Ethiopia’s Material Culture: Some Notes on the Obelisks of Axum and the Rock-Hewn Churches of Lalibela

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Abstract  
The culture of any society is enshrined in the customary beliefs, socio-economic forms of production and reproduction and the material traits or features that it imprints on the physical landscape. Ethiopia is one of the oldest civilizations in the world with a recorded history of more than 3,000 years. The heydays of Ethiopia’s civilizations have left an indelible imprint on the landscape through material (artifacts), ideological (menti facts) and institutional (socio facts) components of culture. The obelisks of Axum in the Tigre region of Northern Ethiopia and the rock-hewn churches of Lalibela in the highlands of Wollo in North Central Ethiopia represent some of the most illustrious and astounding artifacts or material manifestations of Ethiopian culture. This article is aimed at exploring some of the salient features of these cultural imprints and explaining the ecological and political economy conditions and structures that allowed the flowering of these outstanding features of the material culture of Ethiopia. The material culture of societies is often understood from the perspective of survival and leisure activities of communities in a spatio-temporal framework. The obelisks of Axum date back to the pre-Christian era (2nd century BC-3rd century AD) while the rock hewn churches of Lalibela were built in the 12-13th Century AD replicating Jerusalem - obviously reflecting the devotion that Ethiopian society had to the Christian faith which it adopted in the 3rd-4th centuries AD. The astounding technological feats that erected and carved these marvelous artifacts were the products of strong political, social and economic organizations of the societies of the times. The protection, conservation, restoration and preservation of these magnificent products of Ethiopia’s ancient material culture have not received adequate attention through the centuries. Modern efforts have largely been driven by external agents and institutions thus rendering them dangerously exposed to age and the vagaries of weather. The need for nationally grounded and internationally supported comprehensive programs of protection, restoration, conservation and preservation is highly felt.

Keywords: Axum Obelisks; Conservation; Ethiopia; Lalibela Rock-Hewn Churches; Material Culture (Artifacts); Preservation; Protection; Restoration

Introduction  
Ethiopia is one of the oldest civilizations of the world. It has been inhabited for thousands of years as the prehistoric sites in the Awash and Omo valleys have clearly testified. The Axumite civilization in Northern Ethiopia was established between 500 and 100 BC. Ethiopia has seven sites listed in the World Heritage Convention registry - Awash Lower Valley (prehistoric sites), Axum, Lalibela, Gondar, Tiya in Soddo, Semien National Park. Ethiopia Valley, Omo ratified the World Heritage Convention in 1977 [1]. These sites have an outstanding contribution not only to the history, art, science and broader culture of the country but also the world. The Axumite Kingdom is considered one of the four most powerful empires of the ancient time along with the Roman, Persian and Chinese civilizations and empires. Axum served both as the seat of political power and a thriving trade center linking such countries and areas as Egypt, India, the Somali Coast and further east to China. It was also the cultural capital of the Axumite Empire and the numerous steles found in the city to this day represent the cultural imprint of the central authorities of the time through material iconographies expressing their might and greatness. The Axum stele was built from the 1st to the 4th century AD probably as markers of underground royal burial chambers. Greenfield (1965) [2] asserted that the steles were clearly inspired and crafted by local artisans and represented
the first ‘skyscrapers’. They are the world’s tallest structures carved out of monolithic granite rocks. The ruins of St Mary of Zion are probably built around 340 AD [1]. Likewise, the rock-hewn churches of Lalibela in Northern Wollo region of Ethiopia were built during the 12-13th centuries AD by King Lalibela. The 11 churches were carved out in groups of 5 with Bete Ghiorgis isolated from others. The layout of the churches and extensive system of trenches, passageways, and drainage channels under each church is believed to reflect a secret religious pattern based on the topography of Palestine or of a New Jerusalem, with each church thought to represent a stage in the life of Christ [1]. They are the products of a highly committed and religious political elite and sophisticated local craftsmanship. Derat, a French historian associated with the French center for Ethiopian studies believes that the churches were built in three phases. The first phase involved the construction of a cave out of the original basalt dome followed by the construction of a fortress with trenches, a perimeter wall and underground tunnels and the excavation of the chapel of Gabriel Ruphael which some believe was once king Lalibela’s residence [3]. Cultural geographers often associate the construction of significant material cultural iconographies on the landscape as the product of the attempt of governing elite to legitimize and justify its power and control of peoples and resources. Such visual iconographies or metaphors are aimed at mobilizing or rallying emotional support from subjects and arouse fear, respect or other emotions from adversaries or contenders to power and privilege [4]. Both the stele of Axum and rock-hewn churches of Lalibela should be understood from both biophysical and political economic conditions of the times of their construction and erection.

This research is aimed at looking at some critical environmental and political economy questions regarding the origin and construction of these material iconographies of Ethiopian culture. The two sites were selected because of the complex and monumental nature of their material iconography as well as their domestic and international recognition as significant historical sites and tourist destinations. It tried to shed light on such questions as: What were the environmental resources of the time that helped the political elite to embark upon the construction of such major material cultural iconographies? Were there external political economy influences that contributed to the success of these elite to write a visual text on the landscape in an enduring manner? Why have subsequent kingdoms and empires failed to build upon their predecessors and enrich subsequent generations in terms of their material culture? What have been the efforts of modern governments, international and local institutions in protecting, conserving and preserving these magnificent relics of Ethiopia’s material culture? What are some of the policy and program measures required to preserve and protect these historical relics for future generations of Ethiopians and the world at large? These and related questions need to be systematically studied and known.

The paper is organized in five sections. After the introduction, section two discusses the major physical and cultural attributes of the cultural sites. Section three examines the biophysical and political economy conditions that allowed the development of these centers of cultural excellence. In section four, the decline of the civilizations and the resultant deterioration in the condition of the cultural artifacts is synoptically captured. Section five highlights the preservation efforts made by successive generations. The last section underlines the need for charting a direction of heritage site protection, restoration, conservation and preservation based on broad public awareness, understanding and participation.

**Major Physical and Cultural Attributes of Axum’s Stele and Lalibela’s Rock-Hewn Churches**

**The Axum Stele**

The history of the Axum civilization in northern Ethiopia should be understood against a background history of earlier centers of political and economic power along the Red Sea coast. The two most famous centers of such power were Yeha and Metara. Axum is believed to have been established about 500 years after the downfall of Yeha and its port city of Adulis about 6th century B C.

Historians believe that the fall of Yeha and Adulis could have taken place due to the invasion of the coastal area from what is currently Saudi Arabia and Yemen. Axum survived as a center of political power and commercial activity for centuries trading with distant lands by exporting such commodities as gold, ivory, rhinoceros horn, hippopotamus hides and slaves and importing such products as textiles, knives, military cloaks for the nobility, olive oil and lacquer ware [5]. The height of the Axumite stele ranges from a 3meters dwarf to a 33meters giant. The six major stele ranges in weight from 43 tons (86,000 pounds) to 520 tons (1.02 million pounds) [6]. Araya notes that the Axumite stele were carved from igneous rocks with glassy crystalline silicate composed of feldspar and their architectural design was based on a conception of a high-rise structure with false windows and doors. The sophisticated masonry and architecture was replicated in many parts of northern Ethiopia (Figures 1-4).

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Figure 1: The approximate boundary of the Axumite civilization at its heyday-4-6th century AD.
Figure 2: The boundaries of the Axumite and other regional kingdoms.

Figure 3: Axum Tsion - St. Mary's Church.
Lalibela’s Rock-Hewn Churches

Lalibela is a small town in the Lasta region of Wollo province. It is situated in the north central highlands of Ethiopia at an elevation of about 2800 meters above sea level. The rock hewn churches of Lalibela were carved out of soft volcanic rock by King Lalibela who ruled Ethiopia in the 12th century A.D. The United Nations Educational, Scientific, and Cultural Organization designated the site as the 8th most incredible historical site in the world. The architectural and stone works of Lalibela are believed to have similar features as those of Axum. The 11 rock-hewn churches were built to represent Jerusalem with the northern and eastern groups of churches connected by a rock-cut channel (river) known as Jordanos River figure the Churches are interconnected by narrow and deep passages. Bete Medhanealem (The house of the Savior of the world) is the largest and most impressive church while Bete Ghiorghis (the house of St. George) is the most intricately carved into the shape of a cross.

The church was the last to be carved out and has a parameter of 25 meters by 25 meters by 30 meters with a small baptismal pool outside its [7]. The soft volcanic rock from which
the churches have been carved out is showing significant signs of age and the results of poor conservation and management practices. Such problems as the crumbling of the rocks, flaking, discoloration, fissuring, encrustations and the growth of vegetative matter and the loss of color of paintings are evident to the visitor. Likewise, oxidization and rainwater runoff on the walls create clear and subtle damages to the structures (Figures 5-10).

Figure 5: Bete Ghiorgis Rock hewed church of Lalibela, Northern Ethiopia, Wollo Region (12-13th centuries AD) (Courtesy of son Dawit Tadesse).
Figure 6: Different views and Motifs of Lalibela churches (courtesy of son Dawit Tadesse).

Figure 7: Rock hewn churches of Lalibela- window, door motifs and pathways (12-13th centuries AD) (Courtesy of son Dawit Tadesse).
Figure 8: Lalibela rock-hewn church entrance (courtesy of Dawit Tadesse).
Figure 9: Lalibela rock-hewn churches- church attendees against background site features.

Figure 10: Lalibela rock-hewn churches- architectural details of façade, window and door motifs [5].
The Biophysical and Political Economy Foundations

Both the Axum Stelae and rock-hewn churches of Lalibela were the products of specific biophysical and political economy conditions that facilitated their erection. The current physical geography features of both regions could best be described as a highland plateau that has been seriously degraded through millennia of sedentary agriculture and poor management of the soil and natural vegetation of the environment. Unlike Pharonic and Ptolemic Egypt and Meroe (present-day Sudan) in the Nile valley that exploited the waters of the mighty river for their survival and greatness, the Axumite civilization was based on the exploitation of the rather difficult Ethiopian highland environment and the Red Sea trade route. The steep river valleys and rugged terrain required more arduous communication than the easier flow along the Nile River [8]. The highland areas received considerable precipitation to allow the growth of a wide range of grains that supported a strong sedentary agricultural population. It traded with Egypt, India, the Somali coast and further afield in China by sending such products as gold, ivory, hippopotamus hides, slaves and by importing textiles, knives, olive oil, lacquer ware and other craft products. The empire was also rich in gold and iron deposits and salt was widely traded. Accounts of trade starting around 100BC between Egypt and India made the Red Sea an important trade route and the Axumite Empire took advantage of the new trading situation. The prominence of Adulis, its port city on the Red sea, as an exporter of such goods as ivory, incense, slaves, exotic animals, salt grew subsequently leading to Axumite control of the southern Red Sea [9]. Its naval power was significant enough to police the Red sea route while its location in the interior of a formidable highland plateau protected it from open conflict with the two powerful empires of the time -Rome and Persia. Unlike the Egyptian and Meroe civilizations, the Axumite civilization neither suffered punitive expeditions nor was conquered by these major powers of the time. In fact, the Axumite civilization at its heyday extended its rule across Yemen, Southern Egypt, Djibouti, Southern Saudi Arabia and Northern Sudan. It vanquished the kingdom of Kush in modern day Sudan by 350 AD. Its conversion to Christianity between 325 and 328 AD under king Ezana ushered a new era of culture in which the kingdom flourished. It became the first state ever to use the image of the cross on its coins. It remained a prominent power of the time until the rise of Islam in the 7th century A.D. Araya (2005) notes that archeological findings and historical and anecdotal accounts support the view that Axum had “a sophisticated policy, a highly-developed material culture, a well-developed agriculture including irrigation, complex astronomy including calendar, long-distance trade, fine architecture and definitely megalithic obsession with masonry construction technique that we are unable to fathom to this day”.

Axum’s material culture was not only manifested in the magnificent stèle that adorned the various sites of northern Ethiopia but also in such significant artifacts as coins to serve the kingdom’s considerably developed trade with different parts of the world. Minted in gold, silver and bronze, Axumite coins were used for both internal and external trade. Araya, quoting the work of Azmatch Kinfu Kidane notes that there were a total of 446 types of Axumite coins bearing the names, pictures and emblems of at least 31 kings. This is clearly an indication of the highly developed nature of the commercial economy of the Kingdom. On the institutional front, the Axumite civilization had developed its own unique Geez alphabets and liturgy, practiced pre-Christian, Christian and Judaic religious beliefs. Historians explain its decline as a prominent power to the growing influence of Islam in the Red Sea littoral and the lower and middle Nile valley. Its loss of control of the Red Sea precipitated not only a political decline but also economic isolation. The decline of the empire is believed to have started in the early 6th century AD and by the 7th century it had stopped the production of coins. Environmental changes such as climate change and agrarian mismanagement of the land resources could have played an additional role in intensifying the decline. The wheat and barley that were grown in the region were complemented by the raising of livestock such as cattle, sheep and camels [10].

Decline and Deterioration of Cultural Sites and Artifacts

Many writers often attribute the decline of Axum’s extraordinary material and spiritual culture to the rise of Islam in the first half of the 7th century. The control of the Red Sea and Nile river trade routes by the ascending forces of Islam isolated Axum from its regional mercantile economic interests and pursuits. A more inward-looking and agrarian Axum stopped the production of coins signifying the contraction of regional and international commerce. Climate change, over-farming of the land and its decreased productivity contributed to food insecurity and further decline of the Axumite kingdom [11].

Many of the stèle erected in Axum to mark the underground burial chambers of notables of the time are widely believed to have fallen to the ground due to seismic changes, structural failures, the fury of the 16th century invasion of Christian highlands of Ethiopia by the Adal Ahmed Gragn (1529-43) A more inward looking and agrarian society ensued thus ending the heyday of Axumite civilization. The rise of the Zagwe dynasty in the 12th century in the highlands of Lasta in Wollo brought about another significant development in the material culture of Ethiopia. The carving of 11 monolithic churches from the volcanic rocks of Lalibela could be viewed as an extension of the influence of Axumite civilization.
Preservation Efforts

The preservation and restoration of cultural artifacts (material), mentifacts (ideological) and sociofacts (institutional) is paramount in any strong and comprehensive national culture policy. Knowledge about the Axumite stele and rock hewn churches of Lalibela was made available to the outside world largely by European travelers and expeditions. Lara (2007) [12] relates to the 1520s Alvarez expedition as one of the first expeditions to provide a detailed description of the stele and the remnants of the Axumite civilization. Further on, the contributions of James Bruce and Enno Littman’s expedition and archeological investigation of 1906 that was credited with the first systematic attempt to excavate and document the findings on the Axum stele [12]. National attempts at a more systematic preservation of these magnificent material iconographies and world cultural heritage sites have been largely made in the later part of the 20th century. The modern history for the conservation of the cultural heritage of Ethiopia goes back to 1952 when the Ethiopian government established the Institute of Archeology in collaboration with the French Archeological mission. In subsequent years, the Ethiopian government took a series of measures including the establishment of the Ethiopian antiquities administration in 1966; the integration of the administration into the Ministry of Culture and Sports Affairs as a department in 1974; the establishment of a Center for Research and Conservation of Cultural Heritage in 1976; the granting of autonomous status within the reconfigured Ministry of Information and Culture in 1995 and finally the upgrading of the center into an Authority for Research and Conservation of Cultural Heritage (ARCCH) in 2001 under the reconstituted Ministry of Youth, Culture and Sports (MYSC, 2004) [13]. In Climate change, decline of the material base of the political economy and internal conflict led to the deterioration of the artifacts. Many of the fallen steles of Axum are still visible to the visitor. The preservation, restoration and upkeep of the Axum stele and the palace ruins nearby have been largely dominated by the effort to return the stolen stele that has been standing in the Porta Capena Square of Rome. When the Italians overran Ethiopia in 1937, they found the large broken stele in five pieces in Axum. The Stele is believed to have fallen in the 4th century AD right after its erection. The Italian fascists took it as a pillage of war and erected it in Rome as part of an attempt to commemorate their conquest of Ethiopia. The stele remained in Rome despite a UN treaty in which Italy agreed to return it to its rightful owner and place. It was not until 2005 that the return materialized. In June 2008, it was reassembled and re-erected at Axum and unveiled on September 4 of the same year.

Preservation and Restoration Policy

The objectives, powers and duties of the Authority for Research and Conservation of Cultural Heritage (ARCCH) have been spelt out in proclamation 209/2001. They include the registration, protection, supervision, collection, research, authorization, controlling and provision of professional and technical support for the restoration, preservation and conservation of all cultural heritages. The policy is grounded in article 51/3 of the constitution of FDRE which stipulates that “the Federal Government shall establish and implement national standards and basic policy criteria for public health, education, science and technology as well as for the protection and preservation of cultural and historical legacies” [14].

The ministry of Youth, Culture and Sports report on the cultural policy of the country indicated that cultural heritage preservation of the artifacts of the Axum historical site remained undefined due to logistical, financial, bureaucratic and ideological obstacles It noted that there was incomplete inventory of artifacts, low level public consciousness of their cultural heritage, poor condition of archeological collections and a distorted view of the material culture as a mere attraction of tourism and its economic spinoffs.

The long civil war that affected the region, inadequate funding, lack of public awareness and strong government involvement have greatly contributed their share to the weak nature of cultural heritage preservation in Axum and elsewhere Preservation efforts have also been unduly focused on the promotion of tourism. While heritage tourism is an important objective in protecting, restoring, conserving and preserving heritage cultural sites, it could have serious consequences on both the artifacts and the economic and social fabric of the sites. Both Axum and Lalibela have become synonymous with tourist earnings for both the local and national economy.

Axum

An excellent example of a successful restoration effort made by Ethiopia was the return of the 1700-year old obelisk from Italy in 2005. Italy had taken the huge stele in 1937 when it occupied the country for five years. Its rightful return and erection at Axum in 2008 was a major achievement of international diplomacy and public pressure. Another major step in the right direction is the effort to build a new museum at Axum not only to preserve the cultural artifacts of the site and region but also to foster a better understanding of the significance of cultural heritage conservation, preservation and proper management among the public. Another complementary cultural preservation heritage project being undertaken in Axum is the stele park which will have interpretive
panels and more accessible landscaping. These projects notwithstanding, Lara laments the fact that the “biggest impetus for current development of cultural heritage management in Aksum is the tourist industry [12] A few ground-level realities have been identified as actual and potential challenges for preservation efforts in Axum. They include the need for the population of the Axum area to learn to live with their past and assimilating the modern with the ancient; lack of priority in government policy regarding cultural heritage preservation and site management; lack of funding, and shortage of trained experts in the field.

Lalibela

In Lalibela, the deterioration of the rock-hewn churches has taken the form of cracks, sliding of the façade and lateral walls in some, uneven settling, salt crystallization and micro-vegetation incursions that have eaten away the soft volcanic tuff that makes the walls of the churches. Traditional attempts to protect the churches included the covering of the roofs with woolen carpets and goatskin tents [15] it was in the 1950s that the first systematic efforts to protect and restore the rock-hewn churches of Lalibela were made. The Ministry of Public Works of Ethiopia contracted the services of an Italian firm, Sebastino Console, which resulted in the covering of the churches with tar and painting it a reddish color to blend into the environment. The roofs of the churches were also covered by hundreds of corrugated iron sheets to protect the churches from the ravages of the sun and rain. In 1966 another Italian, Dr. Sandro Angelini, Director of the Archeological museum of Bergamo in Italy took charge of a new restoration project at the behest of the committee for the Restoration and Preservation of the Churches of Lalibela. The new restoration project not only removed the tar which had prevented the rock from breathing but also filled the cracks with neutral cement and installed steel rods at appropriate places to stabilize the structures. Five of the churches were enclosed in temporary shelters in 1989 when the Ministry of Culture found out that the rock and paintings inside the church were being affected by the rain. In 1995, UNESCO, with the help of the European Union, launched a new project to build metal shelters to cover and protect several of the churches that were at risk of significant deterioration. UNESCO’s approach was based on the idea of designing and installing shelters that not only could be easily assembled and disassembled but also are “elegant, unobtrusive and easily comprehensive”.

The protection and preservation project has not been fully successful due to the tension between the local community which felt underrepresented and sidelined and outside organizations. It was also alleged that significant project funds were mismanaged and used to corrupt both local and external actors [7]. The Lack of funds, adequate public awareness, proper government attention and expansion of tourism has contributed to the deterioration of the material iconographies at both sites. The juxtaposition of huts and other local structures in-close proximity with the rock-hewn churches is a clear demonstration of the lack of appreciation of the dangers that such encroachments could have on the long-term preservation of these ancient material artifacts. The low level of local participation in protecting, conserving and preserving the relics has been attributed not only to the lack of proper appreciation of the value of the sites but also to social construction of the sites as tourist destinations and sources of income.

Future Directions and Prospects

The future directions and prospects for sustainable protection, conservation and preservation of these and other ancient material iconographies of Ethiopian cultural landscape depend on a proper understanding and appreciation of the very concept of culture by citizens, the public, the state and its institutions. It should go beyond the politicization of culture as an instrument of coercion, subordination and economic benefit by those in power and privilege. It must go beyond the mechanical process of mere posturing by defining objectives, strategies and activities through politically-driven proclamations and ministerial declarations, programs and activities. It is for this reason that the foundation for the sustainable protection, conservation and preservation of all the material (artifacts), ideological (mentifacts) and institutional (sociofacts) components of Ethiopian culture should lie in the education of the public. People should be educated to develop a serious concern, understanding, pride, and enthusiasm about their culture. Such awareness should encompass all aspects of the country’s cultural and natural heritage. Awareness leads to passion for knowledge, preservation, conservation and protection of our irreplaceable cultural heritage. The creation of strong institutional frameworks and working arrangements at national, regional and local levels is critical for the preservation of our cultural heritage sites. Obviously, the resources required for such institutional presence and operational frameworks may be beyond the capacity of the federal government. Yet, it is imperative that a strong public/private partnership domain be established to provide both direction and thrust to restoration, conservation, preservation and research efforts. The emphasis made on strong public involvement in the national culture policy guideline was based on the recognition that such trajectory of thinking and praxis was in the right direction. To be effective, this approach will have to be given credible national government and international organization support in technical, financial, man power and logistical terms.

The reorganization, conservation and restoration of both Axum and Lalibela cultural heritage sites should be viewed as an inter-sect oral engagement involving many ministries and specialized institutions. While the umbrella function of the Ministry of Youth, Culture and Sports is significant and critical, the active involvement of such agencies as Education, Information, Urban Development and Public Works, Agriculture, Labor and Social
Affairs and others deemed relevant cannot be underemphasized. Each sector has an important contribution to make the cultural sites significant to the lives of ordinary people and visitors alike. Probably, the inventory of the artifacts of the two sites is the foremost task that needs to be done through the collaboration and assistance of external scientific research and cultural institutions. The Ethiopian government, UNESCO and the International Council on Monuments and Sites (ICOMOS) and other appropriate institutions should work out a strategy and plan of action to avail resources for a comprehensive and detailed inventory of artifacts of the sites. Finally, the urgent need for the preservation of our cultural heritage was passionately expressed by the late famous Ethiopian poet laureate, Tsegaye Gebre-Medhin and deserves to be followed by all Ethiopians:

**Appeal for our Cultural Heritage**

*Epicentered in the epic of our daily presence*
*And in each brave generation's life*
*This collective imagery of our monumental memory,*
*Our World Heritage, our one symbolic banner*
*For our one family of the humankind,*
*From our yesterdays to our tomorrows*
*Rising above all the ominous clouds*
*Bridging all our global and prejudicial distances,*
*Gloriously grows in us the great miracles*
*Our ancestors achieved for our human harmony.*
*That is why we must keep on protecting it, please*
*With all our resources and with our lives.*
*By its very invaluable presence in time*
*Our cultural heritage challenges each brave new generation*
*Relentlessly towards a higher human perfection*
*It protects our indomitable spirit from corruptibility*
*And annihilates the moral midgets that crawl*
*To deform the boundless humanity in us.*
*Our world heritage is itself the eternal witness*
*The eternal code and the eternal reminder*
*That the humankind is still the supreme architect*
*In whose masterful creative gifts*
*We must entrust this greater wonder*

**Our world heritage, our one symbolic banner**

*For our family of the humankind.*
*That is why we must keep on protecting it, please*
*With all our resources and our lives*

*IUCN, 1992, p.110*

**References**