

Cultural attribution and Morphology of Megalithic features at Aksum and Shire area, Northern Ethiopia

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Abstract- The north western and central region of Tigray Ethiopia (including Shire and Aksum area) was one of the major areas of Ethiopia where ancient civilizations occurred. The study area, being situated in this environment is full of archaeological remains attesting past human achievements and stage of technological developments. Ruins of ancient settlements, center of rituals and religion, cemeteries (mostly rock cut tombs), megaliths and so on are some of the archaeological records found widely distributed in the vicinity of the research areas. The environments, especially the plain areas are littered with relics of lithic and ceramics of different time periods indicating the continuous occupation of the area since pre-history to later times. The identification of several megalithic sites in the study area most of the time encircling the settlement sites do not only give clues for the stage of stone curving technologies but also the settlement patterns of the area under consideration. Hence settlement sites tend to be located in geographically commanding area near permanent water sources and fertile soils. The stela sites, assumed to be grave markers, are situated not far from the settlement areas relatively in less fertile spots. So far multi-dimensional cultural attribution and morphology highly reflected at the megalithic materials of the Axum vicinity; at which most advanced architecture of stone dressing observed over.

Index Terms- Aksumite empire, megalithic, morphology, cultural attribution

I. INTRODUCTION

Culture is a special entity of human beings developed some 2.5 million years ago during which the early homo began to fabricate tools from stone, to coup up the environmental adaptation and climate change occurred. Megalithic is one aspect of human culture that evolved in the prehistoric period. As of this period the use of roughly hewn monoliths was a very old and well-observed custom (Geraled et al, 2004; Gaura, 2007) in different part of the old and New world areas.

The earliest evidence of monolithic modified by human seems to be menhir dated to 8thC BC discovered at Dawiya Jordan

(Crummy, 1991). The use of monolith and stelae for religious and funerary purposes was a recurrent feature in Asia as well as Africa. They have been found in the Syria-Palestinian region, China, the Nile valley, Ethiopia and the Horn, the Maghreb, the Sahara, central Africa, Mali, Senegal, Gambia, Togo and Nigeria (Gaura, 2007; Joussaume, 1989; Henery, 1908).

Geographical discontinuities appeared in the distribution of megalithic culture in Ethiopia as a broadest perspective. The major material indicator found distributed in an extended geographical zone of the northern, central, eastern and southern part of the country represent three types of characteristics. These are dolmens, tumuli or burials for mortuary practices and stelae (Tekle, 1993; Ayele, 1997 and joussame, 1989). Besides the giant multi-storied monuments at Aksum with well-established funerary significance; there are many multifunctional & typical morphology monoliths which are both well & roughly carved structures in the surrounding. Moreover, in Aksum & its surrounding typical megalithic feature which lack to achieve common archaeological nomenclatures & typology category presented scattered in & around the vicinity (Ayele, 1997).

A century more research and interpretation in Axum and its environ identified multi- feature monolith includes Magnificent & small size stelae and tomb-sarcophagus, multi-lingual inscriptions, stone pillars, coronation stone, tri-function throne base, column base, stone pound and stone trough, up and down stairs platforms, Aksumite doors and large liquid processors etc all hewn from single stone of different size show that how varied cultural attribution megalithic culture available in the place since the antiquity. All those varied monolithic materials indicates the extent and standard of the practice of megalithic tradition at the place approximately as of the early historic period (Phillipson, 1998).

Both the Shire plateau and Aksum site comprised monolithic materials used and modified at different time frame with a progressive stone curving technology over time. The megalithic culture practice at this place indicates multi-dimensional cultural attribution as well as from small to huge morphology.

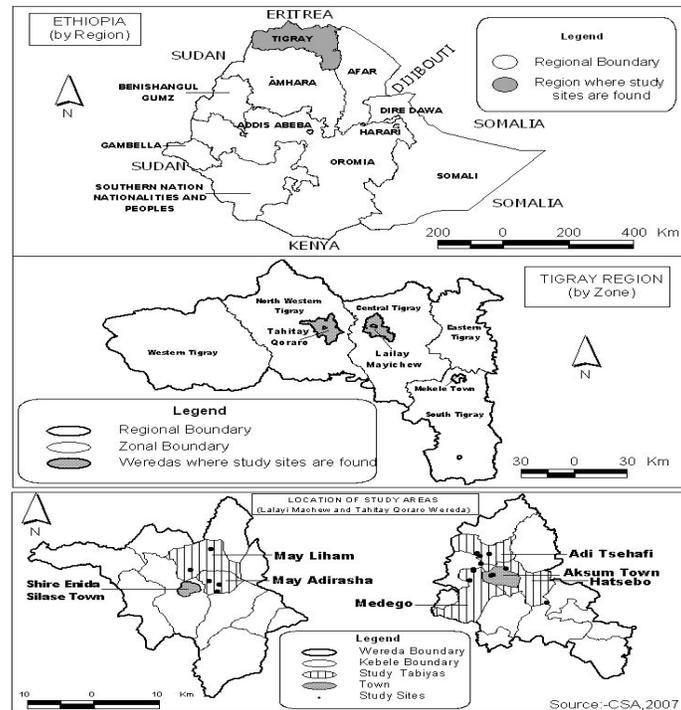


Figure 1 Location of the Surveyed megalithic sites with respect to regional and country map

Table 1: Ancient Aksumite culture chronology adopted from various archaeological reconstructed & dated sites

Culture nomenclature	Chronology
Pre-Aksumite Period	circa 900–400 bc
Proto-Aksumite Period	circa 400–150 bc
Aksumite Period	circa 150 bc–ad 700
Early Aksumite phase	circa 150 bc–ad150
Classic Aksumite phase	circa ad 150–400/450
Middle Aksumite phase	circa ad 400/450–550
Late Aksumite phase	circa ad 550–700
Post-Aksumite Period after	circa ad 700

II. MATERIAL AND METHODOLOGY

During the field survey documentation; the primary materials of the monoliths and their site were measured, counted, photographed and grid referenced on map by taking GPS point of each site and material from the different places. To realize the ancient and contemporary function of monolith tradition of the sites; a jigsaw discussion was made with historians, architects, legend history aware elders, all kinds of religious leaders and tourism & culture experts. As a result, I recognized that monoliths of different cultural attribution have different specific name to be called by the culture descendant society like ‘Tikul Emni’ for staele, ‘Galba’ for the liquid processor, ‘Hawelti’ for monuments, ‘Megue’ for the pounding and many other names difficult to list here. Petrologic analysis indicated that granite & Sandston are the dominant stone type from which the megalithic at Aksum were made. Survey & observation at the sites reconstruct relationship

between the monoliths with wedge marks found at rivers sides, stone hills and periphery area near by which supposed to be indicators of quarry area and the megalithic structures validate for different cultural attributions.

III. RESULT OF THE STUDY

This archaeological inventory conducted notably on the megalithic sites of the vicinity of Aksum and Shire districts of Tigray regional state Ethiopia. Both were spot of paleo-intercultural interaction of the intercontinental Aksumite Empire. The megalithic sites in Shire district include six sites at the Tahitay Koraro village association locality of Dungur, Abune Yohannes, Addi Waro, Enda Medhani Alem, Enda Yasin and Mekabir Esilam (Muslim cemetery). For parallel task twelve sites were identified & documented in the Aksum vicinity Wereda of Lailay Machew including previously research known megalithic sites in the town for only comparison and chronological association. Some of the

megalithic sites at both Shire and Aksum districts were preliminary reported by different archaeological scholars from inside and abroad.

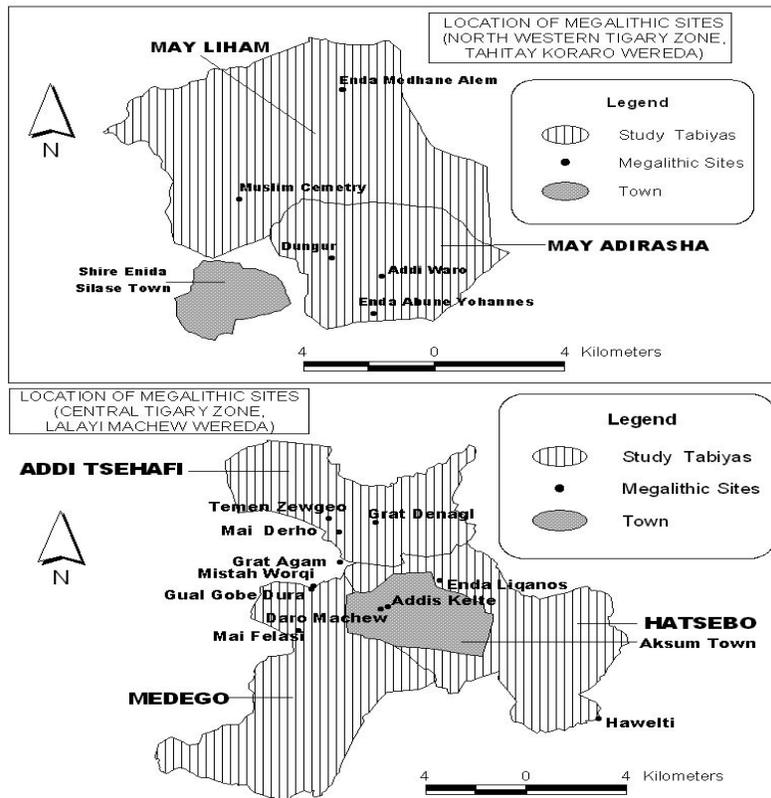


Figure 2 Show distribution locations of the megalithic sites at the study area

1.1. Shire district

The shire plateau is found north western of the Tigray administration region. It was a metropolis spot during the ancient Aksumite Empire. At the district of shire and its environs six sites and sixty individual megaliths were located and inventoried at two sub-localities. All the sites are located in Tahitay Koraro wereda locality. The three sites (Dungur, Addi Gidad and Addi waro) are located at the sub-localities (Tabiya) of Mai Adrasha about 5km to north east of Enda Sillase town encircling the pre-Aksumite and

proto-Aksumite settlement site and the other three (Enda Medhani Alem, Enda Yasin and Muslim cemetery) are found at sub-locality of Mai Liham to the north west of Enda Silasse town some 17km away. Specifically the Addi Waro Kebele/kushet immediately to the northeast of the Addis Abeba-Gondar main road holds six highly disturbed individual monoliths. All the megalithic structures of this area have similar cultural attribution of funerary stelae.

Table 2: General distribution and description of megalithic sites of Shire district

Site Name	Latitude(N)	Longitude(E)	Elevation (m)	Wereda locality	Sub-locality \Tabiya	Kebele\ qushet	Typology of the megalithic	No.
Dungur	140655.3	0381838.5	1916	Tahatay koraro	Mai adrasha	Areada	Stelae	2
Enda Abune Yohanns	140545.3	0381921.0	1946	“ “	“ “	Mai Gushela	Stelae	3
Addi Waro	140632.7	03818929.5	1939	Tahitay Koraro	“ “	Addi Nekes Adgi	stelae	6
Enda Medhani Alem	141029.9	0381848.8	1934	“ “	Mai Liham	Mai Gie	Stelae	1

Enda Yasin	141029.9	0381848	1935	“ ”	“ ”	Enda Yasin	stelae	1
Muslim cemetery	140810.6	0381703.1	1925	“ ”	“ ”	Addi Hano	Stelae	3

1.2. Aksum vicinity

The use and modification of multi-dimensional cultural attribution and morphology of megalithic material is a famous feature of the ancient Aksumite empire culture. Being the location of religion-socio-cultural and human settlement for over 4000 years of recorded history, the Aksum environment encompasses the oldest, yet in use, man-made relics and dwelling. Primarily owing to the multi-function & magnificent monolith, ruins of palaces, complex tombs, paleo-coins, epigraphs are among the

many sprawling all over its environ. The inventory carried out in the district of Aksum resulted in the registration of megalith at thirteen sites in Addi Tsehafi, Medegwe and Hatsebo sub-localities, situated at a distance of about 7 and 10 kilometers to the north east, west and south of the town of Aksum in Lalai machew Wereda. The adjoining areas consist of multicultural attribution and morphology types of megalithic materials.

Table -3: show general description of megalithic site at Aksum vicinity and town and their cultural attribution

No	Site name	Latitude (N)	Longitude (E)	Altitude (m)	Wereda	Tabiya	Kushet \kebele	Typology
24	Gual Gobedura	1408'09'	3841'11'	2161	Lalay machew	Medege	Sefho	Stelae & coble stone or quarry
16	Mai felasi	1407'01'	3840'54'	2153	“ ”	Addi tsehafi	Akeltegnan	quarry & unfinished stelae
1	Grat Denagl	1409'59'	3842'36'	2034	“ ”	“ ”	“ ”	Gold selection & processer
2	Temen Zewgeo	1410'06'	3841'34'	2120	“ ”	“ ”	Temen Zewgeo	Liquid or oil processer
1	Mai Derho	1409'44'	3841'47'	2126	“ ”	“ ”	Mai Derho	Liquid or oil processer
3	Grat Agame	1408'54'	3841'49'	2151	“ ”	“ ”	Aseba	Funeral stelae
1	Meqayih	1408'54'	3841'49'	2147	“ ”	medgwe	Dura	Funeral stelae
3	Daro-Machew	1407'36'	3842'43'	2125	“ ”	“ ”	“ ”	Funeral stelae
11	Enda Liqanos	1408'24'	3844'01'	2331	“ ”	Hatsebo	Mishilam	Stela & blank stone or quarry
12	Hawelti	1404'36'	3847'31'	2051	“ ”	Hatsebo	Hawelti	colons or Pillar

1	Mistah worqi	140815	384114	2163	‘ ‘	Medgwe	Ketete Ekli	Gold processor
21	addi Kelte	140741	384252	2143	‘ ‘	‘ ‘	03	House utensils & other structure

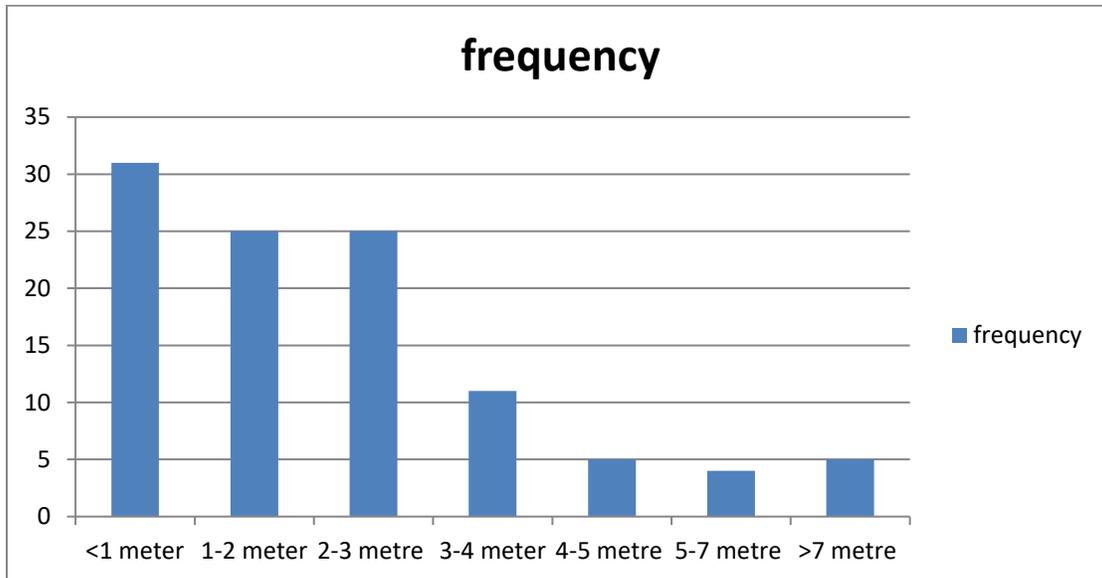


Figure 3 graphic representation of height frequency of megalithic of the study area

IV. DISCUSSION

With regard to the cultural attribution; the megalithic structures of the Shire area categorized as stelae tradition. Accordingly the stelae of this study area modified when the culture were early stage of development, meaning that the people simply used elongated unhewn single slab stone to mark the burial of the dead. Neither of the megalithic sites in this study area comprise a structure with decoration or any sign of architectural design like that of the magnificent monuments and other mortuary superstructures found in Aksum with further storied and symbolic depictions that represent religious inputs, war tools & warriors, house hold utensils and decorating forms. The local people designated different name to the monoliths of different functions; is a good indicator of the presence of multifunctional cultural attribution of Aksumite megalithic culture. This shows, a systematic study is expected to establish standardized nomenclature classification of the megalithic materials based on their cultural attribution and morphology.

On the other case the megalithic structures inventoried in the Aksum study area indicate multi-dimensional modification & cultural attribution. As attested in the monoliths of Hawelti melazo, Aseba, Daro Machew, Meqayih, Selae NO-1 & stelae No-2 of Enda Liqanos and some of the structures at Addi Kelte, the Aksum town sites have parallel function to the Shire study area to signify burial place. More over Gual GobeDura, Enda Liqanos and

Mai Felasi monoliths are remarkably possible quarry areas for most of the structures found scattered in and around Aksum town in reference to the chisel marks that majority of the stone slabs registered there have, i.e., the wedged marks used to dispatch or flint the huge rocks in to parts for further ramification and modification visible at the registered sixteen expected representative monoliths. This is supported as well in the structure found with similar wedge marks at the Guditi Stelae field, Geza Agumay, Gele Emni (northern stela) and main stelae park megalithic sites. The monolith structures of Temen Zewego, Mai Derho are liquid processors. In parallel form the hewn structures of Mistah Werqi, Grat Denagl, and some monolithic at Addi Kelte like pounder and small troughs prospected as gold and food processor respectively. The megalithic culture at the study area identified three major cultural attributions. These are Funerary stelae, liquid processor and house utensils like pounder and trough.

In general the megalithic structures in the study area exhibited varied morphology; the most noticeable and regularly modified shape includes, rectangular, circular and rounded top beyond their cross-sectional irregularities. In addition to this the detailed description of each and every inventoried monolith can be referred from the table 2 and 3. Regarding the stated shapes of the structures is basically through viewing the overall forms with special attention to the top sides and surface sections of the available structure.



Figure 4 funeral stelae

A, is unhewn and rough elongated slab found at Meqayih west of aksum town 1.89m long and 68cm wide at the middle part. A, is best example of first stage megalithic shaping in Aksum. B, is a 74cm long stelae found at a proximity of 700BC early settlement site mai adrasha. It has a rounded top shape which belongs to the early stage of funerary stelae modification

techniques dressed but no special design employed. And C, found at the main stela park at the town of Aksum . it is the 3rd largest monumental obelisk made by man on the history of the world .it is storied stelae carved with symbolic representation of houses 21m high.

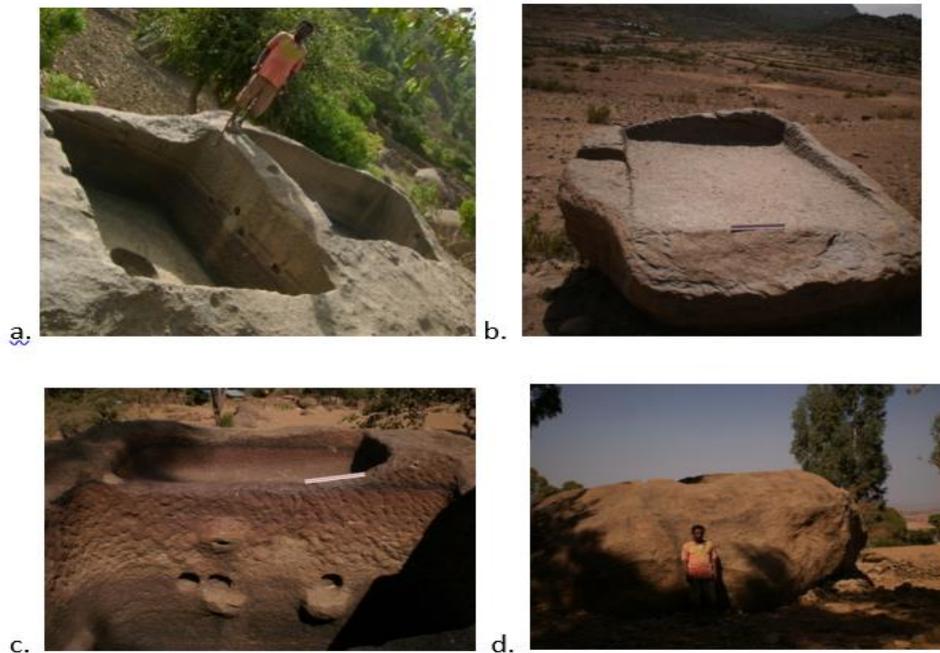


Figure 5 liquid processor

A, is a big boulder found at Mai Derho. Its up surface is hewed to make to adjacent openings inside the rock (the big stone) surface. The opening in the southern directions has a rectangular shape having a small circular hole dug out at the middle of the bottom surface its cultural attribution is a point of debate but most probably liquid processing. B, The rectangular stone structure of

Grate Denagl measures length 2.68cm, width 2.38cm and thickness 68cm .The inside surface of the structure bordered by the frame like a thin rectangular line stone has 1.70 length and 1.65cm width. It has a tunnel like out let. C, and D, are outer & inner part of SW to NE arranged hewn structure have 10.70x4.70 dimensions.



Figure 6 house furniture and unfinished quarry

E, is a pound located at the ruin of late Aksumite period. Smoothly dressed surface with circular shape having a dividing section line in the external surface that show the inner depth. The sizes of the dimensions are 50cm and 63cm depth with length of 73cm. This monolith is found within the compound of the ruined church dated to 5th AD. well-polished and has smooth surfaces with 25cm dimension and 15cm depth with two signs of handling but very small. G is left unfinished with quarrying wedge marks at the river side of Akletegna north of the town.

V. CONCLUSIONS

Megalithic culture of the Aksumite Empire is famous with varied morphology and cultural attribution. The ancient Aksumite community shape & erect magnificent monuments, built superstructures tombs and palaces, modify durable house utensils, made massive inscriptions, curve large liquid or oil processing tools from huge monoliths. In their time they became to develop a maximum skill of stone curving technology which still valuable as human genus heritages for the modern culture.

Although megalithic research at Aksum and its vicinity has a long history; the classification of the diverse cultural attributions and morphology still not required researchers attention so as to reconstruct standardize nomenclature. Although stela production stated being abandoned in the early 4th c AD the presence of megalithic structures with cross marks symbolized the continuity of the culture after the introduction Christianity even much later the indicated period. Megalithic features of the study area had a multi-dimensional cultural attribution and varied morphology. Funerary stelae, house utensils, gold & liquid processor as well as quarry monoliths are the four major category surveyed. Besides, more than ten cultural attribution monolith types are presented in Aksum and its surrounding the different name given by local people to different monolithic features reflects the presence of multi-cultural attribution megaliths in the place. Magnificent & small size stelae and tomb-sarcophagus, multi-lingual inscriptions, stone pillars, coronation stone, tri-function throne base, column base, stone pound and stone trough, up and down stairs platforms & Aksumite doors are some among the important.

Megalithic tradition of northern Tigray in general and the study area in particular signifies development transformation from simple rough to sophisticated standard in their typology and architectural implications. Furthermore socio-economic difference of the status of the society who practices the megalithic tradition also reflected on characteristics and representations of structural culture. An impressive skill of stone-working technology displayed in the production of the Aksum stela and this represents the socio-economic stratification of the society and their highest technological achievements to mobilize all activities of carving, transporting, erecting of huge and tone weighted monoliths. There for, future systematic study of a coherent identification as well providing nomenclature for the different megalithic features at Aksum and its vicinity is expected from archaeologist and is a further assignment professionals of the field of study.

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