to the church.

Below the first stratigraphic unit, SU-2 a thick ash layer represented by yellowish red soil ($5YR^{6}/_{6}$) was excavated inside the church. This is the thickest stratigraphic unit with an average thickness of 0.90 m in the three aisles. However, it is 1.30 m thick in the sanctuary. The soil is very loose ash consisting of burned bricks, bones, local pottery, imported pottery and stones. This ash is found in the three aisles and in the sanctuary. It was not excavated in the vestibule, in the underground and the southeastern rooms. A large number of melted or burned bricks were excavated in this stratigraphic unit particularly in the northern aisle where there might have been brick arched gates and windows on the northern side of the church. Such a thick ash layer seems to suggest that the church was destroyed by fire in antiquity. Furthermore, this stratigraphic evidence seems to indicate that the burning of the church took place for a long time. This thick ash

layer together with burned bricks also seems to suggest that the church was partly built with bricks, wooden beams and roofed with large number of timbers. Similar thick ash layer with burned bricks dating to about the 7th century AD was excavated from the Aksumite port of Adulis in what is now Eritrea by the French archaeologist, Francis Anfray in the 1960's (Michels, 1979).

The third stratigraphic unit (SU-3) excavated below the second layer is reddish yellow soil ($7.5YR^{7}/_{6}$). Yellowish sediments or slope deposits that came from the Mai Qoho hill characterize it. The construction of the church is contemporary with this stratigraphic unit. In other word, the church was built when there was high period of erosion as the result of forest clearance in and around the town of Aksum. This period is in agreement with that of Butzer who recorded what appears to be an episode of high period of erosion that occurred between the 7th and 8th centuries AD (Munro-Hay, 1989; Connah, 1987; Fattovich, *et.al* .2000).



Sample of unexcavated section inside the church of Arbaetu Ensesa

Furthermore, excavations were undertaken outside the inner rooms of the same church to determine the stratigraphy and limits of the walls in all sides. For similar reason, the stratigraphic sequences of the excavated trench of the eastern outside of the church are taken as a sample for our discussion to understand its history.

The first layer is SU-1, from the top, is a disturbed plowing horizon and 0.30 m thick. It is reddish brown in color ($2.5YR^{5}/_{3}$). It consists of stones and rubbles. The rubbles seem to suggest modern and ancient disturbances and wall collapse of the same church.

SU-2 is red in color ($2.5YR^{5}/_{6}$) was excavated below the first unit. It is 0.62 m thick. It is very hard and compact soil. It yielded chalk, stones and pottery.

The third unit (SU-3) that was excavated below SU-2 is a thin ash layer, light reddish brown ($2.5YR^{6}/_{6}$) in color and 0.1 8 m thick. It yielded bricks and ash contemporary to SU-2 inside the church.

SU-4 was excavated below the third layer. It is dark reddish brown ($2.5YR^{3}/_{3}$), 0.23 m thick. Chalk, stones and no artifacts were excavated in this horizon.

The fifth stratigraphic unit is yellowish red ($5YR^{5}/_{6}$) in color and is 0.50 m thick. It is rich in chalk and sediments of a hill wash (slope deposits) coming from the hill of Mai Qoho that covered the foundation of the church that is 1.10 m thick.

The last stratigraphic unit SU-6, not completely excavated, is reddish yellow soil ($5YR\ ^{6}/_{6}$). It is 0.50 m thick. It is contemporary or earlier with the construction of the church. The same church is built on top of the yellowish sediment showing that the metropolitan population of Aksum built it when there was a high degradation of soil at the late Aksumite times when the forest on Mai Qoho hill was cleared for domestic and industrial purposes by the Aksumite population.

This outgoing section has outlined the relative chronology and history of the excavated church to prepare the ground for the absolute chronology of the same.

The available evidence seems to suggest that the Aksumite Church of *Arbaetu Ensesa* dates between about the middle 6th and 7th centuries AD according to local Aksumite pottery typology, imported pottery, excavated coins and architecture of Aksumite churches.

The first evidence, which suggest the dating of the church of *Arbaetu Ensesa* to the 6th and 7th centuries AD, is the shape of its sanctuary. The earliest Ethiopian churches, which are represented by those of the Aksumites, had rectangular or square shaped apses up to between the 5th and 6th centuries AD (Mathews and Mordini, 1959).

The church of Aksum Tsion that is believed to be the earliest church in Ethiopia had a rounded or a square apse. Furthermore, other early Aksumite churches such as the Kohaito "ruin 8", the church built on top of the tomb of Kaleb, and Gebre Meskel dating to or before 6th century AD had rectangular sanctuaries.

The semi-circular apes began to appear at least beginning from the middle of the 6th century AD. The church of Enda Cherqos at Haulti-Melazo, situated 10 km to the south of the town of Aksum confirms the proposition that semi circular sanctuaries date at least to the 6th century AD. The French archaeologist from the Institute of Ethiopian Archaeology, Contenson excavated this church in the 1950's. It is basilica and rectangular in plan with a semi circular sanctuary dating to at least to the middle of the 6th century AD (Contenson, 1961). The sanctuary of this church is also similar in form to those of the Aksumite churches excavated by Paribeni in the Aksumite port of Adulis dating to the 6th century AD (Negussie, 1993). Semi circular apses sanctuary church began in Nubia at least dating to the 8th century AD. It appears that such forms of sanctuaries seem to have existed at Aksum prior to those of Nubia as Christianity was introduced to Aksum earlier than the Sudan.

The recently excavated church of *Arbaetu Ensesa* has a semi circular apse arch like sanctuary or Aksumite decorated stelae top, different from the earliest Aksumite churches. Such a form of sanctuary is common in late Ethiopian churches at least beginning from the middle of the 6th century AD. For instance, a foundation ruin of a church with semi circular apse dating to the late Aksumite times was excavated at the Aksumite port of Adulis (Michels, 1979; Negussie, 1993). Furthermore, three aisled apsidal Aksumite church dating to the late Aksumite times were excavated from the Aksumite site of Matara in what is now Eritrea (Phillipson, 1998).

Furthermore, Aksumite churches with semi circular apses similar to the newly excavated Church of *Arbaetu Ensesa* dating to the late Aksumite times were reported at Cherqos Agulae since the beginning of the middle of the 6th century AD (Tekle Hagos, 1997; Michels, 1979). This evidence show that the Church of *Arbaetu Ensesa* dates between the middle of the sixth and the seventh centuries AD.

Imported pottery dating between the 6th and 7th centuries AD excavated in different Aksumite contexts and sites at Aksum are the other evidence for the dating of

the Church of *Arbaetu Ensesa*. Phillipson (2000) and Munro-Hay (1989) documented fragments of imported amphora from 6th and 7th centuries AD context. Phillipson (2000) in particular documented five amphorae at the K site at Aksum dating between 5th –7th centuries AD.

Moreover, fragments of amphorae were discovered at Matara in what is today Eritrea from the fifth to the seventh centuries AD context (Nigussie, 1993). This period which is categorized as a late Aksumite phase by Bard and Fattovich is dated to about between 550-700 AD according to the recent dating from Bete Giyorgis, based on coins, radio carbon, imported artifacts (Fattovich *et.al*., 2000). Similar fragments were excavated from the deepest trenches particularly from the underground treasury room of the Church of *Arbaetu Ensesa* in 2007. Such evidence appears to be another confirmation for the proposition of the same dating of the same church to the last phase of the Aksumite period.

The Aksumite potteries excavated from all levels at the Church of *Arbaetu Ensesa* are very important for the dating of the same church. Amorphous collection of potteries with different colors, decorations and shapes were excavated from this church similar to those described as black/ gray Aksumite pottery by Wilding (Wilding, 1989). Wilding dates these potteries to the post Aksumite period beginning from the 8th century AD. However, it seems appropriate to follow the chronology of Fattovich and Bard (Fattovich *et.al*. 2000) who placed the post Aksumite period beginning from about 701 AD. It seems that the pottery excavated from the same church have some similarities to those of the 6th century AD Aksumite pottery and to the beginning of the Fattovich's and Bard's post Aksumite period. For the same reason it seems appropriate to date the same church at least from the middle of the sixth to the seventh centuries AD.

According to historical and archaeological evidence, the Aksumite state and the Orthodox Church had a dominant position between the 6th and 7th centuries AD. Although king Ezana and his court in the middle of the fourth century AD accepted Chiristianity in what Finneran (2007) calls " top down model, historical sources show that the liturgy of Christianity began during kings Kaleb and Gebre Meskel between 500 and 550 AD. There is no convincing archaeological evidence for the construction of churches at Aksum and its surroundings prior to the late fifth and early sixth centuries

AD (Negussie, 1993). A large number of Aksumite populations were converted to Christianity between the 6th and 7th centuries AD (Phillipson, 1998, Sergew, 1972; Tekle Hagos, 1997). The Church of Aksum Tsion was probably built or rebuilt in the 6th century AD. A large number of churches such as Bete giyorgis and others were built in and around Aksum in late Aksumite times after the coming of the nine saints to Aksum in the 6th century AD. The church of *Arbaetu Ensesa* appears to be one of the several churches that were constructed in the late Aksumite times after the coming of the nine saints to the same place.

The Aksumite state was prosperous and powerful in the 6th century AD. For the same reason, there were a large number of Aksumite coins on circulation during the same century. The cross, which was depicted on the coins in the late 4th and 5th centuries AD, began to appear in the pottery of 6th and 7th centuries AD and became an identity of the Christian Aksumites. Moreover, the cross became the dominant motif on coins, pottery and architecture beginning from the 6th century AD (Phillipson, 1998; Fattovich *et.al.*, 2000). From this evidence, it appears that the church of *Arbaetu Ensesa* was built between the 6th and 7th centuries AD when the state of Aksum was prosperous. The cross is depicted on the excavated coins and pottery from the church of the same confirming its antiquity to the same century.

The stratigraphy of the excavated trenches of the church appears to be another evidence for the dating of the same church. Accordingly, the construction of the church is contemporary with the yellow soil in the last stratigraphic unit. It was built when there was high period of flooding and erosion resulted from forest clearance in and around the town of Aksum. This period is in agreement with that of Butzer who recorded what appears to be an episode of high period of erosion that occurred at about the 7th and 8th centuries AD (Munro-Hay, 1989). Furthermore, recent geo-archaeological research conducted in Tigray show that there was a period of soil aggradations in the lower plains between about AD 650-800 confirming the work of the same researcher (Finneran, 2007).

Another, evidence that confirms the dating of the Church of *Arbaetu Ensesa* to the 7th century AD are the Aksumite coins excavated from the deepest level of the same church. Two Aksumite bronze coins that depict croses that are similar in typology to those of the seventh century AD coins were excavated in the underground treasury room

of the same church. The first copper coin is corroded and only part of the cross that is depicted on it is visible. It is very large and thin. King Armha issued the largest Aksumite bronze coins so far known. This evidence seems to show that it belongs to King Armaha of the 7th century AD (Phillipson, 1998; Munro-Hay, 1984). Furthermore, the style of the cross, portrayed in the same coin, is similar to those of the 7th century AD coins particularly to those depicted in King Armaha in the 7th century AD (Munro-Hay, 1984; Munro-Hay and Juel-Jensen 1995).

Furthermore, the second bronze coin that seems to have been minted by King Armaha was excavated together with an amphora at the deepest level in the underground room confirms the dating of the church to the 7th century AD (Munro-Hay, 1984; Munro-Hay and Juel-Jensen, 1995). A thick layer of burned brick covers this coin and its edges are deformed by fire indicating that it was also destroyed in the same time. The same coin depicts an Aksumite king sitting on a throne while holding a cross in one of his hands. The available numismatic evidence indicates that the Aksumite throne is portrayed on the coins of 7th century AD Aksumite King Armaha (Munro-Hay, 1991).

Furthermore, the seventh century AD Aksumite coins mention that "may the country be satisfied", "joy be to the people" and "let peace prevail to the people" show that Aksum was at war in the same century. It appears that the Church of *Arbaetu Ensesa* was destroyed at about the time when Aksum was involved in civil war (Connah, 1987).

Moreover, the inscription of *Hatsani* Daniel as discussed in the first part of this paper that appears to date to the 7th century AD, tell us that the Welkite people destroyed the beauty of Aksum. This is confirmed by the deliberate destruction of the dressed corner stones of the Church of *Arbaetu Ensesa.* This indicates that the same church was destroyed in the 7th century AD as the excavated coins of King Armaha, is deformed by fire and covered by matrix of burned brick.

Furthermore, the historical literatures such as Arab traditions contemporary to the prophet Mohammed show that Aksum was at wars with the Arabs for the control of the Red Sea and with its subordinates within its territory in the 7th century AD. The argument further indicates that the Aksumite church of *Arbaetu Ensesa* was destroyed at about the

same times when Aksum was at war with those enemies (Sergew, 1972; Munro-Hay, 1989).

The outgoing section synthesized both historical and archaeological evidence and determined the chronology of the Church of *Arbaetu Ensesa* between the middle of the 6th and 7th centuries AD. We now move our attention to the artifacts uncovered in the church of *Arbaetu Ensesa* during the excavations of 2006 and 2007.

5. The excavated artifacts

The archaeological excavations undertaken at the Church of *Arbaetu Ensesa* yielded a large number of artifacts that are currently housed at the new Aksum Archaeological Museum at the *Dejazmach* Gebre Slassie palace behind the Main Stelae Field. The most important ones are summarized as follows.

5.1. Coins

As discussed above, the excavations undertaken at the Church of *Arbaetu Ensesa* by the author in 2006 and 2007 yielded two Aksumite coins dating to the 7th century AD.

The first coin documented as Ax2007 EST 37, 120-135.1 was excavated in the underground treasury room at 1.35 m deep below modern ground surface level near the stairs that lead to the floor pavement of the same room. Two thick layers that are green and red-burned brick covered this bronze coin. The upper matrix that was green in color was cleaned. Below this green matrix, the coin was covered by red matrix, which is the result of melted and burned brick. In addition, the coin is deformed as the result of the destruction of the church by fire. It is therefore difficult to read the complete inscription on its reverse side. Only three Geez alphabets equivalent to the Amharic word *negese* (became a king) are visible. The other side of the coin depicts a king wearing a crown and sitting on a throne while holding a long cross with his hand. A small cross is also portrayed above his crown. This coin was compared to those documented by Munro-Hay (1984; Munro-Hay and Juel-Jensen 1995). It is similar to those coins of king Armaha identified as AE by Munro-Hay (1984) and Munro-Hay and Juel-Jensen (1995) dating to the 7th century AD.

The second bronze coin was excavated from the floor of the underground room 2.28 m deep below modern ground surface level. It is highly eroded and difficult to

decipher. It is larger in comparison to the first one. Only part of a cross is visible on the coin that appears to be similar in style to the first one or to those depicted on the coins of King Armaha. The cross that is portrayed in the coin is also similar in style to the large wall cross uncovered in the treasury room in 2007. It is found in three thin pieces and has an inventory number of Ax2007, EST20, 228.1.

5. 2. Cross

The discovery of a bronze cross in the treasury room was an additional evidence to confirm that the excavated structure is definitely an Aksumite church. It was excavated 0.35 m below modern ground surface level beside the first stair of the underground room. It is 0.18 m long and 0.11 m wide. It has five pieces including nails that were used to fix it on the wall. It is broken in two large pieces and appears to be similar in style with those depicted on the coins of King Armaha (Munro-Hay and Juel-Jensen, 1995; Munro-Hay, 1984). It is documented as Ax2007, EST20, 35.1. Such a unique cross needs conservation work to clean the green matrix from its surface.

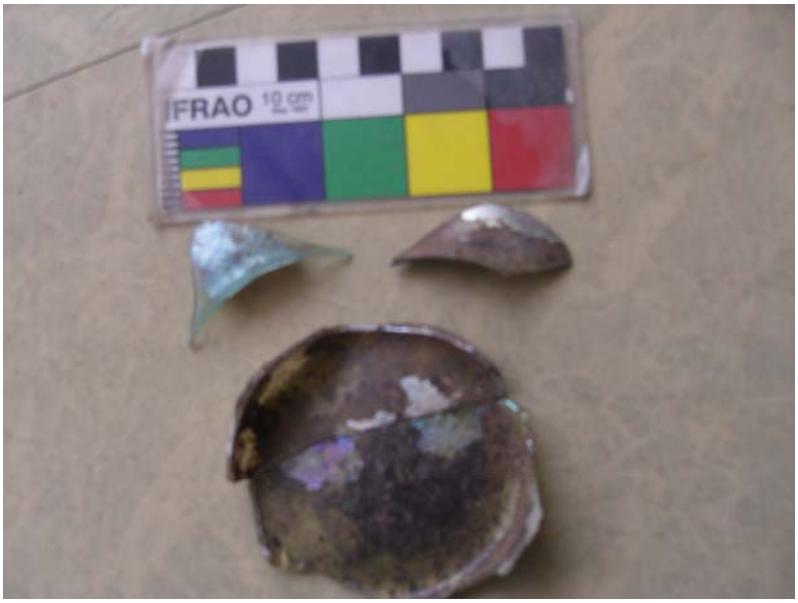


A wall cross excavated in the treasury room of the church of Arbaetu Ensesa

5. 3. Glass.

Fifty-three glass fragments were excavated inside the rooms of the Church of *Arbaetu Ensesa* in 2006 and 2007. In 2006, twenty-seven glass fragments were excavated in the deepest levels of vestibule and the southeastern room. Furthermore,

twenty-six fragments of glasses were excavated in the deepest levels in the southeastern and in the underground treasury rooms in 2007. Most of the glasses are decorated, very thin and green in color. Some are painted in blue color.



Glasses excavated in the treasury and southeastern rooms of the church of Arbaetu Ensesa

Moreover, a glass with an inventory number of Ax2007, EST37, 228.1 that was excavated on the floor of the underground room is an interesting one. It is green in color with a handle and decorations on its surface. According to the present knowledge of the author, such a glass style and decorations have never been documented so far in Aksumite contexts.



Askumite glass excavated in the vestibule of the church of Arbaetu Ensesa

Another glass fragment with an inventory number Ax2007, EST37, 120-135.1 was excavated in the underground room. It is blue in color covered by thin blue layer. It has a handle. Such a fragment is also unique than those so far known in Aksumite sites.

Phillipson (2000) and Munro-Hay (1989) suggested that there were local Aksumite glass industries. Phillipson reported raw material for glass industry at the K site at Aksum (Phillipson, 2000). However, no archaeological evidence was found for Aksumite glass industry until 2006. The 2006 excavations at the lowest level of the vestibule of the Church of *Arbaetu Ensesa* yielded the first evidence of Aksumite local glass industry. A base of a melted glass that was on the process of manufacturing was excavated on the floor of the vestibule 2.35 m below modern ground surface level. Such a glass is known with an inventory number of Ax2006, EST12, 220-235.1.

A kiln marked with large stones, for producing glass was excavated on the same level. Iron slags together with fragments of bricks were excavated in the same kiln. The production of glasses darkened the kiln and it's surrounding. Four pieces of brick tuyer that were used for blowing fire to produce glass were excavated. These pieces of brick tuyer are known with an inventory number of Ax2006, EST12, 135-150.1-4. The glasses excavated in the same church in 2006 and 2007 are unique than those so far recorded at Aksum as they were locally produced by the Aksumites as discussed above.

5.4. Bricks

Scholars such as Phillipson, (1997, 1998, 2000), Munro-Hay (1989) and Tekle Hagos (1997) argued that Aksumite sites are recognizable by the presence of bricks. A large number of complete and fragments of bricks that are either rectangular or square were excavated at the Church of *Arbetu Ensesa* in 2006 and 2007. Samples of bricks that were discovered on the course of excavations in the rooms of the same church that are square measure 0.27 m by 0.27 m, 0.25 m by 0.25 m long and wide and 0.4.5 m thick. The rectangular ones are 0.13 m wide, 0.32 m long and 0.8 m thick.

The majorities of the bricks were found in the ash layer. Some were burned, melted and changed to what appears to be a volcanic tuff. Samples of such burned bricks were left unexcavated in stratigraphic contexts to show such evidence to the public. Many of them were uncovered on the northern aisle beside the main wall of the church. This

seems to indicate that the main gate with brick arch was originally located on this side of the church. Furthermore, a large number of rectangular bricks were also found on the floor of the outside room that leads to the southeastern room to the south of the sanctuary. The bricks are red in color and lack sophistications unlike those of the Tomb of The Brick Arch dating to the 4th century AD (Phillipson, 2000). The edges of the majorities of the bricks are not straight with rough surfaces and not well fired indicating poor workmanship technology, which is the distinguishing feature of Aksumite technology in the 7th century AD.

Bricks were used on the gates of Aksumite structures to form brick arched structure as in the Tomb of the Brick Arch, to construct the whole structure as The Brick vaulted Structured Tomb excavated by Chittick (Munro-Hay, 1989) or to make an oven like that of the Dingure elite structure excavated by Anfray in the late 1960's. Excavations undertaken at the Church of *Arbaetu Ensesa* showed that bricks were used for making tuyers for glass industry. Four pieces of fragments of brick tuyers with inventory numbers of Ax2006, EST12, 220-235.1-4 were excavated 2.35 m deep below modern ground surface level on the floor of the vestibule at the church of *Arbaetu Ensesa* in 2006.



Aksumite brick tuyer fragments and a glass excavated in the vestibule of the church of Arbaetu Ensesa church.

5.5. Grinding/polishing stones.

Nineteen grinding and polishing stones were excavated in all the rooms including the vestibule of the Church of *Arbaetu Ensesa* in 2006 and 2007. The majority of the polishing and grinding stones were uncovered on the lowest levels of the vestibule. Four grinding stones were excavated in the deepest levels of the northern aisle while two, two, one and one grinding stones were found on the central aisle, sanctuary, treasury and southeastern rooms of the church, respectively. The grinding stones were made of sandstones while the polishing stones were smoothed basalt stones. The majorities of the polishing stones were found on the vestibule.



Aksumite polishing stones excavated inside the church of Arbaetu Ensesa

Some grinding stones were uncovered below the yellow soil that is contemporary or earlier with the construction of the church. This seems to indicate that before the construction of the church agricultural communities lived in the same site at about the 6th century AD. These agricultural communities were contemporary with those who inhabited at the domestic site, excavated by Phillipson in the late 1990's dating between the 5th and 6th centuries AD (Phillipson, 2000).

Very smoothed quartz and pebble stones were found in the kiln inside the vestibule 2.35 m deep below modern ground surface level. They were found together with brick made tube fragments (tuyer), charcoal and melted glasses. This seems to

indicate that they were probably used for smoothing raw materials for the production of glasses or for smoothing glasses before or on the process of production.

One gray smoothed rectangular flat stone (marble?) pierced (hole) on its one side was excavated beside the wall inside the vestibule at 2.20 m deep below modern ground surface level. It measures 0.30 m long, 0.7 m wide at its bottom and 0.2 m thick. Such a unique stone seems to have been used as a bell of the same church.



A perforated stone excavated in the vestibule *of the church of Arbaetu Ensesa*

5. 6. Beads

A small number of beads were uncovered at the Church of *Arbaetu Ensesa* on the course of excavations in 2006 and 2007. Six beads were collected in the same site. Most of them were found outside the main wall of the church near the vestibule. A cylindrical brown bead was excavated in the ash layer 0.60 m deep below modern ground surface level in the northern aisle of the church proper. Furthermore, a round blue, a cylindrical shaped bead with no perforation and a round gray bead were uncovered outside the vestibule. As most of the beads were uncovered on the upper levels of the excavated trenches, seem to indicate that they might have been the result of disturbances.

5.7. Metals

Sixteen metallic fragments including iron and bronze were uncovered on the course of excavations at the Church of *Arbaetu Ensesa* in 2007. Excavations at the

underground treasury room yielded fourteen fragments both iron and bronze beginning from the upper to the deepest levels of the same room. The remaining fragments were excavated in the deepest levels of the vestibule and the southeastern room.

Two iron nails that are 0.6 m and 0.3 m long were found between 0.75-90 m deep below modern ground surface level at the niche located on the southern side of the treasury room. Such fragments that are documented as Ax2007, EST33, 75-90.1-2 seems to suggest that such a niche was intended for keeping valuable objects of the church such as irons as described above.

A corroded copper object 0.18 m long, which is sharp at its one end with an inventory number of Ax2007, EST37, 135-159.1, was uncovered in the underground treasury room on the course of excavations in 2007.

The discovery of a large number of metallic objects in the underground room seems to suggest that the same room was a special room for storing valuable church treasures. However, this large and luxurious church treasure of the Aksumites was robbed in modern times and in antiquity and very few of them were uncovered on the course of excavations in 2007. For the same reason the irreplaceable archaeological resources of the late Aksumite population was destroyed forever by vandalism.

The findings of such a large number of metallic objects show that the Aksumites had sophisticated metallic industries as described in the following. Aksumite sites are known with the presence of iron slages (Tekle Hagos, 1997). Excavations undertaken at the Church of *Arbaetu Ensesa* at Aksum in 2006 yielded fragments of iron slages confirming its date to the late Aksumite times. A large number of iron slage fragments were excavated on the floor of the vestibule 2.35 m deep below modern ground surface level that shows that the Aksumite had an iron industry for the manufacture of the same. Such an industry is confirmed by the discovery of several iron fragments in the same depth in the same room in 2006. Moreover, iron cramps excavated on the Tomb of False Door by Chittick (Munro-Hay, 1989, Phillipson, 1997) and by Tekle Hagos in 2006 in the same tomb further confirm that the Aksumite iron industry was a sophisticated one. Besides the above, the Aksumites had a special skill in the production of gold both for minting coins and for ornaments. Two gold foils known with the inventory numbers of Ax2007, EST31, 45-60.1-2 were uncovered in the vestibule on the course of excavations in 2007.

5.8. Stone artifacts

The archaeological literature (Munro-Hay, 1989; Phillipson, 2000, Phillipon L., 2000) shows that stone tools such as scrapers are common on Aksumite sites showing the tradition to make and use stone tools continued in Aksumite times (Phillipson, L.2000).

The recent excavations undertaken at the Church of *Arbaetu Ensesa* confirms the Aksumite archaeological literature. Eight lithic artifacts were uncovered on the deepest level of the excavated trenches of the same church. Most of them are quartz flakes excavated from the underground room. Three, one and four stone artifacts were found in the southern aisle, vestibule and in the underground room of the Church of *Arbaetu Ensesa*, respectively. However, unlike those excavated in the deepest levels of the underground and the vestibule, the rest appear to be the result of hill wash from the surrounding hill of Mai Qoho.

The most interesting tool discovered at the underground treasury room is a blade known with an inventory number of Ax2007, EST20, 223.1. excavated 2.23 m below modern ground surface level. It was found above the floor of the same room near the wall that supports the seven stairs below the eastern niche on burned soil. This seems to indicate that the clergy used this room for the preparations of some staffs for ritual purposes.

5. 9. Bones

Both historical and archaeological literatures of the Aksumite civilization show that cattle, donkey/mules were used for transportation and diet of the Aksumite population in the first millennium AD (Phillipson, 1998; Sergew, 1972;Tekle Hagos, 1997). Aksumite sites are therefore rich in such animal bones as discussed below.

A large numbers of bones of domestic animals were collected from the Church of *Arbaetu Ensesa* on the course of excavations in 2006 and 2007. A greater number of bones were excavated in 2006 than in 2007. This is because the richest, largest and the deepest room, the vestibule, was excavated in the first field season. A total number of 643 bones were collected in both field seasons. In 2006 alone, 559 bones were excavated in the same church beginning from the upper to the lowest levels of the excavated EST trenches. Furthermore, the vestibule was used as an activity area of the Aksumite clergy as a large number of pottery, bones, grinding and polishing stones, iron slags and a kiln

for glass industry were uncovered from the same room. The remaining bones (n = 84) were collected in 23 trenches excavated in 2007. Such remains were found in all the rooms of the church including the vestibule. The reason as to why a small numbers of bones were uncovered in the second field season than the first one seems to be that a large number of bones and other artifacts are not expected to be present in the three aisles and the sanctuary as these rooms are used for praying. Furthermore, it appears that the bones were burned when the church was destroyed by fire. The majority of the bones collected in 2007 were found in the deep ash layer. Some of the bones show evidence of burning.

Burned bones were excavated in the middle and northern aisles in the ash layer in Stratigraphic Unit 2. Moreover, a single bone excavated in the northern aisle in the same unit show evidence of cutting by sharp tool. In addition, the same bone shows evidence of burning.

Cattle bones, sheep/goat bones, cattle teeth, chicken bones, donkey/horse/mule bones and teeth were recovered on the course of excavations on the same church. The majorities of the collections belong to cattle bones and teeth. This evidence shows that the late Aksumite populations used these animals as a diet.

5.10. Pottery

5.10.1. Local pottery

A large number of potsherds were uncovered on the course of excavations at the church of *Arbaetu Ensesa* in two field seasons. However, at least 1997 fragments of locally made pottery that are useful for research and display were selected and stored at the new Aksum Archaeological Museum. In 2006 alone over 1005 and in 2007 at least 992 potteries were selected and catalogued. Rims, handles, necks, bases, decorations, foot and color of the pottery that the author thought are important for reaserch and display for the public were selected.

The potteries excavated in the same church in the same years are not homogenous. They have different colors: brown, red, black, gray, buff, etc. All are hand made with no evidence of wheel. The potters lack special skill compared to the early, classical, middle and late Aksumite potteries. Fingerprints of the potters are easily recognizable on some of them and have uneven body surfaces. The firing technique of

the pottery is not well sophisticated with poor control of fire or lack of oxygen as most of them are black. The pottery decoration varies. However, the common characters of their decorations are pointed geometric patterns incised on body pieces (Wilding, 1989). The cross is engraved on some of the decorated pottery at least beginning from the 6th century AD as a symbol of religious identity of the Aksumite populations (Fattovich *et.al*., 2000).



*Brown Aksumite pottery excavate*d *outside the church of Arbaetu Ensesa*

Unlike in most of the church rooms, the southeastern room of the church that was used by the clergy yielded red pottery cones (faience) and crosses in its lowest levels. Such finds are pierced. Similar potteries were excavated by Chittick at Enda Semon and at The Yeha Hotel by Wilding and Godet in Aksum (Wilding, 1989). Previous study carried out on excavated faiences at Aksum showed similarity with those of Egypt. However, the color and fabric of these potteries are similar with those of the Red and Brown Aksumite Ware and seem to suggest that such pottery were locally made by the Aksumite potters (Wilding, 1989).

Most of the potteries excavated on all excavated levels of the Vestibule were black in colors and have incisions on their rims. Some are very thick. Others are red from the outside and black from the inside, polished with incised decorations. Polished red pottery was excavated in the Kiln 2.35 m depth below modern ground surface level in the vestibule.

A large pottery with its several pieces was excavated near the stairs that lead to the southeastern room. It is broken and partly turned upside down. It is 0.25 m thick, not

decorated and seems to have functional purpose probably for cooking. It is Reddish brown ($5YR^{4}/_{3}$) from outside and black ($5YR^{2.5}/_{1}$) in color from the inside. Furthermore, a large thick red jar was excavated in the underground room 1.95 m deep below modern ground surface level and reaches to the floor of the same room. This pottery is not decorated and seems to have functional purpose either for storing holy water or other related ritual functions (Fattovich *et.al*. 2000).

In short, some of the potteries excavated are similar to those described by Wilding (1989) as Gray and black Aksumite ware. Although, some of these potteries are related to the Red and Brown Aksumite in decorations, they vary with their gray fabric and decorative strategies. In addition, a small numbers of black highly burnished pottery were published by Wilding and similar types were excavated in 2006 and 2007 at the Church of *Arbaetu Ensesa*. The term gray ware was used by Wilding, to amorphous collection of little ceramic merit, manufactured and fired in undisciplined and technically inferior way such as those uncovered by the author in the church of *Arbaetu Ensesa*.

5.10.2. Imported potteries

The majorities of the Aksumite sites are identified by the presence of imported potteries such as African Slip Ware (ASW) and Amphora at least datable between the 6th and 7th centuries AD (Munro-Hay, 1989). Archaeological evidence show that the Aksumites imported luxurious pottery between the 6th and 7th centuries AD (Phillipson, 1998, Fattovich *et.al*. 2000). Most of the imported potteries that are common on Aksumite sites are amphorae from the Northern Red Sea countries such as Syria/Cyprus (Phillipson, 2000a). Twelve fragments of amphorae were excavated inside the rooms of the Church of *Arbaetu Ensesa* in 2006 and 2007. The majority of these finds were collected from the deepest levels of the underground room and the vestibule of the same church. Particularly two pieces of fragments with the following inventory numbers, Ax2007, EST 20, 45-60.1 and Ax2007, EST 33, 90-105.1 were excavated in the underground treasury room of the church 0.60 m and 1.05 m deep below modern ground surface level confirming the antiquity of the church to late Aksumite times.

There were some attempts by the late Aksumite potters to imitate the imported ones. In 2007, two fragments of locally made amphorae with the inventory numbers of Ax2007, EST 20, 45-60.1 and Ax2007, EST 25,45-60.1 were excavated in the

southeastern and in the underground treasury rooms of the Church of *Arbaetu Ensesa* 0.60 m deep below modern ground surface levels.



Imported pottery excavated inside the church of Arbaetu Ensesa

6. Conclusion

The excavations carried out at the Ezana Stone Thrones in 2006 and 2007 have addressed the initial objectives of the same project as discussed below.

The first objective of the excavations undertaken at the Ezana Stone Thrones was to assess the significance of its archaeological ruins. Accordingly, the excavations carried out in the same site in 2006 and 2007 revealed a unique late Aksumite church. This building is characterized by a rectangular structure that has three elongated aisles and a semi circular apse sanctuary. It appears that the church did not last long. It was probably built and destroyed in the late Aksumite times. This unique building that has an outstanding cultural and scientific values is an additional cultural heritage resource at Aksum and its surroundings to attract local and international visitors and to generate additional economic income both for federal and regional governments and for the local population at Aksum.

Prior to the construction of the same church, it appears that a temple was located in the same site as King Ezana declares in one of his pre-Christian inscriptions that he set up with a throne and statues in the same site. Furthermore, in the same memorial

declaration, King Ezana donated the same site to the god of Mahrem in the 4th century AD (Sergew, 1972; Littman *et.al.,* 1913). However, no archaeological evidence of a pre Christian temple was uncovered in the same site in the course of excavations in 2006 and 2007. There has been a speculation that the tumulus that was recorded by Littman *et.al*. (1913) and Monneret De Villard (1938) in the same site that was destroyed in 1937 by the invading Italian army may have been the tomb of King Ezana. For the same reason the same site have a great potential for future archaeological research to uncover a possible pre-Christian temple and to confirm the proposition that the tomb of king Ezana was located in the same site. Furthermore, the same site is large with huge potential of archaeological evidence such as artificial terrace, mound and stone monuments.

The second objective of the excavations was to address the relationships between the stone throne and the archaeological ruins located at the Ezana Stone Thrones. The available evidence shows that stone thrones were set up for memorial purposes in public places (Munro-Hay, 1991; Tekle Hagos, 1997; Littman *et.al*., 1913). Religious centers such as churches and temples seem to have been the most important public meeting places. At present, all most in all parts of Ethiopia, public gatherings take place in churches after mass prayer. The majorities of the Aksumite stone thrones are found inside the Church of Mariam Tsion. For instance, an Akssumite King Kaleb of the 6th century AD seems to have set up a memorial stone throne probably at The Church of Mariam Tsion (Sergew, 1972). This seems to confirm stone thrones were set up for memorial purposes in religious places since the Yeha (Damat) civilization and early Aksumite times. Furthermore, it appears that the five stone thrones that are located at the Ezana Stone Thrones Site were set up in early Aksumite times in a pre-Christian temple prior to the construction of the late Aksumite Church of *Arbaetu Ensesa.*

It seems that the function of the stone thrones at Aksum changed through time. The inscriptions of King Ezana confirm that stone thrones had memorial purposes at least during the first six centuries AD (Sergew, 1972; Littman *et.al*., 1913; Tekle Hagos, 1997). It appears that such a function changed from memorial to coronation at least beginning from the 6th century AD. According to tradition, at least one stone throne seems to have been used for the coronation of the Aksumite King, Gebre Meskel in the 6th century AD (Sergew, 1972). However, both historical and archaeological evidence do not confirm this legend. Contemporary sources show that coronations of Ethiopian kings

took place at Aksum in some of the stone thrones beginning from the medieval period such as those of Kings, Zara Yaqob (1434-68) and Sartsa Dingle (1568-97) in the 15th and 16th centuries AD (Munro-Hay, 1991). In short, the majority of the Aksumite stone thrones were set up in public places particularly in religious centers.

Protection of the site was the third objective of the excavations. Prior to the excavation of 2006 and 2007 the site was threatened to irreplaceable damage coming from natural and cultural formation process. The excavations undertaken at the Ezana Stone Thrones rescued a late Aksumite church from further destructions. Conservation work such as digging and consolidating drainage systems, consolidation of walls were undertaken after the end of the excavations to protect the church. Furthermore, a metal roof shelter was built after the completion of the excavations of 2006 for rainfall protection. The excavations and conservations works undertaken in the same year on the same church rescued the same structure from cultural and natural destructions. Thus, the excavations fulfilled its objective by exploring, conserving this culturally, and scientifically outstanding Aksumite building.

The discovery of such architecturally impressive Aksumite building convinced the professionals and consultants of the Ethiopian Cultural Heritage Project of the Aksum Site Planning and Conservation sub component to replace the existing metal fence with traditional wall to keep continuity and architectural harmony of the site.

The church of *Arbaetu Ensesa* represents the unique Aksumite architecture between the 6th and 7th centuries AD. It also represents the peak of Aksumite evolution of church architecture in late Aksumite times. The earliest Aksumite churches had either rectangular or square shaped sanctuary in about the late 4th century AD. As discussed in the chronology of the Church of *Arbaetu Ensesa*, semi circular apses sanctuaries replaced the squared and rectangular ones in about the middle of the 6th century AD. The town of Aksum was lacking late Aksumite church architecture. Thus, the discovery of the church of *Arbaetu Ensesa* filled the gap that Aksum was missing.

Before the excavations of 2006 and 2007, the site was used as public toilet and not accessible to the public. After the completion of the excavations, the site was fenced by traditional wall. It was cleaned. Landscaping and surface leveling of the site was undertaken. The Public route that used to pass through the center of the site was closed

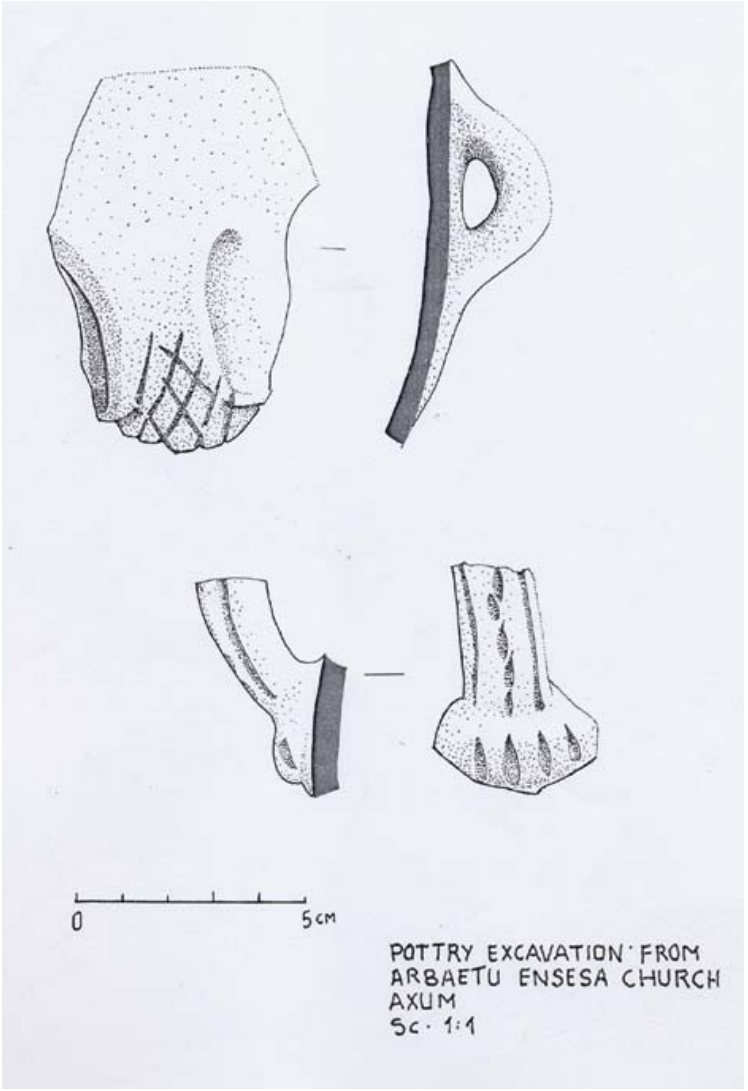
and an alternative route was redesigned. Such activities made the site attractive and ready for public visit.

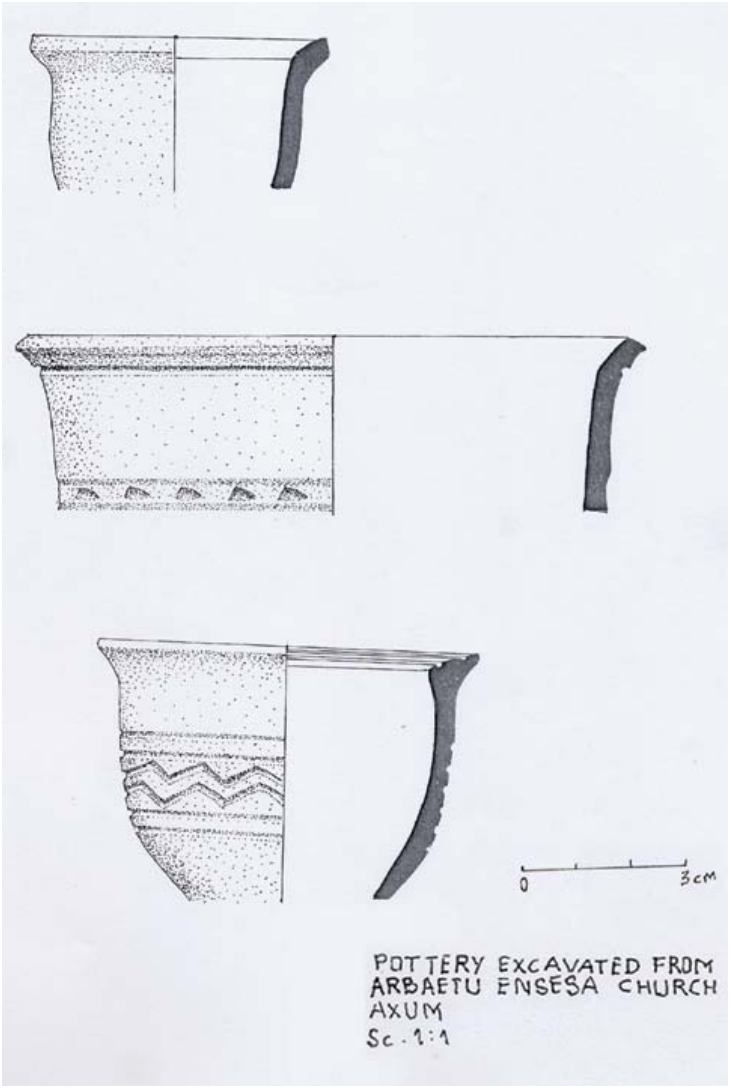
The local demands of the public and authority to uncover the buried inscription was addressed by uncovering the three inscriptions of *Hatsani* Daniel. A circular traditional house was built to protect the same inscriptions. A suitable stairs of stone benches were built inside the shelter where schoolchildren and other visitors could sit and appreciate the legacy of the material culture of Aksumite civilizations.

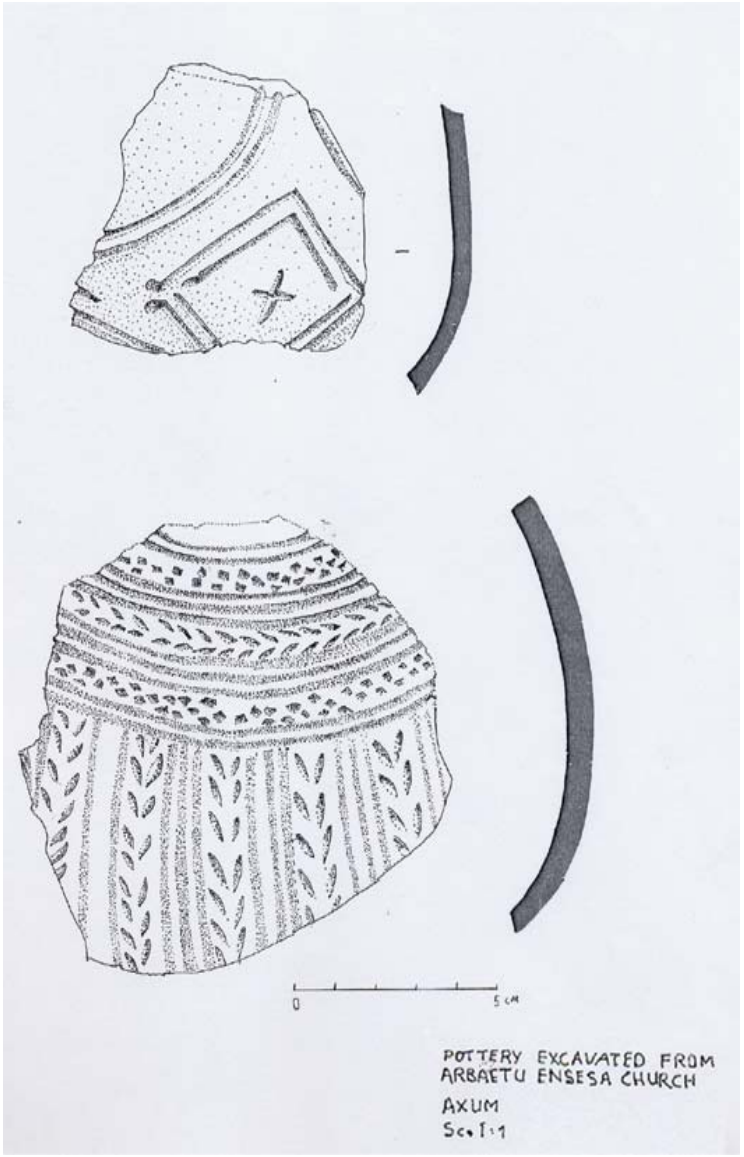
In short, the 2006 and 2007 excavations have addressed all objectives that initially intended to achieve. The results of the excavations will make the Ezana Stone Thrones Site the second most important site to be visited by the public next to the Main Stelae Field. Furthermore, the excavations yielded one important site to be exhibited to the public for the new third millennium other than the Tomb of The Brick Arches and The Mausoleum after 30 years.

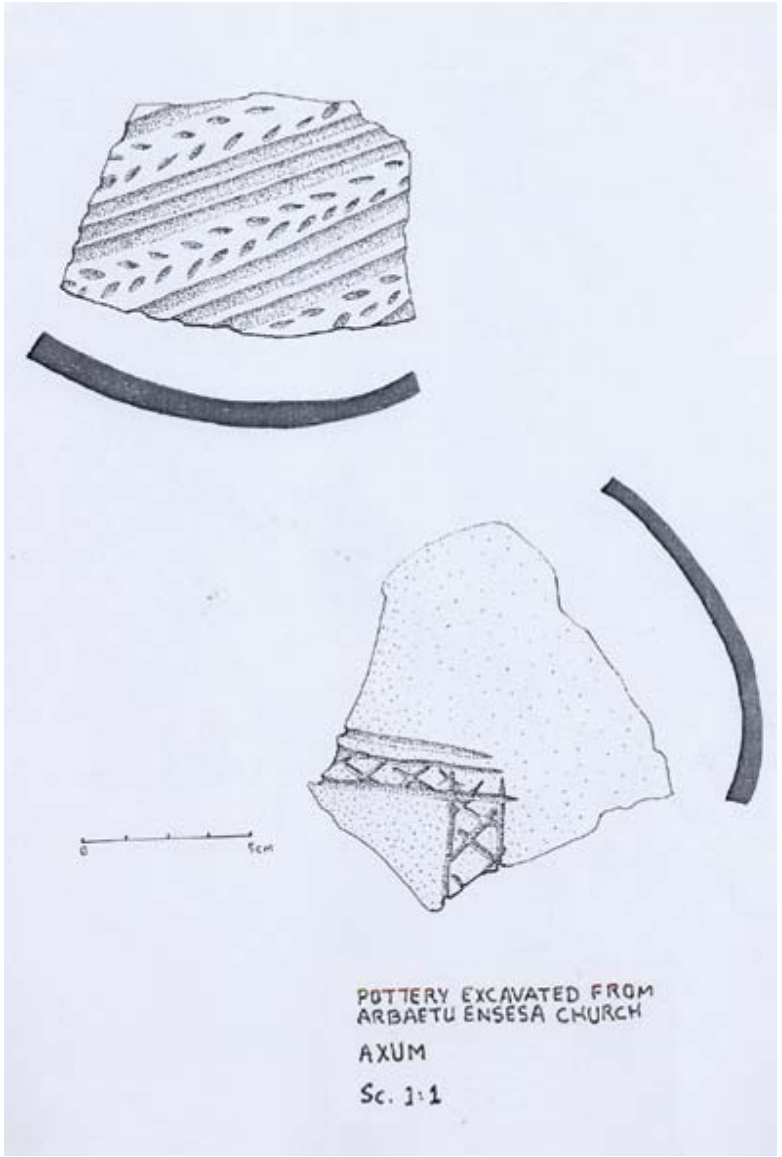
These recently discovered structures such as the Church of *Arbaetu Ensesa,* the inscriptions of *Hatsani* Daniel, the stone thrones and other stone monuments were left open for visitors after conservation and landscaping activities were undertaken by the same project.

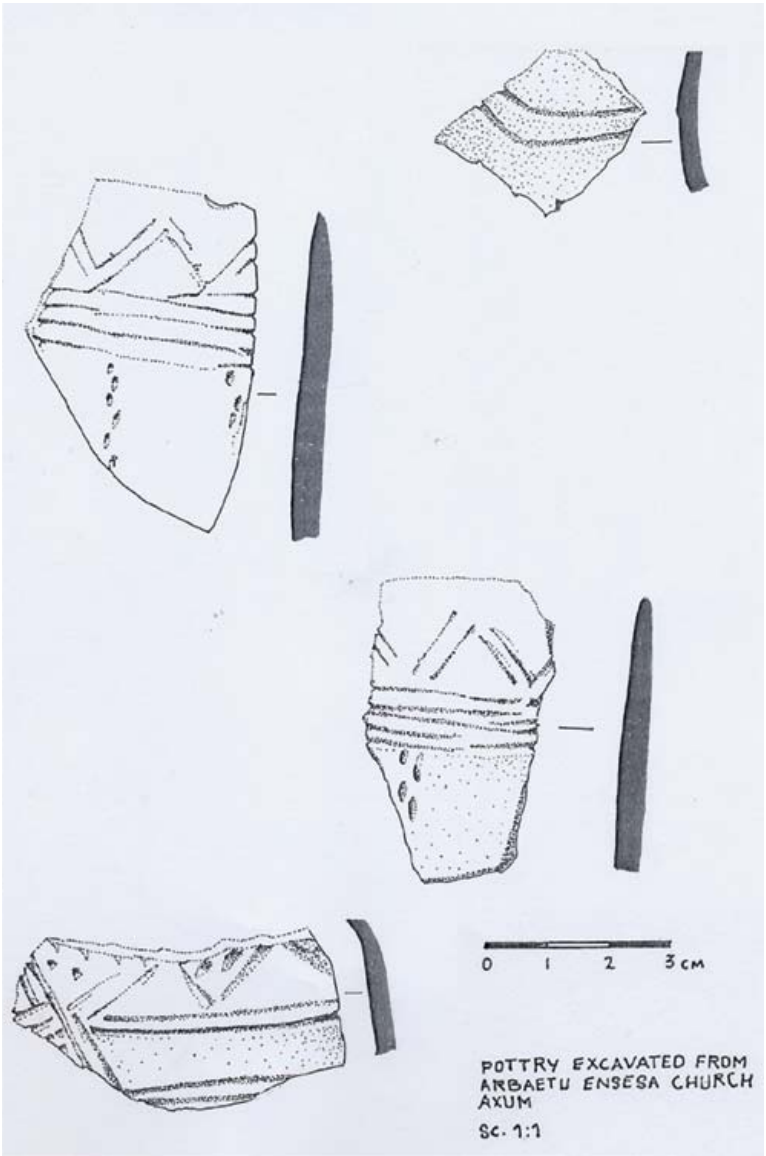
Artifacts excavated from the Church of Arbaetu Ensesa

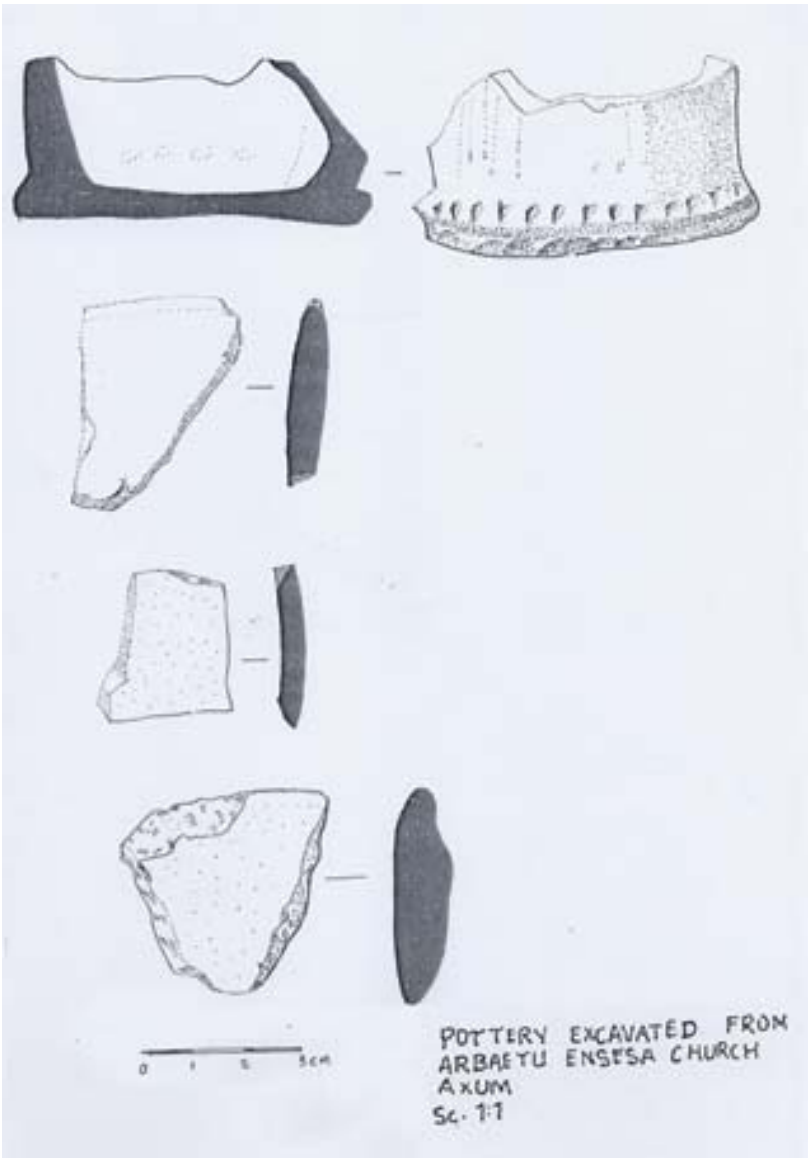


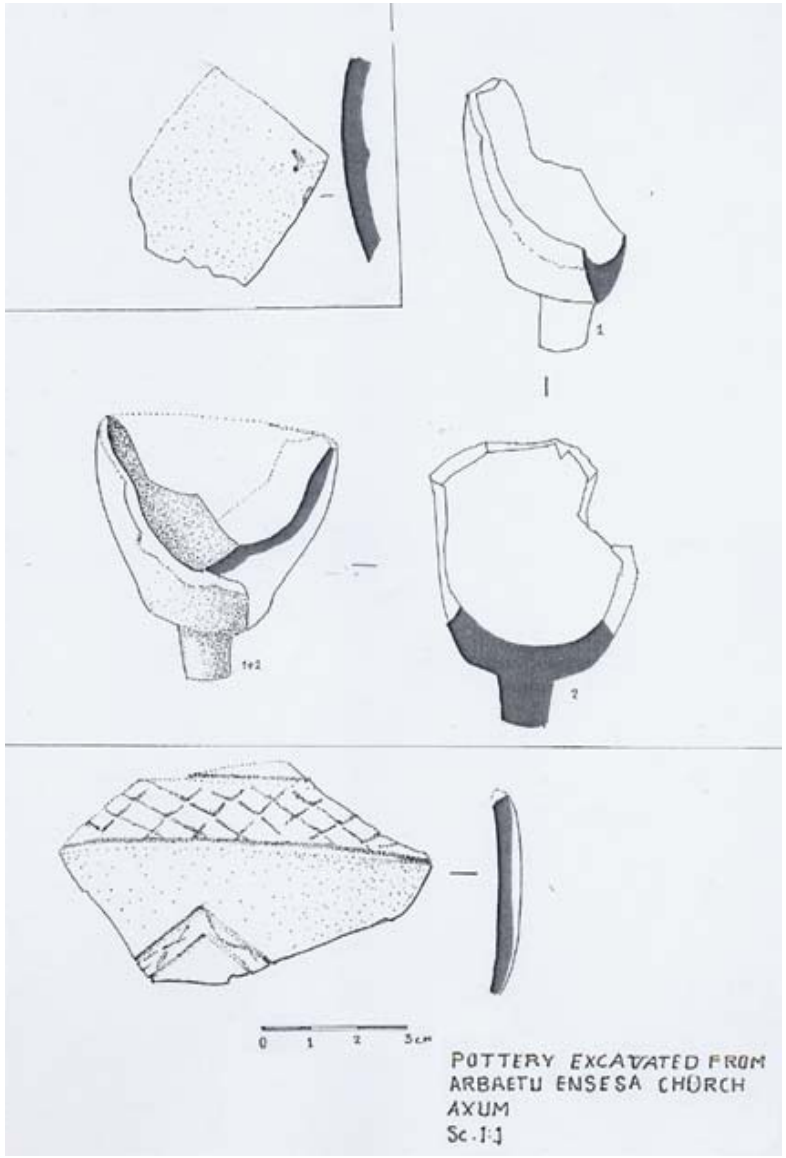


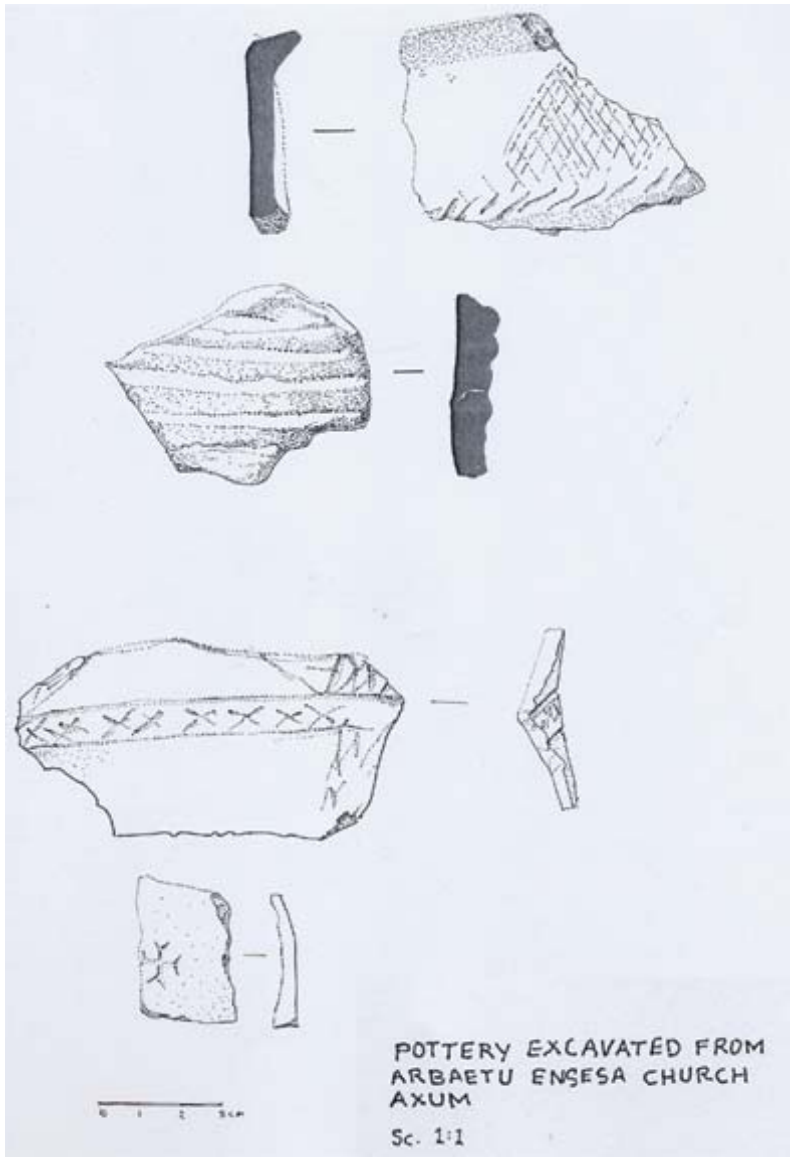

0
5 cm
POTTERY EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1

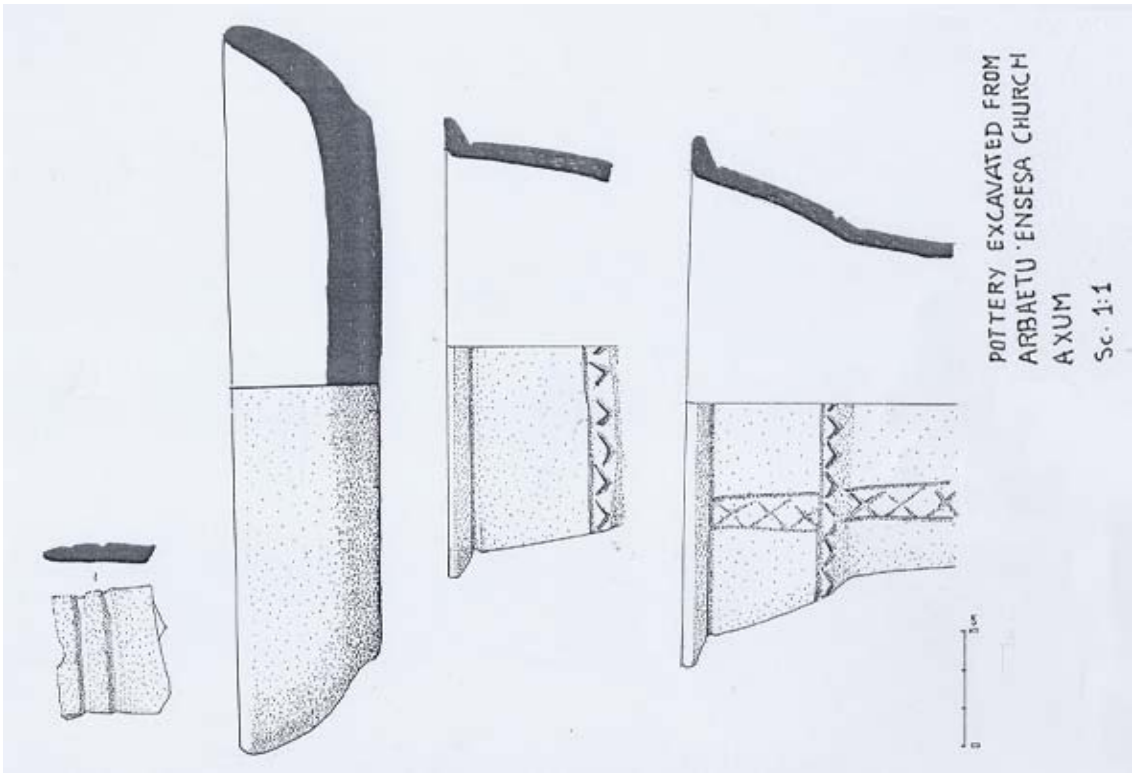

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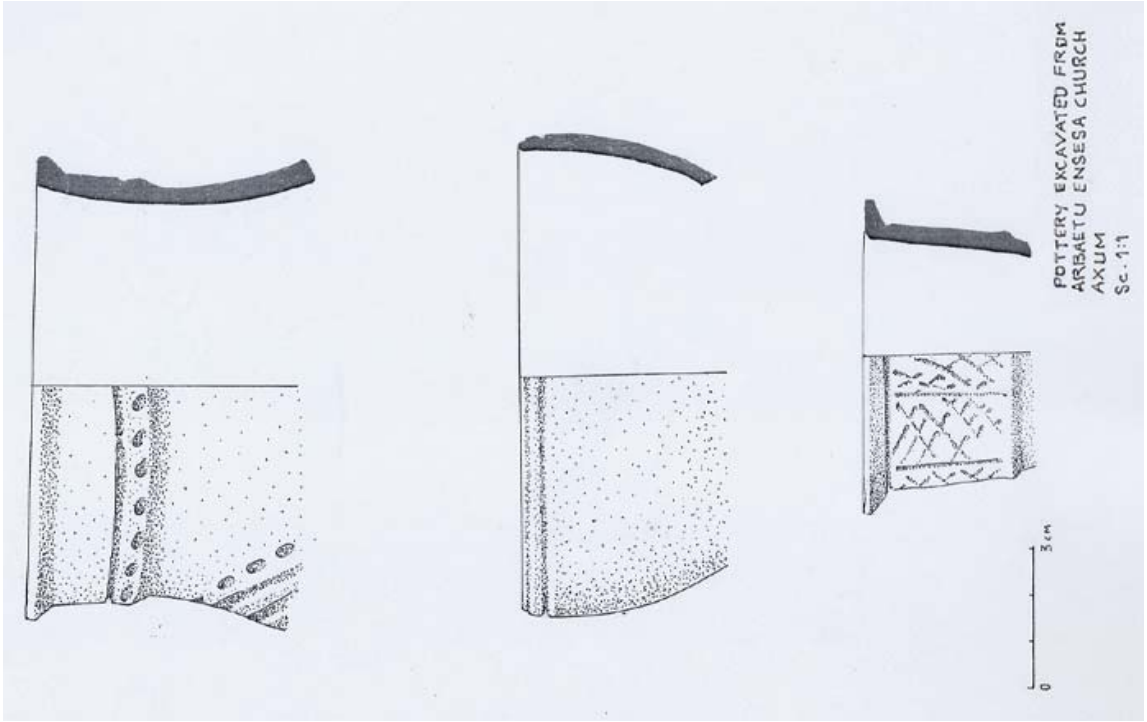

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ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1

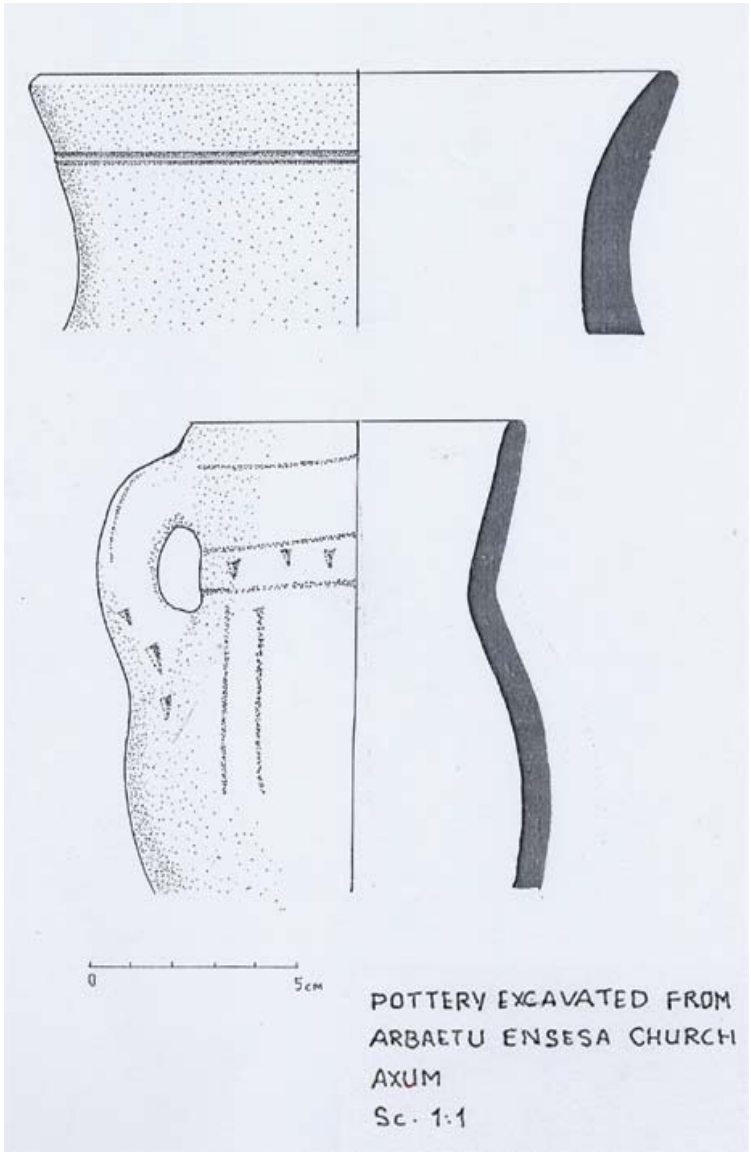

POTTERY EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1


0 1 2 5cm
POTTERY EXCAVATED FROM
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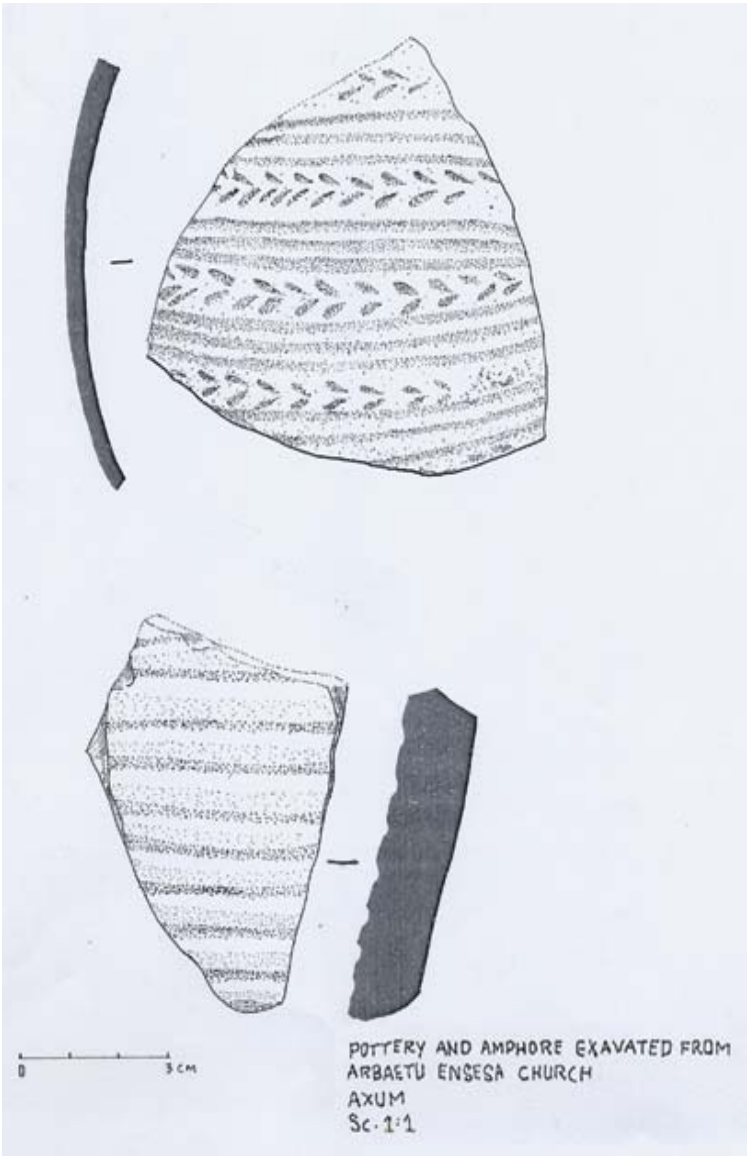

POTTERY EXCAVATED FROM
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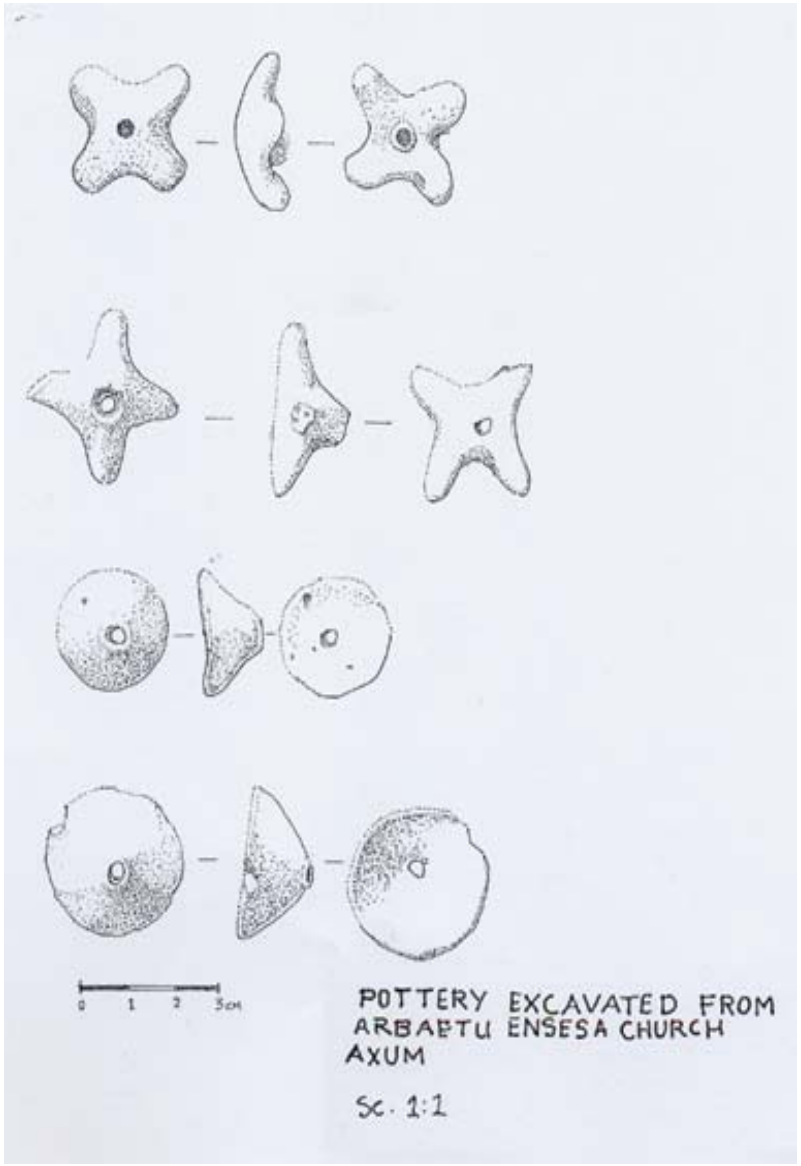

POTTERY EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
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0
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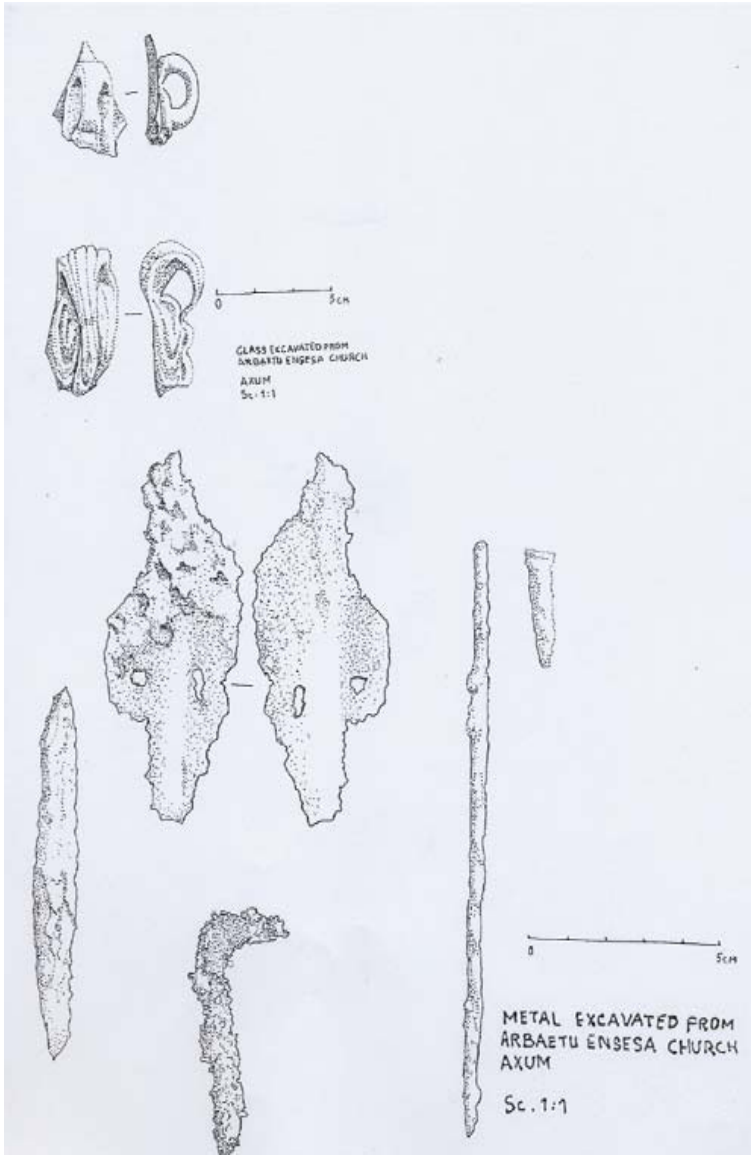


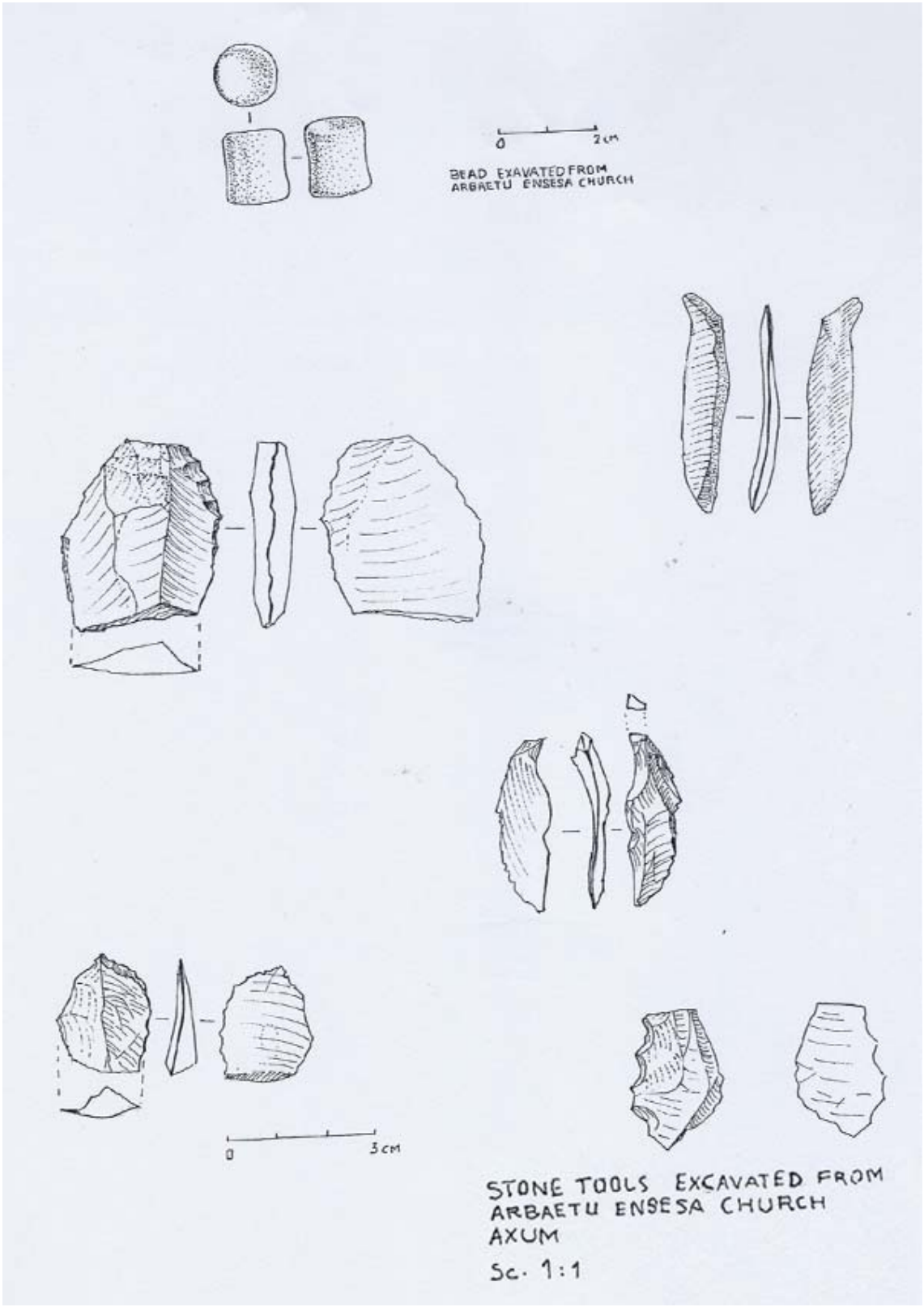
POTTERY EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1



POTTERY AND AMPHORE EXAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1


0 1 2 3cm
POTTERY EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1


0 5cm
GLASS EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1
0 5cm
METAL EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1


0
2cm
BEAD EXAVATED FROM
ARBAETU ENSESA CHURCH
0
3cm
STONE TOOLS EXCAVATED FROM
ARBAETU ENSESA CHURCH
AXUM
Sc. 1:1

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Archaeological Rescue Excavations at the *Dejazmach* Gebreslassie Palace, Aksum, Ethiopia,

By Tekle Hagos,

Part II

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Archaeological Rescue Excavations at the *Dejazmach* Gebreslassie palace, Aksum Ethiopia,

Abstract:

Archaeological rescue test excavations were carried out by the Ethiopian Cultural Heritage Project Site planning and Conservation sub-component at the Gebreslassie Bariya Gabir palace enclosure at the back of The Main Stelae Field in Aksum from the 5th of June to the 15th of July 2005 to check significant archaeological structures before the construction of a new Aksum Archaeological Museum on the same site.

Archaeological test excavations yielded at least four underground rock-cut tombs 4 meters depth below modern ground surface level, dating to at least to the 3rd century AD. In the course of the excavations, a large number of classical Aksumite ware, imported pottery, glass, beads and Aksumite iron tools dating between the 3rd and 4th centuries AD were also excavated from the same site.

Archaeological Rescue Excavations at the *Dejazmach* Gebreslassie palace, Aksum Ethiopia,

1. Location and previous investigation.

The earliest palace of Dejazmach Gebreslassie Bariya Gabir is located behind The Main Stelae Field on the foot of Betegiorgis hill at 469580 easting, 1562207 northing and at an altitude of 2166 m above sea level.

The site including all plots of lands that was proposed for the construction of the new Aksum Archaeological Museum is 2, 875.7 meters square, separated by an artificial or modern wall from The Main Stelae Field in the eastern side. On the northeastern direction, a modern wall separates it from the Church of Enda Eyesus.

The site was part of The Main Stelae Field before Ras Mengesha Seyoum laid the same park in the 1960's. Furthermore, the dressed and undressed stelae found in the same site shows that this site was part of The Main Stelae Field complex at Aksumite times.

Some part of the same site was part of the church of Enda Eyesus during the reign of Emperor Yohannes IV (1872-1890). This plot of land was added with that of Gebreslassie by prince Welete Israel in the 1940's when she built service quarter houses for her entourages to the west of the present circular and rectangular buildings.

Dejazmach Gebreslassie Bariya Gabir who was the Governor and Nebure'd of Aksum in the late nineteenth and early 20th centuries AD built his earliest palace on top of Aksumite archaeological site. Wall remain of the same palace is still visible to the east of the present circular and rectangular buildings of the governor.

The present building consists of one rectangular stone building with one storey and another circular stone building with one floor.

Chittick carried out archaeological test excavations outside the palace enclosure in the western side in 1973 in the proposed site for the Aksum Archaeological Museum. The objective of these excavations was to study the stratigraphy and Aksumite pottery sequence. For similar reason two L shaped trenches, measured 5 m by 1.5 m were dug. The trenches were designated as Haw I and II. The word haw is an arbitrated Tigrigna word of hawelti for stelae. Such excavations were carried out up to 5 meters depth below

modern ground surface level and revealed a large number of potteries that are similar in style with those of the Tombs of The Brick Arches dating to the 4th century AD.

Moreover, according to Chittick (1974) short period of settlement was represented from the pottery excavated in the same site. Furthermore, no significant archaeological burial or residential structures were found in the site by the same researcher (Chittick, 1974, Munro-Hay, 1989; Phillipson, 2000).

2. Test Excavations in 2005.

2.1. Objectives.

The objectives of the test excavations carried out at the Dejazmach Gebresslassie palace according to the author in 2005 were to check the presence of significant archaeological structures that have outstanding universal cultural and scientific values where the Aksum Archaeological Museum would be built on November 2005. Moreover, such excavations were undertaken on the same site to avoid destructions of any major archaeological structures due to the construction of museum building and to rescue, document and preserve archaeological artifacts from the same site.

2.2. Methodology

Grids of 5 meters were laid down from north to south and from east to west in a plot of land, which is 30 m long and 20 m wide.

Six trenches, which are 4 m by 1 meter each, were opened from north to south and from east to west directions where the Ethiopian Cultural Heritage project architects proposed to build the Aksum Archaeological Museum. There was an interval of at least 3 meters each among the six trenches. One trench was extended according to the nature of its initial findings.

Trenches were named by local designation. Accordingly, the six trenches were designated as Haw 3, 3A, 4, 5, 6, and 7. The term haw was used for the Tigrigna word of hawelti for stelae. Chittick also used such designations in 1973 in the same site. The same names were also applied in the 2005 excavations to keep consistency in designating trenches names.

Excavations were carried out in every 0.15 m spits. For the same reason, artifacts were collected in separate bags at the intervals of 0.15 m up to the natural clay soil or the

bedrock. Trowels, picks, shovels, spades and brushes of different sizes were used for the same excavations. Moreover, soils were sieved as appropriate not to miss small findings such as beads. The majorities of the findings were cleaned at the site.

All features discovered during the excavations were planned in 1: 20 scale. Furthermore, all sections of trenches were also drawn in the same scale. Moreover, all finds were documented in digital camera and color print photos. Charcoal, burned bones and seeds were collected for dating.

After the completion of the excavations, a large number of pottery fragments were examined. Pottery rims, decorations, bases, handles and necks were selected and kept in separate store. The selected ones and the rest of the findings were catalogued. Permanent markers were used to level the potteries from the grave contexts.

Chronology of the excavated structures was established by comparison of the artifacts excavated in 2005 in the same site with those previously dated Aksumite sites such as the tombs of GT II, The Tomb of the Brick Arches, Shaft Tomb, STXXIII, STXXIIIA and Brick Vaulted Structure.

2.3. Limitations of the research

There were some limitations to Archaeological rescue work undertaken in 2005 at the Dejazmach Gebreslassie enclosure. These excavations were carried out in six trenches hurriedly by a single archaeological supervisor and his assistance to meet the time schedule for the construction of the new proposed archaeological museum. Furthermore, such work was also carried out rapidly during the rainy season in the whole months of June and middle of July and to escape the heavy rain of the rest of same months with major risk of section collapses.

For the similar reasons it was not possible to take section plans for all sides of the haw trenches. The project did not provide Theodolite, measurements were taken by traditional methods using measuring tapes, and the modern surface level was taken as benchmark for all measurements.

There was also a time constraint to carry out detail study for the large number of collections such as pottery and bones. For the same reason this report is considered as tentative or preliminary outcome of the excavations work.

2.4. Results of the 2005 Excavations.

The archaeological rescue work conducted, by the author assisted by Habtamu Mekonen from the Tigray Tourism and Culture Commission, under a contract agreement of an Italian company known as Hydea. This Firm (from 2005 to 2006) conducted conservation, site planning and management work of the World Heritage site of Aksum and Gondar. The Ethiopian Cultural Heritage Project covered all expenses for excavations.

Excavations were undertaken where the new Aksum Archaeological Museum was proposed to build. Huge piles of modern garbage deposits accumulated for several years by ex-residents before the excavations in 2005 covered the site, which was proposed for the construction of the museum.

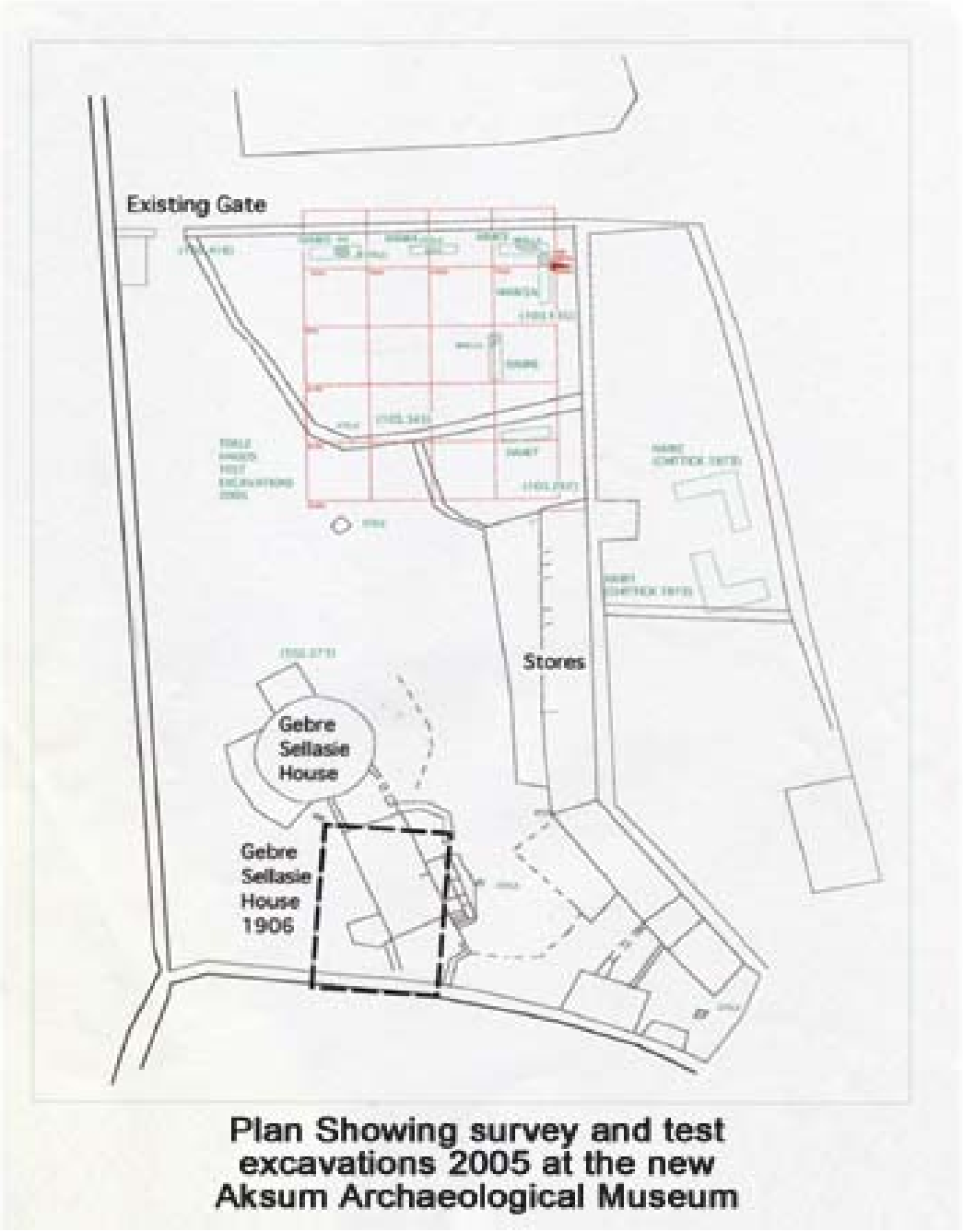
Twenty daily laborers were employed to clear such a garbage deposits and to demolish the modern wall that was 20 m wide and a meter high to facilitate test excavations in the same site.

An area of 24 meters square of plot of land was excavated beginning from modern ground surface level up to the maximum 5.5 depths below modern ground surface and into the bedrocks, in 6 trenches, which are designated as Haw 3, 3A, 4, 5, 6 and 7. The results of these excavations are summarized as follows.

2.4.1. Haw 3.

The Haw 3 trench is located in the northern side of the palace enclosure. It is found 2 m away from the eastern and northern stone built wall enclosure of the palace of Dejazmach Gebreslassie. It was opened from north to south direction parallel to the gate of the palace. It measures 4 m long and 1 m wide.

No artifacts were collected up to 0.75 m depths below modern ground surface level. Modern garbage deposits that have been accumulated in the site for several years covered the upper level. This trench was excavated up to the maximum depth of 3.4 m depths below modern ground surface level up to the archaeological sterilized natural black clay soil.



Plan Showing survey and test excavations 2005 at the new Aksum Archaeological Museum

2.4.1.1. The Finds.

Haw 3 is not rich in artifacts. One hundred and thirteen pottery fragments were selected from 0.75 m- 2.10 m depth below modern ground surface level. Such selections include rims, bases, decorations, handles and necks. These collections were catalogued and stored in the Aksum Archaeological Museum. Furthermore, twelve bones were also collected from the same trench in the same depths mentioned above.

A relatively modern wall of possibly of the nineteenth century AD was excavated at 0.94 m depth below modern ground surface level. It is built on top of a rubble fill. Its visible length is 1.4 m and it is 0.94 m thick. It is round in shape and extends outside the trench towards the modern wall enclosure. Large stones and mud were used to build the same wall. No pottery and bones were found from this structure. Due to its recent age and poor method of construction, it has no architectural and archaeological significance. For similar reason it would not affect the future location of the Aksum Archaeological Museum.

2. 4. 2. Haw 3A.

This trench is an extension of Haw 3. It was opened in an east west direction to investigate the limit and the relationship of the wall that was uncovered in the eastern profile of Haw 3. It is 4 m long and a meter wide.

The top layer, 0.65 m thick that is brown in color, is a modern garbage deposit accumulated by the ex-residents of the site for many years. For the same reason no archaeological objects were collected from the same level in the same trench. It was excavated up to 3.3 m depth below modern ground surface level up to the archaeologically sterilized natural clay soil.

2.4.2.1. The Finds.

A large number of potteries were collected from 0.65 m - 2.9 m depths below modern ground surface level, of which only 237 of them were selected. Furthermore, 67 bones were also collected from the same depths in the same trench.

The wall that was recorded on the eastern profile of Haw 3 was also found in this trench at 1.05 m depth below modern ground surface level. The visible length and thickness of the same wall is a meter. The wall is built on top of a black clay soil with rough stone and mud. It has similar shape with that of Haw 3 and extends outside the section towards north to the enclosure of the northern wall. Such excavation confirmed that this wall is part of the same wall exposed at Haw 3 and was built on top of a black clay soil while that of Haw 3 was built on top of rubble fill.

An entrance gate was documented between the walls of Haw 3 and Haw 3A. A flat stone slab marks this gate, which is 0.56 m long and 0.45 m wide. It was excavated at

1.65 m depth below modern ground surface level and 0.45 m deep below the wall in Haw 3A.

This relatively modern wall of possible 19th century AD has no outstanding cultural and scientific values. Therefore, it would not affect the future location of the Aksum Archaeological Museum.

2. 4. 3. Haw 4.

Haw 4 is found 4 m to the south of Haw 3 and was opened parallel to the same trench from north to south direction. It is also located 2 m to the east of the modern stone built enclosure. It is 4 m long and 1 m wide.

It was excavated up to the bedrock, which is 5.1 meters deep below modern ground surface level. Five layers of different soil deposits were excavated up to the decayed soft sedimentary rock.

2.4.3.1. The Finds.

A huge layer of modern garbage deposits accumulated over the surface for many years characterizes the top horizon. This garbage is 0. 60 m thick. No objects of archaeological interest were collected from the same deposits.

A brown soil that is 0.60 m (0.60-1.20 m) thick was excavated below the garbage deposits. Aksumite pottery with classical decorations, bones and rubble fills were documented in this horizon. The rubble fill appeared at a depth of 1 m below modern ground surface level.

The third soil layer excavated in Haw 4 is light gray in color (1.2 - 2.25 m). It is characterized by stone fill deposits which is 1.05 m thick. A semi circular stone fill that measured a meter by 0.9 m was uncovered at 1.43 m depth below modern ground surface level. Below this fill, another rubble fill covering almost the whole trench was excavated in the same trench.

A light loose brown soil (2. 25 - 3 m), 0.75 m thick was excavated below the previous layer. The last and the earliest archaeological layer excavated in this trench is the yellow loose soil (3 m-5.1 m). A rock cut tomb, a fallen stela, beads, iron knife, iron dagger, iron spearheads, and human teeth and pottery were excavated below the fallen undressed stela in this archaeological horizon.

2. 4. 3. 1.1. The stela and the rock- cut tomb.

The most interesting discovery in this trench is the uncovering of undressed or rough and semi rectangular shaped stela. It appeared at 3.7 m depths below modern ground surface level. It is 1.7 m long with a varying width of 0.20 m and 30 m at both ends and 0.60 m and 0.70 m in the middle. The stela and the rock cut tomb are found at $14^0 07' 57''$N $38^0 43''$ E at an elevation of 2150 above sea level.

It fell from northeast to southwestern directions in antiquity. It seems that it fell by robbers when they dug in the same trench in antiquity. In the eastern profile of the same trench a robbers pit was documented at 3 m depths below modern ground surface level.

The bronze bracelets, iron spearheads, iron knife and iron dagger discovered in the mud grave below the fallen stela and above the rock-cut tomb might have been grave goods of the servants for the elite who was buried in the rock-cut tomb. The human tooth found together with the above-mentioned objects belongs to a young female. It seems that the stela fell on top of the grave discovered under the stela in the black clay soil. Gradually slop deposits covered the stela. The accumulated slope deposit that was documented in the northern section of haw 4 indicates that this stela was buried by sedimentation.

A rock tomb was excavated at 4.8 m depth below modern ground surface level and 0.80 m below the fallen stela. Only the entrance of the same tomb was excavated to avoid further disturbance.

This rock cut tomb and its marker, the fallen stela have an outstanding universal cultural and scientific values. For the same reasons the construction of an archaeological museum on top of this trench will affect the archaeological evidence mentioned above. It is therefore, recommended to avoid such construction over the same trench. Finally, it was agreed by all to save the same tomb and its associated stela to be included as part of the new museum exhibition room so that visitors would see the same from above.

2.4.3.1.2. Pottery.

One thousand three hundred and forty seven pottery mostly red Aksumite wares with classical Aksumite decorations were selected from the four archaeological layers described above. In addition, about twice the same numbers of pottery shards mentioned above were also collected from the same trench.

Trench 4 also yielded imported potteries from 1.35-1.50 m and from 2.70-2.85 m depths below modern ground surface levels. Three fragments of imported ones, which are blue painted or plastered, were documented at 1.35- 1.50 m depths below modern ground surface level. Such fragments are mostly white in color with multiple line decoration on their exterior surface. They are decorated on their interior surface. The second type of imported pottery is a single amphora body fragment 5 cm by 3 cm.

2.4.3.1.3. Glasses.

Seven glass fragments that appear to be imported from the outside world possibly from the Romans were excavated from the same trench between 1.05 and 4.65 m depths below modern ground surface levels.

One glass fragment, which is colorless with red coating, was found at 1.05- 1.20 m depth below modern ground surface level. This seems to have been imported from the Romans.

Another glass fragment with white coating was also excavated from Haw 4 at 1.65 m depths below modern ground surface level. Furthermore, additional glass fragment with yellow coating was excavated at 1.65- 1.80 m depths below modern ground surface level. Moreover, a glass fragment was also excavated in a grave context at 4.25 m depths below the fallen stela. In addition, two pieces of glass fragment with white coating and another one was discovered in grave context at 4.20- 4.35 m and 4.50- 4.65 m depths below modern ground surface level in the same trench.

2.4.3.1.4. Beads.

Four beads were also excavated from Haw 4 beginning from 1.8 m up to 4.35 m depth below modern ground surface level. Such beads were documented at 1.8 m, 3.9 m, and 4.20 m and from 4.20 m- 4.35 m depth below modern ground surface level. The beads are round in shape with perforations. They are round, gray in color with gold inlay (10YR $^{7}/_{4}$) rectangular and diamond in shaped blue in color (10B $2.^{5}/_{1}$) with 4 perforations, two beads which are blue and gray in color were excavated in grave context in the lower archaeological horizon at 4.20- 4.35 m depth below modern ground surface level.

2.4.3.1.5. Metals.

Haw 4 also yielded very interesting archaeological discovery that could give a clue about the Aksumite iron and metal technology. An iron knife broken in one end was discovered in a grave in the black clay soil under the fallen stela at 4.05- 4.2 m depths below modern ground surface level. This knife is 12 cm long and 3 cm wide. An iron dagger broken in 4 pieces was also excavated in the same grave at 4.20 m depths under the fallen undressed stela. The overall length and width of the same dagger is 38 cm by 4 cm.

Furthermore, four iron spearheads were also found together with the dagger in the same context. Two of the complete iron spearheads measure 6 cm long while the others are 5 cm long. Moreover, four bronze bracelets were also excavated in the same grave below the fallen stela together with the iron spearheads, dagger, human bone and pottery. The overall weight of the bracelets is 480 gm and their diameter is 5.5m. A human wrist was also found inside the bracelets. In addition, human teeth, pottery and glass were also excavated together with the bronze bracelets, iron spearheads and dagger. The bones, bracelets, armaments and glass were found buried by the fallen stela in a black clay soil 0.80 m above the rock cut tomb. This seems to suggest that the stela fell over the grave of the guards of those buried in the rock-cut tomb.

A light blue metal that appears to be a medal was excavated at 1.35-1.50 m depth below modern ground surface level. It is 2 cm by a centimeter.

2.4.3.1.6. Bones.

Haw 4 yielded large collections of human and cattle bone and teeth. Such collection took place beginning from 1.35 m up to 4.95 m depths below modern ground surface level. Five hundred and twenty three bones and teeth of human and cattle were collected from this trench.

Burned cattle bones were explored in grave contexts from 1.95 m- 2.70 m and from 4.20-4.95 m below modern ground surface levels. Furthermore, human bone fragments, tooth, skull, tooth, bone, skull, molar, mandible, and tooth were excavated from 4.05-4.20, 4.20-4.35, 4.80-4.95, 426, 3.90 and 4.05 meters depth below modern ground surface levels, respectively.

The outgoing section has outlined the important discoveries both movable and unmovable archaeological heritages that could shed a new light in Aksumite Archaeology. For the same reason, it was recommended that, this trench and its immediate surroundings to be protected from any cultural formation process including constructions. It was agreed and decided by all to save such structures to be included as part of the archaeological exhibition of the new museum.

2. 4. 4. Haw 5.

Haw 5 is found 4 m away to the south of trench 4 and it is the nearest trench to the gate of the palace of Gebreslassie. It is 4 m by a meter. It is opened from north to south direction parallel to Haw 4.

2.4.4.1. The Finds.

Five different soil layers were excavated in this trench up to 5.3 m depths or to the bedrock. The upper soil layer, light brown in color, is modern garbage deposit. For the same reason no objects of archaeological interest were collected from 0-.90 m depths below modern ground surface level. The second soil layer is a brown loose soil with an average thickness of 0.50 m (0.90-1.20 m). Red Aksumite ware and stone rubble fills were excavated from this archaeological horizon. Furthermore, a yellowish brown soil at an average thickness of a meter (1.20-2.20 m) was excavated below the brown loose soil. Evidence of human activities such as pottery, bones and stone fill were excavated from this archaeological layer. For instance, fragile human teeth and bones were explored in the same layer from 1.46- 1.50 m depths below modern ground surface level. It was not possible to determine the orientation of the deceased due to the decayed nature of the bones. However, it appears that the deceased rested from north to south direction or vice versa. Furthermore, this layer yielded burned animal bones, 2 beads and a single glass. A black pottery was excavated at 1.95 m depth below modern ground surface level that suggests disturbances dating to the post Aksumite times.

A loose dark brown soil layer mixed with stone fills and bones was excavated below the above layer (2.20-3.30 m). Red Aksumite pottery and bones were documented from the same layer. Yellowish sediment that indicates slope deposits was also recorded in this layer at 2.7 m depths below modern ground surface level. Part of the undressed or

rough and erected stela appeared in this level. The last and the earliest phase excavated in this trench is a black loose fill soil (3.30-3.90 m). This phase is very rich in Red Aksumite pottery, burned cattle bones, bones, charcoal and stone fills. Almost half of the erected stela is found in this layer. The pit, which is the entrance of the rock- cut tomb, was also excavated in this layer.

The multiple rock-cut tombs, the erected and fallen stelae are the most important features discovered at Haw 5.

2.4.4.1.1. The stela.

A single undressed rough semi-rectangular stela with a narrow top, which is still found insitu and erected, appeared at 2 m depths below modern ground surface level. Such a stela and a rock cut-tomb are found at 14^0 07'57" N and 38 ^{0} 43' 08 " E at an altitude of 2150 asl. It was erected on top of a natural black clay soil, which is 3.9 m deep below modern ground surface level. It stood on top of a single rough stone, which is 0.25 m by 0.20 m. Again, this packing stone is also placed on top of a natural black clay soil, which was an Aksumite surface, level at the time of the erection of the stela and carving of the rock cut tomb to be discussed later. Packing stones on the northern section of the trench supported this stela. It is 2 m long with a varying width of 0.45 m at the top, 0.40 m at the bottom and 0.50 m at the center.

Another undressed fallen stela was also discovered at 3.9 m depths below modern ground surface to the south of the entrance of the pit mentioned above. Most of this stela is found on the eastern section of the trench and therefore it was not completely exposed. Furthermore, no excavations were carried out to determine its associated grave.

2.4.4.1.2. The graves.

A circular pit with a diameter of 1.1 m was excavated at 3.9 m depths below modern ground surface level 0.70 m to the south of the erected stela. Stones marked the edge of the same pit. Stone slabs covered it and the largest one measures 0.45 m by 0.55 m. A large number of burned cattle bones were excavated from the top level of the pit. It was excavated vertically straight from 3.90 m up to 4.80 m depth below modern ground surface level. The diameter of this pit extends to 1.20 m at the 4.80 m depth below modern ground surface. On the same depth, the pit was excavated horizontally towards east. Then it was excavated vertically for a depth of 0.50 m and below this its diameter

declines to a meter on the main entrance of the rock-cut grave. From there the grave is entered through 3 rock-cut steps. The first step is 0.30 m thick while the 2nd and the 3rd ones are 0.20m thick. The main chamber of this rock-cut tomb was not excavated to avoid archaeological disturbances.

Furthermore, burned cattle bones, a single snail and Red Aksumite ware were excavated from the upper level of this pit. Moreover, one iron disc and human teeth were also uncovered on the steps that lead to the main rock cut grave.

On the western section of the upper level of the pit, rock cut mark that indicates another rock cut tomb was observed in the same trench. It appears therefore, the erected stela may have been grave marker of these multiple tombs.

The erected and fallen stelae and their associated underground graves with their contents have outstanding universal cultural and scientific values and may tell us a lot about the history, culture, technology and chronology of the early Aksumite civilization. For the same reason, it was recommended no to carry out any construction over this trench and in its immediate surroundings. It was agreed and decided by all to save the rock cut tombs and stela to be included as part of archaeological exhibition in the new Aksum Archaeological Museum.

2.4.4.1.3. Pottery.

Haw 5 yielded rich pottery collections. From such a large number of collections only 1,515 were selected as culturally and scientifically significant from the four archaeological layers beginning from 0.90 to 3 m deep or up to the decaying sedimentary bedrock. Red Aksumite potteries with classical decorations dominate such collection. Furthermore, nine imported pottery shards were excavated beginning from 1.50 up to 3.15 m depths below modern ground surface level. Most of them are white in color with blue paintings on their internal surface.

2.4.4.1.4. Glasses.

Five imported glass fragments were also uncovered from this trench at 1.5 m and 1.71 m meters depth below modern ground surface level. Two fragments have black coating while the other two are yellow in color and decorated. The other fragment is diamond shaped, blue in color with yellow coating. Although this glass has no perforation, it may have been intended for ornamentation of a neck.

2.4.4.1.5. Metals.

Three corroded iron fragments were also explored in grave context from 3.90 up to 5.10 meters depth below modern ground surface level. A single iron nail fragment, which is red in color, 0. 2m by 0.3 m in size was excavated from a grave from 3.90- 4.05 m depths below modern ground surface level. Another iron nail fragment was also uncovered from a grave from 4.95- 5.10 m depth below modern ground surface level. It is corroded and broken in both ends and measures 2.5 m long. Furthermore, an iron disc was also found from the same grave in the same depth as mentioned above. It is almost complete and with a single broken small fragment. Its diameter is 0.11 m. It appears that such a discovery in Aksumite grave is the first of its kind in an Aksumite context and seems to indicate the beliefs of the pre-Christian early Aksumites.

2.4.4.1.6. Beads.

Four beads were excavated in Haw 5 at 1.50 m, 3.30 m and 3.90 m depth below modern ground surface level. They are round blue gray (10YB $^{6}/_{1)}$, round gray glass (10YR$^{7}/_{4}$) were documented on the upper level. A grayish green bead (SG $^{6}/_{6}$) with 4 perforations and a groove in its center was excavated at 3.30 m depths below modern ground surface level. This type of bead appears to be the first so far in Aksumite context. Furthermore, an ellipsoid Carnelian bead (10YR $^{5}/_{8}$) was found on the top level of the pit that leads to the rock-cut grave.

2.4.4.1.7. Bones.

Four hundred and nineteen cattle and human bones and teeth were uncovered beginning from 1.20 m up to 5.25 m depth below modern ground surface level. Moreover, human bones and teeth were uncovered at 1.46 m, 150-165 m, 225-240 m, 300-315 m, 360-375 m and 4.95-510 m depths below modern ground surface level. Human teeth, skull and 10 long bones were found at 1.46 m depths below modern ground surface level. The deceased rested on a black clay soil. This grave appears to date to the post Aksumite times.

Burned cattle bones were also excavated from the different levels excavated in this trench. They were discovered at 1.46 m, 2.55-270 m, 375-390 m, 4.05-4.20 m and 4.20-4.35 m depth below modern ground surface levels. This evidence shows that

burning of bones was the customary burial ritual practices of the pre- Christian Aksumite early Aksumite population.

A single snail was excavated at 3.75- 3.90 m depths below modern ground surface level in the upper level of the pit leading to the rock-cut tomb. Such evidence is informative about the heavy rainfall episode in early Aksumite times.

The outgoing section has outlined the significant discoveries from Haw 5 with particular emphasis to the erected stela, the rock-cut tombs and the grave goods. Moreover, such evidence will undoubtedly help to broaden our understanding of the early Aksumite civilization. The unexcavated rock tombs and other features of the trench have very outstanding universal scientific and cultural values and need proper protection from further man made destructions. It was agreed that unmovable material evidence discussed in the outgoing section to be exhibited as live archaeological exhibition of the Aksum Archaeological museum.

2.4.5. Haw 6.

The Haw 6 trench is found to the east of Haw 3, 3A and Haw 4. Several layers were excavated in this trench.

2.4.5.1. The Finds.

The top horizon, which is between 0.60 m and 0.80 m thick, is modern garbage deposits. A thin layer of light brown loose soil was excavated below the modern garbage deposits. This layer yielded pottery and stone fills. A thin black soil layer that yielded stone fill was also excavated below the second layer.

2.4.5.1.1. The structures.

A relatively modern wall was found below the modern garbage deposits at the western edge of the trench 0.79 m deep below modern ground surface level. Its visible length is 1.10 m and 0.90 m thick. Such a wall extends towards the northern and western sides of the sections of the same trench. This wall has neither archaeological nor architectural significance.

Human bones were found at different depths from 1.10 m to 2.25 m below modern ground surface level. Such evidence suggests that this site was used continuously as a cemetery for many years up to a relatively recent past.

A human grave was excavated at 1.10 m meters depth below modern ground surface level. Stone piles marked it. Under these mortuary stones, human skeletons were excavated in the loose yellow soil. The skull and bones were decayed due to the acidic nature of the soil. For the same reason it was not possible to determine the orientation of the deceased.

Furthermore, a human grave was also excavated at 2.70 m depths below modern ground surface level. Stone fills marked it. A loose yellowish soil was excavated below the mortuary stones. 2 human teeth, 1 metal fragment, 2 beads, burned bones and Red Aksumite pottery were excavated from this pit grave.

The most interesting discovery in this trench is the excavation of a grave and its associated pottery at the depth of 3 m below modern ground surface level. The human skull was found lying on stone pillow on the black clay soil facing to northwest direction. 2 complete potteries were also found together with the human skeletons and skull. The legs, arms and hipbones were found together. The absence of luxuries items and its simplistic nature seems to indicate an ordinary Aksumite grave.

An Aksumite grave, which was marked by pile of stones, was excavated in the loose brown soil at 4.25 m depths below modern ground surface level. It is found at $14^0$07’ 96” N, 38^0 43’ 13” E and at an altitude of 2150 m asl. Such stone fills are not compact with open spaces. Fragments of human skull and decorated Red Aksumite pottery were uncovered on this grave. A circular stone fill structure that mark a human grave was excavated on the eastern section of this trench at 4.35 m depths below modern ground surface level. This pit was excavated up to 4.8 m depths below modern ground surface level. Red Aksumite pottery with classical decorations, beads, glasses, iron fragments together with human bones and skull were uncovered from this grave.

A structure that marks a rock cut tomb was discovered at 4.8 m deep below modern ground surface level. This structure is surrounded by yellow sedimentary soft bedrock. Burned cattle bones were explored in this depth, which probably indicates the pre-Christian early Aksumite ritual practice for the deceased.

Excavations continued into the bedrock up to 5.5 meters depth below modern ground surface level and multiple rock cut tombs were documented in this trench. An arch shaped rock cut tomb was excavated in the southern section of the trench in the same

level. This tomb extends towards the direction of the Main Stelae Field. Beside this tomb, the brown loose soil was continuing down vertically indicating the presence of another rock tomb in this trench. Furthermore, the loose brown soil was also extending in the eastern section suggesting the presence of an additional rock cut tomb. Moreover, a pit marked by pile of stones was also explored on the same level on the northern section of the trench. Such a pit suggests that the tombs were robbed in antiquity. For the same reason the human teeth found in different parts of the entrance of the rock cut tomb suggesting its disturbance. Furthermore, beads, obsidian scraper, glass and Red Aksumite pottery were also found on the top level of this rock cut tomb. Excavation terminated at 5.5 meters deep below modern ground surface level where arch shaped rock cut tombs were excavated. These tombs were left as they were originally sealed to avoid further archaeological destruction.

The rock cut tombs and their grave goods discovered at Haw 6 have outstanding universal cultural and scientific values. For similar reason it is recommended not to carry out construction on top of this site and its immediate surroundings. Finally, it was agreed to avoid constructions on top of this trench and the new museum was constructed outside of the same.

2.4.5.1.2. Pottery.

Haw 6 also yielded very rich collection of Aksumite artifacts such as pottery, bones, beads, glasses and metals.

A large number of pottery fragments were excavated from this trench. However, only 1,152 fragments including decorations, bases, handles, necks and rims that have significant cultural and scientific values were selected.

Collection of pottery was undertaken from 0.60 m up to 5.5 m depths below modern ground surface level. No imported pottery fragments were uncovered from this trench.

2.4.5.1.3. Glasses.

Only one light blue glass fragment was discovered in a grave context at 4.50-4.65 m depths below modern ground surface level.

2.4.5.1. 4. Metals.

This trench also yielded five fragments of metals in its lower levels. A blue metal fragment (bronze), which is broken, 1.5 cm long, was excavated in a grave context at 3.00-3.15 m depths below modern ground surface level. Furthermore, two iron and a blue metal fragments were uncovered in a grave context at 4.80-4.95 m depth below modern ground surface level. In addition, a single iron nail fragment, broken at both ends and 1.3 cm long was also found in a grave context at 4.95-5.10 m depths below modern ground surface level.

2.4.5.1.5. Beads.

The second largest beads' collection came from trench 6. Nine beads were collected from the different levels of the same trench.

A single round stone bead 2 cm long, $10YR^{5}/_{1}$ in color was discovered in the upper level (60-75 cm) depth below modern ground surface level. The rest of the beads came from the lowest levels of the same trench in grave context from 4.80- 5.95 m depths below modern ground surface level. These beads consist of two ellipsoid stone beads, which are large and small. The largest one is grayish green in color SG $^{3}/_{2}$ and the smallest one has similar color SG $^{4}/_{2}$. Such beads were excavated from 4.80-4.95 m depths below modern ground surface level. An ellipsoid stone bead which is grayish green in color (SG $^{4}/_{2}$) and two glass beads pale green in color (N $^{6}/_{2}$) were also excavated from 4.95-5.10 m depth below modern ground surface level. Furthermore, one round glass bead pale green (N $^{6}/_{2}$), one elongated ellipsoid stone bead grayish green ((SG $^{4}/_{2}$) and a round Carnelian bead (10YR $^{5}/_{6}$) were explored from a grave context from 5.10-5.25 m depth below modern ground surface level.

2.4.5.1.6. Stone tools.

An obsidian tool flake was also uncovered in a grave context at 4.35-4.50 m depths below modern ground surface level in the same trench.

2.4.5.1.7. Bones.

Haw 6 also yielded rich collections of cattle and human bones and teeth beginning from 0.95 up to 5.25 m depth below modern ground surface level. Two hundred and forty two cattle and human bones were excavated from the different levels of the same trench

mentioned above. Only human bones and teeth were excavated from the upper levels from 0.95m up to 2.40 m depth below modern ground surface level. This suggests that this site was used as a cemetery continuously up to the recent past. No human bones except cattle were excavated from 2.40-3.00 m depths below modern ground surface level. Furthermore, burned cattle bones were excavated in the earliest levels of the same trench in grave context from 4.80-4.95 m, 510-525 m and 5.35 - 5.50 m depth blow modern ground surface levels. This evidence shows that burning of cattle bones was customary burial practices of the pre-Christian early Aksumites. Moreover, the decayed human pre-molar and molar discovered in grave context at 5.10 m-5.25 m depths below modern ground surface level indicates that the Aksumite population suffered from chronic tooth disease.

The above findings have summarized the rich archaeological collections and the features in Haw 6 that have significant scientific archaeological and cultural values of the early Aksumite civilization. This trench has a great potential for future research and therefore require non-human intervention in the future.

2.4.6. Haw 7.

This trench is located to the east of Haw 6. It was opened in an east west direction. It measures 4 m long and a meter wide.

2.4.6.1. The Finds.

Six different layers were excavated beginning from modern surface level up to 4.95 m depths into the soft sedimentary bedrock. No objects of archaeological interest were collected in the upper level up to 0.60 m depths below modern ground surface level.

A human grave marked by stone covered pit was excavated in the middle of the trench at 2.10 m depths below modern ground surface level. The mandible was found in the edge of the trench while the skull and the maxilla were excavated in the center of the same trench. It was not possible to determine the orientation of the body due to the disturbance and decayed nature of the bones. It appears to be a Christian grave. Pottery fragment of modern *mitad* was excavated from this grave indicating its late antiquity.

A light gray loose soil was excavated below the grave mentioned above. A Christian grave of two individuals was excavated from 2.10-2.25 m depths below modern

ground surface level. The bones are placed on a black clay soil from west to east direction.

A fireplace or a hearth was excavated at 2.9 m depths below modern ground surface level in the northern side of the trench. A large sized flat stone is placed on top of two stones similar to traditional fireplace. On top of this feature, burned cattle bones and charcoal were documented. It appears that several cattle bones were burned in this spot for the deceased as a common ritual practice pre-Christian Aksumites.

A yellow loose soil was excavated below this feature. A human mandible was uncovered at 3.30 m depth below modern ground surface level. A mortuary stone slab was discovered on the edge of the trench under the mandible. A large number of different beads, a single human molar, metals and pottery were excavated in the loose brown soil in the center of the trench from 4.05- 4.20 m depth below modern ground surface level. This grave is marked by stones. It measures 0.90 m by 0.35 m. It appears that such a grave might have been robbed in antiquity as a large robber pit was documented in the eastern section.

A rock-cut tomb was discovered at 4.80 m depths below modern ground surface level. It is found $14^0$07' 96" N, 38^0 43' 14" E and at an altitude of 2150 m asl, It is carved from the soft sedimentary rock that is easy to carve. It is covered by several stones. Its entrance measures 1.05 m by 0.70 m. The main grave extends towards west to Haw 6. It was left as originally sealed to avoid further destruction.

This rock cut-grave and its contents have outstanding universal cultural and scientific values. It was recommended not to carry out museum construction on top of this trench and its immediate surroundings. For the same reason the new museum was constructed outside this trench.

2.4.6.1.1. Pottery.

Trench 7 has also yielded large number of pottery collection of which only 2,085 were selected as scientifically and culturally significant ones. Collections were undertaken from 0.60-4.95 m depths below modern ground surface levels.

Such pottery selections are dominated by Red Aksumite ware with classical decorations. They are similar in type and style with those described by Wilding (Munro-

Hay, 1989) and Phillips (Phillipson, 2000). No imported pottery was uncovered in this trench.

2.4.6.1.2.Glasses.

Four glass fragments were excavated from grave contexts in Haw 7. Three glass fragments that are white, yellow and yellow coated were uncovered from a grave context at 4.05-4.20 m depths below modern ground surface level. In addition, a light brown glass fragment was also discovered in the rock cut tomb at 4.80-4.95 m depths below modern ground surface level.

2.4.6.1.3. Beads.

The largest beads' collection in this site came from Haw 7. Seventeen glass and stone beads that are round, ellipsoid, diamond and ring shaped were uncovered from different levels in this trench beginning from 2.7 m to 5.10 m depths below modern ground surface level. They are blue, green and gray (10YR $^{4}/_{6}$ 10YR $^{7}/_{4}$, 10YR2.$^{5}/_{1}$) in color. They were excavated in the yellow soil in disturbed context in a robber pit in the upper level of the rock cut tomb.

2.4.6.1.4. Metals.

Haw 7 also yielded the richest metal collection from all the haw trenches excavated in 2005. Such artifacts were collected beginning from 1.95 m up to 4.2 m depths below modern ground surface level. Nine metal fragments came from this trench from the seventeen fragments collected from the four trenches. Two blue metal fragments were collected from 1.95-2.10 m depth below modern ground surface level. Moreover, two thin fragments of a single bracelet were also uncovered from 2.55-2.7 m depths below modern ground surface level. The rest five are iron fragments discovered in the lowest levels of Haw 7, 3 m depths below modern ground surface level. These fragments are an iron knife (4x1cm), two flat irons (6x3 cm, 3.5x 2.5 cm), an iron nail fragment (2 cm long) and an iron knife fragment (3m long).

2.4.6.1.5. Stone tools.

Two small sized quartz scrapers were also found in a disturbed grave at the lowest level of the same trench at 4.05-4.20 m depths below modern ground surface level.

2.4.6.1.6. Bones.

A large number of bone collections came from Haw 7. A total of 661 cattle and human bones were excavated from the different levels of the same trench beginning from 0.60 m up to 4.65 m depth below modern ground surface level. Only cattle bones were found from the upper levels from 0.60 m up to 1.8 m depth below modern ground surface level. The same bones were also collected up to the bedrock. On the other hand, human bones were found at the lower levels starting from 1.8m up to 4.65 m depths below modern ground surface level. The human teeth excavated from the lowest level of this trench are decayed. This decay suggests that the Aksumite suffered from chronic tooth disease.

Burned cattle bones were also excavated at the Aksumite levels below 3m depths below modern ground surface level. Such bones were explored at 3.15-3.30, 3.90-4.05, 4.05-4.20 and 4.50- 4.65m deep below modern ground surface level.

For the same reason, this site is very informative about the early Aksumite civilization particularly in the pre-Christian Aksumite customary burial practices. It therefore needs protection from further construction activities.

2.4.7. Stelae Clearance.

Archaeological clearances were also conducted at the Gebreslassie Palace enclosure to expose some of the visible buried stelae in middle July 2005. Accordingly, four stelae designated as A, B, C and D were cleared and exposed for future public display.

The first stela exposed is named as stela A, slab shaped and unfinished is the first to see when you enter to the site from the main gate. It is found 6 m to the south of the proposed future museum location. It is found at 14^0 07’ 58” N, 38^0 43’ 09” E and at 2151m asl.

Before excavations, its base was only visible on the surface. Small test excavations were carried out to determine its size. It was completely exposed by the same excavator. The largest fragment of the same stela is 5 m long and has a varying width of 0.12 m, 0.60 m and 0.90 m from its top up to the bottom, respectively. Its top is unfinished and not well carved. It was intended as a pointed end. There are two wedge

marks at its bottom. It is smooth, dressed, and made from granite boulders similar to those of the largest Aksumite stelae. It fell from south to north direction. Another broken stela is visible on top of the surface level 3 m to the north east of this stela. It is 1.10 m wide and long at its both ends. This fragment is part of the first fragment discussed earlier. Its overall length is therefore, is 6.10 m. It was recently re-erected by Feseha Zibelo around its original location.

This smooth, dressed stela represents the second stage in the evolution of the Aksumite stelae. It appears that this stela was erected by the Aksumites as grave marker. For the same reason, it is assumed that there is an associated grave in its immediate surroundings.

The second stela cleared in the same site is designated as stela B. It is located at 14^0 07' 57" N, 38^0 43' 09" E and at 2151m asl near or to the north of the rectangular building of Dejazmach Gebreslassie house closer to the church of Enda Eyesus and to the north east of the proposed museum store location.

It was found buried in the same site in 2005. It was completely exposed by the same excavator. It is round in shape and made from granite rocks similar to those of the majority of the Aksumite stelae. It measures 5.5 m long and 0.90 m wide. It is dressed and smooth. It fell from northeast to southeast. Its bottom is found very close to the proposed store of Aksum Archaeological Museum. This large stela seems to have an associated with underground tomb in its immediate surroundings including small part of the proposed store of the Aksum Archaeological Museum. It was recommended to avoid construction in its immediate surroundings. For the same reason, construction of the new Aksum Archaeological Museum was avoided in and around this stela to protect Aksumite underground tombs associated to the same stela. Feseha Zibelo re-erected this stela around its original position in 2008.

The third stela cleared in 2005 in the same site by Tekle Hagos, is stela C. It is found 2 m 14^0 07' 57" N, 38^0 43' 09" E and at 2150 m asl away to the west of the circular house of Gebreslassie. Before, excavations its top was only visible on the surface level. Excavations were undertaken to expose and display it. It was not completely exposed as it went down vertically deep in the archaeological section. Its visible length is 3.1 m and has a varying width of 0.50 m and 0.95 m. It is cylindrical and rough. Such a stela

represents the earliest Aksumite types of stelae in morphology and is similar to some of those found in the Gudit Stelae Field and Betegiorgis hill at Ona Enda Aboy Zewge. It fell from west to east in antiquity.

This site is undoubtedly the earliest grave mark of the early Aksumites. It was strongly recommended that undertaking constructions in the immediate surrounding of the same stela would destroy the earliest Akusmite archaeological evidence. For this reason, this place was left free of construction to save the archaeological evidence. Feseha Zibelo re-erected this stela around its original position in 2008.

The last stela cleared in the same year is designated as Stela D. This stela is found at 14^0 07' 57" N, 38^0 43' 08" E and at 2151m asl 5 m to the north of Stela C and 6 m to the east of the proposed location of the Aksum Archaeological Museum. Before excavations, its top was only visible on the surface. Excavations were undertaken to clear it completely. However, it was not completely exposed as it went down vertically deep into the archaeological section. Its visible length is 1.6 m. It is undressed or rough stone and appears to be the earliest Aksumite stela. It fell from bottom to top in an east west direction. It is also a marker of an early Aksumite grave and should be protected from further cultural formation process. Feseha Zibelo re-erected this stela around its original position in 2008.

The outgoing section have shown that the proposed site for the construction of the Aksum Archaeological Museum is an extension of The Main Stelae Field representing the first and second stages in morphological evolution of the Aksumite stelae. This site encompasses the rough or simple and the rectangular smooth or the round smooth Aksumite stelae. Such a material culture shows the earliest local manifestation of an indigenous Aksumite civilization. For similar reasons, such a site should be protected as an extension of the Main Stelae Field.

3. Chronology.

The test excavations carried out at the Gebreslassie palace enclosure in 2005 yielded a large number of artifacts that can be dated by comparison with those previously dated Aksumite sites.

A large number of red ware with typical classical Aksumite decorations were excavated in the earliest or lowest levels of Haw 4, 5, 6 and 7. Such potteries are similar

with those excavated at other Aksumite sites such as Haw I and II and the Brick Arches described by Wilding (Munro-Hay, 1989) and Phillips (Phillipson, 2000). The classical Aksumite potteries are mainly known from the 4th century AD contexts. The earliest classical Aksumite pottery decorations appeared at the Gudit Stelae Field tomb at GT II (Phillipson, 2000). Chittick dated this tomb to the 3rd century AD by radiocarbon and typology of glassware (Munro-Hay, 1989). This date is also confirmed by recent calibrated radio carbon dating of a tomb from the G2 trench of the same stelae field (Phillipson, 2000). It follows that the excavated tombs and stelae from the Gebreslassie palace dates at least to the 3rd century AD.

Moreover, iron tools and weapons that can be dated by comparison with other Aksumite sites were also excavated in grave contexts in the earliest levels of Haw 4, 5, 6 and 7. An iron knife, Iron dagger and iron spearheads were found in a grave context in the lowest level of Haw 4. Similar iron spearheads were excavated from the Gudit Stelae Field tomb GT II (10) dating to the 3rd century AD by Chittick in the early 1970's (Munro-Hay, 1989). Furthermore, Iron knives dating to the same century were documented from the Gudit Stelae Field tomb GT II (10), STXXIII and STXXIIIA (Phillipson, 2000; Munro-Hay, 1989).

Irons nail and iron knife fragments were excavated from grave contexts in the lowest levels of Haw 5, 6 and 7. Similar iron nail and other iron fragments dating to the 3rd century AD were found at the Gudit Stelae Field GT II (11) tomb, STXXIII, STXXIIIA and the Shaft Tomb by Chittick in the early 1970's. It follows that the rock cut tombs in Haw 5, 6 and 7 can be dated by comparison to the same period (Munro-Hay, 1989).

Moreover, ellipsoid and round Carnelian beads 10YR $^{5}/_{8}$ in color were discovered from grave context in the lowest levels of Haw 5 and 6. Similar beads dating to the 3rd century AD were uncovered from the GT II (11) tomb of the Gudit Stelae Field (Munro-Hay, 1989). Furthermore, a ring shaped glass bead with large perforation similar to those of the GT II tomb was also found in a grave context in the earliest level of Haw 7. Such evidence indicates that the excavated graves and stelae from the Haw site are datable to the 3rd century AD.

No coins were excavated in all the haw trenches in 2005. This suggests that the rock cut tombs excavated at Haw 4, 5, 6 and 7 pre-date the mintage of coins in AD 270. Furthermore, Aksumite bricks that are common in the 4th century AD tombs of the Brick Arches (Phillipson, 2000; Munro-Hay, 1989)), Mausoleum (Phillipson, 2000) and Brick Vaulted Structures (Munro-Hay, 1989) were not excavated in all the trenches in the Dejazmach Gebreslassie palace enclosure suggests that the rock cut tombs and their contents mentioned above date prior to the 4th century AD.

The stelae excavated from the same site can be dated by the typology of the Aksumite stelae. Scholars such as Bent (1896), Phillipson (2000) and Munro-Hay (1989) suggested that the Aksumite stelae evolved beginning from simple undressed stones to the sophisticated largest decorated ones. The earliest Aksumite stelae, which are simple and undressed ones are found at the Gudit Stlelae Field and date to at least to the 3rd century AD. Similar 3 buried rough erected stelae were excavated at the back of The Main Stelae Field by Chittick in early 1970's. For similar reason this scholar suggested that such stelae were the earliest specialized local manifestation of the Aksumites and that there are likely to be many others at the back of The Main Stelae Field. This proposal was confirmed by the test excavations carried at the Gebreslassie Palace enclosure in 2005. One erected undressed and many other undressed or rough ones were found in the deeper levels of the haw trenches and on surface levels. It appears that the stelae excavated in 1970's and 2005 at the back of The Main Stelae Field were buried by slop deposits and pre-date the mintage of coins in 270 AD (Munro-Hay, 1989).

The rock tombs and stelae excavated from the haw trenches can also be dated to the 3rd century AD by comparison of the environmental history of Aksum. Various researchers such as Monneret De Vilard, Butzer and Zigert documented slope deposits of sedimentation that indicate a heavy rainfall episode at early Aksumite time between 100-350 AD (Tekle Hagos, 2005). For the same reason the undressed erected and fallen stelae excavated from the same site seem to be contemporary to this heavy rainfall episode. Furthermore, a single snail excavated in grave context in the earliest level of Haw 5 at 3.9 m depth below modern ground surface level confirms that there was a heavy rainfall episode at Aksum at the time of the construction of the rock cut tomb of the same trench (Bard *et.al*, 1997).

The above have synthesized the available comparative evidence for the chronology of the excavated structures at the Dejazmach Gebreslassie palace enclosure. The available evidence tends to favor for the dating of the rock cut tombs and rough or undressed stelae of the same site prior to the mintage of coins to the 3rd century AD.

4. Significance of the site, conclusion and recommendation.

Archaeological researches carried out at the Gebreslassie palace enclosure in 2005 have demonstrated the significance of the same site as having outstanding universal cultural and scientific values for the following reasons.

The excavated haw trenches yielded large number of pottery fragments. Only 6, 198 fragments were selected as scientifically and culturally significant. The local Aksumite ware are hand made and are very informative particularly about the early Aksumite technology and other social, political and economic aspects of the Aksumite population. Furthermore, the thirteen-imported pottery fragments excavated in most of the trenches indicates Aksumite commercial and political connections with the outside world especially with Asian and Mediterranean countries in early Aksumite times.

Moreover, the fourteen glass fragments discovered from the haw trenches, which are probably imported from the outside world particularly from the Romans, show also the earliest Aksumite foreign connection. Such imports among others indicate the luxurious status of the Aksumite elites in early Aksumite times.

Furthermore, the seventeen metals including iron fragments uncovered in the haw trenches at the Gebreslassie palace enclosure tell us about the sophisticated nature of metal and iron technology of the early Aksumites. Such findings also tell us that the early Aksumite had skilled social groups who specialized in the workings of metals, iron and carpentry. In addition, such evidence tells us the types of ornamentation, weapons and tools used for construction by the early Aksumite population.

Fourteen stone and glass beads excavated in most of the haw trenches in the same site among others show early Aksumite foreign connection, nature of their ornamentation and their belief after death.

The large number of human bones excavated at different levels of the haw trenches show that this site was used as cemetery since early Aksumite times up to the

very recent past. Furthermore, the decayed and blackened human teeth excavated at the lowest levels of the haw trenches show that the early Aksumites suffered from chronic and other tooth diseases. For similar reasons, this site has a great potential to study the history of the diseases of the early Aksumite population.

The excavations of 2005 in the same site show that burning of cattle bones was the common customary burial practices of the pre-Christian Aksumite population. The lower levels of all the excavated trenches yielded burned cattle bones indicating that such bones were burned as ritual practice on top of the graves of the deceased.

The same site also yielded an ordinary Aksumite grave accompanied only by two ordinary non-decorated potteries with the deceased that rested on stones pillow.

The excavation of the 2005 definitely confirmed that the Aksumite stelae were grave markers. Rock-cut tombs were excavated beside stelae in the deepest levels of Haw 4 and 5.

The site under discussion represents the earliest Aksumite rough or simple stelae, which are the first local manifestation of an indigenous Aksumite Civilization followed by the dressed smooth round or slab shaped stelae which represent the second stage of the evolution of the Aksumite stelae.

It appears that the earliest Aksumite elite cemetery began at the proposed site for the construction of the Aksum Archaeological Museum and gradually extended to The Main Stelae Field. This proposal is confirmed by the absence of bricks and built burial structures at the Gebresslassie palace. Bricks and built burial structures are common features of the excavated structures of The Main Stelae Field.

The Gebreslassie site preserves a large number of dressed and undressed stelae and their associated graves that have great potential for future researches particularly those rock cut tombs explored and left sealed in their original contexts in 2005.

Every plot of land at the Gebreslassie palace as an earliest phase of The Main Stelae Field preserves an early Aksumite material cultures that are buried and visible on the surface. This site which has an outstanding universal cultural and scientific values needs proper protection and constructions that can destroy the available archaeological evidence and cultural remain must be avoided. It is strongly recommended to shift the proposed Aksum Archaeological Museum to the backyard of the Gebreselassie's

stonewall enclosure where Neville Chittick confirmed the absence of significant archaeological structures through archaeological excavations carried out in 1973.

Before the construction of the same museum, archaeological test excavations must be carried out to the west of the trenches excavated by Chittick. Furthermore, an archaeologist must strictly supervise any temporary light constructions with very shallow basement to save archaeological evidence and remain in the same site. For similar reason, it is strictly recommended that an archaeologist to supervise the construction of the new archaeological museum temporary light store.

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Part III

Aksum World Heritage Site Management Plan

BY TEKLE HAGOS,

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Aksum World Heritage Site Management Plan

The objective of this management plan is to assess the present condition and status of preservation and to prepare maintenance plan for each archaeological site at Aksum. This paper also contains a presentation of archaeological sites and the results of archaeological clearances and excavations conducted by the site archaeological consultant of the Ethiopian Cultural Heritage Project.

The most important sites in the old Aksum town were surveyed from October 2005 to January 2006 by the site archaeologist to asses the state of their preservation, carry out conservation work, and to conduct archaeological clearances in order to present them to the public. Access to sealed structures such as the Mausoleum and Tomb of the Brick Arches were opened. Recommendations as to the future maintenance plans of each site were made so that they can be protected in the long and short term and so that they can be very attractive for visitors.

For the same reasons archaeological clearances were under taken on The Main and Northern Stelae Fields by the Ethiopian Cultural Heritage Project, Aksum Site Planning and Conservation sub- component from October 2005 to April 2006 under the supervision of Tekle Hagos, consultant of Hydea, private company of Italy.

All activities undertaken by the resident site archaeologist at Aksum are discussed as follows.

1. The Mausoleum

1.1. Current Condition and State of Preservation

The late Neville Chittick discovered the Mausoleum in 1974 (Chittick, 1974, Munro-Hay, 1989). It was excavated from 1993- 1995 by David Phillipson (Phillipson 2000, Munro-Hay, 1989). After the completion of the same excavations, the structure was sealed and remained closed for visitors until the Authority for Research and Conservation of Cultural Heritage could carry out conservation work. Furthermore, the concerned authorities did not decide access for the entrance of the Mausoleum until 2005. Although several cracks are visible on the massive granite roof slabs of central chamber and side chambers, shafts, the eastern and western portals of the Mausoleum, there is no major structural problem of the Mausoleum. There is no risk of danger if such

underground tomb is opened for visitors and it is here recommended to open it for the same purpose.

Some scholars in October 2005 suggested opening public access to the mausoleum through the western portal. However, all archaeologists, architects of the Ethiopian Cultural Heritage Project and the Director of the Authority for Research and Conservation of Cultural Heritage agreed that the simplest access to the Mausoleum is through the eastern portal.

1.2. The Western Courtyard

Opening public access through M6 trench that was designated by Phillipson, in the western portal, which is 5.5 m below modern ground surface level, (Phillipson, 2000) involves too many complications such as time, labor, techniques and money. For the same reason, it will be too difficult to raise the broken Portal towards the brick arch entrance. Such operation might cause archaeological and structural disturbances to the western courtyard of the Mausoleum.

Moreover, the present condition of the western courtyard and the portal shows the history of stela 1 and the effect of its collapse, breaking and removing the portal from its original position. It seems; therefore, appropriate to leave the portal as it is, as part of the history of the collapse of stela 1. The western courtyard also shows the reconstruction of the robber pit indicating that the Mausoleum was robbed in antiquity (Phillipson, 2000). Such evidence needs protection and therefore it does not seem convincing to make public access to the same structure from this direction.

Instead, the M6 trench (Phillipson, 2006) which is 5.75 m by 5.40 m was re-excavated in 2005 up to the stone lintel located on top of the brick arches to clear the bulging section to avoid future profile collapse.

The stonewall that was built on top of the lintel and bricks in the western gate of the Mausoleum which measures 5.40 m was removed and replaced by loose soil to reduce weight on the Mausoleum.

Retaining walls were built on sections of the M6 trench to avoid future collapse. Furthermore, part of the same trench, 1m by 1m, was left open with a cover so that the public could see the western courtyard from above. This metal sheet will be removed

during the dry season. This will also help for more dry air circulation inside the Mausoleum.

1.3. The Eastern Courtyard



The main entrance to the mausoleum.

The simplest public access to the Mausoleum is through the eastern portal. Archaeological excavations also confirmed it in 2005 by Tekle Hagos that the main entrance to the Mausoleum was through the eastern portal. Stone steps that appear to be part of the entrance of the same were found in front of the eastern portal under terraced wall that supported stela 1. However, it was not possible to excavate in the same direction below the terracing wall; to do so may destabilize stela 1. Such excavations addressed the major research problem that has been raised to locate the main entrance to the Mausoleum by scholars such as Phillipson (Phillipson, 2003). It is now confirmed that the main entrance to the Mausoleum was parallel to the East Tomb. It seems that these discovered steps may have been the entrances both to the East Tomb and to the Mausoleum.

It was found necessary to open a large space between the eastern portal and stela 1, beginning from the northern end of the eastern courtyard up to the terraced wall of stela 1 in the south. This space was excavated in two trenches designated as M1 and M3 by Phillipson in 1993-1995. Such excavations identified this space as back fill of the excavations of 1974, 1993 and the landscaping of the 1960's (Phillipson, 2000). This

space that measures 11.50 m long with a maximum width of 2 m was excavated in 2005 to the maximum depth of 4.70 m below modern ground surface level.
In the course of the same excavations, a modern wall that was built near the eastern portal was completely removed. It measured 1.7 m long, 0.60 m wide and 2.80 m high.

To the south, adjacent to the same wall, a stone slab, measuring 1.2 m long by 0.70 m wide was discovered, 3.20 m deep below modern ground surface level. Such a slab was placed on top of an Aksumite wall excavated 3.20 m depth below modern ground surface level. This wall is 0.8 m wide, 1.60 m long and 1.50 m high. It stretches from north-east to south-west directions. It is built on top of bedrock beginning from the wall of the Mausoleum in the south-west and extending to the northeast towards stela 1 facing to The East Tomb and does not continue through the backfill of stela 1 on the same direction.



Access to the Mausoleum excavated in 2005.

A piece of decorated classical Aksumite pottery was found on top of the same wall confirming its Aksumite antiquity. It seems that this wall was part of the eastern courtyard of the Mausoleum. This wall is protected from further excavations. Public access to the same structure will be through this wall by a metal ladder or by stairs.
Between this Aksumite wall in the north and the modern terraced wall of stela one in the south, there is a back filled space, 5 m long and 1.7 m wide. Such a back fill was excavated up to the maximum depth of 3.2 m below modern ground surface. The stone fill below this depth seems to indicate an Aksumite wall collapse. It is cleared and is currently used as public passage to the Mausoleum.

A wall that appears to be an Aksumite was also excavated 5 m to the south and parallel to the previous Aksumite wall. The modern terraced wall of stela 1 disturbed it. Its visible width is 0.60 m. It is also protected from further excavations. The entrance of the Mausoleum will begin from this wall. Blocks of wood to avoid destruction of the archaeological structures covered this passage.

There is evidence of disturbance or wall collapse of the Mausoleum to the south of the eastern portal beginning from the newly discovered Aksumite wall in the north extending to the terraced wall of stela 1 in the south. This disturbance seems to have been the effect of the collapse of stela 1. The wall destruction on the southern extreme, however, seems to have been the result of the landscaping and terracing activities of the 1960's. A consolidation wall was built against the wall of the Mausoleum to avoid further disturbances of the same.

Furthermore, the terracing wall that supported stela 1 on the western side was also consolidated by traditional walling from the terraced wall in the south up to the entrance of stela 1 in the north.

The disturbed floor pavements of the Mausoleum were restored to their original condition by re-fitting the disturbed floor slabs and by filling gaps with small sized rubble or sand.



Steps leading to the Mausoleum (eastern courtyard) excavated in 2005.

1.4. Recommendation

At present, the mausoleum is found in a good condition to be opened for visitor and there is no risk of danger for structural collapse. Although, the three shafts and part of the M6 trench in the western portal are left open for lighting and air circulation, the Mausoleum need a lighting system to visit its central and side chambers.

The cracks in the roof slabs of the central and side-chambers must be checked every year. The same cracks in the eastern and western portal of the Mausoleum also require monitoring every year. Such monitoring system will enable to take immediate and appropriate measure to safeguard the Mausoleum.

The East Tomb located opposite to the Mausoleum, excavated by David Phillipson in 1993, is still closed. It should be accessible to visitors. It also needs monitoring every year to assess its status of preservation.

2.The Tomb of False Door

2.1.Current Condition and Status of Preservation

The late Neville Chittick excavated the Tomb of False Door in 1974 (Chittick, 1974; Munro-Hay, 1989, Phillipson, 2000). This tomb has no structural problem. However, there are a very few cracks on the massive granite roof slabs. Ancient robbers disturbed such roof slabs. This tomb has been open for visitors. However, many visitors are not aware of it.

Originally, this tomb had two entrances. Both entrances are found in the same direction in front of the erected rectangular granite slab that depicts an Aksumite false door. At present, the first entrance that leads to the chamber that contains the sarcophagus is used as the main entrance to the same tomb. A modern pier built with cement narrows this way and stones in fear of the cracks in the roof lintel would widen and lead to the final collapse of the tomb.

The second entrance, which leads to the large underground chamber, is found beside the first entrance on the western direction. However, a huge dressed rectangular granite boulder covers it. Such a boulder has two circular basins or holes probably used for ritual sacrifice for the deceased. It is difficult to open it, as it is too heavy to remove. It has many cracks that also make it too difficult to move. Such cracks are the results of robbers attempt to open it in antiquity. For these reasons, access to this large chamber is

through the back of the erected slab, where ancient robbers broke a single roof slab. Neville Chittick excavated the same chamber through this entrance in 1974. At present, a wooden ladder is used to go down from the roof slabs to the same room.

Before 2005, the outside roof slabs were covered by modern soil deposit that is 0.90 m thick and by ugly stone terracing that appear to be walls. A modern wall that had no purpose was built at the back of the erected rectangular granite slab. Furthermore, a wooden pole was also placed at the back of the same slab. Moreover, disturbed granite blocks were found on top of the same tomb. Particularly, the dressed granite pavements in front of the entrance of the tomb were disturbed. For the same reason they were not impressive for visitors. Moreover, ancient robbers disturbed the stone floor pavements. Furthermore, two piers were built to prevent further cracks of the roof slabs. The first one is located on the steps leading to the chamber that contains the sarcophagus. It is ugly and it narrows the entrance. The second pier is found in the backside chamber and narrows the passage of the same. The internal side chamber to the west, located near the disturbed steps, and robbers undermined its surrounding wall foundation in antiquity.

2.2.Clearance and Presentation

Disturbed boulders were re-arranged in 2005 by Tekle Hagos to make the tomb more attractive to the public. One displaced large dressed rectangular block of stone that rested on top of one of the dressed stone slabs that formed the steps leading to the main chamber was moved and included as part of the pavement. Another slab that obscured the original appearance of the pavement was removed. Furthermore, an additional disturbed granite stone, which was placed on top of the stone pavements of the entrance of the tomb, was also moved from its present position. Tourist guides describe this stone as a measurement unit of the Aksumite since it consists of grooves that appear to be scales. However, this monument is a roof lintel. Moreover, additional rearrangements of displaced stones were made on the pavements of the entrance of the same tomb. Furthermore, a metal pole from the cover of the tomb that obscured the original appearance of the same tomb was dismantled. Such a pole used to extend beginning from the entrance in the south up to the back of the same tomb in the north.



The main entrance to the Tomb of False Door.

The size of the front courtyard of the Tomb of False Door was not previously known. The archaeological clearance undertaken by Tekle Hagos in 2005 established the limit and size of the front courtyard. It is square in shape each side measuring 15 m with an area of 225 meters square. The outside house form structure, which is delineated by huge boulders, is 12.20 m long and 11.70 m wide with an area of 131.04 m square. It follows that the whole tomb structure is 356 m square.

Thirteen displaced granite slabs were moved from the backside of the tomb. Eight of them were placed in a row on the eastern edge to delineate the same tomb on this side while the rest were placed on the western side of the tomb on top of the boulders that delineated the tomb in this direction. The undressed faces of these boulders were exposed towards the massive roof slabs while their dressed sides were exposed to the outside.

These boulders were found above the red soil that rested on the massive granite roof slabs of the tomb, which seems to indicate that robbers displaced them long after the construction of the tomb. Furthermore, earthquake seems to have displaced them, as we can understand from the present arrangements of disturbances of the boulders that delineated the Tomb of the False Door. Furthermore, such boulders were removed in 2005 to make the tomb clearer and more attractive and to reduce the weight on the roof slabs of the Tomb of False Door. These slabs have cracks that may destabilize the same tomb

A large space, which is 10.20 m by 10.72 m in size, was excavated to expose the roof slabs of the Tomb of False Door. The red soil deposits and stone fill (90m thick)

covered this space. This deposit covered the roof slabs of the tomb from the outside. During the course of excavations, fifteen roof slabs were exposed. These covering roof slabs are not carefully dressed on their external surface. They also show wedge and tool marks on the same sides.

Furthermore, in the course of clearance two iron cramps, which were not recorded by Chittick in 1974, were discovered in 2005. Such cramps were attracted by magnet confirming the Aksumite use of iron for joining rock boulders together. The first one is found in front of the present main entrance to the tomb. The original cramp was 0.30m long as we can understand from the size of the edge of excavated boulders. The Aksumite excavated the edge of two boulders 0.4m meters deep to place the cramp to join them together. It was removed in antiquity. However, part of it is still found attached to the boulder. From this evidence, it appears that the Aksumite used a sticking substance to fix the cramp inside the excavated holes of two boulders. Furthermore, they first excavated the edges of boulders that were intended to be joined together by iron cramps. The second one is 0.21m long 0.8m less than to that of Chittick. It is found in an excellent preservation, on the edge of the entrance to the back chamber. This cramp joined two boulders together. The edges of the same cramp are very sharp indicating that the Aksumite did not heat the iron when they used it for joining boulders. Instead, it appears that a sticking material may have been used to attach the cramps in the excavated edges of the boulders. Furthermore, it seems that the Aksumites may have used sharp iron picks to carve or excavate the edges of boulders, as we can understand from the nature of holes of the same.



An iron cramp excavated from the Tomb of False Door in 2005.

A modern wall that was built at the back of the erected slab with Aksumite false door was removed. The wooden pole was also moved from the same place. Furthermore, the resident archaeologist delineated the eastern edge of the tomb by eight displaced boulders in 2005.

Guides used to hit with stones the sarcophagus inside the main chamber of the tomb to show visitors its unusual empty sound. If such actions continue, the sarcophagus will break at last. For the same reason, the local guides were trained how to manage cultural heritage by the author in the same year. Furthermore, a wooden pole to stop guides entering it fenced the door of the sarcophagus. The displaced floor slabs were replaced in their original positions. The pits in the floor of the same tomb were also filled with gravel and mud to ensure the safety of visitors and to consolidate the structure of the tomb. Furthermore, the loose soil that covered the floor of the tomb was replaced by modern gravel.

The walls to the north and eastern directions of the Tomb of False Door were rebuilt to prevent rain-washing into the same tomb. Furthermore, the drainage system to the north and eastern directions of the same was cleaned and widen. The two piers that have been proved by structural engineer as functionless were removed.



Outer roof slabs of the Tomb of False Door cleared in 2005.

2.3. Recommendation.

This tomb has no structural problem as confirmed by structural engineers and is one of the best buildings to be visited by the public. However, it needs regular cleaning and monitoring as discussed in the following.

The Tomb of False Door must be cleaned every time at least once a week as it is seriously affected by pigeon's shit. A mechanism should be arranged to get rid of the pigeons from sheltering on metal bars of the roof covering the same tomb.

Guides should not knock with stones the sarcophagus inside the tomb.

The drainage system must be checked every year. The drainage to the east of the tomb must be cleaned every year.

Traditional walling should be used to consolidate the internal wall foundation and the disturbed steps in the side chamber.

3. Tomb of the Brick Arches

3.1. Present Condition and Status of Preservation

Neville Chittick discovered the 4th century AD Tomb of the Brick Arches in 1974. David Phillipson excavated it from 1993-1995 (Phillipson, 2000). After its excavation it was sealed and closed for public access until the Authority for Research and Conservation of Cultural Heritage undertakes conservation work.

The brick arches located on the entrance of the first two chambers are found in a relatively good condition and can be opened for visitors. However, the other chambers have structural problems of roof and wall collapses from the bedrock from which they were made. The majority of the chambers in the same tomb are filled with water coming from the ground water level during the rainy season up to October, as they are 10 m below modern ground surface level. For these reasons the interior rooms are not recommended for visitors.

3.2. Presentation

The Tomb of the Brick Arches was opened on September 2005 to prepare access to visitors. The parallel walls of the adit of the same tomb were built. Two stone roof lintels that were displaced from their original position and kept out side the adit were placed in their original position. Metal bars, corrugated metals and mud covered the adit of the same tomb.

3.3. Recommendation

There is continuing roof collapse from the friable rock of the first chamber of the tomb. It is here recommended to use metal grill at the entrance of the brick arches so that visitors can see the two brick arches from outside on the steps of the tomb.

Conservation action must be undertaken to consolidate entrances to the interior chambers to avoid brick collapse.

A structural engineer must check the stability of the same tomb.

The tomb must be checked every year to monitor the condition of the rise of underground water.

The same tomb must be cleaned to make it attractive for visitors.

The effects of visitors to the tomb must be checked every year.

Traditional walling should be used to reconsolidate the surrounding modern terraced walls.

4. The Main Stelae Park

4.1. Present Condition and Status of Preservation

Ras Mengesha Seyoum, who was the then governor of Tigray province laid out the present day Main Stelae Park in the 1960's (Tekle Hagos, 1997). It was extended up to the Northern Stelae Field in 2005 by the Ethiopian Cultural Heritage Project Site planning and Conservation sub- component of Aksum. There were many residential houses in the same field prior to the 1960's. Some of them were built on top of the first and the second largest stelae (Phillipson, 1998). The same governor removed these houses from this place. Mengesha had also re-erected some of the fallen stelae using cranes. Furthermore, the same governor undertook landscaping activities of the Main Stelae Field. For such and other reasons the present surface elevation of the park is higher than its original Aksumite surface.

There are piles of soil deposits near the original location of sela 2 and near the church of *Enda Eyesus*. Moreover, trees hide some stelae. The site is not always clean and most of the time grasses and vegetation cover the important structures.

There are some stelae in the Main Stelae Field that are not completely exposed or partially exposed. Furthermore, some of the branches of the trees that covered the pointed end and round stelae near the church of *Enda Yesu* were cleared.

4.2. Recommendation

The Main Stelae Field is the most impressive site and needs to be cleaned and remain tidy always. All grasses and vegetation must be cleaned at least three times a year. The soil deposits must be removed to make the landscape even and attractive.

Furthermore, those stelae that are not completely exposed must be cleared so that they can be exhibited to the public.

The Main Stelae Field is the least archaeologically studied. For the same reason, it requires continuous investigation. For the similar reason any physical human intervention in the same site should be done carefully to avoid destruction of underground tombs and the standing stelae.

This site requires permanent Public pathways to protect grasses and to safeguard underground structures. Moreover, the same site needs resting places for old people.

4.2. Stela 1

4.2.1. Present Condition and Status of Preservation.

This is the largest stela that humans have attempted to erect on earth. Therefore, it is very impressive for visitor. It is found in good condition. There are some stones used for fortress during the civil war from 1974-1991. Soil deposits cover some of the decorations of the same stela. The top part of the same stela is eroded. The soil and stones that supported it are exposed. This may destabilize the largest stela.

4.2.2. Presentation and Clearance

The stone piles that have been used for military fortress were removed in December 2005. Furthermore, the stone fills between the cracks of the stela were also cleared to make it tidy and attractive. Furthermore, the soil deposit that covered the southern sides of the decorations of the same setela was cleared in December 2005. Moreover, the ditches in the southern part of the same stela were filled with soil to stabilize it. Furthermore, traditional walling carried out by by Tekle Hagos in 2005 had consolidated the southern sides of the top part of the same stela.

4.2.3. Recommendation

The stela should be cleaned at least twice a year.

4.3. Stela.3.

4.3.1. Present Condition and Status of Preservation

This is the largest decorated standing stela. It is inclined to the north and northeast. Its front basalt base plate is found about a half a meter below the original Aksumite surface level due to erosion. Moreover, such a plate has engraved vine decorations. However, these impressive artistic decorations are fading away as the result of visitors walking or climbing on them.

4.3.2. Recommendation

The degree of inclination of the stela must be checked every year. Visitors must be prevented from climbing or walking on the base plate of the same stela. The guards should prohibit visitors climbing to the base plate.

4.4. Nefas Mewcha

4.4.1. Status of Preservation

Nefas Mewcha is the largest megalithic tomb or dolmen on earth, which is very attractive for visitors. It is found in relatively good condition. However, it is obscured by grass and vegetations.



'*Nefas Mewcha' the largest dolmen on earth*

4.4.2. Presentation and Recommendation.

The grasses and vegetation cover were cleared on October 2005. It must be cleaned at least four times in a year.

Stela 5

4.5.1 Present Condition and Status of Preservation.

This stela is found broken into six pieces and fallen in the river stream of *Mai Miheja.* The two top parts of the same stela are found in the bed of the river almost covered by river deposit. If an urgent measure is not taken they will be completely covered by the same deposit. Some of the broken pieces of the same are also found on the edge of the river and there is a possibility of falling down to the bed of the stream.

4.5.2. Recommendation and Presentation

The two pieces in the bed of the stream were exposed carefully. The direction of the stream was diverted to avoid further deposition of the same. Opening a channel to the northern side of the stream did this. Digging a trench that was consolidated by cement concrete made such a channel.

Furthermore, the four pieces of the same stela located at the edge of the Mai Mehija River were cleaned and straightened to prevent them from further collapse into the bed of the same stream. Stonewalling undertaken by the author in 2005 had consolidated them.

4.6. Stela 7.

4.6.1. Current Condition and Status of Preservation.

This stela is found to the north of the *Enda Yesus* church lying on top of stela 36. It fell down from north to south. It has unique decorations. The house form decoration is clearly visible on the upper side of the stela. The underside decoration is not visible to the visitors.

There have been requests from the public and local authorities for the re-erection of the same stela. It is believed that its re-erection will bring wealth and fortune to Aksum as it is the symbol of the Ark of the Covenant.

4.6.2. Recommendation and presentation

Re-erecting of such a stela involves a long process, more money and experts of various disciplines to understand its associated underground structure.

Until full-scale excavations could be taken in the future, test excavations were conducted on the southern and northern sides of the stela to open space where visitors will be able to see and take pictures of the underside decoration.

Stela 9

4.7.1. Present Condition and Status of Preservation

This is the ninth largest stela at Aksum located to the west of the largest decorated one. It is rectangular and dressed. It is almost covered by modern soil deposit.

4.7.2. Presentation and Recommendation

It was completely exposed to make it attractive to the public in 2005 by Tekle Hagos. It is broken in three pieces. The largest one, designated as stela 9, after clearance measured 7.80 m long, 1.4 m wide at its top and 1.80 m at it base. Its base is 1.80 m by 1.95 m. Its top is designated as 9a and measures 2.30 m long. The third piece is small with irregular shape. The total length of the same stela is therefore 11.10 m.

Furthermore, a circular stone built structure that appears to be a well used by the ex-residents of modern times of the Main Stelae Field was exposed in the course of the same clearance.

Grasses should be planted around the same stela to avoid erosion.

It needs regular cleaning at least twice a year

4.8. Stela 6.

4.8.1. Present Condition and Status of Preservation

This is the sixth largest decorated stela. It is decorated on its all sides representing Aksumite buildings. It fell to the northwest. Its apexes are well preserved. A large ditch was recently excavated around its base. It is used as a toilet for the local population.

4.8.2. Recommendation

It must be cleaned and protected. The ditch must be backfilled. An interpretation panel for the same stela must be placed.

5. Stone Thrones

The stone thrones at Aksum are found in two groups at the Cathedral and along foot hill of Mai Qoho following the road to Adwa. The later are found in three groups at the Ezana Garden, The Nebure'd Palace and to south east of the Cathedral near the post office.

5.1. Stone Thrones at the Cathedral

5.1.1. Present Condition and Status of Preservation.

There are fifteen stone thrones in the precinct of St. Mary of Tsion known as thrones of Kings and judges (Tekle Hagos, 1997). They are found in a relatively good condition. The pillars of kings' thrones are partially buried by soil deposition and their drainage system is blocked. Furthermore, modern trees disturbed the judge thrones at least since 1906 (Phillipson, 1997). Such trees are now dry and have no importance.

The local people currently dig some of these monuments. The poor use them as shelter. They are also used as praying places. These activities are destabilizing the original positions of these monuments.

5.1.2. Recommendation

The pillars of the kings' thrones should be cleared.

The footings should be straightened or stabilized by stone packing.

The dry vegetation should be removed, as they have no function at the moment.

The drainage systems need cleaning.

The church should prevent the poor from digging around the monuments for making shelters.

5.2. Stone thrones at northern side of Mai Qoho Nos. 16, 17 and 18

5.2.1. Present Condition and Status of Preservations

These thrones are three in numbers designated as thrones nos. 16, 17 and 18 by D.A.E. in 1906 (Litmman, 1913; Phillipson, 1997). They are found in the same condition as recorded in 1906.

Stone throne No.16 is broken in two pieces. The smaller fragment was placed under the same throne to support it at least since 1906. It is displaced and inclined to the north towards the hill.

No. 17 is also supported by recent stone packing and is slightly displaced. No.18 is also displaced.

The site was untidy covered with bushes and stones. It was also used as toilet for the local people.

5.2.2. Presentation and Recommendation.

In 2005, the site was cleaned and the vegetation cleared by the Ethiopian Cultural Heritage Project Site Planning and Conservation sub-component. Moreover, it was fenced by traditional walling by the same component in the same year.

Stone throne No.16 was straightened and supported by stone packing and walling. The other thrones are also straightened in the same condition in same year by the same project.

The site needs a notice telling the public not to use it as toilet. Furthermore, the local Culture and Tourism Office should assign a guard to look after the site. It needs cleaning at least twice a year.

It is also recommended to plant vegetation in the site to prevent erosion.

5.3. Stone Thrones at the Nebure'd Palace No.19 and 20.

5.3.1. Present Condition and State of Preservation

These two stone thrones are found on the foot hill of *Mai Qoho,* inside the Nebure'd Palace, sunk in the ground and partially covered by soil and vegetation. They are not accessible to visitors as there is restriction for entrance to the old palace by the Aksumite Heritage Foundation.

5.3.2. Recommendation

The palace must serve as an open museum and must be open to the public without restriction so that all can visit these thrones. Furthermore, a sign or poster should be placed on the gate of the palace to make it accessible to visitors.

The stone thrones need cleaning and exposure. They also require straighteing and stone support at their bases. Furthermore, construction should be discouraged in the same palace compound.

5. 4. Thrones opposite to the Ezana Garden (Nos. 21, 22, 23, 24, 25).

5.4.1. Present Condition and Status of Preservation.

These five stone thrones were recorded in 1906 by the D.A.E. At present, only four stone thrones are found around their original positions.

Throne No. 24 was moved to the Ezana Garden by the Italians during the World War II and became the base plate of a stela.

Stone throne No. 21 is found along the edge of the road to Adwa. It is partially buried and displaced. Three fragments of the same that may have been supporting pillars are found displaced beside it. The seat of this throne was taken to the Ezana Garden and used as a base of a stela.

Furthermore, stone throne No. 22 is found near the foot track leading to Mai Qoho hill. It is slightly displaced from its original location.

Throne no. 23 has had two splits on its base. It has also a seat somewhat displaced. The base and the seat are made from separate stones. The base and the seat have three Geez inscriptions discovered in 1906 by Littman (Littman, 1913).

Throne No. 25 is found near a house partially covered by vegetation. It is deliberately broken into two pieces that are found far apart from each other.

At the southern edge of this site there is an undressed stela erected on a rocky hilltop in front of the Ezana Garden that is exposed to modern garbage and erosion.

Although this site has been fenced by metal wire the local people and the schoolchildren have used it as a toilet. For the same reason it is horrible to visit.

A large ruin that appears to be an Aksumite structure is found in the same site. Such remain is marked with big mound and wall exposure in its southern side. Red and polished Aksumite potteries are also found in the same ruin. Furthermore, imported pottery is found on the surface of the same ruin.

5.4.2. Archaeological Excavations and Presentations

In February and March 2006 and 2007, archaeological excavations were undertaken at the Ezana Stone Throne for 10 weeks in the archaeological ruin by Tekle Hagos, the Ethiopian Cultural Heritage Project archeological consultant to evaluate the significance of the site.

Two phases of a church was excavated in the same site in 2006 and 2007. The earliest one dates to the middle of the 6th century AD. The latest phase, which is represented in the sanctuary, appears to date at least o the 19th century AD. The earliest one, which is a late Aksumite church, is a stone built rectangular structure. It is 26m long from east to west and 13 m wide from north to south. It is rectangular in form. It is basilica in plan and has three aisles with a semi circular sanctuary. Such a structure is characterized by rebates that are executed in excellent fashion. The same building has also dressed corner stones from the outside and eight piers from the inside of the building. Humans deliberately removed the corner stones of this building in antiquity.
This seems to indicate that there was an internal opposition to the late Aksumite leadership. Furthermore, the thick ash layer and the large number of burned bricks excavated from the same site indicate that such a structure was destroyed by fire that may have been deliberately set by the enemies of the Aksumite leadership in the 7th century AD.

This newly discovered structure was left open for visitors after a conservation work was undertaken by the same project. Such a discovery showed that the same site has outstanding cultural and scientific values. Furthermore, excavation undertaken at Throne 23 rediscovered three stone inscriptions recorded by the D.A.E. in 1906 as inscriptions 12, 13 and 14 (Littman, 1913).

Inscriptions 12 and 13 were partial buried and were not known to the public while the other was completely buried in the ground. The first two inscriptions were inscribed on the base of the throne that is broken into two. Both splits have inscriptions of *Hatsani* Daniel. He declares about the revolt and conquest of the peoples of Wolkite and Kassala. The seat has also an inscription of the same ruler who declares that he deposed the last Aksumite king without bloodshed and made himself the supreme leader.

These inscriptions have unique historical significance of peaceful power transfer from an Aksumite king to a military leader. The broken base of stone thrones and its seat and the orientation also shows probably the same significance. For these reasons, this heritage was made accessible to the public as the archaeologist found it. The Ethiopian Cultural Heritage Project built a round traditional house to protect throne 23 and its inscriptions in March 2006.

Stone Thrones No. 21 and 22 were cleaned. Furthermore, they were raised to horizontal levels with stone base supports. Stone Throne 25 was restored. The pieces were joined and supported with stone base. The site was cleaned to make it very attractive to the public.

The newly discovered massive building, the three inscriptions, and their identification to *Hatsani* Daniel, an Aksumite Warlord or general of the late Aksumite times also added to the cultural and scientific values of the same site. For the same reason, the site was fenced by traditional wall replacing the metal wire.

5.4.3. Recommendation

The site must be cleaned all the time to make it accessible to visitors. The area should be sign posted as museum of monuments so that it not to be used as a toilet.

Furthermore, the stela in the southeastern edge of the same site needs cleaning and terracing to protect it from erosion

The metal fence should be replaced by traditional walling following the road to Aduwa. The other side of the site following the foot of *Mai Qoho* should be a green garden and the Aksum municipality should cover the expense of the same.

The site also requires terracing and vegetation to protect it from erosion.

The Tourism and Culture Office should hire a permanent night and day guard to protect this structure

Archaeological excavations should continue in the same site to determine its relationship with the stone thrones and the inscription of Ezana and to fully understand the newly discovered structure.

The Ezana inscription, which is currently located at the Ezana Garden, should be removed to its original location near to the inscriptions of *Hatsani* Daniel.

Furthermore, the stone throne base plates that are found in the Ezana Garden should also be removed to their original places near to the newly discovered structure or near to the *Hatsani* Daniel inscriptions.

Furthermore, the recently discovered building in this site should be sheltered before the coming rainy season.

6. Tomb of *Bazen*

6.1. Present Condition and Status of Preservation

Jean Doress excavated the tomb of Bazen in the 1950's. It has been open for public for many years.

It is covered by metal sheet to protect it from rainfall. It is therefore, found in relatively good condition. However, the roof of the interior chamber has cracks probably caused by drainage problems. It is untidy consisting of soil deposits, spider webs and plastic bags. Its interior chamber is dark and visitors are using torches.

The multiple tombs located to the north of the first tombs are not clean and are full of garbage including metal sheets, plastic bags, stones and soil deposits. These rock-cut side tombs are not attractive for visitors as they are untidy. There is no access to go down to these tombs. Furthermore, several rock-cut shaft tombs are not excavated. They are exposed to soil deposition. The clearance of vegetation by the engineers of the ARCCH accelerates erosion causing additional damages to the opened shaft tombs.

6.2. Presentation and Recommendation

The lower tombs were cleaned in 2005 and became attractive for visitors. Such graves need light. Furthermore, the vegetation in the upper part of the tombs should be protected to avoid erosion and drainage problem. Frequent monitoring is required to avoid drainage problem.

The upper nine rock-cut tombs with their rock-cut courtyard were cleared in 2005. In particular one shaft tomb located at the eastern end of these tombs that was filled with stones was cleaned. A wooden or metal ladder is required to go down to these tombs. The vegetation around these tombs should be protected to avoid erosion.

The tombs should be excavated or cleaned by archaeologists to make them more attractive for visitors and for public education. Clearance of vegetation around these tombs should be avoided immediately.

7. Tombs of Kaleb and Gebre-Meskel

7.1. Present Condition and Status of Preservation

These house form double tombs are the most interesting structures that the public and visitors should visit.

7.1.1. Tomb of Kaleb

The restored stonewall capping around the entrance of the Tomb of Kaleb are loose due to rain wash and erosion and have an ugly appearance. It suffered from erosion due to the penetration of water behind the facing blocks because of the lack of a proper drainage system.

The same tomb has been fitted with four modern and ugly piers because of fear of structural collapse in the future. These walls blocked passage and light to the four chambers of the same tomb. However, there is no basic structural problem, which leads to structural collapse. This tomb has one modern pit.

The floors are disturbed without the original stone pavements. For the same reason the floors are covered with loose soil. Bat droppings are also making it untidy and deteriorating the same tomb.

7.1.2. Recommendation

The stonewall capping at the entrance and its surroundings should be restored with traditional wall system to make the tomb more attractive.

A lighting system is required to make the four chambers of the tomb visible to the public.

The disturbed floors should be restored either with sand or with small sized pebbles to avoid dust coming from the mud floors and to make the chambers always clean.

The recently added four piers are not necessary and should be removed. A structure engineer must assess the structural stability of the same tomb and the functionless of the same piers.

The pit should be back filled.

A drainage system should be arranged, providing a runway ditch to the surrounding pavements to avoid sitting water in the tomb.

Metal doors are needed to prevent bats entering the tomb.

The same tomb needs cleaning at least twice a year.

7.2. Tomb of Gebre -Meskel

7.2.1. Present Condition and Status of Preservation

The Tomb of Gebre-Meskel is the most impressive structure at Aksum. It has no light and the walls are blackened by the use of candle and other traditional lighting methods. Bat droppings are deteriorating this tomb. Its floor pavements are displaced and some floors are covered with loose red soil that makes the tomb dusty.

The tomb of Gebre- Meskel has suffered from modern diggings and penetration of water. Two chambers of the same tomb have pits that may undermine the structure of the same tomb. Chamber 1 has disturbed floor and a sidewall collapse. Chamber 2 has also sidewall collapse and mud covered floor. Room 3 has a sidewall collapse. Moreover, room four has a dusty floor. Furthermore, room five has a floor covered with red loose soil.

7.2.2. Recommendations

The followings suggestions are proposed to make it presentable to the public and maintain its structural stability.

A light system is required to make it visible and to avoid smoke darkening the sidewalls.

The two modern pits that may undermine the whole structure should be back filled immediately.

The disturbed floor pavements should be restored to their original positions and cover the mud floors with sand or small sized stones.

The collapsing sidewalls that may threaten the whole structure should be consolidated by traditional dry stone masonry or by traditional stonewalling.

Metal doors are recommended to prevent bats entering to the tomb.

The surrounding pavements should have a ditch or a drainage system to prevent water sitting above the tomb. Furthermore, the existing drainage system should be checked and cleaned every time.

The site should be cleaned at least twice a year.

The entrance to the tombs of Kaleb and Gebre Meskel should be changed to the west to make it parallel to the stone steps leading to both tombs. Test excavation should be undertaken to expose more steps leading to the same tombs. Furthermore, similar archaeological excavations should be conducted to reveal the structures that are visible on top of the surface level before reaching the stone steps that lead to the tombs of Kaleb and Gebre-Meskel.

The underground tombs located around the tombs of Kaleb and Gebre-Meskel should be excavated to make them accessible to tourists, to avoid illegal digging, and to prevent structural damages.

8. Dingur Elite structure

8.1. Present Condition and Status of Preservation

The Dingur elite structure was excavated in 1968 by a French archaeologist, Francis Anfray. Stelae base plates and other stone slabs that probably came from the Gudit Stelae Field are reused in this structure. This indicates that the function of the same stelae field as a cemetery place ceased in the sixth century AD by the time of the construction of this elite structure.

The structure is enclosed by modern stone enclosure for protection. The excavator did not publish his excavation result. For the same reason it is difficult to distinguish the reconstruction and the original Aksumite structures.

Many original walls, floor levels, staircases collapsed due to erosion. Furthermore, site visitors have contributed for the collapse of the original Aksumite structures by climbing and walking on the walls. For such reasons the stone capping of most of the reconstructed walls are very loose and some of them have even collapsed.

The brick structure that appears to be either an oven or kiln has partially collapsed. Collapsed bricks are seen lying on the floor of the same structure. Such structure is covered by metal sheet. The site is always unclean covered with vegetation and grasses. The vegetation that grows in the wall is the other causes for the deterioration and collapse of the same elite structure.

8. 2. Recommendation.

The Dingur elite structure is very interesting for visitors and needs proper attention by the concerned cultural heritage authorities as recommended as follows.

The ARCCH should attempt to collect photographs and excavation plans of the Dingur elite structure to compare the reconstruction with the original plans and structures.

The site needs cleaning at least twice year as vegetation and grass grow so quickly.

The deteriorating Kiln or oven should be reconsolidated using the existing bricks to avoid further collapse.

The existing internal and external drainage system should be cleaned and reconsolidated to avoid water retention in the ground during the rainy season.

The wall rooms should be reconsolidated as they are collapsing down.

Visitors should walk on a raised wooden path to avoid the deterioration of the same structure. It is therefore, recommended to the concerned cultural heritage authorities in consultation with archaeologist to cover the intended passages of visitors by wooden blocks (from the top of the central building up to the kiln has to be covered by wooden blocks).

The present entrance to the same elite structure should be changed to make it parallel to the main road so that the structure could be seen from the outside or visitors could see the same building from a distance. The entrance to the main structure should be reconstructed using blocks of corner stones.

9. The Gudit Stelae Field

9.1. Present Condition and Status of Preservation

The Dingur Stelae Field that is also known as the Western Stelae Field is a large space consisting of over 400 dressed, undressed, round and pointed end stelae.

The D.A.E. in 1906, Chittick in 1974 and Ayele Tarekegn recorded this site from 1995-1997 and by the Ethiopian Cultural Heritage Project in 2004. Excavations undertaken in the same Field confirmed that the site was a cemetery of middle Aksumite population in the middle of the second century AD.

The site is enclosed by metal wire for protection. However, the same fencing does not include several stelae on the eastern side of the site.

The local farmers currently cultivate the Gudit Stelae Field. For the same reason some of the fallen stelae are placed in the terraced land and are used as boundary marker of ownership. Furthermore, stones and mud cover some of the stelae. Generally they are found in relatively good condition.

9.2. Recommendation.

The stelae that are covered by stone and mud should be cleaned and need stone support to make them visible to the public. Such cleaning could be done with the farmers who cultivate the land. At present, cultivation of the same site is tolerable. However, mechanized farming should not be introduced to the same in long-term plan. Furthermore, the site should be considered as a park in the long-term plan.

The existing metal fence should be enlarged to the east to incorporate the stelae found in the same direction to protect them from illegal quarrying. The broken metal fences should be repaired or fixed to reduce further destruction to the stelae.

The site should be enclosed by vegetation such as those found in the northern side of the same site.

10. Old Aksum Town.

10.1. Present Condition and Status of Preservation.

The old Aksum town is located to the west and northwest of Aksum. It consists of traditional rectangular and circular stone buildings with at least one-storey and underground rooms. Such buildings, which are no longer constructed at present, have architectural importance as they represent the traditional Ethiopian architecture in general and that of the Tigrean in particular.



Traditional house in old Aksum town

Most of these historical houses are threatened to destruction due to old age, new constructions and unscientific restoration activities undertaken by the owners of the same buildings. Furthermore, most of them are found in a bad state of preservation with wall cracks, wall and roof collapses. The modern roads have obscured and destroyed the traditional and ancient streets of Aksum.

The old Aksum town also preserves the residential, administrative and industrial centers of the Aksumites between about the 5th and 7th centuries AD. Slope deposits

coming from the Bete Giorgis hill cover almost all of the ancient buildings. Moreover, modern houses were built on top of these underground structures. Blocks of corner stones of Aksumite buildings, remains of Aksumite walls and pottery are found scattered in most parts of the old Aksum town. However, almost all parts of old Aksum town are too dirty. For the same reason it is not attractive for visitors and impossible to walk the day.



Southern entrance to the palace of Ta'aka Mariam

Construction activities are discouraged in the old Aksum town to protect the archaeological heritage. It has been proposed by Federal Urban Planning Institute (FUPI) to move 50% of the population of old Aksum town to other parts of modern Aksum town. It was planned to resettle the inhabitants of the same in three phases. A compensation of 10, 000, 0000 birr was paid in 2007 and 2008 to 193 households from the old Aksum town. Additional nine million birr was budgeted by Federal government of Ethiopia to resettle additional households from the same place in 2009 and 2010.

10.2. Recommendations

The FUPI proposal to remove 50% of the population from old Aksum town should be reconsidered to 25%. Furthermore, it is recommended that old Aksum town should continue as a living town.

The old Aksum town (traditional routes, archaeological ruins and traditional houses) is very attractive for visitors if it is clean and its inhabitants stop relieving

themselves everywhere. The Aksum municipality, its Kebele administrative bodies and Aksum Tourism and Culture Office should work together to teach the inhabitants how to clean and protect their villages.

The traditional buildings should be restored to their original condition using limestone and mud to avoid modern intervention. The owners of these houses should do the restoration work by themselves in consultation with the Aksum Tourism and Culture.
Any attempt to construct new roads at old Aksum town should be discouraged to prevent further disturbance of the traditional routes. It is recommended to make cobbled streets rather than using modern asphalt roads in old Aksum town.

The five corner stones of the southern sector of the elite structure of Enda Mikael that are still found in their original Aksumite location should be cleaned to make them accessible to visitors. The inhabitants at this particular place should be told to keep it tidy.

The southern side of the Ta'aka Mariyam elite structure, located to the southern side of the *Aksum-Enda Slassie* road needs cleaning and consolidation to make it more attractive for visitors.

The single corner stone of a projecting Aksumite wall at the southern side of the Enda Semon elite structure should be cleaned.
Archaeological test excavations should be undertaken prior to construction activities in old Aksum town and the architecture of new houses should be in harmony with the traditional ones. Those who demand for test excavations should pay the daily wages of the excavators. There are at least four amateur excavators at Aksum who can conduct test excavations under the direction of Aksum Culture and Tourism Commission.

11. Protected Aksumite stelae and Quarry sites

The Ethiopian Cultural Heritage project archaeological survey specialist, resident archaeologist, Tigray Tourism and Culture Commission and Laelay Maichew police demarcated the following Aksumite stelae quarry and slipway sites on May 2006.

11.1. Objectives for demarcation:

A. To protect the Aksumite stelae quarry and slipway sites from modern destruction such as quarrying.
B. To prepare the pre-requisites to include the Aksumite quarry sites and slipway to the World Cultural Heritage list.

C. To preserve the Aksumite cultural landscape as it was 2000 years ago.

D. To prevent the hills of Gobo Dura and Betegiorgis from erosion and deforestation.

E. To save the natural resources in Gobo Dura and Betegiorgis hills and their surroundings for future generation.

F. To make these sites accessible to visitors

G. To empower the local population to control and use the natural resources around the demarcated sites.

H. To address the demand of the local population to exploit the natural resources around the demarcated areas.

11.2. The Demarcated sites.

11.2.1. Gaul Gobo Dura.

11.2.1.1. The demarcation

The Aksumite Stelae slipway and quarry sites at Gal Gobo Dura were delineated to protect them from modern quarrying and also to meet the demand of the local people to quarry where there are no ancient quarry sites.

The first demarcated or protected is found at Gaul Gobo Dura. It is about 400m long from east to west. It extends from 1562827 N, 0466122 E and 2140m from Golo up to the top of the hill in the west to 1562395 N, 0466538 E and 2154m up to the top of the hill in the east.



Aksumite stelae quarry site and slipway at Gaul Gobo Dura.

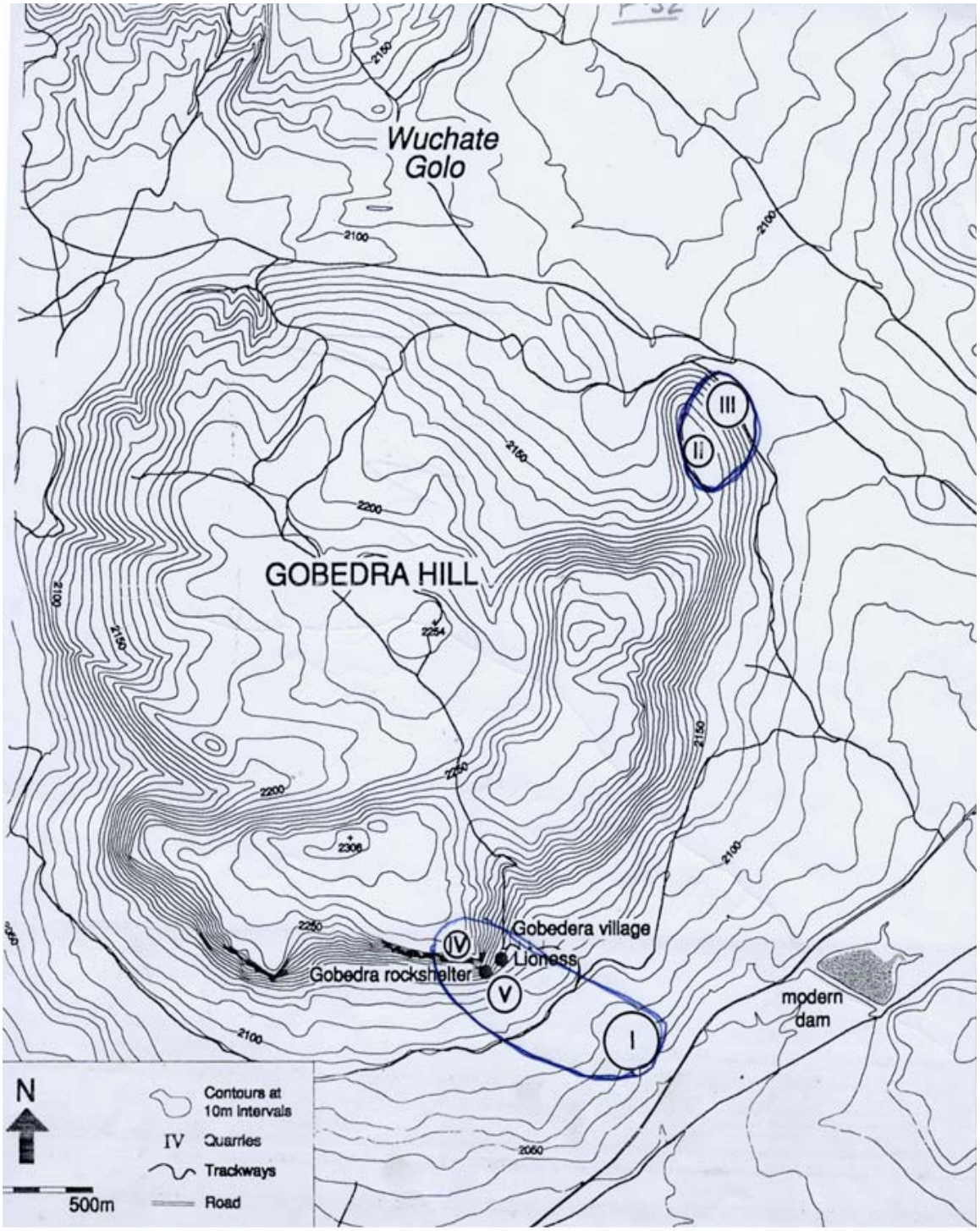


Fig. 32 Aksumite qurry sites (after Phllipson 2000)

11.2.1.2. Recommendation

A signpost with a label "protected archaeological heritage" should be placed on the eastern and western limits of the same site.

11.2.2. South and southeastern Gobo Dura.

11.2.2. 1. The demarcation

The second demarcated site at Gobo Dura is found to the opposite of Addi Hankera on the southern and southeastern side of the same hill. This protected site that is about 370 m long from east to west is located to the west of the Shire- Aksum road. It extends from 1560321 N, 0466113 E and 2090m up to the Gobo Dura hill in the east to1559809 N, 0465742 E and 2060m to the Gobo Dura hill in the west.

11.2.2.2. Recommendation

A signpost with a label "protected archaeological heritage" should be placed on the eastern and western limits of the same site.

11.2.3. Da'ero Maichew

11.2.3.1. The demarcation

The third protected archeologically zone are the quarry sites at Da'ero Maichew which are located on the southern foot hill of Betegiorgis. This demarcated zone extends from the Dingur elite structure 1561644 N, 0468090 E and 2147m in the east up to the hill of Betegiorgis in the north to the Tomb of Minilik at Enda Kolakul 1562008 N, 0467229 E and 2160m in the west up to the hill of Betegiorgis in the north.

11. 2. 3.2. Recommendation

A signpost with a label "protected archaeological heritage" should be placed on the eastern and western limits of the same site.

12. Conclusion and recommendations

One of the challenges facing Aksum at present is lack of information. Distortion of information by local guides and guide books about the history of Aksum and its cultural remain is also the other problem for Aksum. It is recommended such confusion and lack of information about the archaeology of Aksum can be addressed by preparing interpretation panels on each important sites of Aksum. It is also recommended to

produce a brochure that describes the most important sites and archaeological remains of Aksum. Such a brochure should be prepared by archaeologists but not by tour organizations and guides.

Another challenge for the archaeological remains of Aksum is visitors' intervention on sites such as walking on archaeological remains and touching and removing block of stones from rock tombs. Preparing guidelines for visitors and by assigning guards to prohibit visitors from walking on and touching archaeological remains can solve problems such as these.

The Aksum municipality should build public toilets. Individuals should also be encouraged to construct public toilets to make Aksum clean. Furthermore, the Aksum municipality and The Central Zone of Tigray Tourism and Culture Commission should work together to teach the public how to make Aksum clean and protect the cultural heritage.

The stelae of *Enda Eyesus*, which are being covered by modern cemetery and soil deposit, should be cleared and exhibited to the public before they are completely covered by cultural and natural formation process.

Furthermore, the stelae at *Mai Melahso* need clearance and must be presented to visitors, as they are the northern boundary of the Aksumite stelae in the northern outskirts of ancient and modern Aksum town.

Archaeologists and architect conservators should undertake conservation work at Aksum. It is here recommended that the ARCCH to reconsider or evaluate its conservation work undertaken so far.

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