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Title	Heritage Conservation Challenges on the Rock-Hewn Churches of Tigray, Ethiopia
Author(s)	Weldegiorgis, Ephrem Telele
Degree Grantor	北海道大学
Degree Name	博士(工学)
Dissertation Number	甲第13348号
Issue Date	2018-09-25
DOI	https://doi.org/10.14943/doctoral.k013348
Doc URL	https://hdl.handle.net/2115/71826
Type	doctoral thesis
File Information	Ephrem_Telele_Weldegiorgis.pdf



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Heritage Conservation Challenges on the Rock-Hewn Churches of Tigray, Ethiopia
(エチオピア･ティグライ岩窟教会群における遺産保存活動)

Ephrem Telele WELDEGIORGIS
Ph.D. Dissertation, Division of Architectural and Structural Design,
Graduate School of Engineering, Hokkaido University
Supervisor: Prof. Dr. Takeo OZAWA

The focus on the heritage buildings conservation discourse in the recent years is shifting from physical intervention to a more comprehensive approach which embraces all aspects of heritages. Along with this shift, the growing recognition towards the local needs in conservation of architectural heritages, the preservation of traditional conservation know-how and traditional conservation skills is eminent. Identifying communities' role and their participation on the preservation of tangible and intangible cultural heritage is becoming an indispensable component of contemporary heritage conservation movements. The aim of this thesis is to examine the Heritage Conservation Challenges on the Rock-Hewn Churches of Tigray, Ethiopia. The research questions addressed this thesis:- (1) Identifying the major sources of regression of the churches; (2) examining the level of the deterioration and the impact of conservation intervention by different stakeholder; (3) assessing the understanding of the local community on sources of deterioration; the intensity and impacts of the conservation interventions; (4) investigating the role of traditional conservation know-how and skills on the preservation of the rock-hewn churches; and how the know-how's and skills are integrated with the current conservation interventions by the conservation authorities; and (5) analyzing how the cultural and religious assets of the churches and the values of the local community are integrated into the preservation process. Hence, case study, focus group discussion, in-depth key-informants interview, field research and observation and literature study were the major data gathering methods. Along with the case studies conducted in Ethiopia, a literature based research on the Japanese cultural properties preservation systems, legal frameworks; and a case study on three Buddhist temples from Mutsu-city of Aomori prefecture was conducted with the intention of finding a potential lesson on local community role in preservation of religious buildings.

The result of the study shows that, the major source of deterioration for the rock-hewn churches is poor management, rain water, and inappropriate 'conservation' interventions. Natural agents of deterioration like algae, lichen and moulds are contributing to the deterioration. The neglect felt by the local community in the conservation interventions by the national and international conservation stakeholders is contributing to the conservation challenges. Aggressive but ill comprehended interventions are putting the survival of the churches in a cross-rad. Tourism is growing; and the focus shift to its benefits is compromising conservation. Hence, it is advised to find a good balance.

The role of the traditional conservation techniques on the current conservation interventions is negligible; they are poorly understood and inadequately analyzed; thus, not integrated with the conservation efforts. The cultural and religious assets of the churches and the shared values of

the local community are also poorly integrated into the conservation process. But, In living heritage buildings like the rock-hewn of Ethiopia and the temples of Mutsu, the life of the local community is highly integrated with the churches. In Tigray's case, most of the time, the conservation authorities approach the community after they made their decision just to deliver the decision.

Legal protection of traditional skills, availability of training facility; and strong engagement of the local community through the danka system; genuine concern and willingness of local craftsman to help the temples preservation are the advantages in Mutsu. Nevertheless, the local authority's capacity limitations, the shortage of members of the new generation willing to take conservation as their carrier and the migration to major urban centers are the shortcomings.

In the conservation of living heritage building, a conservation approach that keeps the local community at the center of the conservation process; which depends mainly on local knowledge and traditional conservation techniques; that keeps local resources as its primary source is sustainable.

The thesis is organized in to seven chapters. Chapter one introduces the research questions, the purpose and significance of the study; the aims and methods of the research. The background on the study area in Ethiopian and the context review of the conservation of built cultural heritages and related theoretical discussions is provided in chapter two: Review of related literatures.

The Legislative framework and institutional setup for conservation of Ethiopian heritages, their origin and development; and the international authorities' intervention on the heritage conservation efforts of Ethiopia are presented in chapter three. Chapter four is focusing on the challenges of rock-hewn conservation in Tigray, Ethiopia. The case studies in Ethiopia, the data from the interview, focus group discussion and the field research is presented here. The local community's reaction towards the interventions by the conservation authorities; discussion of the traditional conservation know-how and remedial measures are incorporated in the case studies.

Chapter five is dedicated to the Japanese cultural properties preservation systems and legal frameworks; and the case study conducted on three Buddhist temples of Mutsu-city. The aim of this chapter is to find out the potential lessons for the Ethiopian conservation of cultural properties mainly from the perspective of organizational skills for the conservation of architectural heritage, the legal framework, and institutional set-ups. The analysis on challenges of sustainable community management for conservation of religious buildings is discussed in chapter six.

Finally, the conclusion of the research which is followed by the reflections on the case studies and recommendations on the way forward is provided in chapter seven.

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Ephrem Telele WELDEGIORGIS

エフレム　テレレ　ウェルドギオルギス

Hokkaido University
Graduate School of Engineering
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ABSTRACT

The focus on the heritage buildings conservation discourse in the recent years is shifting from physical intervention to a more comprehensive approach which embraces all aspects of heritages. Along with this shift, the growing recognition towards the local needs in conservation of architectural heritages, the preservation of traditional conservation know-how and traditional conservation skills is eminent. Identifying communities' role and their participation on the preservation of tangible and intangible cultural heritage is becoming an indispensable component of contemporary heritage conservation movements. The aim of this thesis is to examine the Heritage Conservation Challenges on the Rock-Hewn Churches of Tigray, Ethiopia. The research questions addressed this thesis:- (1) Identifying the major sources of regression of the churches; (2) examining the level of the deterioration and the impact of conservation intervention by different stakeholder; (3) assessing the understanding of the local community on sources of deterioration; the intensity and impacts of the conservation interventions; (4) investigating the role of traditional conservation know-how and skills on the preservation of the rock-hewn churches; and how the know-how's and skills are integrated with the current conservation interventions by the conservation authorities; and (5) analyzing how the cultural and religious assets of the churches and the values of the local community are integrated into the preservation process. Hence, case study, focus group discussion, in-depth key-informants interview, field research and observation and literature study were the major data gathering methods. Along with the case studies conducted in Ethiopia, a literature based research on the Japanese cultural properties preservation systems, legal frameworks; and a case study on three Buddhist temples from Mutsu-city of Aomori prefecture was conducted with the intention of finding a potential lesson on local community role in preservation of religious buildings.

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churches in a cross-rad. Tourism is growing; and the focus shift to its benefits is compromising conservation. Hence, it is advised to find a good balance.

The role of the traditional conservation techniques on the current conservation interventions is negligible; they are poorly understood and inadequately analyzed; thus, not integrated with the conservation efforts. The cultural and religious assets of the churches and the shared values of the local community are also poorly integrated into the conservation process. But, In living heritage buildings like the rock-hewn of Ethiopia and the temples of Mutsu, the life of the local community is highly integrated with the churches. In Tigray's case, most of the time, the conservation authorities approach the community after they made their decision just to deliver the decision.

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Acronyms

List of published works, conference papers and conference presentations

List of published works

(1) Ephrem Telele W., Miyake R., Kaku S. and Ozawa T.: Architectural conservation interventions on the rock-hewn churches of Lalibela, Ethiopia: A study on traditional conservation skills and local communities' reactions to the UNESCO's preservation interventions, Journal of Architecture and Planning (Transaction of AIJ), Vol. 83 No. 745, 583-591, Mar., 2018

(2) Ephrem Telele W., Miyake R., Kaku S. and Ozawa T.: Traditional remedial techniques & current conservation challenges in the rock-hewn churches of Tigray, Ethiopia: A Case study on the rock-hewn church of Wukro Cherkos, Wukro, accepted for publication, Journal of Architecture and Planning (Transaction of AIJ), Vol. 83No. 752, Oct., 2018

(3) Shimizu, N., Ephrem Telele W., Okazaki, R., and Miyake, R.: "Urban" formation of Mekelle, Ethiopia, as application of traditional settlement techniques, accepted for publication, Journal of Architecture and Planning (Transaction of AIJ), Vol. 83No. 750, Aug., 2018

List of conference papers

(1) Ephrem Telele W., Ozawa T., and Kaku S., Preserving the traditional knowledge systems and craftsmanship to preserve the heritages: Lessons from the Japanese conservation of Buddhist Temples and Shinto Shrines for the Ethiopian orthodox church architecture conservation., The Proceedings of the 11th International Symposium on Architectural Interchange in Asia, Sendai, Sept., 21- 22, 2016 / B-15-3/PDF

(2) Ephrem Telele W., and Ozawa T., Local community and authorities' role on architectural preservation: A study of rock-hewn churches in Tigray, Ethiopia (the 6thInternational Conference on Heritage and Sustainable Development, June 12-15, 2018, Granada/ Spain)

(3) Shimizu, N., Ephrem Telele W., and Miyake, R., The keys to Understand urban characteristics of Northern Ethiopia traditional cities, Proceedings of the 21st Inter-University Seminar on Asian Megacities, Sapporo, July., 2-3, 2016/ 4C-2/ PDF

CHAPTER ONE: INTRODUCTION

This chapter introduces the overall focus of the research and it is organized as follows:

1.1 Background of the research

In the past two decades, humanity has witnessed very rapid socio-economic and socio-cultural change, and impressive technological innovations supported with the swift improvement in communication. The influences of these changes have been crossed vast physical and social boundaries and are reaching in every corner of the globe and every society due to the globalization. This global phenomenon is reflected in every corner of the contemporary life and influencing it. This is also true to the study and practice of heritage conservation.

The complexity of the societal values associated to the heritages is reflected in the range of the values [which are universal, acceding to UNESCO conversion 1992][1] and rights involved in heritage decision-making; and technological, scientific, and traditional ways to conservation of heritages. Nevertheless, despite recent advances in the practice, heritage sites in developing countries, which lack both financial capacity and trained man power to cope

with the speed of the new ship, globalization. The speed in the production and dissemination of knowledge is increasing challenges to safe guard heritage resources found in their territories. The impact of climate change, tourism, and poor conflicting management practices in addition to the inadequacy of the resources allocation and management are worsening the challenge.

The term heritage in its wider use, as a property that is or may be inherited, is a common English terminology. The Cambridge English dictionary[2] defined heritage as "features belonging to the culture of a particular society, such as traditions, languages, or buildings that were created in the past and still have historical importance." It is also defined in relation to the history, traditions, practices,…of a particular country, society, or company that transcends across generations. Important tangible features or an intangible meaning intertwined with the tangible presence or that exists independently as a self contained inheritance, from the past and continues to be important in the present is what it is heritage.

The term 'heritage' attached to the other terminology 'Culture' forms the phrase, 'cultural heritage'. Cultural heritage, as a phrase that has been greatly in use, with a wider context, is becoming the house hold term following its first use in an international convention with an extended context and definition on the 1954 'Hague Convention'[3] the Convention for the Protection of Cultural Property in the event of Armed Conflict. In the convention, great emphasis is given to monuments and building that should not be targeted rather protected in the events of Armed Conflicts.

In its six decades history of the term 'cultural heritage', it is seen that the variety of conventions, declarations and guidelines as well as different studies in the field of heritage conservation have enrichment the term and introduces different categories of cultural heritages to be conserved and, redefined in the context of the categories. The 1972 UNESCO Heritage convention [4] considers monuments, group of building and sites which are of Outstanding Universal Value (UOV) from the history, art or science, and historical, aesthetic, ethnological or anthropological point of view as cultural heritages. Buildings, group of buildings or sites that combined works of man and nature which demonstrated OUV are cultural properties worth of registration and of global alliance for their protection and management as heritages of humanity. Heritage buildings are therefore, among the 'most'

prominent [if we compare the types of heritage registered as UNESCO world heritages] category of tangible cultural heritages.

Building is more or less a permanent structure with walls standing and a roof, such as a house. Buildings have variety of sizes, shapes, and functions. They have been adapted throughout history for a wide range of factors: for physical needs like shelter for people, animals or things; to fulfill the security need and to provide a living space and privacy, and as places to come together to socialize, to work and to enhance productivity. The availability of building materials, weather conditions, form of land ownership and land right, along with the topographic and geologic features, specific uses, and aesthetic tests are some of the features that determines the type, size and complexity of buildings. Building as a shelter represents a highly cultured physical division of the human habitat. The term building as a verb is also representing one of the oldest human activity, the making of the building. Though it is certain that buildings have became common elements of the physical surrounding of the human habitat during the Neolithic age, there is also evidence of home building from around 18000 BC[5] Ever since, the buildings have become the manifestations of the human understanding of its environment, its social structure and believe systems. The oldest cave wall arts from Indonesia, Spain and France have shown that humanist has started to depict his understanding of the world around, his interaction with the world around and his daily life routines using the cave walls as objects or canvasses of expression, even before he started building the shelter, but occupying what is available.

Heritage buildings are building that provides or reflects local identity, cultural values and cultural and historical background, and represents a source of memory, historical events, and that adds value to the contemporary living as a place of learning and source of economic and socio-cultural benefits[6] Hence, heritage buildings are, buildings that posses values that have been or may passed down from previous generations related to historic, aesthetic or culture that is worth of preservation.

Heritages buildings, cultural landscaped, historic neighborhoods and archaeological ruins are assets of the present; inheritances from the past that should be sustained as identity currencies to the future. Heritages are therefore, worth to be transferred to the future generation. They are also records of the past upon which we depend to imagine the past and to learn about, evidences of the present to define our sense of belongingness and inputs to shape our path to the future. Historical buildings, architectural remains and landscapes are the open books of

the past. The life style, philosophy, and believe of the society that produced them engraved on. Ayele (2005)[7], said that, historical buildings, [monuments and landscapes] are references for the understanding of the past to address questions such as "who we are?" and "Where we came from?" as a cultured being and as a being that is regarded as the modifier of the surrounding world. Heritage conservation as a movement that deals with the "valuable" and physical traces of humanities is mainly related to buildings and monuments, and the meanings imbedded within or reflected by the physical structures.

Conservation of heritage buildings is a science and an art, which requires knowledge, skill and wisdom. Article 2 of the Venice Charter (1964), reads:

> *"The conservation and restoration of monuments constitute a discipline that is valid for all sciences and all the techniques that can contribute to the study and preservation of the monumental patrimony."*[9]

The required discipline, the sophistication, and the understanding and the skill as critical inputs for effective preservation [conservation] intervention might be acquired and harvested in various ways. Knut E.L. (1994) noted that, formal and informal training, and lifelong learning or the combination of two or more[10] could be the ways one can acquire these inputs; knowledge, skills and wisdom, to actively engage in the process of heritage conservation.

The complexity of cultural heritages is attached with the identification of the values ingrained to it.[11] Thus, the conservation of the cultural heritage resources, for instance, heritage buildings, requires a deep understanding of this complexity and the values attached to each heritage component as well as the relationship between the values.

The value of cultural heritages cannot be explained smiley as the sum of all the characteristics attached to the heritage; however, it needs a wider context and approach that enables the heritages to be evaluated in their complex nature and in their proper context. The continued search of better approach to understand heritages and their preservation mechanism deeper is escalating in the last three decades. Mainly after the Nara Charter,[12] scholars of different fields of specializations that are related to the discipline of heritage conservation, architecture, landscape, urban studies; museum, archaeology and other related fields are working on it to further improve the existing approaches and find new.

The conservation intervention on heritage buildings differs from case to case. For some, the conservation intervention started long before their consideration as heritage building in the form of maintenance and remedial interventions. The intention of the intervention might be mere maintenance to elongate the lifespan of the building, remedial measure to deter regression level or to preserve aesthetic qualities; it might be also a cultural or even religious routine. Knut E.L. and Nils M. (2016)[13] noted that, the process of conserving a heritage building begins even before a building is considered as heritage[14]. Such interventions could be derived by an individuals, institutions, or communities deciding that some of their historic buildings are worth preserving it for the values represented with, remembered through, and for the connection to their past, its role in defining their identification and the values that should be passed to the forthcoming generations.

The modern time practitioners operate in a conservation context what is referred to as a 'values based'[15] The value based approach uses a system that identifies and manages heritage sites in accordance to the values attributed to them. These values generally include the scientific, artistic, aesthetic, historic, cultural, social and/or spiritual importance of a place, as it is summarized as Universal Outstanding Value (UOV) in the 1972 UNESCO convention[16].

The Historic England(2015)[17], indicate that, change is inevitable for historical environments, natural process, the wear and tear of use, socio-economic and technological change are considered as the driving factors for the change to happen. In the same document, under principle four, at statement principle 4.2, conservation is defined as "*the process of managing change…"* here, the change is needed to be manages so to sustain the significance of the site [heritage property] and its values. In this sense, the Historic England sites are historic environment that represents the sense of identity and as historic treasures managed and preserved for the benefit of the present and future generations.

The Australia ICOMOS Burra Charter (1999, 2013)[18] defined conservation as "all process of looking after a place so as to retain its cultural significance". Preservation on the other hand is, "maintaining the fabric of a place in its existing state and retarding deterioration. While the cultural significance is embodied in the place; the place encompasses the monuments, group of buildings and sites as defined in the UNESCO Heritage Convention (1972); and, the fabric is to mean the physical manifestations of the place. This clearly shows the scope of preservation and conservation. Thus, continuity itself becomes the goal of

conservation, based on process of renewal and the continually revive of the cultural meaning, significance and symbolism and character defining elements of heritage and to the heritage.

Hence, the preservation is a sub-set of conservation, Cultural Significance is a collective term for Cultural Values and the UOV is a more inclusive context that incorporates the cultural values and the fabrics of heritage building or site in to a single set of values. The effectiveness of conservation depends on the ability to clearly define the heritage values and to design the conservation intervention in consideration to and around the respect of the values. Thus, the emphasis of conservation in relation to the built environment is about retaining the cultural significance through the preservation of the building fabrics and retardation of the regression of the building fabrics so as to communicate its values for present and future use.

The identification and definition of heritage values for living religious heritages, is different from other heritage sites, like archaeological ruins, monumental buildings etcetera. The difference is that, "religious heritage has been born with its values in place, while with other forms of heritage; we need time and distance to be able to ascribe value to heritage."[19] This difference of the nature of the heritage led to the difference in questions need to be addressed in the stage of identification of the heritage values. For religious heritage, "what values are already organized by the religious community? For secular heritage, what process [involving whom?] will be needed to define these values?"[20] This study is focusing on religious heritage buildings: The rock-hewn churches of Ethiopia are the scope the study. So therefore, the aim of the study is: Identifying the heritage conservation challenges of the rock-hewn churches of Ethiopia with a special focus on the rock-hewn churches of Tigray. The conservation of the roc-hewn churches heritage values and fabrics with a focuses on preservation status of the churches, the conservation interventions and the social fabrics associated to the UOV of the rock-hewn churches and the traditional conservation measures are targets this study is dealing with. The local community's opinion on the conservation interventions, conservation status and process along with the current status of the traditional conservation skills are also addressed.

1.2 Statement of the problem

The chronological position of the rock hewn churches of Tigray on the architectural history of the ancient Ethiopia is the boldest topic; fairly good amount of work is produced since the

1970s mainly by French and British researchers not though yet clearly to be defined (See, Plant 1985, Lepage, & Mercier, 2005), Phillipson, 2007 Phillipson, 2010 and Fitzgerald, 2017). Even though much has been written about it, none of these have managed to overshadow the dating suggested by the popular culture of the region and there is no reliable data about the actual year, even decade or a century one can refer to with certainty. However, the oral tradition explicitly provides construction period, for some churches with the accuracy of specific year, the identity of the builder and patron of these churches. On the other hand, the conservation and preservation interventions seem to have been under considered on the literature, though some information is yet exists in the oral tradition and liturgical scriptures.

In the oral tradition, the construction of the monasteries go back to mid fourth century AD through the late fifth and early six century AD to the era of the restored Solomonic dynasty which lasted from 1270s to the late sixteenth century. This time span shows how vague the oral traditions are; and the history of Ethiopia architecture. The Rock hewn churches of Lalibela, and the rock hewn churches of Tigray and few built up churches are the only traces of non archaeological evidence which history which bears some indications of the medieval Ethiopian architectural tradition.

The conservation architectural heritage in Ethiopia is mainly related to the conservation of church architecture, palaces and residential houses of nobilities and archaeological sites with traces of architectural elements. Following the short lived Italian invasion in Ethiopia during the WWII, the conservation of monumental heritages and significant public buildings like palaces started to draw the attention of Euro-centric conservation intervention. The conservation institutions founded in the mid 20th century, the conservation professionals trained in the West, introduced the Euro-centric approach to conservation. However, unlike the majority of the Western world architectural remains, the medieval architectural remains of the northern Ethiopian highlands are church architecture yet serving as living heritages.

It is evident that the northern highland of Ethiopia is very rich in architectural heritages. Until the second half of the twentieth century AD; the knowledge of Tigray architecture, the center of the northern Ethiopia highlands civilization, was mainly limited to the eighth century BC Pre-Christian temple of Yeha, the fourth century AD Monuments of Aksum, the sixth century .AD monastery of Dabra Damo and seventh century AD palace and church ruins of Aksum. Some residential buildings of prominent war lords and provincial leaders of the era of

princes, like the residential building of Ras Wolde Silasie, were also recorded by 18th C.AD European Travelers.

The rock-hewn churches of Tigray mainly concentrated in the mountain chains of Gheralta and the surrounding districts of Eastern and Central zone of Tigray were unknown to the outside world, except few, up until the 1970s[21] With the regime change in 1974 and the civil war that comes afterwards, the place was not safe and the emerging studies on these churches cut shot unit it was resumed after two decades. However, in the last two decades, these churches are becoming viral destinations for tourists and the regional and national governments are working aggressively to in promoting the churches as tourist destinations. But, little attention is seems to be given to the churches from the point view of conservation. Besides, the churches and their surrounding landscape as a package with the title: *Sacred Landscape of Tigray*, is now in the UNESCO heritage tentative list as of February 02/2018 as the six submission of the state party to the tentative list. This incident makes this research on the Heritage Conservation Challenges on the Rock-hewn churches of Tigray, Ethiopia, timely. Thus, the rock-hewn churches of Eastern Tigray, mainly selected targets from the Gheralta, Wukro and Atsbi clusters, are covered by the study of the conservation challenges of the rock-hewn churches of Tigray, Ethiopa. In addition to these targets, the traditional architectural conservation know-how, the institutional set-up of the conservation institutions and the conservation legal frameworks are part of the study.

In order to acquire the necessary data that enables the success of the study, consecutive field researches and case-based onsite investigations were conducted on the rock-hewn churches of Tigray and the rock-hewn churches of Lalibela in Wollo district of Amhara. The main purpose of the study was to examine the conservation challenges of the rock-hewn churches of Tigray, Ethiopia. The scope of the study is however not limited to the rock-hewn churches of Tigray; but, the rock-hewn churches of Lalibela were also addressed to examine the engagement of the national and international conservation authority's role in conservation of World Heritage sites of the country and to study the local community reactions towards the interventions too. Therefore, studying the conservation challenges of the rock-hewn churches is going to be materialized to study research methods, conservation ethics and conservation principles, in living heritages such as the rock-hewn churches of Tigray and to lay the foundation for future conservation interventions on these target sites and other churches that demonstrates dissemblance elsewhere.

To this end, the investigation of the regression level of the churches, the intensity and impact of the current conservation interventions, and the traditional preservation remedial measures along with the role of the local community and the national and international authorities on the preservation of the churches are set to be the aims of the study. The research will address the following questions:-

1. What are the major sources of regression of the heritages?
2. What are the level and the impact of conservation intervention by different actors?
3. How the impacts of the preservation projects are perceived by the local community?
4. What is the role of traditional conservation know-how and skills on the preservation of the rock-hewn churches and how these know-how's and skill were integrated with conservation interventions by the conservation authorities?
5. How the cultural and religious assets of the churches and the values of the local community are integrated into the preservation process?

1.3 The research purpose and objectives

The research is conducted in partial fulfillment of the required for the degree of Doctor of Philosophy in Engineering. The main purpose of the study is to examine the conservation challenges of the rock-hewn churches of Tigray, Ethiopia. To this end, the investigation of the regression level of the churches, the intensity and impact of the current conservation interventions, and the traditional preservation remedial measures along with the role of the local community and the national and international authorities on the preservation of the churches are set to be the aims of the study. Hence, the main objectives this research intends to achieve are:

- To find out the regression level of the churches, so as to suggest the working recommendations that will help deter further deterioration.
- Investigating the intensity and impact of the current conservation interventions and communicate the results to the responsible bodies in order to increase the vigilance on their future interventions and to find out way forwards that will secure the heritages from further conservation intervention induced deteriorations.
- Studying the traditional preservation remedial measures and their effectiveness, so as to capitalize the local potential of conservation.

- Investigating the role of the local community and the national and international authorities on the preservation of the churches.

The specific objectives are:

- To find out how are the impacts of the preservation projects perceived by the local community?
- To examine how the traditional conservation know-how and traditional conservation skills were addressed by the national and international conservation authorities? And,
- To investigate how the cultural and religious assets of the heritage sites and the insight of the local community are integrated into the preservation process; are the specific objectives this research is dealing with.

1.4 Significance of the study:

The study will demonstrate the regression level of the churches, the local potentials for the conservation of the rock-hewn churches and the level of the conservation intervention by the local, national and international actors of heritage conservation, its impacts and implications hitherto. The findings, therefore, will be used as an impute to formulate a working recommendation to safeguard the heritages from future inappropriate conservation interventions; to slow down further deteriorations; to see possibilities of reversing past interventions that have damaging impact and to plan the way forward for future conservation engagements.

1.5 Research Methodology

This part describes the research methods and the research design of this study. The research design draws on both ontological and epistemological philosophy to validate the use of a qualitative research design involving a multi-case study strategy. This study uses both multi-method research approaches. Descriptive study is used to provide a general understanding of stakeholders' interests in and perceptions of the conservation of the built religious heritage. Exploratory study is adopted to identify insights about the existing conservation related issues and factors relating to the development of the heritage administration systems within the heritage sectors and case studies to investigate cases in-depth and to conduct a case based comparison between Japan and Ethiopia. This study uses focus group discussion (FGD), key-

informants interviews and field research based observation as the primary data collection methods.

1.5.1 Research paradigm

Cultural built heritage is a diverse and rich field of research; it involves a variety of stakeholders from the private and the public sector and it also involved a community with different level of participation and authority. As an interdisciplinary field, it brings different stakeholders together from different fields including tourism, history, architecture, anthropology, urban and environmental planning, archaeology, landscape design, public policy, sustainability, engineering, construction and management etc. It also includes other stakeholders like the community, the heritage building owners and those who appreciate the significance of cultural built heritages.

The complexity of the field of heritage buildings within the other multidisciplinary field of study, the conservation studies, requires the development of specific theories and tools drawn from these various disciplines so that the integrity of the main elements and procedures relevant for the heritage resources are maintained and the authenticity of the built heritage is assured.

It is impossible to comprehensively cover all the areas of interest in the field of the conservation of cultural built heritage in one thesis. A researcher therefore must construct a methodological paradigm with particular analyzable properties that help in the understanding of the relationship between the research objectives and the research design (Knight and Ruddock, 2008)[22] . In other words, theory must be developed to guide the research approach, research strategy and field work. Researchers have often limited research paradigms to qualitative and quantitative aspects (Yin, 2003)[23] but Willis (2007)[24] notes that these are methods privileging the importance of data collection. Rather, a paradigm is made up of a belief system or theoretical assumptions that communities and organizations adopt in order to guide practices across disciplines. Guba and Lincoln (1994)[25] categorize research paradigms into three types:

- Positivism, which usually involves experiments to determine effects or outcomes of phenomena;

- Constructivism (interpretivism), which states that views about phenomena are constructed by human experience; and
- Critical (transformative) theory, which suggests that research inquiry, is entangled with political agendas.

Although it is important to note that a paradigm is not a philosophy, each paradigm consists of fundamental questions about the nature of reality (ontology), the bond between the researcher and the known reality (epistemology) and judgment of the role of values in research (axiology). The overarching question of this research is: *what are the major challenges of conservation on the rock-hewn churches of Tigray?* and the ultimate purpose of this research is to find out the major of challenges and to suggest recommendation that will help the practice of future conservation interventions and that could be an input for policy formation and development of practical guidelines and standards that enables the heritages preserved sustainably on the basis of the issues and challenges identified in the research problem. The theoretical and conceptual framework of this thesis thus cannot be viewed in isolation from the ontological[26] and epistemological[27] perspectives that are dominant in the field of cultural built heritage. Therefore, an ontological perspective is re-envisioned to understand the nature of reality and an epistemological position is used to interpret the researcher and study participants' ontological perspectives on the existence of the reality (Reich, 1994).[28]

The ontological assumption of heritage conservation in relation to built heritages is that historic buildings, monuments and sites are precious objects that should remain unchanged through space and time (Tait and While, 2009).[29] This ontological framework has stimulated academic and professional debates around the empirical proof of material objects and the ways in which the fabric came to existence (Waterton and Watson, 2015)[30]. This framework disregards the perspectives of the different stakeholders who identify and moderate the inherent values of a significant place; however, without stakeholders' meaning and narratives attached to a built form, it ceases to be part of cultural built heritage (Graham and Howard, 2008)[31] From history to heritage - from heritage to identity: In search of concepts and models.

In recent decades, heritage sectors have recognized that conservation is a construction of people's relationship with their cultural landscape. As Ashworth (1994)[32] observes, this relationship is based social, cultural, economic, technological and political development that

constantly reshape the historic environment. The dynamic relationship acknowledged here has caused some researchers to raise questions about conservation and to dispute the notions of the authenticity and integrity of built heritage (Hubbard *et al*., 2003)[33].

From an epistemological perspective, built heritage conservation is viewed as a construction of experiences and thus its perceived meaning varies with new understandings and social interactions among individuals in particular groups as well as between groups. The application of epistemology arises because the current conservation and management practice has often been limited by policies and legislation (Tait and While, 2009)[34]. This perspective ignores the fact that the cultural built heritage stretches beyond the three aspects of significant values, authenticity and integrity (De la Torre, 2002)[35]. Stakeholders' [communities] interests and perceptions, which are embedded in the fabric of cultural built heritage (Agnew and Bridgland, 2006)[36] and are inseparable from the conception of significant values, authenticity and integrity (De la Torre, 2002)[37], should also be included. The act of politicizing built heritage conservation and development (Hayden, 1997)[38] has been confounding and, in most cases, has accelerated the process of deterioration and decay, which eventually has led to demolition by neglect of numerous historic environments.

This research attempts to address the practical views of stakeholders, the clergy, local community and the national and international conservation authorities regarding the issues that motivate and the factors that act as barriers to the conservation of cultural built heritage, with a focus on the rock-hewn churches of Tigray, Ethiopia and a case study conducted in Japan, the Buddhist Temples of Mutsu City in Aomori prefecture. From this perspective, an epistemological position is adopted to interpret, in a more abstract way, the nature of the conservation of cultural built heritage which seeks to resolve the research question and objectives since its underlying assumption enables the researcher to focus on participants' interests, perceptions and experiences of reality (Blumer, 1962).[39]

1.5.2 Research method

To begin with, the ontological and epistemological philosophy discussed in the previous section is concerned with qualitative research. Ritchie and Lewis (2003:3)[40] define qualitative research as an approach that is: "*directed at providing an in-depth and interpreted understanding of the social world, by learning about people's social and material circumstances, their experiences, perspectives and histories."* This type of research requires

the researcher to attempt to focus and understand the dynamics of a social phenomenon (problem) in its context (setting) through an account of logical inference obtained from a detailed dialogue or discussion with participants. A qualitative approach is useful when a researcher seeks to identify meaning by stressing the diversity and variability of a social aspect that is not well researched, and to measure values by capturing the unique perspectives of participants in study (Hammersely, 1989)[41].

For instance, Titchen (1996)[42] explores philosophical debates over the universality of the conservation of cultural heritage, which the author argues occurred as a result of neglecting the views of stakeholders that exist within a contemporary heritage discourse and which are embodied in a range of practices. Jokilehto (1999)[43] argues that universalism can be achieved when conservation practitioners follow cultural discourse which, as articulated by Ruskin and Morris over a century ago (Emerick, 2014)[44], is bounded by minimum intervention: in other words, preservation rather than conservation. However, planning discourse suggests that balancing the old and the new built environment through reconstruction and rehabilitation can facilitate universalism in conservation (Ashworth, 1994).[45] These examples from the literature illustrate and validate how a qualitative research methodology has been used in different ways to evaluate heritage questions. Taking this into account along with the ontological and epistemological philosophies discussed previously, it is evident that qualitative research provides a robust framework for disseminating the local, national and international practices of cultural heritage as well as establishing the issues and challenges that impact stakeholders' interests and perceptions about built heritage conservation.

The relationship between heritage theory and practice is an essential aspect to cover when developing a qualitative research project in which data is aligned in an adductive approach by combining the excising knowledge and observation of the reality t the ground, as illustrated in Figure 1.1. This approach is illustrated in this thesis where the research process begins by critically reviewing secondary data sources and preliminary field researches to formulate the research questions upon the combination of the preliminary findings then followed by establishing clear patterns between research objectives and the primary data collected using the research strategy. This task led to the major data gathering work that manipulates multiple methods. Conclusion is developed from the underlying structure of processes that are evident in the research findings about Ethiopian and Japanese built heritage conservation.

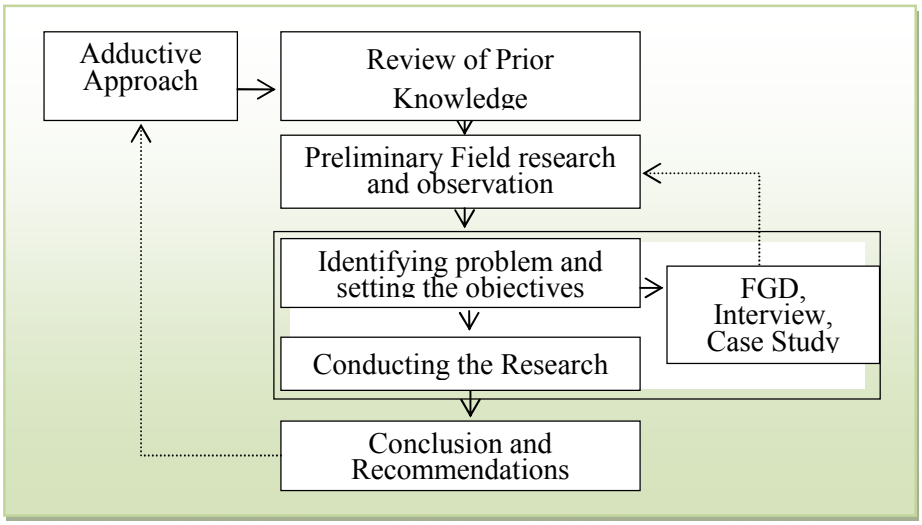


Figure 1.1 Methodological approach of the study (by the Autor, 2018)

Qualitative research strategies used in the social sciences generally falls into four major categories: ethnography, phenomenology, grounded theory and case study. Content analysis, historical analysis and action research are other qualitative strategies, as detailed by Denzin and Lincoln (1994)[46]. A *case study* strategy aims to explore a phenomenon within an individual, group or event in order to produce rich and in-depth information (Yin, 2003).[47]

1.5.3 Research strategy

The study utilizes a case study strategy. This method can be used with theories of conservation, cultural built heritage and the stakeholders of this study, thus allowing for a more thorough examination of the specific issues associated with cultural heritage processes and practices. The studies by Jokilehto (1999), Titchen (1995) and Ashworth (1994) all examine the relevance of universal practice to the conservation of cultural built heritage, identifying where the concept has created tension in the heritage sector. This indicates that what is considered effective conservation depends on the various goals of the practitioners. A

case study is therefore appropriate since there is no clear distinction between the complex relationships that exist within and between societies where these characteristics match the objectives of this research.

Yin (2003) specifies that a case study strategy is used for one or more aspects of the analytical purposes of exploring, explaining and describing phenomena. Exploratory studies search for new insights in order to answer research questions or clarify the nature of problems, provide a new direction for phenomena and investigate the relationships between variables and explain how they occur in phenomena. Descriptive studies present a comprehensive profile about the perceptions, views and attitude that exist within or between phenomena. Yin (2003) further notes that each type of case study can take the form of either single or multiple cases. Additionally, Yin (2003) proposes that the selection of a case study should be based on the following criteria:

- that a case is a unique representative of a wider group of cases;
- that it is a revelatory case that gives an opportunity to observe and examine a phenomenon that was inaccessible prior to the scientific investigation;
- that it investigates longitudinal settings to explain phenomena over two or more points in time; and
- that it is a pilot in multi-case settings aimed as discovering differences between cases.

Therefore, case studies are used in various circumstances to contribute to knowledge about phenomena.

1.5.4 Case study selection

Yin (2003: 13) refers a ‘case study’ as ‘an empirical inquiry that investigates a contemporary phenomenon within a real-life context where the boundaries between phenomenon and context are not clearly evident.’ For this reason, the case study choice is aimed at discovering the perspectives of the participants through an in-depth study of the phenomenon occurring in their natural context and, according to Gall (2003)[48], should represent the perspectives of the participants in the case study. In this research, a context is referred to as the physical, social and cultural settings in which practices and processes of the conservation of cultural built heritage are implemented. Three cases in Japan and two case study areas with multiple cases in Ethiopia have been selected as the case context for this thesis and each ----- is introduced and discussed in detail in chapter three through chapter five sequentially. This subsection

summarizes the main reasons for purposely selecting the two countries in the context of religious buildings conservation and the specific localities in light of local community participation and sustainable community management in conservation of religious buildings. These cases were selected because of the comparability characters identified, the similarities of the challenge in the issue of community centered conservation approach in conservation of religious buildings.

Conservation movements provide a context for investigating the underlying factors that have contributed to well-established legislative frameworks for cultural built heritage at the local, national and international levels. For instance Japan established its legislative framework for heritage conservation in the last quarter of the 19th century, that makes Japan amongst the pioneering countries to having legislative frameworks for management and conservation of heritage conservation and its heritage management system is amongst the most complex and well established that is comparable to the complexity in the Western Europe countries if not sophisticated. In contrast, the evolution of Ethiopia's heritage conservation practice indicates that its legislative framework is fairly recent. The Antiquity Proclamation was introduced by the Imperial government in 1966 as the first legal material for the protection of the heritages of the Empire. This was followed by the first authority, the Antiquity Administration with the imperial decree in the same year, as the authority to administer Ethiopian heritages. However, Ethiopia, still lags behind many developing countries in addressing the issues facing the conservation of its cultural built heritage.

Another reason for selecting these case studies is the researcher's knowledge of and personal contacts in the Japanese and Ethiopian heritage sectors. According to Yin (2003)[49], when choosing more than one case, such knowledge and access is an important protocol in order to keep the research manageable while at the same time ensuring internal validity; that is, ensuring that the data collected contributes to the research questions aimed at achieving this thesis's aim and objectives. For this case, the research purposely identified and reviewed four locations where the empirical fieldwork was conducted within the two countries. The Rock-hewn churches of Eastern Tigray and the World Heritages sites of the Rock-hewn churches of Lalibela were selected because the researcher is a citizen of Ethiopia, the major focus of the study is on identifying the conservation challenges of the rock-hew churches of Tigray, and acquiring lesson from the challenges on the rock-hewn churches f Lalibela is crucial and thus is familiar with the country's practice and policies involved in the conservation and

management of cultural built heritage, mainly the conservation and management of religious buildings. From Japan, the Buddhis of Tohoku region were suggested by my mentor in Japan, a professor with an extensive knowledge of the Japanese and Ethiopian heritages. After a preliminary visit to three prefectures in Tohoku region, namely, Miyage, Aomori and Yamagata, with the guidance and presence of my mentor and a Japanese Graduate students who helped me both as a translator and guide, the temples in Mutsu city of Aomori prefecture and its environs were selected for the case study in Japan. Despite Ethiopia and Japan both being comprised of a large number of jurisdictional boundaries, the limited financial and time resources had to be allocated selectively to enable effective data collection and a comprehensive review of the important information concerning the research aims and objectives.

1.5.5 Data collection methods

Qualitative data collection covers a number of techniques such as document review, focus groups, interviews, observations and action inquiry (Yin, 2003[50]; Silverman, 2000)[51]. In this research, the observation and action research techniques have not been employed. The observation technique focuses on the researcher's perception and views of the phenomenon being researched instead of focusing on stakeholder perceptions, which are central to this research. Taking the research aims and objectives into account, focus groups and key-informants interviews were selected because they ensure the topic of the conservation of cultural built heritage is well explored and that stakeholders' perceptions describe the issues and factors driving the decision-making process involved in existing policies and practices in the heritage sectors. Additionally, focus groups and interviews are commonly used in the field of cultural heritage as heritage research involves documenting site evidence and exploring narrative understanding meaning for the identification of significant values attached the authenticity and integrity of cultural built heritage.

Literature review

The first type of data collection method used in this study was a literature review. This involved conducting a review of published academic, legislative and policy documents in order to construct the theoretical framework that underpins the aim and objectives of this thesis. The information obtained from this research method provides a detailed account of the concept of cultural built heritage conservation, addressing four basic aspects: exploring the

meaning and values of cultural built heritage; describing the nature of heritage conservation theories and practices within the selected case studies and their country context; identifying the stakeholders involved in the heritage sector using a stakeholder analysis; and formulating a research design and approach to data collection, analysis and presentation.

This method assisted the researcher in identifying the gap in the literature. The resources examined in the literature review were found from searches academic journals, library collections and web based searches. Secondary sources, such as the official websites of government and professional organizations, were also visited in order to obtain information about legislation, heritage policies and potential informants.

Focus group

Focus group discussion was other data gathering method applied in the study. Krueger and Casey (2000: 5)[52] describe a focus group as 'a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, nonthreatening environment.' According to the above mentioned source, primary data collection technique allows researchers to collect data about ideas, opinions, attitudes and thoughts with regard to significant scopes of complex issues facing communities today from multiple participants. Terms like group interviews, organized discussion, collective activity and social events have been used to identify focus groups, as summarized by Gibbs (1997)[53].

Both Informed decision and random selection was used in identify the participants of the FGD. This double standard was intentionally used to include the informants with a detailed knowledge of the sites and to get the opinion if the layman. National and regional heritage conservation officers, senior and junior experts, head priests and church management members of the clergy and lay members of the communities. The objective of this study was achieved through primary and secondary data acquisition and field observation. Therefore, different range of data both primary and secondary, were collected and then analyzed in order to find out the facts and feelings about the raised research problem.

1.6 Conclusion

Choice of a methodology to study a given research problem is mainly determine by the nature and complexity of the problem and the intended objectives. Creswell, (2009)[54] said that, while researching multifaceted research problems, researchers preferred to use a mixed

research strategies rather than employing a more distinctive approaches just as quantitative or qualitative models. The view is that a combination of research methods can serve mutual purposes. Because their relative strength enables a researcher to address important questions at different stages of a research inquiry thereby enhancing and enriching current knowledge by filling in the gaps that may not be covered by adopting a singular approach. Nowadays, the boundary between qualitative and quantitative research is in rather thin state of presence and this boundary can be smudged even further. The use of mixing methods is therefore strategic to increase quality of the investigation because one single method cannot capture everything; a mixed method that is backed with a case also increases the probability addressing the problems in-depth. Yin (2003)[55], proposed a case study research as effective method to address issues in-depth qualitatively.

As stated in the previous parts, there is no single standard approach to analyzing qualitative research. The choice of a qualitative method is influenced by the link between the theoretical and conceptual frameworks and the analysis of the uncovered underlying motives or attitudes toward phenomena of interest. Hence, the methodology of the research is formulated based on the current practices and approaches to the study of living heritage and cultural landscapes aiming at investigating the challenges of rock-hewn conservation in Tigray Ethiopia. The qualitative research design approach as contextualized by Creswell, and the case study research design and methods as discussed by Yin, are the benchmarks used as an input to devise the research methodology implemented in this study are both qualitative and case study methods.

In the attempt to understand the mixed research methods, an effort was made on how to select an effective method for studying such questions. Since, the main rationale of the study is, investigating the existing conditions, the opinions held by the local community, and the conservation processes that are going on and the role of different stakeholders in the conservation of the rock-hewn churches Tigray, Ethiopia, research methods that enable to gather qualitative data are chosen as primary data gathering methods. So, this study is qualitative in design and it combines the qualitative and case study as the research methodology.

Research instruments which suits to the research questions, and the methodology chosen are therefore, mainly, on site field research, observation, and focus group discussion, and key informants interview and these are the data gathering methods used. The case studies are used

to get the broader image of the study from an in-depth investigation of the case areas. Relevant data from secondary sources were also collected and analyzed.

1.7 Structure of the dissertation

The thesis is organized into seven chapters the introduction and the conclusion as the first and last chapters stand separately each,

Chapter One: Background of the Research. This chapter provides a general introduction of the study, the purpose and significance of the study, the research methodology. It also shows the problem statement, the aims and the research questions.

Chapter Two: Review of related literatures**.** The first section of the chapter, it deals with the origin and development of church architecture in Ethiopia. This chapter will provide a rather vast perspective by covering the historic background starting from the pre-Christian northern Ethiopia through the introduction of Christianity, its development and it is also covering historically significant topics. It is a literature study based overview of the study site in Ethiopia. The second section focuses on the context of conservation of built heritages. An overview of stakeholders in conservation of built heritages and heritage discourse are discussed afterwards.

Chapter Three: The origin and development of cultural properties authorities with special emphasis on the national authority and the legal framework is presented in the first half this chapter. The other half is about the international institution intervention on the conservation of heritages in Ethiopian rock-hewn churches.

Chapter Four: The conservation challenges of the rock-hewn churches of Ethiopia, the current challenges of the rock-hewn conservation in Tigray, the remedial measures taken to deter the problems, the regression level of the churches, the impact of the remedial measures introduced by the international, national and local authorities; and the reactions of the local communities towards the interventions are discussed in the chapter. This chapter demonstrates the level of the problem based on the case studies.

Chapter Five: Deals with the Japanese cultural properties administration systems and practices. There are two major contents in this chapter. The first is about the legal and institutional set-up while the second is a case study conducted in Must city, in Aomori prefecture. The aim of this part is to find out the potential lessons for the Ethiopian

conservation of cultural properties mainly from the perspective of organizational skills for the conservation of architectural heritage, the legal framework, and institutional set-ups.

Chapter Six: Is dedicated to analyzing the challenges of sustainable community management in conservation of religious buildings. It is analyzed in line with the interest of the local community, the regulation system applied to each case (if there is), the resource at the disposal of the temples and the churches and the local technology that can help for the effectiveness of the conservation interventions are discussed and with this inputs, how a conservation could be people-centered is discussed here. .

Finally, the conclusion and recommendations of the study are provided in **chapter seven.**

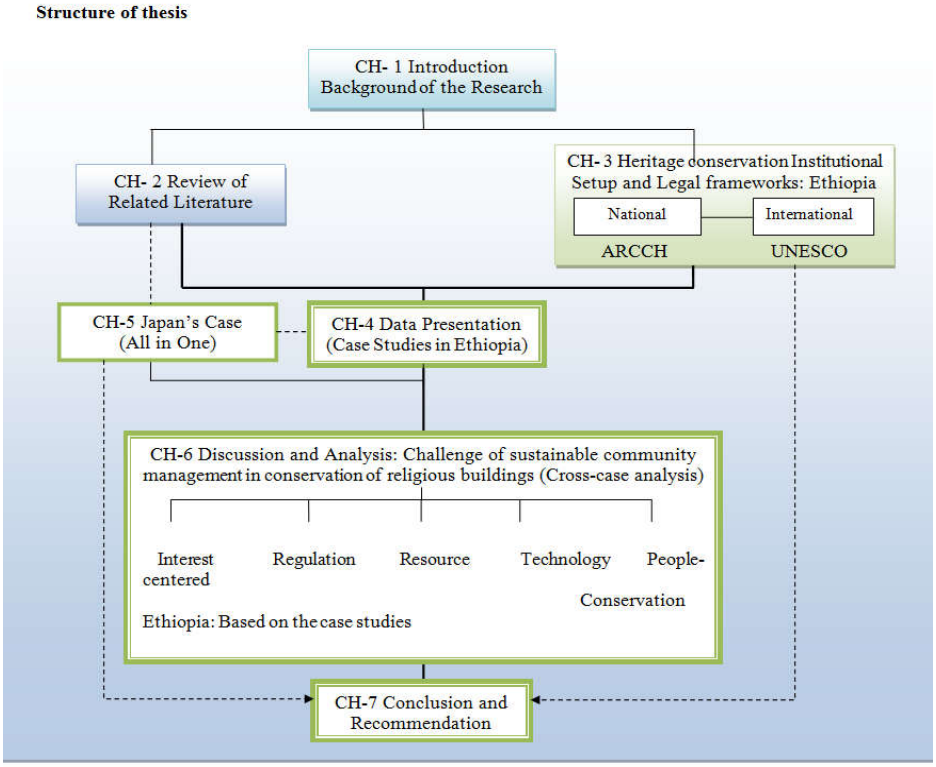


Fig.1.2. Structure of the dissertation

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CHAPTER TWO: REVIEW OF RELATED LITERATURES

2.1 Background of the study areas in Ethiopia

2.1.1 Introduction

The present day Federal Democratic Republic of Ethiopia (Ethiopia, henceforth Ethiopia) is a country located in North-east Africa (Fig.2.1). It is the second most populated country in the continent and the most populated land locked country in the world; with a population of about 108 million[56]. The particular geographic region within which this study is primarily concerned is the National Regional State of Tigray (Tigray, henceforth), the northernmost region of present Ethiopia and the district of Lasta in a northern Wollo zone of the Amhara National Regional State (Amhara, henceforth). To make it more specific, this study will focus on the rock-hewn churches of Tigray, churches located in the districts of Eastern zone of the region particularly in districts called Gheralta/Hawzen, Atsibi, and Wukro. The churches of Lalibela are also concerns of the study.

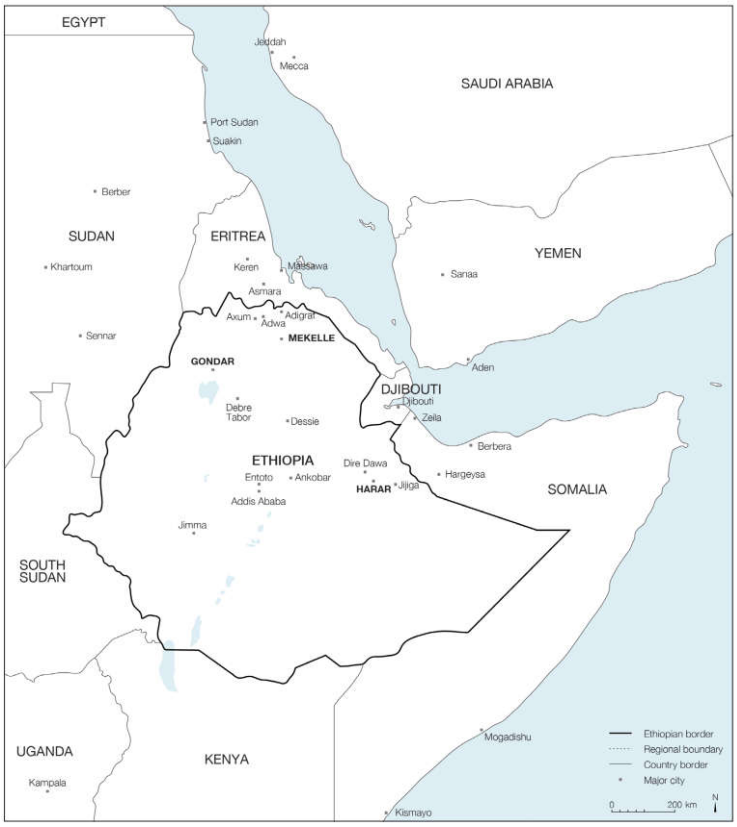


Fig.2.1. Map of Ethiopia and the surrounding region

According to historical and archaeological evidence, Aksum and its environs, a historical city in central Tigray, the northernmost region of Ethiopia is known to have been the epicenter of the ancient civilizations in the region. It is representing the focal point to the ancient history of the country[57]. The cultural, religious and political centers to the pre-Aksumite era of the Da'amat empire during the last million BC, the Aksumite civilization of the first millennium AD and the Zagwe dynasty which lasted for three centuries during the first quarter of the second millennium respectively, are found in this corner of the country. However, the reach of the Aksumite Empire and the Zagwe Dynast were not limited only to these places (Munro-Hay, 1993).[58]

The topography of the region is markedly identified with the presence of highly contrasting landscape features ranging from a vast plain land to a surprisingly sky rocking and pointed rock mountains and mountain massifs. Various chained mountains, flat terrain and ruptured lowlands intercepted with deep gorges and fault lines are the common features of the landscape. The climate of the region varies with the altitude; the highlands are experiencing a temperate climate while the lowlands are hot and dry.

The altitude of the region[59] also varies dramatically with its apex in mount Ras Dashen (Ras Dejen) at 4,620[60] meters above sea level and its lowest point in the Afar Depression (Dallol) at about 100 meters under sea level.

It is obvious that, the difference in geographical features and environmental characteristic has had a considerable impact on the material culture of the region's long history. The difference is clearly manifested on the life style of the people and the cultural landscape along with the presence of heterogeneous societies with different languages, living and performing cultural inheritances, and diverse settlement patterns.

Therefore this chapter will provide an overview on the history of ancient Ethiopia. The northern highlands are the places where this study is dealing with. Providing a historical background of the northern highlands is a critical step to provide a context for the development of Christianity in the region and the origin and to discuss about the origin and development of church architecture in Ethiopia. The historical background section will focus on the developments that demonstrate the driving factors for the rise and the fall of the Aksumite empire, an empire which is the second to officially accepted Christianity as its official house of worship as early as the first half of 4th century in the late 320s and early 330s A.D.; the Zaguwe and the Restore-Solomonic Dynasties – that followed after wards. A particular emphasis is placed upon the aspects which pertain to the subject of architectural traditions and conservation of architectural heritages on the section that follows the historic background.

2.1.2 The pre-Christian Northern highlands of Ethiopia

Apart from the mythological narrations and oral traditions, only very little is known about the origins of the ancient Ethiopian culture and civilization. Archaeological findings and historical account have clearly demonstrated the presence of trade relations and cultural exchanges with other regions that show the Northern Ethiopia had at least attained a high degree of socio-political organization by 1000 BC[61], if not before (Fattovich, 1990b)[62]. Archeological findings confirmed that, it is at this time the first evidence for the existence of some form of centralized socio-political organization at the region. It is suggested that this development had been preceded by several centuries of Semitic, particularly South Arabian migrations across the Red Sea (Michels 1994,)[63]. These migrants are thought to have permanently settled in the highlands of Tigray and Eritrea and believed to have brought the new culture that is Semitic and with a polytheistic character both on the secular and spiritual

life of the indigenous, preponderantly Cushitic-speaking people supposedly believed to have less elaborate culture (Finneran, 2009)[64].

The oral tradition gave the credit to the immigrants and the cultural similarity of the two regions and the oral traditions also go well with the claim of Conti Rossini (Conti Rossini (1928)[65]. The archaeological materials found in the pre-Aksumite sites like Yeha also demonstrate the relevance of South Arabian material culture in the pre-Christian Northern Ethiopia (Phillipson, 2007)[66]. The claim of the cultural influence rests principally upon inscriptional data, and, to some extent, on architectural and sculptural evidence, and the belief system.

The term "pre-Aksumite" is commonly used to refer to the second half of the first millennium BC. This will cover the cultural progressions in the Northern highlands of Ethiopia, currently, the state of Eritrea and the Tigray Regional National State (Tigray, henceforth) and the Northern Part of the Amhara Regional National States (Amhara, henceforth) of the Federal Democratic Republic of Ethiopia (Ethiopia, henceforth).

Yeha – DA'AMAT

DA'AMAT[67], a name of a civilization believed to had been flourished In the highlands of northern Ethiopian and southern Eritrea, since the 8th or 7th century BC and lasted up until the 4th or end of early in the 3rd C. BC. It is a civilization with a strong link to and influence from the South Arabia; at least culturally. Yeha is a name a small city that is located in the central Zone of Tigray, in a distance of 25 KM from the city of Adwa, a city that is believed to have been the center of the DA'AMAT civilization. The Temple with the same name, the Temple of Yeha, is the boldest evidence of the South Arabian cultural influence and it is the earliest known building in Ethiopia. It is believed to have been built around 700 BC (Phillipson, 2010)[68]. The Temple is it is believed to have been built around 700 BC (Ibid).

Yeha Temple is a rectangular structure built in the Sabean style. Though the upper part of the building is ruined, its four walls are still standing and manifested the grease of the buildings. Though, the quality of the workmanship and the firmness of its foundation are clearly exhibited in the building, however, the conversion of the Temple in to Christian church in the 6th century is playing a great role for its "excellent preservation" (Ibid). *Grat Beal Gibri,* an archaeological site of ruined complex with exceptionally huge pillars, a ruined multistoried

palace according to the local tradition, and a graveyard containing several rock-hewn burial tombs are other sites near the temple (see,Fig.2.4).



Fig.2.2. The Greate Temple of Yeha, in Yiha town

Apart from the archaeological sites and historical monuments, Yeha, a small village its name tailored after the great temple is also the location of an Ethiopian Orthodox Tewahedo Church (EOC, hence forth) monastery, located in a same compound with the pre-Christian, temple. The monastery is found by Abba Aftse, one of the Nine Saints in the 6th C. AD. The church is built with the local vernacular construction technique called Monk-head, in 1949. What makes the main church building especial is that, falling parts of the temple are used as corner stone in the construction of the church, a panel of Ibex head statues curved out of stone used to be part of the temple is included in the church building as a decorative element on the front façade of the new church (See fig. 2.5). The earliest account of the monastery and the temple [at a time converted into EOC] is by Francisco Alvares a Portuguese missionary who visited the village in 1520 and he provided a description of the ancient tower [the temple], the monastery and the local churches.



Fig.2.3. An interior wall view of the Greate Temple of Yeha, in Yiha town



Fig.2.4. Girat Beal Gibri, an archaeological site with a giant pillars in Yeha

Recent excavations in Wukuro, a pre-Aksumite archeological site located nearly 50 KM North of Mekelle, confirms that the capital of the Da'amat dynasty was called "Yeha"[69]

(Fig. 2.4). So far, there is no evidence that proves neither Yeha as the political center nor DA'AMATA as a living dynasty after the 3rd C.BC. However, there is a proof for the emerging of the new kingdom the latest by the second half of the 1st C. AD; the Aksumite Empire.



Fig.2.6. a raw of Ibex head sculptures from the Temple used in the Church building



Fig.2.5. Church of Abune Haftse,, in Yeha next to the Great Temple



Fig.2.7. An altar from the Temple of Almaqah, Wulro, Ethiopia,

Aksumite Civilization

The introducing paragraph of the annual journal of ARCCH, (KIRS, 1993 E.C,) refers to Aksum as "The Land of Queen Sheba a sober disciple of wisdom, mother of Menilik I, the legendary founder of the Kingdome says". According to Aleqa Kidane Wolde Kifle, the name Aksum is a derivation of the word Kush[70], means Ethiopia, as it is cited in (Ayele B., 2005).[71] Oral history of Aksum acknowledged the name Aksum as a derivative of a combination of two words "Ak" and "Shume" mean Water and leader in *Agewigna* [72] and *Ge'ez* respectively. The combination of these two words gave a worth mentioned meaning, "The leader of the waters". As it is mentioned in Ayele, another legend also claims that, Aksum is a name after the legendary founder of the kingdom, king Aksumit.

Aksum was the hub of the great civilization that flourished between the 1st and 7th C.AD in the Northern highlands of present-day Ethiopian and Eritrea. A civilization that was strong enough to conquer part of the South Arabia and ambitious to control the Red Sea merchandize at the times of its heights between 4th and 6th century (KIRS Journal, 1993). Aksum is a place where high civilization of one millennium is witnessed and it is a striking palette of beautiful history partly legend which contains elements of truth. This amazing array of legend and history with the living traced elements of its achievement is witnessed in the old city corner of today's Aksum (Phillipson, 1998)[73].

Aksum is believed to receive a fairly vast attention of scientific research from archaeological or architectural research perspective in comparison to other historical, cultural and

archaeological sites of the country. The earliest accounts on Aksum were from the byzantine ambassadors to Aksum and the Christian geographers and merchants who had contact with the trading Empire Aksum. Its failure to maintain its trading power and its control on the Red Sea trade with the advancement (and later control) of Islam in the Mediterranean region and the Red Sea coasts, were factors pointed out to the failure and later banishment of the civilization (Ibid). However, recent studies seem to favor that internal factor to be the driving forces for the advancement and failures of the civilization (Tekle 2008)[74].

Even though it is not precisely known the date for the origin of the Aksumite State it is the first political entity (kingdom) of which significant detail is available both in archaeological artifacts and ruins, monuments, currency and literary inheritance in what are now Ethiopia and Eritrea (Munro-Hay 1991)[75]. The inscription that reference to the city called Aksum and its ruler is the *Periplus of the Erythraean Sea* (hereafter PES). The PES is an inscription used as a manual for merchants and sailors around the Red Sea and the Indian Ocean. The date for the composition of PES is generally agreed to be in the mid-second-half of the first-century AD. A person by the name Zoscales is mentioned in the inscription as the powerful ruler of the Aksumite region of that time; as an ambitious man who tried to monopolise the export trade of the Red Sea region. Previously, Aksum may have been part of a precursor state that revived after the predecessor Kingdom, the DA'AMAT, collapsed. The unique geographical position with a balanced access to both the Red Sea coastal ports and the rich interior would have contributed to the emergence of Aksum as the most powerful state in the region (Tekle 1997)[76].

Aksum is prominent shelf of the History of Ethiopia: the first Sub-Saharan Africa Christian Empire (Phillipson, 1997[77]; Tekle, 2008).[78] The second state to officially embrace Christianity as an official house of worship in 330, only Armenia which did the same about three decades earlier in year 300. It was one of the ancient world trading powers of red sea, and one among the greatest powers of its time. Aksum was also a court of emperors who minted coinage out of metals, Gold, Silver and Bronze (Munro-Hay, 1984)[79]. (Fig. 2.8.)

2.1.3 The Christian Aksum and subsequent dynasties

The most influential event with a lasting significance on the Aksumite civilization that took place in the second quarter of fourth-century Aksum was the official conversion of the state to Christianity (Phillipson 2003)[80]. This actually makes Aksum one of the world's oldest

officially Christian states. Paleographic and documentary sources show that the first Christian ruler of Aksum was King Ezana[81].

Unlike to the Roman Empire, the conversion to the new faith was started from the ruling class. The new faith seems to have resulted in important transformations in the politico-ideological basis of the monarchy and also in the sphere of the wider Northern Ethiopian popular culture. However, the oral tradition differs on the arrival of Christianity to Ethiopia, for that matter the connection of the ruling class with Christianity[82].



Fig.2.8. Aksumite Coinage, (Source, Munro-Hay and Bent, 1995)

According to legend and some documentary evidences, two young brothers by the name Frumentius and Aedasius, whose ship wrecked on the Red Sea, were brought to the court of Ezana, and later the elder Frumentius preached Christianity to the king and the king asked for Frumentius to stay and found the church. Thus, he became the first bishop of the first Ethiopian church in Askum after he was consecrated by Pope Athanasius of Alexandria in 328 CE[83]. Apparently, the new Ethiopian Christian Tewahedo Church was founded and ever since the Church was headed by an Egyptian bishop until 1952 (Taddesse 1972)[84]. Invariably, all heads, known in Ge'ez as *Abun*, of the latter Church were Egyptian bishops, consecrated and appointed by the former right down to the late 1950s.

For the new religion, Christianity, to reach the broad masses and flourish on the Northern Highlands of Ethiopia took over a century. The evangelical activities of two groups of foreign missionaries known as the *Tsadqan* and the "Nine Saints"[85] take the credit in his regard. These missionaries were monks who came to Ethiopia from the Eastern Mediterranean region at about the end of the fifth century AD. As sufficiently trained clergy, they seem to have engaged themselves in establishing churches and monasteries, both built-up and rock-hewn, and generally helped propagate the new faith among the people (See table 1. For the name of the saints and the monasteries they founded).

Table 1. For the name of the saints and the monasteries they founded

Name of Saint	Place of Monastery
Abba Pentelewon	Aksum
Abba Liqanos	Aksum
Abba Aregawi (aka Zemikael)	Debre Damo
Abba Afse Yeha	Yeha
Abba Guba Mudama	Mudama
Abba Gerima (aka Ishaq)	Adwa
Abba Tsehma	Sedenya
Abba Yam'ata	Gere'alta
Abba Alef Bi'isa	(at Mereb River)
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Fig. 2.9 Portrait of the Nine Saints as painted base on the EOTC tradition

The Church seems to have acted as the most prominent ideological arm of the State. In return, the latter would endow the former with massive material subsidies for the setting up of churches and monasteries as well as for the expansion of the faith. This arrangement manifested itself most remarkably during the era of the Solomonic Dynasty in the fourteenth-fifteenth centuries (Taddesse 1972)[86].

The Built-up and monolithic monuments (Littmann *et al.,* vols. 2 and 3, 1913b as translated by Phillipson 1997)[87] seem to reflect a highly organized and stratified society. According to the text that recording oral histories, some of which have been attributed to the famous Persian religious leader and historian of the third-century AD known as Mani, described Aksum as one of the four most powerful states in the contemporary world, along with Rome, Persia and Sileos (Polotsky 1940: 188-189)[88]. Apart from the presence of writing trading, the monolithic tradition and the trade, the minting of standardized coins stands as an important achievement of Aksumite civilization. The coin minting is an achievement that makes Aksum the only African state to issue its own national coinage in the ancient times outside the Roman dependencies.

In the late 510s and early 520s, the power of the Aksumite kinds was at its peak. Hence, King Kaleb's Aksum launched two successful punitive expeditions against South-western Arabia to avenge the persecution of Christian Aksumite colonists and armies by a Jewish leader.

About Aksum, a Large amount of oral traditions is exists in the form of books compiled in a historical fashion in later centuries, chiefly the *Book of Aksum*, the Ethiopian *Synaxarium*, the *Gadla Lalibela*, and the most celebrated document well-known *Kibra Nagast* (Budge 1922, 1933)[89], the historic Ethiopia's national epic. Though these documentations show substantial variations and somehow conflicts in their details, but it is believed these sources may

encapsulate grains of historical truth (Taddesse, 1977).[90] All the aforementioned sources assist much in obtaining a glimpse of events in Ethiopia.

The date for the end of the Aksumite State has remained a controversial matter. Various chronologies based essentially on coinage series and archaeological evidence has been suggested for the end of Aksum (Munro-Hay 1989)[91], 7th century at the earliest and ninth or tenth century AD at the latest, respectively. Regardless of the end of the coin minting culture, the way of life and the material culture of the wider Aksumite society dependent on subsistence-farming is likely to have remained substantially unchanged. The basics of Aksumite culture seem to have continued well into the subsequent "Zagwe" period, as can be deduced from both socio-cultural and material evidence.

In the oral tradition, the end of the Aksumite era is directly associated to the attack of Aksum and the entire Northern Highland by by a pagan/Jewish Queen called Gudit (variation of names: Yodit, Gaewa, Essato) in the late tenth-century. It was disastrous onslaughts that run sucked palaces, churches and other properties and other cultural properties. This oral history encapsulates a large grain of factual information. Both the Ethiopian *Synaxarium* and the History of Patriarchies of Alexandria (Atiya *et al.* 1948: 171-172)[92] refer to enemies destroying cities and churches and banishing the King of Aksum. Ibn Haukal (Kramers and Weit 1964)[93] wrote in the 970s/980s stating that Ethiopia had then been under the rule of a woman for thirty years. Gudit's military assault does in fact seem to have dealt a final *blow* to the capital city of Aksum and to the Kingdom of the same name.

2.1.4 The Zagwe Dynasty

It is not known whether there was a direct transfer of power from the Aksumite dynasty to what is traditionally called "the Zagwe dynasty". Contrary to the picture painted by oral historical tradition, the change-over of political power from the Aksumites to the Zagwes seems to have been very gradual and attended by much disturbance and politico-military turmoil (Taddesse, 1977)[94]. The Zagwes appear to have been a family of Agaw rulers from North-central Ethiopia who seized political power between ca. 1150 and ca. 1270, with their capital at Adafa, near the town of Lalibela, in the Lasta district of Wollo Province. According to legend, the Zagwe dynasty claimed, eventually unsuccessfully, a semi-legitimate Aksumite origin and status to the throne (Sergew 1972)[95].

Tradition has it that about nine Zagwe kings ruled in succession for a total of 330 years (Ibid). The most famous of them all was called Lalibela who ruled between the end of the twelfth and the first quarter of the thirteenth centuries. The Zagwe period witnessed the perpetuation and further development of many aspects of the cultural achievements of the Aksumite period. This was notably the case in the sphere of language, religion, theocratic monarchical government and the tradition of cutting rock churches (Doresse 1959)[96] and Christianity remained the official religion of the Ethiopian Kingdom.

The Zagwes appear to have been very keen in sponsoring massive projects of carving magnificent rock-cut churches in Lasta (Taddesse 1977)[97]. This policy obviously secured and ensured the continuation of royal patronage that the Church had been enjoying ever since its establishment. It also guaranteed the continued survival and even consolidation of Christianity particularly in the regions of Lasta and Amhara. In recognition of this, the Church seems to have been happy in elevating some of the individual kings of the Zagwe dynasty such as Lalibela to the status of saintly figures.

The Zagwes would appear to have been at pains to demonstrate that they were as much committed Christians as their Aksumite predecessors. Their grand church-building enterprise in Lasta, particularly in Lalibela, may have been intended as a concrete expression of their religious devotion. Founded, according to legend by the renowned Zagwe King of the same name, the new capital city of Lalibela (Pankhurst 1982),[98] armed with its splendid rock-hewn churches. The patronage of the massive rock-hewn churches would have been a deliberate attempt to rival Aksum as a replacement for the Holy City of Jerusalem; it may also have been viewed as an important factor in enlisting the support of the Church in the face of problems emanating from some opposition elements (Sergew 1972)[99]. This may have an important bearing on those hagiographies and chronicles of the immediate aftermath of the Zagwe period which depict the Zagwes as an illegitimate (i.e. non-Solomonic) dynasty.

On the basis of present evidence, most of the magnificent rock-hewn Churches of Lasta-Lalibela certainly date to the eleventh-twelfth centuries however some of the churches might have been curved much earlier starting from the seventh century (Phillipson 2010). The rock-cut churches of Lalibela represent the most prominent monuments of the Zagwe period known to date. The Zagwa dynasty reached to its end by about 1270 due to lack of internal cohesion and external pressures. Hence it leaves its position to the Solomonic rule that lasted in power until 1974.

2.1.5 The Restored Solomonic Rule

The Zagwe rulers were succeeded by yet another dynasty, which has traditionally been recognised as the "Solomonic Restoration", under the Emperor Yekuno-Amlak (r. ca. 1270-1285) (Taddesse 1972). A strong centralised state, backed up with a powerful imperial ideology as contained in the *Kibra Nagast*, was taking shape when this process was temporarily arrested by two great events in the sixteenth century. These events were a devastating invasion from the sultanate of Harar and massive migrations by the "Oromo" people (Doresse 1959). Merid (1971)[100] has provided a succinct summary account of the "Oromo" migrations, their causes and consequences whereas Tekle Tsadiq (1966 EC)[101] and Trimingham (1965)[102] have produced a detailed and masterful documentation of the wars of the sultanate of Harar against Christian highland Ethiopia. The two major historical developments of the sixteenth century resulted, among many others, in a marked change in the demographic picture of the Ethiopian highlands.

In the sphere of foreign relations, Ethiopia exercised a relative isolation since the mid-sixth century. Though limited, more or less regular contacts were maintained with the outside world, chiefly Egypt, the Holy Land, and, to a lesser extent, The Vatican (Taddesse 1972, 1977; Sergew 1972). Since the mid-fourteenth century, Ethiopia maintained some communications with Western Europe through visiting travellers and explorers, diplomats, Christian missionaries and scholars. The 1520 Portuguese Embassy representatives visit to Ethiopian, which included a chronicler called Francesco Alvarez, represents a well-documented official link between Ethiopia and a European country (Beckingham and Huntingford 1961)[103]. This was followed by the arrival of the Jesuit in support of the Ethiopian Emperor on his fight against the Islam. Some European travelers did also succeed in entering the country, to mention some, Charles Jaques Poncet a French Physician[104] in the year 1698 and James Bruce (1790, 1813), both of whom spent time in Gondar. An Armenian jeweler by the name Yohannes T'ovmacean also left an important record, among many other issues, of Gondar and its Imperial Court (Nerssian and Pankhurst 1982; see Pankhurst 1982 on Gondar city). Ethio-European relations accelerated as of the early nineteenth century, when many more Europeans visited the country. Some of those who left relatively detailed information on the country include Henry Salt (1814), Nathaniel Pearce (1831), Mansfield Parkyns (1853), Theodore J. Bent (1893), and R. P. Azaïs and R. Chambard (1931).

The post-Aksumite period in general amply demonstrates the Ethiopian Kingdom's capacity for survival as a preponderantly inland agrarian polity, practicing a limited domestic and foreign trade.

2.1.6 A brief overview of Aksumite architecture

In the monumental architecture in Ethiopia, a significant trace of it is mainly related to the archaeological remains of palaces, churches and settlements and monuments in the Northern Highlands. The oldest building existing to this day and actively providing the service they meant to be are the churches and monasteries. The other group of buildings that represented the architecture of the past is the rock-hewn churches of Ethiopia.

Aksum developed a culture of writing, coin minting and a very developed architectural and monumental couture. The urban centers of the Empire are characterized by the presence of monumental architecture and archaeological remains of grand palaces and churches.

Some of the best preserved examples of Aksumite architecture, including stelae and royal tombs from the third to fifth centuries; palaces and church ruins dating from the sixth and seventh centuries are found in Aksum; the ancient capital of the Aksumite Empire and currently zonal capital in the Central Zone of Tigray. These remains of the ancient culture and manifestations of its sophistication are World Heritages inscribed by UNESCO in 1980, the world heritage site encompasses the old corner of the city.

Emperor Ezana converted to Christianity around 330 A.D. making Aksum into one of the earliest Christian states. The transformation was marked by the replacement of Aksumite coins bearing the polytheistic crescent and disk with those bearing crosses (Munro-Hay 1991). With the exception of Egypt and Meroë, Aksum was the only ancient African state with written records. Inscriptions were multilingual, Coins were equally multicultural: gold coins were minted with Greek, and brass coins were struck with Ge'ez[105] inscriptions. One such example is the so-called Ezana stone, whose Greek, Ge'ez, and Sabaean inscriptions recount the ruler's military prowess and his thanks message to the the pre-Christian god of war.

The palaces of Enda Mikael, Ta'akha Maryam, Dungur, and Enda Semon, built the six and seventh century (Garlake, 2002)[106], anchored the western residential area. Typical of northern Ethiopian built structures, they were composed of mud or lime plastered stone walls

interspersed with dressed beams. Rectangular in form, the monumental structures stood on high stepped granite podia with paved floors. Small buildings and courtyards surrounded a central pavilion whose columned rooms were decorated with paintings[107]. The mass of the walls were divided by string courses and modulated by alternating salient and redresses. Further punctuating the walls were granite doors and windows, or "Aksumite frieze" windows constructed with square projecting cross beams. Still other openings were framed with rounded cross beams, nicknamed "monkey heads." Lower class stone and mud dwellings topped with thatched roofs dotted the slopes around these palaces.

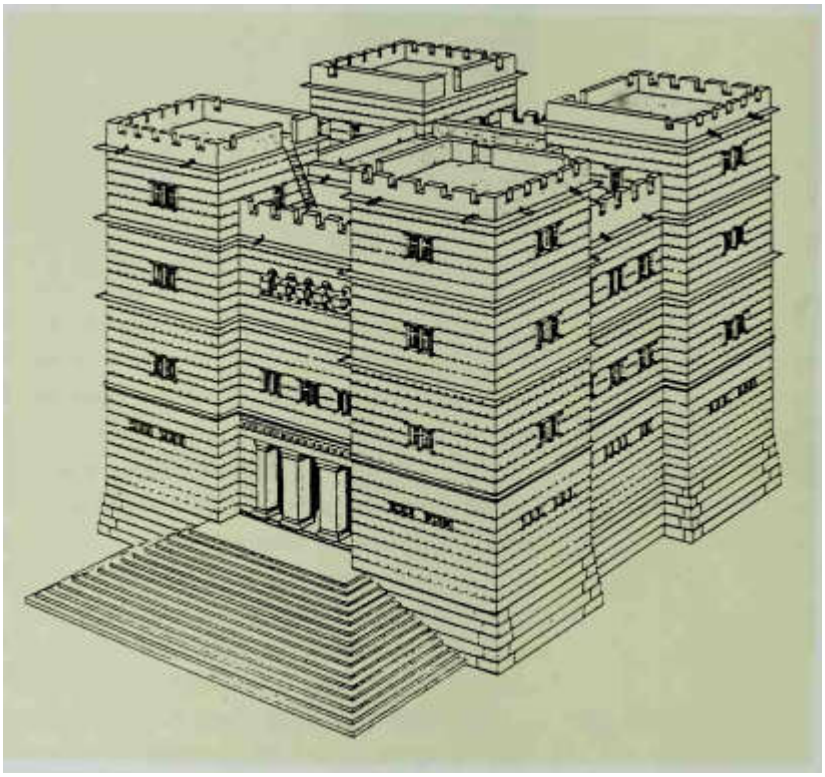


Fig.2.10. Enda Micakeill Palace, Aksum, Reconstruction Drawing (Source: Philipson, 2010)

Other manifestations of Aksumite Architecture are the towering granite stelae and the royal necropolis found east of the city. The stelae dated indirectly to the third and fourth centuries, which were likely built by both pre-Christian and Christian kings. During the 1906 Deutsche Aksum archaeological expedition (DAE), the stelae were numbered according to size; In the 1960s, they were divided into northern and southern sections.

The southern group is distinguished by the size and complexity of its stelae, and by the four major tombs contained within its bounds. Unique in the complex are the fourth century Tomb of the Brick Arches, where a staircase descends into multiple stonewalled rooms adorned

with horse shoe shaped brick arches, and the fourth or fifty century Tomb of the False Door, where a life sized carved door stood above stone slabs concealing the tomb entry.

Stelae 1 to 6 are carved with representations of Aksumite buildings. Perhaps symbolic houses, each incorporates false doors, windows, and salients and redresses and they represent multistory buildings, while the palaces never exceeded two stories. The apex of each stele has a distinctive semicircular top with a concave base, which formerly held bronze or gilded plaques secured by metal nails.

Two cathedrals dedicated to Mary now occupy the ceremonial area once linked to the stelae field. Many churches were originally built in Christian Aksum, including the famed Cathedral of Our Lady Mary of Zion (Enda Maryam Seyon). Following imperial convention, it was a rectangular, oriented basilica with apses, five barrel vaulted aisles, seven chapels, and many altars. Destroyed during the sixteenth century, it was replaced in the mid seventeenth by a crenellated Gondarine style structure. Like its predecessor, the church is set upon a stepped podium. In 1965, the historic cathedral was joined by the new Enda Maryam Seyon. The massive concrete domed structure commissioned by Emperor Haile Selassie I to permit mixed gender worship.

Mounting political and economic problems caused the Aksumite Empire's decline between 1,000 and 1,300 years ago. Despite the empire's eventual fall, Aksum remained the coronation site of Ethiopian kings through the mid nineteenth century, and its architecture influenced later construction. Nowhere is this more evident than in Lalibela, where complexes of medieval rock hewn churches incorporate Aksumite forms and ornaments. The basilica church of Biete Medhani Alem ("Church of the Redeemer") is believed to follow the original form of the Enda Maryam Seyon in Aksum. Other churches in the Lalibela complex incorporate stele shaped or "Aksumite frieze" window openings, while Biete Amanuel resembles Aksumite palaces. Like the stelae themselves, it is a monumental sculptural interpretation of a built form of architecture. While most Aksumite churches have since been destroyed or replaced, Aksumite built churches remain at sites in the Tigray Plateau, including the Dabre Damo monastery (founded ca. sixth century) and Yemrehenna Krestos (ca. twelfth century).

In 1980, the city of Aksum's ancient architectural heritage was added to UNESCO's World Heritage List, encouraging study and restoration of the site. UNESCO facilitated the recent

return of Stele 2, which was taken to Rome in 1937 during the Italian occupation of Ethiopia. The obelisk was returned to Aksum in 2005, and reassembled on its original location in 2008.

2.1.7 Previous studies on Aksum

The previous studies in northern Ethiopian had a multi layered bias in site selection and subject matter of the studies. Almost all the archaeological investigations that has been done so far on the Aksumite period has emphasized on the elite class whether in life or death. Relatively very little research has been done on questions relating to the development of social organization, economics and urbanism and settlement pattern when compared with that on religious life, elite architecture and elite funerary rites. There has also been a marked imbalance in the choice of research areas. The areas that might be regarded as the inner core of ancient Ethiopian civilization (e.g. Yeha, Aksum, and Matara) have received the most attention while other sites south of Aksum have received very limited focus.

The most remarkable of nineteenth-century European visitors in the northern highlands with antiquarian interests were Salt (1814) and Bent (1893). Salt located archaeological sites and copied a number of stone inscriptions, including the bilingual inscription of King Ezana. Bent paid visits to the ancient cities of Aksum, Coloe (or Kohaito) and Yeha, copied inscriptions and noted archaeological sites in a four-month-long sojourn in the country. However, the first serious undertaking in Ethiopian antiquarian studies had to wait until the dawn of twentieth century. The DAE led by Enno Littmann (*et al.*, vols. 1-4, 1913) that was carried out in 1906 by a joint agreement of the governments and the German governments -sponsored mission. The mission spent merely three months (February-April) in Tigray and Eritrea recording, mapping and sectioning architectural features and also gathering epigraphically, historical, ethnographic and other relevant information. The DAE conducted fairly large-scale excavations but only with the purpose of exposing the foundations of some big stone buildings and other structures in order to assist planning work (Phillipson 1995).[108] Subsequent archaeological studies were intermittent, conducted mostly by Italian, travelers and scholars until the liberation of Ethiopia by Anglo-Ethiopian forces in 1941 from a short-lived Fascist Italian colonial rule (May 1936 through April 1941).

In 1952, a national antiquities department was constituted with technical and trained manpower assistance provided by the French Government. The IEA was the first national government agency ever committed to the study of the country's archaeological past. For

quite a long time, the IEA remained entirely staffed by a French Archaeological Mission. The IEA placed considerable emphasis on uncovering elite and monumental architecture in particular and high-class culture in general (Sergew 1972)[109]. Numerous ancient sites were archaeologically examined, including, among many others in Southern Ethiopia, Yeha, Hawelti, Melazo, Addi Galamo, Matara, and many different sites in and around the town of Aksum.

The British Institute in East Africa (BIEA) started its archaeological investigation in 1972. Both the EIA and BIEA missions were forced to quite their short lived research engagement due to the overthrow of the Imperial Government of Ethiopian and the power accretion of the socialist military junta Dergue in 1974. Subsequently, a civil war outbreak in the same year and lasted until 1991. Hence, two years after the end of the military government, in 1993 the French scholars resumed their investigation and BIEA followed their pace. The work of Ethiopian scholars is also starting to become a valuable reference to understand the history of the site (see: Ayele T., 1997, Tekle, 2008, Asfawossen, 2000).

2.2 The context of conservation of Built Cultural Heritage

In this chapter, I discussed the theoretical background to the study and questions like, what is heritage. How heritages are categorized? What does the conservation of cultural heritage is mean? And, who are the stakeholders in the conservation of heritages are addressed on the basis of the range of literatures.

2.2.1 What is heritage?

To conduct a study about the challenges of cultural heritage (religious building) conservation, or to present the theoretical framework upon which the study is found, to start with clarifying how cultural heritage is defined based on different sources and how the concept of heritage is intended to be considered in this study should come first. In recent years there has been a dramatic increase in scholarly attention to the topic of cultural heritage and heritage as a concept has been amongst the most debated concepts. (Hobson, 2004).[1010]

The evolution of culture and heritage has led to major theoretical and empirical debates in social science disciplines (Wyer *et al*., 2009)[111]. Put simply, culture is the knowledge and structure that defines the lifestyle of a certain group of people in society represented in material and nonmaterial form. According to UNESCO (2002), *culture* refers to the

intangible creations used as a means of survival by the members of a culture within their cultural landscape and *heritage* denotes the tangible creations used to influence people's behavior and attitudes. The word *heritage* encompasses cultural attributes from the past and present that people in a society value and wish on bestow to the next generation (UNESCO, 1972). Culture and heritage are two separate concepts. Together, they help people understand shared human history that provides a sense of belonging to a community in the present and are used to define significant attributes bestowed to future generations. The study of culture and heritage has received a great deal of attention in the social sciences because these terms are considered vital parts of what societies are, what they do and what they might become in the future.

"Heritage"is a voluminous term that contains tangible as well as intangible forms. In the broadest sense, heritage can be defined as that anything which is inherited; everything which the ancestors bestow: landscapes, structures, objects, traditions, and all inheritances, tangible or intangible, may be called heritages. The tangible form alone encompasses a range of things that varies in nature, size and age and complexity. The meaning of heritages is underwritten by a range of notions and cultural, political and social discourses, hence it is difficult to get a precise definition that encompasses all its traits in one set of definition. Heritage is in fact a very difficult concept to define. Most people will have an idea of what heritage 'is', and what kinds of thing could be described using the term heritage. The framework within which the meaning of heritage unfolds in the context of the modern world, however, is related to the technical and highly specialized definitions of the term provided by a range of international conventions and recommendations and by different schools of thoughts.

The *Oxford English Dictionary* defines 'heritage' as 'property that is or may be inherited; an inheritance', 'valued things such as historic buildings that have been passed down from previous generations', and 'relating to things of historic or cultural value that are worthy of preservation'[112]. The emphasis in this definition is on the value of the things or the properties; that value which makes them inheritable and worth of preservation. The focus on 'property', 'things' or 'buildings', in this definition, gives a sense that heritage is something material or tangible that can be passed from one to the next generation; something with a historic or cultural value that can be inherited and conserved. Cultures as an integral part of the human activity, cultural heritages are the tangible representations of the value systems, beliefs and traditions and manifestations of the lifestyles of the past. Material remains are the

tangible manifestations of the past and symbols of legitimacy. On the other hand, immaterial things, the intangible cultural values that is interlinked with the tangible or stand independently, like languages, cultural activities and tradition skills and knowhow, are an important aspect of heritage that deserves inheritance and preservation. This includes the choices we make about what to conserve, which memories to keep, and which buildings to preserve.

As Smith (2006)[113] argues, that heritage is not something inherited from the past but it is made by contemporary cultural processes, in the process of defining and commemorating the past. She further explained that, the actual physical sites in which the process takes place are themselves mute and serve as a theatrical stage, which reinforces this cultural process. In other words, the physical sites form an appropriate and vital context for the performance of heritage, but they do not constitute the heritage itself. Within the heritage discourse tangible remains are turned into pricey material and intangible expressions into praiseworthy legacies. In Smith's position, heritage is inherently intangible; the tangible presence is a manifestation of the intangible meaning and value ingrained to it.

Heritage is a term that is also quite often used to describe a set of values, or principles, which relate to the past. We can also think here about the values which are implicit in making decisions about what to conserve and what not to conserve, in the choices we make about what we decide to label 'heritage' and what view as simply 'old' or 'outdated'. These values are implicit in cultural heritage management.

The definition of heritage is linked to the inherited traditions, monuments, objects, and culture in its entirety and most importantly intertwined with the range of contemporary activities, values, and meanings people draw from them. Heritage includes, but is much more than conservation, preservation, preservation, restoration and promotion of things and activities from the past. Heritage is not only manifested through tangible forms but also through intangible forms, heritages that includes values, traditions, oral history etc.

Heritage is a contemporary activity with far-reaching effects. Heritage is, or should be, the subject of active public reflection, debate, and discussion. What is worth saving? What memories should be enjoyed or learn from? Who owns "The Past" and who is entitled to speak for past generations? Are some of the crucial questions for the public to meaningfully take a role in the issue of heritages. Heritage as a subject can be an element of far-sighted

urban and regional planning. It can also be a platform for political recognition, a medium for intercultural dialogue, and a means of ethical reflection, and the potential basis for local economic development. It is simultaneously local and particular, global and shared. Heritage is an essential part of the present we live in--and of the future we aspire to build.

'Heritage' also has a series of specific and clearly defined technical and legal meanings. As John Carman (2002, p. 22) notes, heritage is *created* in a process of *categorizing*[114]. Heritages that have been categorized as a national or world heritage through categorization have an official position that incorporates a series of rights and obligations, arising from the inclusion in the heritage registry. As places or objects in the World or National Heritage List, they must be actively conserved, they should have formal documents and policies in place to determine their management, and there is an assumption that they will be able to be visited so that their values to conservation and the world's heritage can be appreciated. Another aspect of heritage is the idea that things tend to be classified as 'heritage' only in the light of some risk of losing them. The element of potential or real threat to heritage – of destruction, loss or decay – links heritage historically and politically with the conservation movement. Even where a building or object is under no immediate threat of destruction, its listing on a heritage register is an action which assumes a potential threat at some time in the future, from which it is being protected by legalization or listing.

2.2.2 Categorization of heritages

Following the end of the World War II, concern about natural and cultural heritage of world importance was internationalized under the umbrella of UNESCO inhering in material authenticity, monumentality, distance in time and Western-minded aesthetics. In response to all the evil of the war, heritage has been considered as an instrument for pursuing noble goals like peace, reconciliation and sustainable development and as an indicator of civilization that promotes knowledge and respect for other cultures and societies.[115] The great scale of destructions inflated the culture of protection and preservation. This protection movement has led to the listing of heritage sites by UNESCO; categorization and regulation have been seen as measures against a potential threat [116]. The senses of risk and threat have been reinforced by an emotion of longing for a past that vanishes quickly due to the rapid scientific and technological progress. The memory boom of the second half of the twentieth century increased further the preoccupation with the past which in turn urges a system of classification and formal categorization.

The UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritages[117] classifies heritages as cultural and natural and provided a technical definition of each in article and article 2 of the convention respectively.

2.2.3 Cultural heritage

Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.[118] People also discriminate between things which are worth inheriting and passing on and other things which they prefer to forget. In the doing so, a constant process of selection is under way, both conscious and unconscious, as each generation decides which elements of its inheritance to keep and which not. Cultural heritage at the early times having referred exclusively to the monumental remains of cultures; the concept has gradually come to include new categories.

Cultural heritage provides a cultural identity and functions as the source of a sense of belonging and continuity between generations. Tweed and Sunderland (2007)[119] argue that heritage is defined as being heritage either by designation or appropriation. *Heritage designation* describes the situation where cultural sites, buildings and other structures are identified as protected places through a heritage conservation process by the appropriate practitioners or by communities (Ashworth, 2002)[120]. *Heritage appropriation* is where places and objects acquire a protection status through the process of renegotiating meanings and memories rather than the assessment of significance value during identification of cultural heritage place/objects (Waitt, 2000)[121]. Whilst, the explanation offered by Tweed and Sunderland (2007)[112] is helpful in defining how things become cultural built heritage, the World Heritage Convention (UNESCO, 1972) takes a different approach, instead dividing cultural heritage into three categories:

> ***Monuments****: erected structures, pillars and buildings that have become significant from the point of view of history (...), art or science and combinations of these features.*
>
> ***Groups of buildings****: isolated or attached buildings built in proximity that possesses significant values in terms of history, art (...), science and archaeology, as well as social or technical importance. and,*
>
> ***Sites****: landscapes and sceneries that reflect a living synthesis of people and nature consisting of historical, (...) scientific and aesthetically significant values.*

The tree categories defined as cultural heritage are the prominent representations of the built cultural heritage too: Monuments, Buildings and Sites. ICOMOS, (2002)[123] defined cultural heritage as an expression of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions and values. Cultural Heritage is often expressed as either Intangible or Tangible Cultural Heritage.

The significance of cultural built heritage reflects its ability to represent human history and its continuous adaptation to the personal, social and environmental changes occurring in the social context. In part, cultural built heritage is the physical manifestation which links individuals and groups with past, present and future cultural landscapes, and is equally related to the intangible aspects of culture such as experience and knowledge. De la Torre (2002)[124] points out the built environment are a key to understanding the intangible elements of cultural manifestation within urban and regional development. Similarly, significant values are embodied in experience and knowledge, creating a community's cultural identity and sense of place and, as a result, stimulating the development of the built environment. De la Torre (2002) further asserts that it is for this reason that local, national and international policies have paid more attention to conserving cultural built heritage than to intangible heritage, since communities perceive cultural built heritage as an important cultural manifestation because of its ability to maintain the intangible aspect of culture such as heritage values attached to the authenticity and the integrity of historic fabric.

Worthing and Bond (2008)[125] note any changes of intangible culture placed in the development of the built environment by different generations might threaten the safeguarding of the authenticity and integrity of significant values embodied in cultural built heritage for future generations. As Worthing and Bond (2008) and De la Torre (2002) suggest, it is very important to note that the fragility of the aspects of intangible heritage is a reason why the conservation of cultural built heritage is always at contentious. For this reason, the following section presents a discussion on the heritage values attached to the authenticity and the integrity of cultural built heritage.

2.2.4 Heritage Tangible - Intangible

The Tangible heritage is defined as the legacy of physical artefacts that includes buildings and historic places, monuments, artifacts, etc., which are considered worthy of preservation

for the future. These include objects significant to the archaeology, architecture, science or technology of a specific culture.[126]

Objects are important to the study of human history because they provide a concrete basis for ideas, and can validate them. Their preservation demonstrates recognition of the necessity of the past and of the things that tell its story. The different perspectives through which heritage is perceived is influenced by the position the observer is taking, the role he is playing and its association to the heritage and understanding of the culture that produces the heritage. Hence, around the tangible heritage, there may be value judgments based on 'inherent' qualities, but there may well be other values which drive the use of the heritage. The meaning of the tangible heritage is embedded in an experience created by various kinds of users and the attempts to manage these experiences. So in addition to the tangible – intangible distinctions of the heritages, it is necessary to be mindful to the varying 'perspectives', or *subject positions on the heritage so as to properly understood.*

In another aspect of these practices of heritage is the ways in which we go about conserving both, the tangible and the intangible. The objects of heritage (the tangible) alongside with the heritage practice (the intangible) are critical inputs to shape our understanding of the past, present and future. The distinction between tangible heritage (physical manifestation of the intangible), and intangible heritage (the abstraction of the tangible) is subliminal, being the first material and the next immaterial, their preservation is inseparable likewise their creation. The tangible heritage is inextricably bound up with the intangible heritage, and the conservation aims to preserve both the tangible as well as the intangible heritage.

UNESCO 2003[127], on its convention regarding intangible cultural heritages defined "*intangible cultural heritage*" in article 1 as:

> *the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international*

human rights instruments, as well as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development.

It further listed the domains upon which the intangible cultural heritages are manifested. These domains are:

(a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;

(b) Performing arts;
(c) social practices, rituals and festive events;
(d) knowledge and practices concerning nature and the universe;
(e) traditional craftsmanship.

In Article 2 of the same *Convention,* the term 'cultural heritage' expands by specifying that it:

... does not end at monuments and collections of objects. It also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.

This definition encompasses the material and non-material manifestation of culture that different communities have inherited from ancestors and would like to transmit to the future generations since they have been beneficial to the current generation in terms of knowledge and skills (UNESCO, 2003).

There are many other forms of official categorization that can be applied to heritage sites at the national, state or local or municipal level throughout the world. Indeed, heritage as a field of practice seems to be full of lists. The desire within heritage to categorize is an important aspect of its character. The moment a place receives official recognition as a heritage 'site', its relationship with the landscape in which it exists and with the people who use it immediately changes. It somehow becomes a place, object or practice 'outside' the everyday. It is special, and set apart from the realm of daily life. Even where places are not officially recognized as heritage, the way in which they are set apart and used in the production of collective memory serves to define them as heritage.

The process of listing a site as heritage involves a series of value judgments about what is important, and hence worth conserving, and what is not. Some would define heritage (or at least 'official' heritage) as those objects, places and practices that can be formally protected

using heritage laws and charters. The kinds of heritage we are most accustomed to thinking about in this category are particular kinds of objects, buildings, towns and landscapes. One common way of classifying heritage is to distinguish between 'cultural' heritage and 'natural' heritage. While this seems like a fairly clear-cut distinction, it immediately throws up a series of problems in distinguishing the 'social' values of the natural world.

UNESCO has produced a number of charters, conventions, guidelines and recommendations in order to frame the heritage discourse and to define the criteria for protection, evaluation and management of heritage sites. The 1972 UNESCO convention for the *Protection of the World Cultural and Natural Heritage* is a leading text that echoes international concerns about the common heritage of humanity, generates a universal aestheticism, and reinforces the Western notions of heritage and the authority of heritage professionals. The Convention has established both the World Heritage Committee and the World Heritage List, a statutory register on which the first inscription of cultural and natural sites started in 1978. Henceforward, places of special cultural and/or natural significance have been inscribed on this list and have obtained the coveted status of a World Heritage Site (WHS).

In 2002 during the United Nations year for cultural heritage, UNESCO produced a list of 'types' of cultural heritage. This is one way of dividing and categorizing the many types of object, place and practice to which people attribute heritage value. It should not be considered an exhaustive list, but it gives a sense of the diversity of 'things' that might be considered to be official heritage:

- *cultural heritage sites (including archaeological sites, ruins, historic buildings)*
- *historic cities (urban landscapes and their constituent parts as well as ruined cities)*
- *cultural landscapes (including parks, gardens and other 'modified' landscapes such as pastoral lands and farms)*
- *natural sacred sites (places that people revere or hold important but that have no evidence of human modification, for example sacred mountains)*
- *underwater cultural heritage (for example shipwrecks)*
- *museums (including cultural museums, art galleries and house museums)*
- *movable cultural heritage (objects as diverse as paintings, tractors, stone tools and cameras – this category covers any form of object that is movable and that is outside of an archaeological context)*
- *handicrafts*
- *documentary and digital heritage (the archives and objects deposited in libraries, including digital archives)*
- *cinematographic heritage (movies and the ideas they convey)*

- *oral traditions (stories, histories and traditions that are not written but passed from generation to generation)*
- *languages*
- *festive events (festivals and carnivals and the traditions they embody)*
- *rites and beliefs (rituals, traditions and religious beliefs)*
- *music and song*
- *the performing arts (theatre, drama, dance and music)*
- *traditional medicine*
- *literature*
- *culinary traditions*
- *traditional sports and games.*

Some of the types of heritage are objects and places ('physical' or 'material' heritage) while others are practices ('intangible' heritage). However, many of these categories cross both types of heritage. In addition, this list only includes 'cultural' heritage.

Regarding the list of heritage as a world, national or local heritage: Who are the people who determine what is on the list and what is not? What values attributed to the judgments that specify which places, objects or activity should be represented? How, which are the great heritage objects and places and which are not assessed? How does creating such a list include and exclude different members of society? These are few question need to be addressed pertaining the listing of heritages. The power to establish the heritage list is controlled by the 'heritage experts' who are sanctioned by the state. The creation of the list is directly related to the creation of category between different sets of heritages, some as the greatest expressions of the culture, in accordance to the set of values used in the selection process and are seen to be the most worthy preservation efforts.

Given the focus on preservation and conservation, heritage as a professional field has more often been about 'doing' than 'thinking'; it has focused more on technical practices of conservation and processes of heritage management than on critical discussion of the nature of heritage and why we think particular objects, places and practices might be considered more worthy than others of conservation and protection.

2.2.5 Aspects of cultural built heritage

The extent to which people connect to their past can be seen by their attachment to certain historic fabric that they find appropriate to represent at a certain point in time. Certain aspects of cultural built heritage are viewed as more or less important by different people, community

groups or generations since the connection to the past is perceived as a matter of choice as well as of chance (Graham *et al*., 2000)[128]. How heritage is conserved depends on how past experiences affect and redefine each generation's cultural heritage in terms of its value systems, new surroundings, new experience and new lifestyle.

The World Heritage Convention is a global heritage instrument that provides an effective system for safeguarding built heritage needs in order to recognize outstanding universal value (OUV, here aftere) (UNESCO, 1972). Titchen (1996)[129] notes that OUV is thus a criterion that can be used in the assessment of the type and level of value of cultural built heritage, internationally. Since its inception in 1972, this notion of *OUV* has undoubtedly become the most recognized international accomplishment of the built conservation movement in the modern world (Jokilehto, 2006b)[130].

According to Rössler (2002),[131] the essence of cultural heritage is to make sure that historic fabric remains in the same state and as relevant as possible to the dynamics of the current society said. For better understanding of this, Lowenthal (1985)[132] indicates that the process of preservation needs to permit communities to reshape and reform the historical memories depicted in the tangible remains of their cultural built environment. To do this, the identification, conservation and management of a proposed built heritage site needs to affirm the unique cultural attributes of a community, nation and international society. It must be recognized that heritage value is not a simple idea but rather a complex concept that means different things to different groups. Cultural built heritage values have always represented a process rather than a fixed set of ideas. The static meaning of heritage comes from the variation in the consciousness of historical legacies affecting perceptions of the past and its physical remains. A concern that arises is whether changes in attitudes towards cultural values can offer incentives for the conservation of cultural built heritage has hitherto been unfashionable or unloved. The multifaceted nature of this concept has led some to develop formal typologies that attempt to identify and weigh the values of cultural built heritage.

In the Getty Conservation Institute report, De la Torre (2002)[133] indicates that the current value-based framework produces three categories of the significant value of cultural built heritage: intrinsic, instrumental and institutional values. Within cultural built heritage, intrinsic values are directly linked to traditional values while the extrinsic and institutional value is influenced by changes or modernization in the socio-cultural, economic or environmental factors. The UNESCO Operational Guidelines of 2012 further declare that

built fabric is considered to possess an outstanding universal value when it '*meets the conditions of integrity and/or authenticity and must have an adequate protection and management system*.' In other words, cultural built heritage is considered significant for listing in the local, national or international registers when its physical fabric satisfies the conditions of integrity and/or authenticity.

Authenticity is the link between cultural built heritage attributes and outstanding universal values. Cultural attributes are those elements of the property that carry attitudes and feeling; for example, characters or places in societies elaborating specific dimensions that maintain tradition and cultural continuity (Jokilehto, 2006a)[134]. Thus, the significance of cultural built heritage is rooted in the ability to understand the credibility of testing authenticity and assessing the condition of the integrity of the cultural attributes (Jokilehto, 2006b)[135]. In fairly broad terms, Rössler (2002)[136] suggests the test of authenticity must relate only to the original, unique or true manifestation of the significant values of historic fabric in relation to cultural attributes. According to the UNESCO Operational Guidelines (1999), essential cultural attributes include design, materials, traditional technologies, sensation and setting. Generally, authenticity refers to the original materials of cultural built heritage that cannot be recreated or represented by a reproduction. The Nara Document of Authenticity (ICOMOS, 1994), provides an alternative perception through which different cultures can interpret authenticity that has been modified over time.

According to the UNESCO Operational Guidelines (UNESCO, 2012), integrity denotes '*a measure of the wholeness and intactness of the natural and/or cultural built heritage and its attributes*.' It signifies that the effort to retain the intactness of cultural built heritage attributes is a crucial process in conservation. Investigating the condition of integrity thus involves assessing whether or not the historical fabric embodies outstanding universal value, its features convey the property's significance and it is not subject to the negative impacts of development on the built environment. This means that the loss of integrity may cause damage to the component of authenticity and thus diminish the significance of cultural built heritage.

The above discussion indicates that heritage significant values and the authenticity and integrity of cultural built heritage are well understood in the heritage sectors. However, evaluation of the requirements of these three aspects has generally lagged behind the understanding due to the diversity of interests and perceptions embedded by the local,

national and international cultures of stakeholders. Rapport (2009) stress that aspects of cultural built heritage are socially constructed so that, in a sense, the conservation process is driven by the ability to adapt to other functions in cultural settings. Furthermore, Von Droste and Bertilsson (1995)[137] state that it is challenging for heritage conservation to maintain the authenticity and integrity of the historic fabric. The interpretation of what heritage is and the decision about how to conserve are contingent upon the interpretations made by the different stakeholders in the conservation sector. Significant values, authenticity and integrity have different meanings in different cultural contexts so, in conservation situations, people consider their dynamic cultures when defining the meaning of authenticity, thus bringing associated challenges in meeting the expectations of cultural built heritage management at the broader level of society.

Cultural built heritage cannot be managed without taking change into account, since it will continue to age over time. These changes have caused built heritage to lose some elements of authenticity and integrity due to the varying popularity conservation approaches such as preservation, restoration, rehabilitation, reconstruction and natural decay, which have diminished their significance.

A new field of ideas concerning the safeguarding of cultural built heritage has initiated the involvement of a wide range of stakeholders in the heritage sector who often make decisions that better suit their professional interest than those of the built heritage (Graham and Howard, 2008.)[138] Thus, pursuing the relationship between heritage values and the characters of authenticity and integrity could provide an approach that gives a clearer understanding of stakeholders' perceptions of the conservation in connection to the cultural built heritage they are trying to protect.

2.3 The conservation of cultural built heritage

The idea of conservation has appeared in the heritage literature from as early as the 16th century, with a focus on social memory (Jokilehto, 1999)[139]. Conservation has at various times been understood to mean romanticiation, preservation and restoration. The inception of the term 'conservation' occurred due to political recognition of the necessity of balancing development while avoiding the destruction of the historic fabric in the cultural landscape. The reason for its foundation was partly a result of the efforts of individuals with the

intrinsically divergent interests, including William Morris, John Ruskin, Phillip Webb, Eugene Viollet-le-Duc, the pioneering scholars in the field.

2.3.1 Definition and principles of heritage conservation

The Burra Charter (1981) defined the word conservation as follows: "Conservation means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of those."The Venice Charter (1964) stated that, "the conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed." As part of the list of the basic conditions the Amsterdam Declaration (1975); it stated that Architectural conservation must be considered, not as a marginal issue, but as a major objective of town and country planning. [140] The Cultural landscapes Recommendation (1995) of the Council of Europe on defined conservation as: the dynamic application of appropriate legal, economic and operational measures to preserve specific assets from destruction or deterioration and to safeguard their future.[141] Conservation, reinforcement and restoration of architectural heritage require a multi-disciplinary approach.[142] The revised version of the Burra Charter (1999) gave the most holistic meaning of conservation. "Conservation means all the processes of looking after a place so as to retain its cultural significance."[143] 'Conservation' refers to the policies and actions that are used to sustain the value, perceptions and significance of built heritage from the past, both for present use and to preserve it for future generations (Getty Conservation Institute, 2010).

Conservation as a concept was developed in the heritage sector for a variety of reasons. As discussed in detail by Avrami (2011)[144], these reasons include (i) environmental sustainability through mitigation and adaption to climate change, (ii) meeting the demands of natural resources through energy and resources consumption, (iii) maintaining quality of life through pollutant and waste regeneration, and (iv) preventing further landscape destruction through economic and social sustainability. It follows, therefore, that the significant values attached to the authenticity and integrity of cultural built heritage can be retained through the process of conservation but also taking into consideration conservation decision-making about what stakeholders want to protect.

Since the early years of the second half of the twentieth century, both the developed and developing world have experienced significant modifications to their landscape and to their cultural built environment and heritages than in any other historical period. Although much of the historic fabric has been lost, this case is a bit different in countries like Ethiopia, mainly in the rural landscape. However, the change is becoming inevitable and it is starting to reach some of the most remote corners the country. However, the remains of the past cultural landscape and the built heritage are yet available in abundance and this is the time for constant follow-up, maintenance, protection and preservation.

Countries like Japan had noticed the problem ahead of time were working to protect their cultural built environment and important buildings since the dawn of the nineteenth century with the declaration of the law for preservation of Ancient Temples and Shrines in 1897, the Law for the Preservation of Historical Sites, Places of Science Beauty, and Natural Monuments in 1919 and the National Treasure law in 1929. In Europe, "The Principals of the Society for the Protection of Ancient Buildings as Set Forth upon its Foundation (The SPAB Manifesto) (1877)"[145] was written by William Morris and other founder members of the society. The manifesto holds up the ideal of restoration of ancient buildings. The manifesto recommends protection rather than restoration as well as resisting tampering with the fabric or ornament of the building as it stands, advocating "staving off decay by daily care.[146] This was followed by Recommendations of the Madrid Conference (1904), and then by the General Conclusion of the Athens Conference (1931), the conference regarded as the first international initiative in this regard. The laws, the recommendations and the guidelines were introduced for reasons to set out standards and guidelines establishing minimal physical intervention in cultural built heritage. The aim was to protect cultural built heritage from destruction through the use of inappropriate methods and materials due to insufficient knowledge of conservation approaches. One example of a document which sets out effective conservation guideline is the Burra Charter, first adopted in 1979 and then updated in 1999. The Burra Charter is designed to provide a conservation decision-making and best management framework for heritage places (Australia ICOMOS, 2000).

The word conservation was interchangeably used with preservation and restoration and even with maintenance however the Burra Charter (*1981, ICOMOS Australia)* clearly defined each word and as follows:

Conservation *means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of those.*

Maintenance *means the continuous protective care of the fabric, contents and setting of a place, and is to be distinguished from repair. Repair involves restoration or reconstruction and it should be treated accordingly.*

Preservation *means maintaining the fabric of a place in its existing state and retarding deterioration.*

Restoration *means returning the EXISTING fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.*

Fitch (1990)[147] notes that preservation guidelines have been stretched since the 1960s. In other words, the term has been used interchangeably with 'restoration' and has often overlapped with other conservation principles comprising the rehabilitation and reconstruction of cultural built heritage. The conservation process as outlined in the Burra Charter 1999 (Australia ICOMOS, 2000), the conservation principles acknowledge the long life cycles of cultural places and objects while at the same retaining the existing physical conditions, even if they might have reached a point of functional, physical or economic obsolescence (Australia ICOMOS, 2000). The charter described the conservation process should look after the significance values, authenticity and the integrity of cultural built heritage as well as the knowledge and experiences of heritage stakeholders (Australia ICOMOS, 2000).

This recognizes that heritage stakeholders are often faced with the conservation decision to preserve, rehabilitate, restore or reconstruct such resources. In some countries, conservation principles have been integrated into planning polices and regulatory frameworks to ensure that the cost of losing some elements of authenticity and integrity of heritage value is minimal. As such, the built heritage sectors have created a systematic decision-making process to guide conservation planning and management of the historic environment. However, the Burra Charter and James Kerr's Conservation Plan (a guideline for a conservation plan) can only, as stated by O'Hare (2004:1), '*provide rigorous and useful*

definitions of cultural significance and conservation' in relation to the development of cultural built heritage. These guides have philosophical limitations in their application to the meaning of the authenticity and integrity of heritage values attached to the built forms in the constantly changing cultural landscape (Hanna, 2015[148]

As noted earlier, sustainability in the heritage sector cannot be achieved without integrating the diverse cultural aspirations and values of the built environment into the goals of a conservation plan (Jokilehto, 2006b)[149]

2.3.2 Decision-making for the conservation process

A rigorous conservation plan is needed for a comprehensive conservation process and for its success. Article 5 of the World Heritage Convention (UNESCO, 1972) stated that, "each State Party to this Convention shall endeavor, in so far as possible, and as appropriate for each country: to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;[150] According to Pickard (2001)[151], one of the key methods by which the principles and guidelines for the protection of cultural built heritage has been implemented is through the development of conservation planning. Generally, a heritage conservation plan has three phases in its decision-making process: understanding significance, developing policies and the management of conserved places. The three phases are first reviewed in a staged process, as outlined by the Burra Charter (Australia ICOMOS, 2000).

Nowadays, conservation planning is strongly defined by external responsibilities and roles responding to individual and societal pressures. Individual causes are often related to heritage stakeholders who tend to be associated with built heritage conservation as long as the decision-making process promotes self-interest. Societal causes are driven by social responsibilities and are usually facilitated by common conservation goals in the local, national and international settings. However, conservation decision-making can be achieved effectively when the local, national and international stakeholders are planning together and their conservation aspirations are integrated with the broad involvement of all concerned actors at all levels in the heritage sector, including individuals, groups, institutions and different communities.

2.4 Heritage and Tourism

Tourism and heritage must be seen to be directly related as part of the fundamentally economic aspect of heritage. At various level, whether state, regional or local, tourism is required to pay for the promotion and maintenance of heritage, while heritage is required to bring in the tourism that buys services and promotes a state's, region's or locality's 'brand'. Heritage therefore needs tourism, just as it needs political support, and it is this that creates many of the contradictions that have led to the critiques of the heritage industry relating to issues of authenticity, historical accuracy and access.

In the late 1980s English academic Robert Hewison coined the phrase 'heritage industry' to describe what he considered to be the sanitization and commercialization of the version of the past produced as heritage in the UK. He suggested that heritage was a structure largely imposed from above to capture middle-class nostalgia for the past as a golden age in the context of a climate of decline.

> *What matters is not the past, but our relationship with it. As individuals, our security and identity depend largely on the knowledge we have of our personal and family history; the language and customs which govern our social lives rely for their meaning on continuity between past and present. Yet at times the paces of change, and its consequences, are so radical that not only is change perceived as decline, but there is the threat of rupture with our past lives.*
>
> (Hewison, 1987, pp. 43–5)

One way in which governments are involved in heritage is through the maintenance, funding and promotion of certain places as tourist destinations. The growing list of World Heritage and the struggle of heritage institutions to attract tourists has given a rise to the so-called 'heritage industry'. The 'heritage industry' promotes the marketing of the past by developing historic places into leisure time packs and by producing all kind of memorabilia set for sale. This 'heritage industry' deprives many heritage sites from their history and turns them into a spectacle for popular consumption. In this sense, it is also important to make the point that heritage is fundamentally an *economic* activity. This is easily overlooked in critical approaches that focus on the role of heritage in the production of state ideologies (Ashworth et al., 2007, p. 40)[152] Much of what motivates the involvement of the state and other

organizations in heritage is related to the economic potential of heritage and its connections with tourism.

The growth in heritage as an industry can be documented at a broad level by graphing the number of cultural heritage policy documents developed by the major international organizations involved in the management of heritage in the western world in the last century (see Figure 2. 10). The graph shows numbers of policy documents over the course of the twentieth century, as the organizations came into being; the major period of growth in providing more policy documents and recommendations is after the 1960s and 1970s .

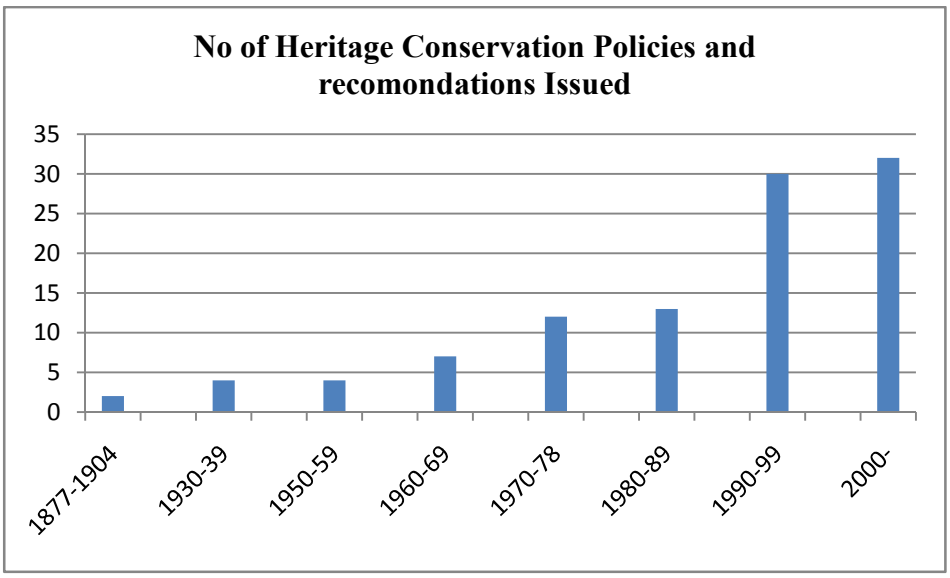


Figure 2.10 Cultural heritage policy documents by decade, 1870–000, adapted from Getty Conservation Institute (2008)

2.5 An overview of stakeholders in conservation of built heritages

The Athens Charter for the Restoration of Historic Monuments, the Athens Charter (1931), under its 'Administrative and legislative measures regarding historical monuments" paragraph, noted that, "(…) It unanimously approved [the Congress] the general tendency which, in this connection, recognises a certain right of the community in regard to private ownership. [153] (…) while approving the general tendency of these measures, the Conference is of opinion that they should be in keeping with local circumstances and with the trend of public opinion (…)". As the first international working document regarding the restoration [conservation] of historical monuments, the rights of the community in ownership of

heritages and the need for the consideration of the tendencies of the public [community] while dealing with the local circumstances in the restoration interventions.

Howard (2003: 186)[154] defines the heritage process as '*a chain that moves through discovery or formation, inventory, designation, protection, renovation, commoditization and, sometimes, destruction*.' Picturing the heritage process as a chain makes it evident that multiple stakeholders with different value perceptions are embedded in the decision-making process of built heritage conservation and management. An analysis of stakeholders' perceptions provides an opportunity to identify gaps in the heritage process and plans, a conservation practice that is accepted by stakeholders in the heritage field. In the heritage management literature (Keitumetse, 2016; Garden, 2011; Agnew and Bridgland, 2006; Throsby, 1997), the application of stakeholder theory has become increasingly important, especially in regards to heritage tourism, traditional knowledge and Indigenous custodianship.

The term *stakeholder* first appeared in the Stanford Research Institute (an American nonprofit independent centre for researching economic development projects) in early 1963, where it was used to describe the individuals and groups that support an organization's goals. Since then, the stakeholder concept has been researched and developed to highlight the different conceptions that scholars seek to address in practice. Within stakeholder literature, researchers have attempted to provide a clear definition of stakeholder that covers the dynamic and inherent relationship of stakeholders and their organization which has been embraced in the management process of various fields (Bryson, 2004)[155]. For simplicity, Freeman (2010: 46)[156] describes a stakeholder '*as any group or individuals who can affect or be affected by the achievement of the organization's objective*.' The literature considers this description as the most inclusive because it acknowledges any individuals, groups or organization within or outside an entity, regardless of the entity's interest in them.

Friedman and Miles (2006)[157] develop and explore two further concepts: 'affect or be affected' and 'achievement.' The former illuminates a broad view of the nature of the relationship between an entity and its stakeholders, and the latter narrows the number of stakeholders in an organization in terms of the attribute of value. In this sense, the value criterion is used to classify stakeholders in accordance with whether they possess the power to influence, the legitimacy to shape and sustain an organization's beliefs, values and norms

and urgency related to the ability to press immediate attention to critical issues related to decision-making (Mitchell *et al.*, 1997)[158]

According to Reed (2008)[159], the classification of stakeholders based on power, legitimacy and urgency is achieved through a stakeholder analysis. This is a tool used to identify organizational actors and assess behavior, interest, expectation and interrelations in order to understand perceptions of policies, plans or the implementation of organizational objectives.

This approach is considered important in any decision-making processes as it empowers individuals and groups in the management of environmental resources and identifies the way in which these aspects can potentially influence decision-making processes. The absence of this approach may allow powerful and well-connected stakeholders to influence the outcome of the decision-making, which is an acute risk faced by many organizations. To avoid this problem, Ibid (2008) lists three characteristics that must be completed before undertaking a stakeholder analysis: identifying stakeholders' power, legitimacy and urgency; categorizing stakeholders' objectives in terms of interest and influence; and managing the relationship between stakeholders.

The essential tenet of stakeholder analysis is that to reach an organizational goal, the benefits and competing objectives of all stakeholders should be taken into account rather than only considering the goals of the corporation. Sternberg (1997)[160] argues that the survival of an organization depends upon the maximization of wealth, value and satisfaction for its stakeholder groups. As a consequence, in the last few decades, stakeholder analysis has gained popular in the theory, practice and policy of the conservation of cultural built heritage (ICOMOS, 2000; De la Torre, 2002; Aas *et al*., 2005; Smith, 2006; Garden, 2011; Throsby, 2016).

The Australia ICOMOS Burra Charter of 1999 provides a best practice standard for managing cultural heritage in Australia and other countries in the world. It defines conservation as a process that takes into account all efforts involved in protecting a place so as to retain its significance values, authenticity and integrity (Australia ICOMOS, 2000). In the broader heritage management literature, there appears to be fragmented knowledge among interest groups about the nature of the conservation process since the introduction of heritage protection in the late 19th century.

It is necessary to have effective informed collaboration among various stakeholders in the cultural heritage context to avoid conflict between the disparate interests of the groups involved in heritage conservation and management. Gray (1989: 5)[161] defines 'collaboration' as a process that brings together groups of people who see '*different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible*.' Ibid (1989) states that collaboration needs to involve participatory decision-making in order to reach a mutual understanding while at the same time each stakeholder maintains his or her own distinct identities within an organization. Within this context, the collaborative approach is important in the cultural heritage sector as it facilitates the individual and collective interests of stakeholders that impact on conservation decision-making. Additionally, the extensive interrelationships between stakeholders encourage a flow of information that can result in positive long-term decisions about the performance and development of the conservation of cultural built heritage.

In this respect, the first stage of applying stakeholder analysis to identify the stakeholders involved in heritage conservation and management, since they come from the areas of built environment and have various and sometimes conflicting interests and objectives. Jamal and Stronza (2009)[162] propose that when using stakeholder theory, stakeholders are viewed based on their power, legitimacy and urgency positions. Since there are a large number of stakeholders involved in the heritage sector, using a holistic analysis to identify the position of individual stakeholders in the network of other stakeholders are important for creating effective decision-making which, for the purpose of this research, is the conservation of cultural built heritage.

2.5.1 The identification of stakeholder groups

The lack of stakeholder analysis in managing cultural built heritage has hindered communities, policymakers and practitioners in making effective and appropriate conservation decisions Aas *et al.* (2005)[163]. The lack of such research partly explains the importance of this research in that it evaluates the perceptions of stakeholders who are directly and indirectly involved in cultural built heritage and determines their interests in the management of cultural heritage and their roles in the conservation process. As Sheehan and Ritchie (2005) maintain, it is important to first identify the groups to which stakeholders belong and make a clear distinction between their roles in the decision-making. In this

section, the basic forms of stakeholders in the decision-making process are discussed from three different perspectives: the public sector representing political interests, the private sector reflecting personal or corporate attributes, and the community sector depicting collective attributes in a social group (Beach *et al.*, 2008: 06).

The *community sector* consists of professional practitioners, non-governmental organizations, academic institutions, volunteers and the media at the local, national and international levels as well as the general public. Avrami *et al.,* (2000)[164] note that the conservation of cultural built heritage relies on support from community groups due to the complexity of perceptions related to significant values, authenticity and integrity. Likewise, the Getty Conservation Institute (2010) argues that such groups contain a mixture of interests which may help to redirect public and private stakeholders' interests for the wellbeing of general public. Some of the community groups' interests are summarized below:

Heritage practitioners and their professional bodies play a vital role in conservation decision-making processes since they assess perceptions about built heritage aspects and are often responsible for establishing conservation policies and for assessing the heritage management systems of the government, industry and community groups (Garden, 2011)[165]. Experts include historians, archaeologists, anthropologists, architects, conservators, managers, planners, engineers and landscape architects.

Non-governmental organizations (NGOs) promote and fund the cultural heritage assessment and listing programs of the public sector, private sector and local communities at both the national and international level.

Academic institutions develop a wide range of heritage curriculum for education institutions, coordinate seminars and forums about the multidisciplinary heritage practices for experts in the professional organizations and conduct research to advance ways to bring about effective understanding of the principles and consistent expertise involved in the heritage conservation process.

Volunteers act as advocates of the cultural heritage sector since they apply their skills to conservation practices and their knowledge to educating other members regarding the cultural heritage assets.

The *media* provide support in terms of campaigning to save historic places, monuments and sites and sharing documentaries and exhibitions about heritage places on television, radios and the Internet. Users such as residents, occupants, retailers, visitors and others whose demand for historic or modern built facilities may directly or indirectly affect the level of built heritage conservation.

However, scholars note that an understanding of stakeholders' roles and responsibilities is fundamental to the conservation of cultural built heritage (Jepsen and Eskerod, 2009[166]) Emphasis has been placed on the specific interests of stakeholders related to conservation plans rather than bringing together all heritage actors who have a stake in decision-making for the purpose of finding a sustainable conservation of cultural built heritage. As Mason (2008: 307) observes, '*many decisions about conservation are made by politicians, bureaucrats, investors, owners, and other outsiders to conservation discourse*.' Such stakeholders are involved in the conservation process because of their power, profit and political interests. This is most prevalent challenge of heritage conservation.

Pioneers of stakeholder theory (Alkhafaji, 1989)[167] posit that organizations should develop a decision-making process that maximizes the interest and needs of its relevant key stakeholders. To this end, a clear critique of the heritage sector's definition of the term 'stakeholders' does not resonate with all of the stakeholders involved in the conservation of cultural built heritage. Until this change, a framework for a sustainable conservation policy, regulation and practice for cultural built heritage is unlikely to be achieved.

2.6 Heritage and control: the Authorized Heritage Discourse

One aspect of understanding heritage is appreciating the enormous influence of governments in managing and selectively promoting certain aspects of the tangible heritages and particular intangible practices associated with culture. In addition to the preservation of intangible aspects of cultural heritage, governments play a major role in the maintenance and promotion of lists or databases of heritage. Most countries have a 'national' heritage listing database. In addition, governments may have multi-layered systems of heritage which recognize a hierarchy of heritage places and objects of national, regional and local significance.

Anything that an authority (such as the state) designates as worthy of conservation subsequently enters the political arena. Alongside any thought or feeling we might have as individuals about an object, place or practice there will be a powerful and influential set of

judgments from this authority which impacts on us. Smith's argument is that there is a dominant western discourse, or set of ideas about heritage, which she refers to as an authorized heritage discourse (AHD, hence forth). The AHD is integrally bound up in the creation of lists that represent the canon of heritage. It is a set of ideas that works to normalize a range of assumptions about the nature and meaning of heritage and to privilege particular practices, especially those of heritage professionals and the state. Conversely, the AHD can also be seen to exclude a whole range of popular ideas and practices relating to heritage.

The concept of the AHD as developed by Smith[168] to illustrate how this particular set of ideas about heritage is made manifest: the ways in which heritage conservation operates at a local or regional level through the documents, protocols, laws and charters that govern the way heritage is assessed, nominated and protected. Smith suggests that the official representation of heritage has a variety of characteristics that serve to exclude the general public from having a role in heritage and emphasize a view of heritage that can only be engaged with passively. She sees the official discourse of heritage as focused on aesthetically pleasing or monumental things, and therefore focused largely on material objects and places, rather than on practices or the intangible attachments between people and things. She suggests that the documents and charters that govern heritage designate particular professionals as experts and hence as the legitimate spokespeople for the past; they tend to promote the experiences and values of elite social classes, and the idea that heritage is 'bounded' and contained within objects and sites that are able to be delineated so that they can be managed.

We can see how these discourses of heritage are made concrete in heritage practice by looking at the International Charter for the Conservation and Restoration of Monuments and Sites (1964) (known as the Venice Charter). The Venice Charter, adopted by the Second International Congress of Architects and Technicians of Historic Monuments, meeting in Venice in 1964, international principles to guide the preservation and restoration of ancient buildings. The philosophy behind the Venice Charter has had a major impact on all subsequent official definitions of heritage and the processes of cultural heritage management.

At the centre of the Venice Charter lie the concept of authenticity and an understanding of the importance of maintaining the historical and physical context of a site or building. The Charter states that monuments are to be conserved not only for their aesthetic values as works

of art but also as historical evidence. It sets down the principles of preservation, which relate to the restoration of buildings with work from different periods. In its emphasis on aesthetic values and works of art, it makes implicit reference to the idea of heritage as monumental and grand, as well as to the idea of a canon of heritage.

The Charter begins with these words:

> *Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity.*
>
> (ICOMOS, [1964] 1996)

It is possible to see the lineage of a whole series of concepts about heritage in the Venice Charter. This quote reveals a very important aspect of the AHD involving the abstraction of meaning of objects, places and practices of heritage that come to be seen as representative of something aesthetic or historic in a rather generalized way. The AHD removes heritage objects, places and practices from their historical context and encourages people to view them as symbols – of the national character, of a particular period in history, or of a particular building type. In doing so, they are stripped of their particular meanings and given a series of newly created associations.

The Charter establishes the inherent values of heritage, and the relationship between the value of heritage and its fabric through its emphasis on authenticity. In Article 7 it goes on to reinforce this notion:

> *A monument is inseparable from the history to which it bears witness and from the setting in which it occurs. The moving of all or part of a monument cannot be allowed except where the safeguarding of that monument demands it or where it is justified by national or international interest of paramount importance.*
>
> (ICOMOS, [1964] 1996)

Ideas about the inherent value of heritage are repeated in Article 15 through the focus on the value of heritage which can be revealed so that its meaning can be 'read': *every means must*

be taken to facilitate the understanding of the monument and to reveal it without ever distorting its meaning. (ICOMOS, [1964] 1996)

The Charter is focused almost exclusively on particular kinds of material heritage, namely buildings and monuments, and on the technical aspects of architectural conservation. Once again, we see an emphasis on specialists as the experts in heritage conservation and management:

> *Article 2. The conservation and restoration of monuments must have recourse to all the sciences and techniques which can contribute to the study and safeguarding of the architectural heritage.*
>
> *Article 9. The process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It must stop at the point where conjecture begins, and in this case moreover any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument.*
>
> (ICOMOS, [1964] 1996)

The ideas about heritage that Smith describes using the concept of the AHD circulate not only at the national or global level but filter down to impact on the way in which heritage is managed, presented and understood as a concept at the local level.

2.6.1 Why is heritage important?

We all strive to hold onto the past because it gives us a sense of continuity and belongingness. In other words, the past provides us with the resources for our cultural identity and sense of belongingness at individual, family and community level. With the emergency of the notion of World heritage, the scope of cultural identity and belongingness to the past is getting more complex and global at the same time. The concern about the past is not a recent phenomenon; indeed, it is an innate nature of human being. But, heritage as a practice of preserving, restoring and displaying monuments and memories of the past does not have a long history. It is a discipline where its beginning goes back to the early nineteenth century; when Europeans started to perceive the past as different from present.[169]

Heritage provides to the contemporary public an option for emotional engagement with the past and to experience the past in retrospect. These are the qualities what the strictly historical analysis approach to the study of the past, the historical approach, lacks. Heritage is an effective instrument than history for shaping the public's conception about the past, because it is based on concrete images and experiences and not on abstraction of ideas. Consequently, heritage - as phenomenon and as sites- plays a key role in the ways people encounter, use and understand the past.

Among the positive aspects of heritage counts also the contribution of heritage sites to the quality of life. Many people visit a heritage site in order to step back into the past and to skip their current tensions. In this case, past becomes a refuge and heritage serves more as 'a therapy than as a source of historical information'.[170] Related to the above is the importance of heritage for supporting memories and reaffirming identities.[171] A visit to a heritage site or a museum supports and enriches one's own memories, reaffirms roots and strengthens the feeling of belonging to a group.[172] Moreover, heritage with its transnational character has internationalized history and concerns about the past and has offered a protective mantel for cultural remains and creations of past civilizations.[173]

Heritage has to be experienced by people in time and place through participation in events that enliven history, an experience that varies considerably according to the cultural, academic and personal background of the participants. Heritage helps to keep cultural creations and natural environments alive in the present and future and legitimates claims upon places, objects and practices.

2.7 Conclusion

The conservation of cultural built heritage has expanded drastically over the last century. This chapter has determined there is a need for the decision-making process to be based not only on fixed heritage criteria but also incorporate its stakeholders' perceptions on the conservation of cultural built heritage. Heritage stakeholders are all working towards a similar conservation goal – ensuring historic buildings, sites and monuments are safeguarded for present and future generations. However, as pointed out, the existing decision-making process for built heritage conservation faces three sets of diverse perceptions: one arising from the public sector (political interests), one from private sectors (market forces) and third the general community (public good). The situation renders the heritage sector unable to

create a decision-making framework that responds adequately to diverse perceptions while meeting the conservation goals that are supported by all key stakeholders. Despite years of debates, the heritage sector needs to undergo a fundamental reconstruction of its conservation decision-making at some point. The investigation of the unique and dynamic groups of stakeholders involved in the conservation of religious buildings which are providing the original purpose they are constructed for and the religious practice is living. The heritage conservation challenge of the rock-hewn churches of Ethiopia with a focus in Tigray is the major topic this study is dealing with and it is explored in this thesis through qualitative research, as this method allows for an in-depth understanding of the challenges from field research, qualitative case-study, interview and discussions. The role of the local community on the conservation challenge, the role of the traditional conservation techniques, and local knowledge are investigated to better understand the challenge. The perception of the local community conservation interventions and its involvement on the process is investigated. This method is helpful in grasping how different stakeholders express their point of views, their expectations and priorities.

Reference

[56] http://www.worldometers.info/world-population/ethiopia-population/ Retrieved on 20th of August/ 2018

[57] When we speak about the ancient history of Ethiopia, it is must to keep in mind that the present Eritrea was and is part of the history and off course was among the major the territories of the civilizations

[58] Munro-Hay, S. C. H. "State Development and Urbanism in Northern Ethiopia", in T. Shaw *et al.* (eds.) *Archaeology of Africa: Food, Metals and Towns*, London: 609-621, (1993).

[59] Region is not referring to the language based demarcation of administrative regions by the current government. It is referring the geographic region commonly referred as the northern highlands of Ethiopia which includes the present day Tigray National Regional State, the Northern Parts of the present day Amhara National Regional State and the current state of Eritrea which used to be part of Ethiopia before its independency in 1991

[60] Mount Ras Dejen or Dashen is found in present day Amhara region, north Gonder zone. The elevation 4620 m above sea level is often quoted as an official height of the mountain following the Italian Military survey though recent surveys are registering a height of 4550 m but, for the use of this paper, the number quoted by CSA is taken, 4620m above sea level.

[61] Recent archaeological discovery in a place called Mai Adrasha, a place located about 50 KM West of Aksum and near the city of Shire Inda-Selassie, an ancient city that is dated 2500 is uncovered.

[62] Fattovich, R. "Remarks on the Pre-Aksumite Period in Northern Ethiopia", *Journal of Ethiopian Studies*, vol. 23 (November 1990): 1-31, (1990).

[63] Michels, J. W. "Regional Political Organisation in Aksum-Yeha Area During the pre-Axumite and Axumite Eras", in *Études Éthiopiennes*, *tome* 1: 61-80, (1994).

[64] Finneran, N. Built by angels? Towards a buildings archaeology context for the rock-hewn medieval churches of Ethiopia. World Archaeology, 415-429, (2009).

[65] Conti Rossini, C. 1928. *Storia d'Etiopia*, vol. 1, Bergamo. As cited in Phillipson, D. W. (2007). From Yeha to Lalibela: An essay on cultural continuity. Journal of Ethiopian Studies, Vol. XI, Nos. 1-2, (2007)

[66] Ibid

[67] Da'amat is a pre-Aksumite Kingdome lasted in the 1st millennium BC between 800 and 200Bc

[68] Phillipson, D. W. *Ancient Churches of Ethiopia*. Addis Ababa: Arada Books, (2010).

[69] This archaeological site was first identified by a young Ethiopian Archaeologist called Mr. Habtom….. (according to the discussion made with Tekle Hagos) Then an archaeologist from Mekelle University (Gezae Haile) conducted a first systematic excavation on the site. Currently the site is under excavation by the cooperation of Tigray Culture and Tourism Agency and German archaeologists.

[70] Kush is a Hebrew word, which represented the people who live North of Jerusalem

[71] Ayele, B. The Rise of the Aksum Obelisk is the Rise of Ethiopian History: A paper presented at a symposium organized by the Ethiopian Students Association of Massachusetts and the Center for African Studies of Boston University, April 24, (2005).

[72] Agewigna is a language of Agew people. Agew is the second Ethnic group, next to Kunama remaining as part of the contemporary Ethiopia among the peoples their name if found inscribed in a living Aksumite inscriptions. Kunama, Beja, Baria, Blen, Kasu, Agew

[73] Phillipson, D.W. Ancient Ethiopia: Aksum: Its Antecedents and Successors: London: British Museum Press, (1998).

[74] Tekle Hagos. Archaelogical Rescue Excavations at Aksum, 2005-2007: the Ethiopian Cultural Heritage Project Addis Ababa, (2008).

[75] Munro-Hay, S. C. H. *Aksum: An African Civilisation of Late Antiquity*. Edinburgh, (1991).

[76] Tekle Hagos. *Aksumite Sites in Tigray (Ethiopia): The Significance of Their Distribution*, M.Phil. Dissertation, University of Cambridge, (1997).

[77] Phillipson, D.W. (compiled and edited). The Monuments of Aksum: an illustrated account. Addis Ababa: Addis Ababa Press & BIEA, (1997).

[78] Tekle Hagos. Archaelogical Rescue Excavations at Aksum, 2005-2007: the Ethiopian Cultural Heritage Project Addis Ababa, (2008).

[79] Munro-Hay, S. C. H. *The Coinage of Aksum*. New Delhi, (1984).

[80] Phillipson, D.W. Aksum: an archaeological introduction and guide. Nairobi: The BIEA, (2003).

[81] The tradition claims that, during this time the kings were twin by the name Ezana and Syzana and their Christian name Abreha and Atsibeha.

[82] The oral tradition differs on the arrival of Christianity to Ethiopia, for that matter the connection of the ruling class with Christianity. This claim is also supported with a history from the holy bible. This view attribute the coming of Christianity to Ethiopia to one Ethiopian eunuch [Diplomat], a treasurer for Queen Hendake (aka Gersamot and/or Candace), while sojourning in Jerusalem met Philip the Evangelist and he was subsequently baptized by him (Acts 8:27). Thus, the treasurer of Queen Hendake was the first Christian and after he returned home and undertook the mission of converting other Ethiopians to Christianity mainly people around the ruling class. The biblical narrative is as follows: "Philip the Evangelist was told by an angel to go to the road from Jerusalem to Gaza, and there he met the Ethiopian eunuch. He had been to Jerusalem to worship (Acts 8:27), and was returning home." There is also more to the oral tradition on the history of Christianity in Ethiopia. This one associated with the evangelical service by introduction with St. Matthew, one of the twelve Apostles, or one of the four Evangelists. According to Christian tradition, Matthew preached in Ethiopia and died in Ethiopia in 74 AD. Which also claims that he baptized a significant number of Ethiopians before he died?

[83] http://dictionnaire.sensagent.leparisien.fr/Coptic%20Orthodox%20Church%20of%20Alexandria/en-en/

[84] Taddesse Tamrat. Church and State in Ethiopia: 1270-1527. Oxford, (1972).

[85] The saints came from Syria and other neighboring countries around 480 AD. These countries were ruled by the Byzantine Roman Empire of late antiquity. In some oral history with respect to the saints, they were anti-Chalcedon (the council of Chalcedon in 451AD) and they were persecuted by the powers that supported the council of Chalcedon. Thus, they fled their respective countries and found sanctuary in Ethiopia. Indeed, they were well received by the Christian king [Kaleb] and soon after they began to acclimatize the Ethiopian environment; they began learning Geez and studying the local culture as well as finding monasteries:

[86] Taddesse Tamrat. Church and State in Ethiopia: 1270-1527. Oxford, (1972).

[87] Phillipson, D.W. (compiled and edited). The Monuments of Aksum: an illustrated account. Addis Ababa: Addis Ababa Press & BIEA, (1997).

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[90] Taddesse Tamrat. "Ethiopia, The Red Sea and the Horn", in R. Oliver (ed.) The Cambridge History of Africa: From c. 1050 to c. 1600, vol. 3, Cambridge, London, New York and Melbourne: 98-182, (1977).

[91] Munro-Hay, S. C. H. *Excavations at Aksum: An Account of Research at the Ancient Ethiopian Capital Directed in 1972-'74 by the Late Dr. Neville Chittick*, Memoirs of the BIEA, No. 10, London, (1989).

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[94] Taddesse Tamrat. "Ethiopia, The Red Sea and the Horn", in R. Oliver (ed.) The Cambridge History of Africa: From c. 1050 to c. 1600, vol. 3, Cambridge, London, New York and Melbourne: 98-182, (1977).

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[99] Sergew Hable Sellassie. *Ancient and Medieval Ethiopian History to 1270*. Addis Ababa, (1972).

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[104] https://www.britannica.com/biography/Charles-Jacques-Poncet#ref228420

[105] An indigenous Semitic language, Ge'ez later became the language of the Ethiopian Orthodox Church.

[106] Garlake, Peter. Early Art and Architecture of Africa : Oxford History of Art. Oxford University Press. Oxford, (2002).

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[109] Sergew Hable Sellassie. *Ancient and Medieval Ethiopian History to 1270*. Addis Ababa, (1972).

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[115] Swenson, *The Rise of Heritage*, 1.

[116] Rodney Harrison, *Heritage: Critical approaches,* London/ New York, (2013).

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[118] http://www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage/

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[125] Worthing, D. and Bond, S. *Managing built heritage: The role of cultural significance*. Oxford: Blackwell Publishing, (2008).

[126] http://www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage/

[127] UNESCO. Convention for the Safeguarding of the Intangible Cultural Heritage, Paris, (2003),

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[135] Jokilehto, J. World heritage: Defining the outstanding universal value. *City and Time, 2*(2), 1-10, (2006b).

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[137] Von Droste, B. and Bertilsson, U. Authenticity and world heritage. In Larsen, K.E. (Ed.). *Proceedings of the Nara Conference on Authenticity in Relation to the World Heritage Convention (pp*. 3-15), Nara, Japan, (1995).

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[141] Council of Europe (Cultural landscapes) *Recommendation No. R (95)9 of the Committee of Ministers to Member States on the Integrated Conservation of Cultural Landscape Areas as Part of Landscape Policie, Article , (*1995)

[142] *ICOMOS ISCARSAH (Structures) Recommendations for the Analysis, Conservation and Structural Restoration of Architectural Heritage. Principles:1 General createria, (2003).*

[143] *ICOMOS Australia, Burra Charter (revised version) Article 1 Definitions, (1999)*

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[146] http://www.getty.edu/conservation/publications_resources/research_resources/charters/charter00.html

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CHAPTER THREE: LEGISLATIVE FRAMEWORKS AND INSTITUTIONS FOR CONSERVATION OF CULTURAL HERITAGES IN ETHIOPIA

3.1 The development of Ethiopian Cultural Property Preservation Authorities

This chapter examines the cultural heritage conservation institutions and legal frame works of Ethiopia. Literature review, interview and organizational study were the major research strategies used so as to properly address the question the study intend to answer in this chapter.

3.1.1 Early Efforts of conservation in Ethiopia

Ethiopia as the home of the ancient Civilizations of Aksum, Da'amat and following civilizations (Levine D.N. 2000)[174], it is endowed with, perhaps, the most diversified and complex accumulation of cultural and architectural heritages where the significant proportion of them constitutes a living tradition. According to Beyene G. (2010)[175], Ethiopia has a long tradition of caring for and maintaining its movable and immovable cultural heritages. The transfer of the invaluably rich and yet living architectural heritages thorough generations which can be witnessed from the church and monastery buildings in Northern Ethiopia mountains. The architectural heritages remained in active and uninterrupted service for a period of longer than a 1000 year and above (Phillipson, D.W. 2010)[176], are a living example of the existence the tradition that cares for and preserves architectural heritages.

The church, the Ethiopian Orthodox church, which is the home to the majority of the country's architectural heritages and other cultural and literary heritages, with the generous contribution of the Emperors and Local lords, and the cooperation of the community, helped the preservation and protection of cultural heritages from manmade and natural disaster in Ethiopia. As for Beyene G. (2010)[177], the monasteries and churches of the Ethiopian Orthodox Church had played a considerable role in the protection and preservation of cultural heritage for centuries. Their role is not limited to the preservation of the movable heritages sheltered in the churches as the integral part of the churches' ecclesiastical services but the church buildings too.

Although, the presence of the tradition is evident with the presence of the shared character features of the construction techniques, construction details, architectural decorations and similarity space arrangement and layouts of the church and monastery building, but the lack records on how the tradition of the church architecture evolved, and how the architectural preservation tradition was, is a wok that needs more work to clearly determine.

According to the discussions held with the architect in Culture and Tourism Agency of Tigray Region and a senior conservation specialist in ARCCH, in Ethiopia there are abundant living evidences of conscious efforts of preserving the architectural forms, space arrangement and layouts and decorative features in the church construction tradition. The presence of the "monk-head" as a decorative feature on the rock-hewn churches and monuments since early 4th century AD is not for the mare decorative purpose, but to show the alignment with the local traditional assets. This claim is more clear when the function of the "monk-head" element is not decorative but as a major structural component in the tradition of the Northern Ethiopia highlands Architecture.[178] Hence, the features of this construction technique are used as decorations in the rock-hewn churches, the Stele and the gate ways and false doors of the burial chamber are manifestations of strong interest in keeping the tradition and construction technique alive regardless of the construction material and technique. Furthermore, such kinds of claims are common whenever discussion is held with the clergies.

The first attempt to systematic study and documentation of Ethiopian architectural heritages in Ethiopia was the Deutsche Aksum Expedition (D.A.E) in 1906 AD lead by Enno Littman (Phillipson, D.W. (1997)[179]. The report of the D.A.E was published in 1913 in Deutsche and it was translated in to English in 1997, by Professor D.W. Phillipson.

In Ethiopia, some willful efforts were in place to protect the architectural heritages, mainly the churches. The name of the twin kings called Abreha we Atsibhe which are worshiped as saint kings by the disciples of the Ethiopian Orthodox Christian Church (EOTC) are the mystical builders of the earliest churches and monasteries in the northern highlands of Ethiopia. One of these monasteries is believed to be where the bodies of the twin kings are buried. The main church building of the monastery, a semi-detached rock hewn church with its major parts under the solid rock mountain, is named after their name; the Rock Hewn Church of Abreha We Atsibeha.

In the Since Ethiopian Empire, the legitimacy of power was mainly associated with the allegedly blood linage to the son of the Legendary Queen of Sheba and the biblical King Beyene of Judah, the mighty founder of the Aksumite Kingdome King Menilik I. Keeping the tradition of the Aksumite kings in the construction of church buildings was considered as the norm for the kings and the means of wining the church support to consolidate and legitimize power as monarch. Therefore, the Emperors were keen to construct new church, restore demolished or abandoned and maintaining old both for their religious devotion and to secure the critically important support of the church. The main driving force was then, to ascertain the legitimacy of power by the clergy, the social group with the most influential impact in this case.

The EOTC was the official and legitimate house of worship of the country since the first half of 4th c.AD till 1974 as well as the Ethiopian Kings was the major patron of church construction and sponsor of the architectural heritages preservation works in Ethiopia. When the socialist military regime overtook the power of the last Emperor in 1974, immediately denounced the Monarch and the state religion. In the mean time, the church lost its share from the Economy of the country, its support from the palace and its major source of income, the land owned by the churches and monasteries confiscated by the state.

According to Abba Abraham B. et al., (2013) According to the oral tradition, which is not yet scientifically proved with scientific research, restoration of churches in Ethiopia has a tradition go back to the late ninth and early tenth century AD. This event is associated with the period of the devastation of the majority of the Aksumite Churches and palaces by a woman pagan leader of the Agaw with the name Gudit. I the effort of rebuilding the knock and burned churches, the replication of design of abandoned churches by new builders in same or different setting were taking place. Evidences of the oral tradition are available from

as early as 9th and 12th century. The 12th century churches in Lalibela are good instance in this regard.

The critical observation on the rock-hewn churches is also a potential source for observation of latter additions, including in the World Heritage Sites of Lalibela. The observation and the interviews conducted clearly demonstrated that, there were series of interventions on the rock-hewn churches in the form of maintenance, rebuilding of missing parts and modifications. But, it is hard to find out a document with a recorded evidence of such claims, mainly on issues related to, who did these additions, maintenance and modification works and to the extent level of the intervention. This clearly shows, the Ethiopian system of preservation of architectural heritages have a lot of shortcomings on issues related to the recording alterations, and, it's is untapped spot for farther scientific investigation. In contrast to the potential of the cultural heritage properties, the inadequacy of technical and management skills; legal and institutional frameworks to protect the properties in accordance the specific nature of each is putting the architectural heritage of Ethiopia in a crossroad.

This chapter aims on the cultural heritage conservation system in Ethiopia with a focus on the institutional set-ups and legal frameworks. First, we will clarify how the heritage conservation system of the country developed. We will examine the forces and rationale behind this evolution, addressing its historical background and changing political regimes. Then, we will analyze perceptions and attitudes of various organizations related to heritage conservation through interviews.

3.2 The origin and development of Ethiopian Cultural Property Preservation

Heritage conservation efforts in Ethiopia date back to the 18th century. Although Ethiopia is a country of rich and diverse culture with more than 80 ethnic groups, as noted above, many of the heritages at that time emanated from the Ethiopian Orthodox Christian Church. In addition to building churches, the Ethiopian Orthodox Church administration restored movable cultural heritage related to Christianity in the monasteries which were purposely built for safeguarding their cultural heritage from civil wars and/or Muslim attacks (Beyene, 2010)[180]. Kings of the imperial regime also played a vital role in heritage conservation, mainly through providing financial resources.

Though the churches and monasteries contributed toward the protection of cultural heritages, it was in the absence of an organized cultural institution. It was during the last Ethiopian

imperial regime that the first initiatives took place to modernize the heritage conservation system in Ethiopia through the creation of cultural institutions in the country (Ibid). The genesis of these cultural institutions during the last imperial regime can be regarded as a pioneer for the cultural institutions and promulgations that were established both during the military and even the current political regimes.

The presence of traditional institutions for the preservation and restoration of movable heritages, mainly ecclesiastical costumes like crosses and crown; holy scripts and liturgical parchment books is evident (Ibid). Whereas, the first move towards the Ethiopian institutional set-up and legal protection to the cultural properties is very recent. The history of modern institutions and legal frame works for the restoration and preservation of cultural heritages in Ethiopia could be classified in to three significant historical periods; as the first period are the pre 1944, then1944-1966, and the post 1966. The pre 1944 initiatives for the protection of cultural properties were initiatives by foreign government and scholars with the knowledge and free will of the Imperial governments.

In 1905 the king of German takes initiative to sign a bilateral agreement on trade and cultural affair with Ethiopian Emperor of the time Emperor Minilik II in 1905. As part of the deal, a short lived archaeological mission (three months), the Deutsche Aksum Expedition **(**D.A.E), took place on the sites of the ancient city of Aksum and its surrounding in Northern Ethiopia, in 1906. This mission led by Enno Litman was with the approval of the Ethiopian Emperor and could be considered as the first attempt of supervised intervention to sites of ancient ruins in Ethiopia.

The DAE mission uncovered a huge amount of archeological findings; and foundations of ruined palace, churches and mausoleum. They measured and documented the ruins, the stele and created reconstruction drawings of the ruined palaces and churches. A year after DAE, an archaeological mission was conducted to the ancient port city of Adulis by a group of Italian archaeologists and uncovered foundations of ancient buildings including churches. Later in the 1920s, an archaeological mission by French monks was taking place in eastern and southern parts of the country. Though these and other occasional archaeological missions and documentations of ancient ruins and sites were taking place throughout the first half of 20th century, whereas, there was no institution responsible for the approval of the missions and the management of the findings or no legal guideline for the preservation and management of cultural properties in the country.

1944 marks the start of the second historical period in the history of modern institutions and legal frame works for the restoration and preservation of cultural heritages in Ethiopia. In 1944, the first institution for the protection and preservation of cultural properties, the National Library and Archives was established under the Ministry of Education and Fine Arts. The National Library and Archives led a foundation for the establishment of the Institute of Archeology in 1952; an institute marked a formal collection, research, protection and promotion of cultural heritages of the country. The Institute of Archaeology if founded by the Imperial regime following the initiative from the French government as the Franco-Ethiopia agreement concluded in 1952 and the institute start operation under the auspices Antiquities protection Board formed a year earlier by the Imperial government.

Although the Imperial government of Ethiopia had accepted initiatives by foreign countries and scholars for archeological missions since 1905 and had taken the initiative to establish cultural institutions, it had no clear legal document that framed the roles and responsibilities of the institutions. About 15 years after the foundation of the Institute of Archaeology, the first legal framework, the proclamation No. 229 of 1966, a proclamation for the protection and preservation of Antiquity come in to effect and provide legal guarantee for a designated districts, places and buildings as historic sites and monuments to be administered and protected in accordance with the provisions of the proclamation. The Imperial Antiques Proclamation No.229/1966 is a mile stone for the third era in the in the history of modern institutions and legal frame works for the restoration and preservation of cultural heritages in Ethiopia. It provides the first legal frame work for the conservation and management of cultural properties and it also elevated the institute of Archaeology to the status of Ethiopian Antiquities Administration, and that was set up with the function to administer the permit of archeological research, preservation and restoration of monuments and antiques having their origin prior to 1850 E.C.

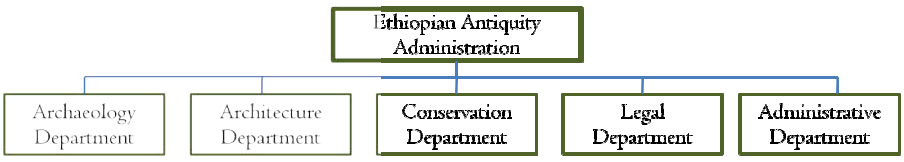


Fig. 3.1 Organizational structure of Ethiopian Antiquity Administration, Ethiopia, (Source: Author, 2018)

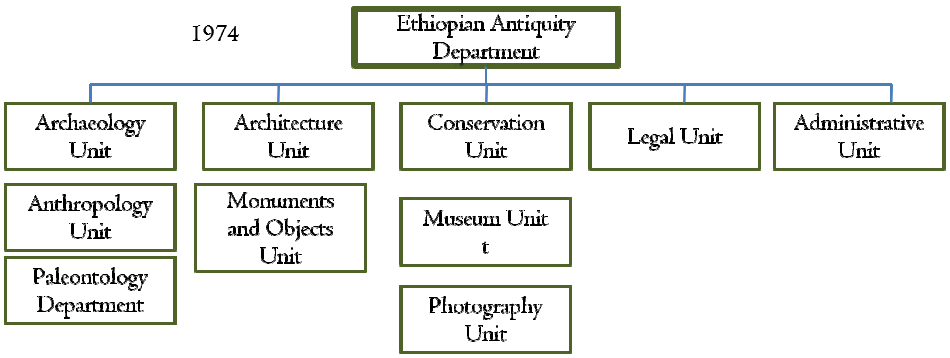


Fig. 3.2 Organizational structure of Ethiopian Antiquity Department, Ethiopia (Source: Author, 2018)

In 1974 the Antiquity Administration has moved to the Ministry of Culture and Sport Affairs as a department with additional responsibilities on arts and all aspects of cultural heritages. In 1976, it was reorganized as a Center for Research and Conservation of Cultural Heritages (CRCCH). The center then became the working section of archaeology, anthropology, and paleontology and monument preservation. The function of inventory and inspection of cultural properties was also bestowed up on the center. However, in 1995, the new constitution of Ethiopia, in article 51/3 of the constitution urged the council of ministers to issue a cultural policy and establish a body of government for this to handle the matter. Thus, CRCCH becomes an autonomous body accountable to the Ministry of Information and culture. The Cultural Policy of Ethiopia endorsed on October 1997, it was the first time for the country to have a cultural policy. Proclamation No. 209/2000, is the currently working proclamation, marked the upgrade of the center into an authority (ARCCH) and cultural heritages defined clearly as tangible and intangible.

The latest legal framework regarding cultural properties in Ethiopia is Proclamation 839/2014; it classifies cultural heritages in to National and Regional heritages. In this document, article 3/1-h, craftsmanship skills, for the first time are recognized for classification and protection too. Be it the institutional setup or the legal frame work in Ethiopia is very young compared to movement in Europe and in Japan.

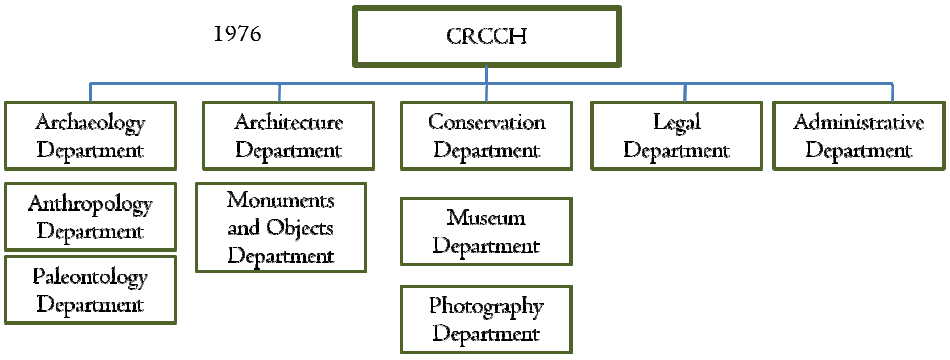


Fig. 3.3. Center for research and conservation of cultural heritage, Ethiopia (Source: Author, 2018)

3.3 Current Cultural heritage conservation proclamations

The currently effective proclamation is, Proclamation No. 209/2000. This proclamation marked the upgrade of the center into an authority (ARCCH) and cultural heritages defined clearly for the first time as tangible and intangible. ARCCH, as an independent authority accountable to the Ministry of Culture and Tourism is currently the only responsible body of the government to manage and conserve the National Heritages as well the World Heritage Sites (WHS) in Ethiopia. Any conservation and management intervention to the architectural heritages within the WHS and national heritages is under the umbrella of ARCCH. Article 3 (4) of the current Conservation Proclamation of Ethiopia (adopted in 2000) defines cultural heritage as:

> *"anything tangible or intangible which is the product of creativity and labor of man in the pre-history and history time, that describes and witnesses to the evolution of nature and which has a major value in its scientific, historical, cultural, artistic, and handicraft content."*

This proclamation deals with several issues such as research, excavation, registration, subsidy, and technical advice for heritage conservation.

Compared to the preceding proclamations, this proclamation is more comprehensive, clearer, and richer in content. In this proclamation, the term 'Antiquity' used to describe cultural heritages in the previous proclamations was changed to "cultural heritage," and the definition became more specific. This indicates to what extent the scope of cultural heritage has expanded over time in Ethiopia.

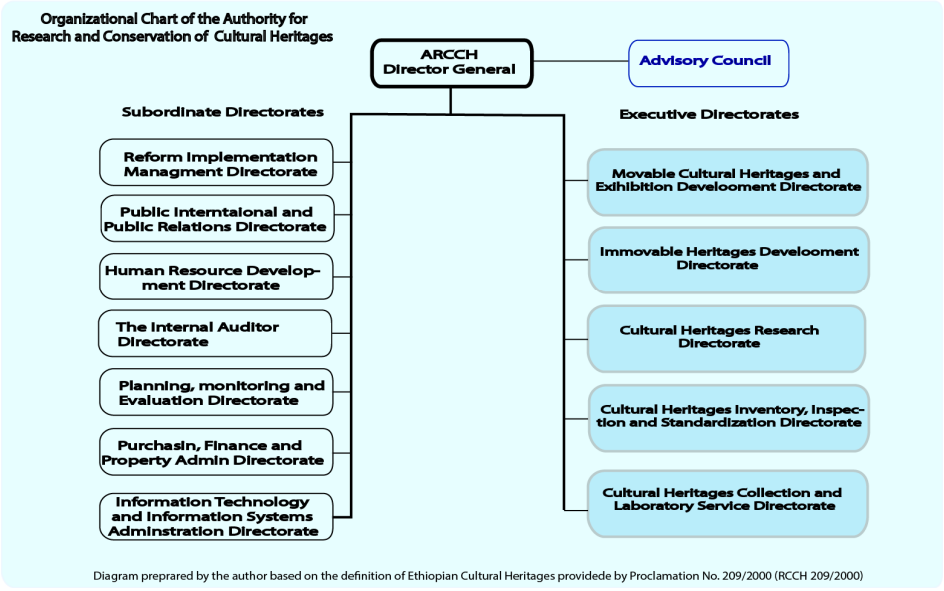
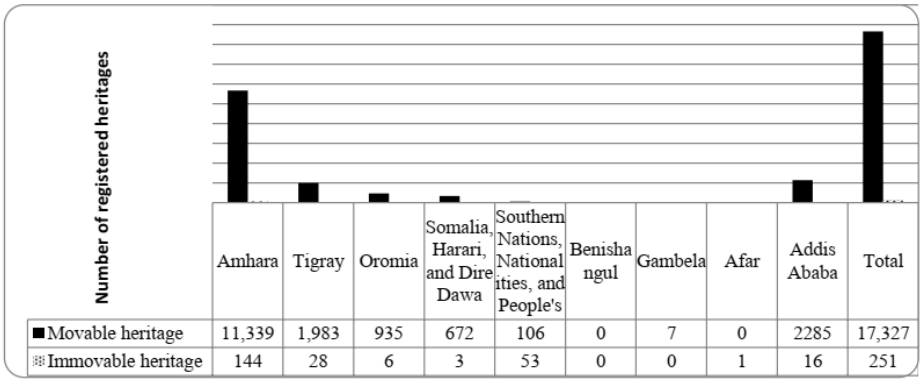


Fig. 3.4. Authority for research and conservation of cultural heritage, Ethiopia (Source: Author, 2018)

The new proclamation further classifies Cultural Heritages as movable and immovable. Temesgen (2013) had summed up the number of cultural heritages registered by ARCCH since 1978 and tabulated the data based on the new classification and following the new regional structure of the federation. The result of his summary is presented in Figure 3.1.



	Amhara	Tigray	Oromia	Somalia, Harari, and Dire Dawa	Southern Nations, Nationalities, and People's	Benishangul	Gambela	Afar	Addis Ababa	Total
Movable heritage	11,339	1,983	935	672	106	0	7	0	2285	17,327
Immovable heritage	144	28	6	3	53	0	0	1	16	251

Fig.3.5. Registered cultural heritage from 1978-2012 by region

Source: Temesgen (2013)

Hence, between 1978 and 2012, a total of 17,327 movable and 251 immovable cultural heritages were registered by ARCH. The number of registered heritages in Amhara, Addis Ababa, and Tigray areas outnumbers the other regions of Ethiopia. These areas are often referred to as highland Ethiopia, which has been dominant in Ethiopian history and most of the cultural heritages came from these areas (Finneran, 2012)[[181]. However, the small

number of registrations or zero registrations of other regions does not mean that they do not have any heritage of importance, but rather that those regions did not report their cultural heritage to ARCCH or the regional capacity is weak to handle such kind of tasks. Over time, the scope of both cultural heritage and conservation measures have expand in Ethiopia. Today, even though Ethiopia has a better conservation proclamation that mostly meets international standards, its effective implementation remains to be a challenging task somehow as a result of the issues stated in the following sections.

Scarce resources and biased policy directions

Currently, Ethiopia's most glaring problem in the cultural sector, including heritage conservation, is lack of resource. In 2012, the government allocated 0.019% of the national budget to ARCCH (23.1 million Birr, 1.3 million USD). Looking at breakdowns, roughly 40% of the ARCCH budget goes to support services, of which 28% goes to the salaries and per diems of around 300 employees (Figure 3.2). The rest is used as a recurrent budget for items such as office supplies, utilities, communication costs, and so on. Another large portion of its budget (34%) is a capital budget for building a laboratory for heritage conservation, which will be finished in several years. In other words, the resources available for heritage conservation tasks are only less than 30% of this small budget.

On the other hand, the current proclamation stated that any individual who possesses a cultural heritage should preserve and protect the cultural heritage at his own expense. In fact, the same proclamation declared that the necessary subsidies to heritage owners for conservation will be given, and this is stipulated under article 19, Sub article (2) as: "Where the expenses required for conservation and restoration are beyond the means of the owner, the government may grant the necessary assistance to cover part of such expenses." Once the privately owned cultural heritage is registered by ARCCH, the owner of the heritage will be entitled to receive this necessary grant from the government to cover conservation expenses. Seeing at the amount of the budget allocated for the sector, it is an imaginable for a private owner to receive any amount of support for the preservation of the heritage property at his custody. Not alone supporting private owners, the amount at the disposal of ARCCH is not enough to cover the cost of a single cost of one of the major properties that are facing aggressive deterioration. Budget allocation of ARCCH (as of 2011/2012)

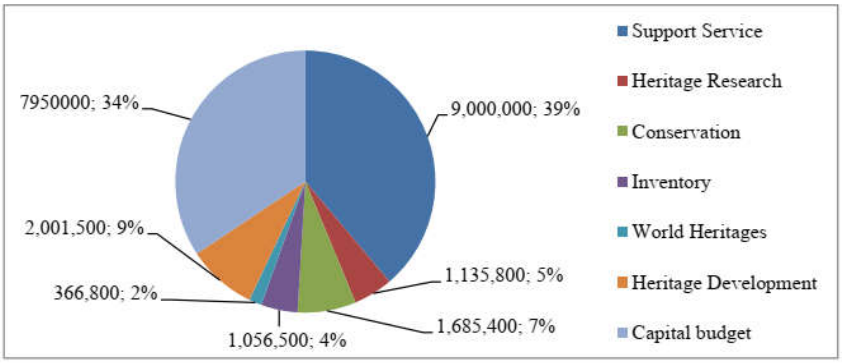


Fig.3.6. Budget allocation of ARCCH (as of 2011/2012)
Source: ARCCH (July, 2011 as cited by Assefa, 2013)

As it can be learned from the budget breakdown, cultural heritage development budget (9%) is used for improving the accessibility of the heritage sites, cleaning the environment surrounding heritage sites, setting up signage, and so on. The conservation budget (7%) is allocated for subsidies to heritage owners and inventory (4%) for registration. Two percent of ARCCH's budget was allocated to world-heritage sites. The too small budget led the government to depend on external funds for issues related to world heritage sites. Indeed, many world-heritage conservation projects are funded by UNESCO and other international organizations.

On the other hand, the government launched a five-year plan (2010/11–2014/15), called the Growth and Transformation Plan (hereinafter referred to as "GTP"), aiming at broad and sustainable development in the country. In this very important plan, such economic sectors as agriculture, industry, and infrastructure as well as education and health are all included with specific goals and benchmarks to be attained. On the other hand, as for heritage conservation, its importance is only vaguely referred to in the main text of the GTP, and no benchmarks are mentioned.

3.3.1 Issues - Fragile coordination among central and regional governments

Another glaring issue facing Ethiopia is weak cooperation between the federal and regional governments. Under the federal system, Ethiopia is divided into nine ethnic-based regions and two chartered cities. These regional governments are endowed with autonomy in many aspects in their territory by the constitution. However, the third proclamation stipulated that ARCCH has the authority with regard to cultural heritage issues. Thus, there is some confusion over the responsibility of regions for heritage conservation, registration in

particular. Without proper registration, private owners of heritage will not be able to receive any grants from ARCCH, which may cause a financial crunch for heritage conservation.

There seems to be a fragile cooperation between ARCCH as a federal government and regional governments in the sphere of cultural heritage management. The unbalanced number of ARCCH's registration of cultural heritage (as indicated in Figure 4.2) in Ethiopian regions can be the result of their fragile cooperation mainly with those regions with small cultural heritage registrations. This haphazard situation could be triggered by the feelings that the regional governments have claims to historic artifacts and places of their area. However, such kind of fragile coordination seems not to exist in the case of managing world heritage sites as the international conventions outweigh the domestic proclamations in this regard. However, the conservation of world heritage sites is also having its own challenges, mainly on the issues related to the local community opinion towards the interventions by the international authorities. The UNESCO's Architectural heritage conservation approach in light of the local knowledge and traditional conservation practices in the world heritage site of Lalibela is going to be presented in the following section, Section 4.2.

3.4 International Heritage Authorities on the conservation of the Built Cultural Heritages

Since 1931[182] different sets of principles and standards for the conservation and restoration of historical monuments has been drafted by different concerned international and regional bodies to create an internationally agreed principles guiding the preservation and restoration heritage buildings, while[183] each country being responsible for its implementation in accordance with its culture and tradition. This further strengthened with the UNESCO Convention of 1972 and the release of the operational guidelines for the implementation of the world Heritage Convention, in the first session of World Heritage Committee in 1977.

To this date and through the 1970s and early 1980s, the focus of heritage at the international platforms was mainly on the protection of architectural structures, monuments and archeological artifacts and ruins. In its approach, it was basically Eurocentric. However, the Nara conference on Authenticity, 1994, set a new milestone on the international platform on how a Cultural Diversity can impact the Heritage Diversity[184], and the set of conservation techniques and approaches. The impact of the Nara document on the international debate on

heritage conservation scope and approaches has got a new momentum with the declaration of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritages, 2003.

The history of the heritage movement at international level throws its shadow on the enlightenment movement in Europe. Up until the early twentieth century, Western Europe countries like France, England and German were actively engaged in the restoration movement at local bases and across the continent. In the first decade of the twentieth century, experts from different European countries gather in Madrid and discussed on the way to advance the movement and to formulate a common platform that enables them to work together. In the United States, the movements started on the same era with the main focus on the fine arts. However, the earliest organized attempt to apply a theoretical framework to the conservation of cultural heritage came with the founding of the Society for the Protection of Ancient Buildings in 1877 in the United Kingdome. The core founders of the society were William Morris and Philip Webb, both deeply influenced by the John Ruskin. Similar movements were developed in France and in Germany, the conservation of cultural heritage come out as a distinct field of study in a decade. Fridric Rathgen become the first chemist to be employed by a Museum as a conservation specialist and he come up with a publication of Handbook of Conservation in 1898 after 10 years of his employment at the museum.

In Japan, the first legal document was decreed in 1871, three years after the new Mejia government take the rule; the Decree for the Preservation of Ancient Artifacts. This decree was followed by a subsequent decrees, proclamations amendments and policies (The Japanese Cultural Properties Protection Movement is going to be discussed in Chapter 5)

As I tried to show earlier, since the eighteenth century, the existence of a common heritage belonging to the whole of mankind was assumed. This idea was used as a tool for international cooperation which should have discouraged armed conflicts between European countries. The first remarkable attempt for passing international regulation in heritage dates back to the First interwar period, when the League of Nations was created. However, no legal document was officially approved despite the rich intellectual debate that took place at the Athens Conference (1931). The importance of heritage conservation has increasingly been recognized ever since the Athens Conference of 1931, and heritage conservation systems, including legal frameworks have been developed in many countries.

After the Second World War, the creation of UNESCO (1945) inaugurated international cooperation in the field of heritage. A number of conventions, charters and recommendations were carried out by these international organizations (UNESCO, ICOMOS, IUCN and ICCROM). The World Heritage Convention (1972) established a list of universal heritage possessing "outstanding value". The relationship between the international community and nation-states in the ownership and management of heritage as well as the system of nominations and listing are discussed in this chapter.

3.5 International Heritage Authorities intervention on heritage conservation of the Ethiopian Built Cultural Heritages

The earliest known intervention by foreigners on the conservation and research of Ethiopian cultural heritages was the 1906 Deutsche Aksum Archaeological Expedition (DAE) led by Dr. Enno Littman. Later, during the second Ethio-Italia war and the five years of occupation, several archaeological investigations were conducted in Aksum and its environs. Regarding the rock-hewn churches, the major subjects of this study, the earliest known intervention by foreigners is the portico constructed in front of the rock-hewn church of Abreha we Atsibeha, by the Italian (1936-1941), the portico is covering the original and monolithic pronas.

In Lalibela, Empress Zewditu (1916-1930) commissioned a the first restoration treatment of the 20th century, in Biete Amanuel and the restoration professionals involved were a Greek architect and Indian conservators team. This intervention marked the first known intervention with the direct invitation of the Ethiopian government. It was followed by the interventions during the Italian occupation period (1936-1941). However, the most aggressive interventions by the Italians and the Swedish at the invitation of the imperial government were taking place from 1954 to1959.

The involvement of the International Institutions in the conservation and preservation efforts of the rock-hewn churches Lalibela started in 1966, with the inauguration of International Monuments fund (IMF) (later World Monuments Fund (WMF)) funded, IMF and UNESCO joint restoration project to safeguard the monolithic churches.

This timeline provides some key dates and periods in Lalibela history in the national context including international involvement.

Year	Interests and Inteventions in Lalibela
Pre 20th century	7th to 13th century- *Lalibela churches constructed*
	1137- the royal power passed to the Agaw family of Lasta called Zagwe dynasty
	1200s Lalibela first envoy contacts with Cairo
	1209 Lalibela first envoy contacts with Cairo (Doresse, 1956)
	1270 - the royal power passed to the Solomonic dynasty
	1457, Lalibela's name appeared in European Publication for the first time, in Fra Mauro's map
	1520s - Members of the Portuguese Embassy Visited Lalibela, Francisco Alvarez wrote about his visit
	Father Francisco Alvarez first publishes detailed descriptons of the Lalibela churches
	In 1533 Ahmed Gran reached Lalibela
	1880s Achille Raffray and Gabriel Simon studied the churches in Lalibela 26-29 September 1882 and made measured drawings. (A A Monti della Corte 1940)
1900-1930	1913 Deutsche Aksum-Expedition thoroughly analyzed Aksumite architecture also mention Lalibela, but they did not make a visit of their own to there.
	The young British female traveller Rosita Forbes Mc Rath arrived by caravan at Lalibela 8 March 1925
	The Norwegian Adventist missionaries G. Gudmudsen and P.M. Myhre visited Lalibela probably in the late 1920s.
	A restoration treatment of Biete Amanuel, which was conducted by a Greek architect and Indian conservators team (Sponsored by Empress Zewditu (1916–1930) commissioned)
1931-1941	Emperor Haile Selassie visits Lalibela April 11, 1936 during the Italian invasion after he lost the battle in Maiche and Grat Kahsu
	Italian Occupation (1935-1941)
	An Italian archaeological expedition to Lasta in April-May 1939 was led by Prof. A.A. Monti della Corte, with E. Zacchia for surveying and artist L. Bianchi Barriviera
1942-1960	In 1954-1955 restoration took place and bituminous layer was applied to the external surfaces of Medhane Alem and Amanuel; this layer was then covered over with a red ochre wash.

Year	Interests and Inteventions in Lalibela
1961-1965	Among bids for repair of churches in Lalibela opened at the Ministry of Public Works in June 1956,
	The contract was awarded to Sebastiano Console, an Italian Firm
	The Ethio-Swedish Institute of Building Technology, in 22 July-4 August 1956 laid provisional roofs of corrugated sheets on the churches of Medhane Alem and Amanuel
	Irmgard Bidder, wife of the West German ambassador in Addis Abeba, together with three other Germans visited Lalibela in the mid-1950s and she afterwards published a richly illustrated book (Bidder, Lalibela, 1958).
	28 Swedes resident in Ethiopia chartered a DC-3 and made a trip by air to Lalibela on 4-5 April 1959, the first air trip.
	Scheduled flights to Lalibela started in May 1959
	In 7th of January 1964, on the Ethiopian Christmas Day the Emperor and the Crown Prince attended the celebration.
	In the second half of 1965 Committee for the Restoration and Preservation of the Churches of Lalibela was formed, with Princess Ruth Desta as chairman and seven other important people as members. It was this committee which engaged Dr Sandro Angelini of the Archaeological Museum of Bergamo in Italy to make a first study visit 12-16 June 1966.
1966-1967	The first Ethiopian preservation and conservation law passed. The Antiquity proclamation. And the Antiquity Administration Established with the role of inspection, inventory and research of cultural heritage (Proclamation No: 229/1966
	Large restoration works were started, paid for by the International Fund for Monuments of New York and directed by the Italian architect Sandro Angelini. The restoration continued till 1970
	Over 10,000 cubic metres of rubble and earth from trenches etc were removed with a work force counting 400 men at its maximum.
	Emperor Haile Selassie escorted the (non-Christians) Mohamed Reza Pahlevi, Shah of Persia, and his consort Farah Diba on a visit to the churches of Lalibela.
1968 - 1970	In June-July 1968 Ethiopian television broadcasted two films made by a British TV team about Lalibela and restoration work there
	Queen Juliana and Prince Bernhard of the Netherlands, accompanied by Emperor Haile Selassie, visited Lalibela on 28 January 1969
	A map of Lalibela by Karl Åkerblom of the Building College was completed in the beginning of 1972.
1971-1991	Lalibela was included on Unesco's World Heritage List from 1978
	ICCROM, the International Centre for Conservation, Rome, organized an international symposium on stone conservation, held on 5-12 April 1978 in Lalibela.
	Graham Hancock, author of "The sign and the seal - The quest for the lost Ark of the Covenant" (1992), visited Lalibela in 1983.
	Dergue, proclaimed the Study and Protection of Antiquities Proclamation No. 36/1989, the second law regarding heritages
	1989 Temporarry shelter to bête Mariam constructed
	An international competition approved by UIA, International Union of Architects, was held and named "Shelters for five churches in Lalibela". First prize was won by Teprin Associati of Italy.
	The first culture policy of Ethiopian approved by the parliament

Year	Interests and Inteventions in Lalibela
1991-2000	The first culture policy of Ethiopia prepared in 1997
	Proclamatin for Research and Conservation of Cultural Heritages (RCCH 209/2000) proclaimed and it is the binding legal document regarding cultural heritages in Ethiopia
2007/2008	EU sponsored temporary shelter constructed for 4 rock-hewn churches by the Joint project of UNESCO and ARCCH
2013-2015	World Monument Fund Sponsored conservation pilot project conducted on the rock-hewn church of Bete Gabriel and Rafael

Source: Based on the available literatures, organized by the Author (2018)

The international heritage authorities, mainly UNESCO and the organizations like the World Heritage Center, the World Monuments Fund (WMF), EU and other governmental and inter governmental organizations were actively engaged in the conservation intervention of the rock hewn churches, especially UNESCO and WMF are actively supporting the conservation and restoration interventions even before the registration of the site as a world heritage. It was among the first 13 heritages to be registered as world heritages in 1978. The detailed discussion of the level of involvement of UNESCO in the rock-hewn churches of Lalibela presented in chapter 4, section 3.

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[178] The "Monk-head" is an ancient Aksumite construction technique of layering stone and wood at an interval of 50-60 centimeter height and with the jointing system termed "monk-head".

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CHAPTER FOUR: CHALLENGES OF ROCK-HEWN CONSERVATION IN TIGRAY, ETHIOPIA

4.1 Background on the tradition of rock-hewn churches architecture

Since the beginning of civilization the temples and shrines or other forms of religious buildings has been the architectural representations of the societies' conception of the divinity and it's believe about life and life after death. Several of the greatest achievements of all time, especially, these of the ancient world achievements of all times were accomplished through these, religious, buildings. Rock-hewn architecture is the creation of structures, buildings, and sculptures, by excavating solid rock where it naturally occurs. Rock-cut architecture is designed and made by man from the start to finish. The terms 'cave' and 'cavern' are often applied to this form of man-made architecture. However, caves and caverns, which began in natural form, are not considered to be 'rock-cut architecture' even if extensively modified[185]. Although rock-cut structures differ from traditionally built structures in many ways, many rock-cut structures are made to replicate the facade or interior of traditional architectural forms.

The main uses of rock-cut architecture from the ancient world up until the medieval period were temples (like those in India), tombs (like those in Petra, Jordan), cave dwellings (like those in Cappadocia, Turkey) and religious worship places (like those in Lalibela). The Lalibela rock-hewn churches are amongst the ultimate manifestations of the rock—hewn tradition globally for their size, the complexity and the craftsmanship displayed in the work.

UNESCO on the nomination document expressed Lalibela as: "The eleven rock-hewn churches in Lalibela and their surrounding is claimed to be of outstanding universal value… the work was a gigantic accomplishment in engineering and architecture." Scholars like David Phillipson (Phillipson, 2010)[186] argued that some of the churches may not firstly construct for religious purposes, but for the purpose of defense in the case of Bete Gebreal, as royal housing or residence of the justice, Bete Merkorious[187].

In Lalibela, are two kind of roc-hewn churches, some are excavated entirely in chambers under the surface or hewed into the side of a cliff or steep slope, like most of the rock-hewn churches in Tigray churches in Tigray, Bete Abba Libanos in Lalibela and Lycian tombs, Petra, Ajanta and elsewhere. The second type is the most laborious and impressive rock-cut architecture, free-standing monolithic structures entirely below the surface of the surrounding rock. Four of the eleven churches in Lalibela and the Temple Ellora in India provides the most spectacular and famous examples of such rock-hewn structures.

There are plenty of studies on this particular kind of structure, mostly from Turkey, Syria and India. Most of these studies doesn't seem to have a series problem on the chronology even don't seem wary about it and didn't consider time as a key element to understand the refinement sequence these religious building has experienced. The Ethiopian tradition of rock-hen churches started to get a light of research very recent compared to the same structures elsewhere in the Mediterranean world, in India and in the Far East. In Ethiopia, the chronological development of the church architecture is considered as the appropriate way to grasp how the church architecture evolved and refined. Though this is more likely to be based on genre, it provides relevant information about the evolution of the church architecture in the northern highlands and is going to be the framework to address the relationship between the church, the state and the local community.

As an enquiry which makes possible to observe how the refinement of the church architecture is directly related to the way it is occupied, the status of the church and the socio-economic condition of the period of its construction. As the size and complexity of the church is the higher, the possibility of the church construction history is associated to the names of the great kings of Aksum, Lalibela or the Medieval Kings or kings of the late 19th and early 20th century if not to the lords of the Era of Princes. The greater the church is the higher the acquired degree of complexity, implicating that the churches' character is expressed through the structure of the community.

How Christianity entered to Ethiopia? How it has spread? What was the role of the religion in the Ethiopian socio-political, economic and socio-cultural life has been discussed in the previous part while in this part, how the church architecture has been evolved and it reached its heights is discussed in the following section.

4.1.1 The tradition of rock-hewn churches in Ethiopia

As it is stated in the introduction, there are a number of monolithic religious structures, for that matter churches, elsewhere in the world. Ethiopia is one of the few countries where rock-hewn churches exist in abundance, about a dozen of these churches are well known; mainly the rock-hewn churches of Lalibela. The Lalibele monolithic churched are unique from other rock-hewn churches in Ethiopia for their free-standing four external walls.

Hundreds of rock hewn churches are found in the northern highlands of the country. These are the mysterious rock-hewn churches of Tigray; churches which were known only to the locals and few curious travelers prior to the mid 1960s. The Catholic priest *Abba Tewelde Medhin Josief* presented a paper to the Third International Conference of Ethiopian Studies in which he announced the existence of over 120 churches, 90 of which were still in use (Assfawosen, 2002). Apart from the list of 136 rock-hewn churches by *Aba Teweldemedhin*, the research over the next few years the total number of number the rock hewn churches in the country is raised 153[188]. According to the oral tradition, *Abreha we Astebeha* is believed to have been hewed late in the first half of the fourth century, as the pioneer to the rock hewn churches tradition. However, recent study confirmed that, it is not.

The tradition of hewing churches from solid rocks and building churches in caves in Ethiopia has long history. The first churches of this type probably emerged in *Tigray*, which later made its way to other parts of the country. But it is important to note the tradition of hewing and building churches in rocks is not a phenomenon completed its development in a given geographical area. For instance the dates for the rock churches of *Tigray* range roughly from the 4th to the 15th centuries.[189] Thus, the elements in the churches could be indicative of varied styles developed over extended time. Rock hewn churches like *Abreha we Atsbeha* and *Wukro Kirkos* most likely represent the first group (the earliest churches) of rock churches. These two churches are believed to be hewn during the first Christian kings; *Ezana* and *Sizana (Abreha* and *Atsbaha* respectively)[190].

The first church in Ethiopia was probably built up church, which possibly incorporated elements of both local and outside influences. The original church of *Tsion Mariam* (destroyed in around 9th, then in 16th century for the second time) at *Axum* is believed to be built around the first half of the fourth century, soon after the introduction of Christianity to Ethiopia[191]. A reconstruction of the earlier church of *Axum Tsion* is an attempt to give insight into the style of the earlier church and it is based upon an eye witness account by Alvares, who describes a five-aisled basilica, and also with reference to the giant rock hewn church of *Medihanealem* at *Lalibela.*[192].

According to *Sergew (1972)* and *Taddese (1972)* the coming of the nine saints marked a turning point in Ethiopian church history. Churches began to be built in mountains and hills in distant places. This had strong connection with introduction of monasticism. The monastic traditions introduced to Ethiopia in the early days of Christianity were another turning point in the tradition of building churches. The nine saints established their places of worship in the mountains of Tigray starting from the early sixth century[193]. The influence of these establishments on the styles of built up and rock hewn churches of the later periods are immense. Monasticism has played a significant role in site selection as well. Most of the rock churches in *Ethiopia* are largely distributed to mountains landscapes of the north and located at the most difficult places to be accessed.

Political factors might have also played significant role in selection of places for establishment of churches. The gradual decline of *Axum* as a Christian state in the 9th century is partly attributed to destruction of *Aximite* posts in the red sea by the Muslims and the Beja rebellion, in the second half of the eight century[194]. During these obscure centuries some of *Aksumite* people driven into the hills of *Tigray* by the Beja invasion extended their civilizing activities to the wild regions south of the capital[195]. It seems in accessible mountains which can serve as hiding places during this period of uncertainty were preferable.

The influences on the rock churches on Ethiopia are attributed to both local and outside elements. There is a general agreement on strong influence of *Aksumite* architectural styles of different structures, built for wide ranging purposes, on the architectural styles of later periods[196]. Excavated *sites* of *Enda Mikael, Ta`akha Maryam* and *Enda Sem`on* provided wealth of information on the *architectural* styles. Number of features from of these structures continued to be used in the later periods both in built up and rock churches[197].

The methods endured in the early and medieval rock churches with fascinating harmony in styles different from the known Pre-Christian Axum. In fact the elements in built up structures of this period began to be copied in rock structures long before they appeared in rock churches. Many of architectural features represented in stone on the storied stele were generally of wood. This include wooden door and window frames, beams, more defining protruding feature known as "Monkey Head"[198]. These elements continued to be copied from *Aksumite* pre-Christian structures into Christian churches of the earlier period with lasting influence on church architecture[199]. The famous monastery church of *Debre Damo* reflects the way different elements of the earliest structures used. "Monkey head", a protruding timber pieces inserted into walls and door and window frames are widely applied in this church[200]. Timber beams are another integral element in built up structures. They are used as a strengthening element within walls[201]. In some cases of built up churches of later period round monkey heads are missing. For instance the church of *Yimrehane Kiristos* has no monkey heads on the walls. Monkey heads are applied only on door and window frames of this church. The same fashion is followed in most of rock hewn churches in the country.

According to Buxton (1971) the local methods of construction, which belongs to the pre-Christian tradition, are integrated with methods of church construction brought to the country from outside along with Christianity. He attests the presence of features clearly indicating outside influences. Such influences could possibly be from regions Ethiopia had close ties in Christian times. He further states; the styles in rock and built up churches trace their origin back to Syria on one hand and Egypt and Nubia on the other hand. But possible influence of Nubia and Egypt needs carefully investigation. Excavations at *Adulis* and *HawltiMelazo* have brought to light the ruins of basilicas of Syrian type. This may be due to the influence of the nine Saints, since the majority of them are believed to have been of Syrian origin[2002].

Most of the churches in Ethiopia have either round or rectangular shape. But round churches are believed to be later than rectangular ones. Round churches are common in the southern part of the country while rectangular churches are characterizing church in northern part of the country[203]. Influences from the basilica of Byzantine world, the rectangular shapes of the *tradition* and possible influence from Hebrew temples are presented as possible models for rectangular structure of earliest churches in Ethiopia[204]. Rectangular churches are still evident in many parts of *Tigray*[205].

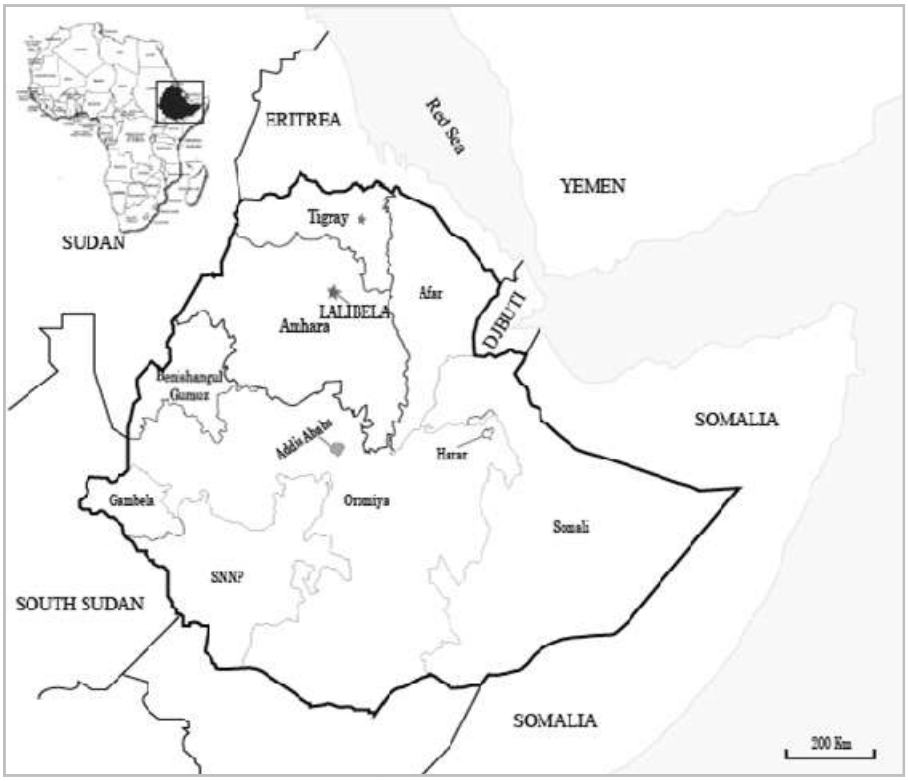


Fig.4.1. The map of Ethiopia, Re-produced by the author based on CSA data

Ethiopian Orthodox *Tewahido* Church building is expected to be divided into three areas.

- *Kene Mahlet* is the place where hymns are sung.
- The next chamber is the *Kiddist* or "*anda taamar* ("place of miracles") which is generally reserved for the priests but to which laymen have access for the administration of communion.
- The inner most part is the *makdes* or *kedduse keddusan* where the *tabot* (Ark) rests and to which only senior priests and the king are admitted.

4.1.2 The Rock-Hewn churches of Lalibela

The roofs of the *Lalibela* churches are level with the ground and are reached by stairs descending into narrow trenches. The churches are connected by tunnels and walkways and stretch across steep drops. The interior pillars of the churches have been worn smooth by the hands of praying worshippers. The rock-cut churches are simply but beautifully carved with moldings of various shapes and sizes, different forms of crosses, swastikas and Gothic Style windows. Several churches also have wall paintings.

The churches are located in the centre of the town surrounded by the houses of villagers. It is also quite clear that the churches have been the bases for the beginning of settlement pattern

and development of the town. Historical and traditional sources show that the construction of the churches preceded the establishment of the town. The well known rock-hewn churches of *Lalibela* are eleven in number; but there are two monolithic sanctuaries that have been recently found[206], which are *Bete Hawariat* and *Bete Estifanos*, this makes the total number of churches are twelve.

According to their location, they are divided into three groups, separated by the seasonal river Jordan. The first group comprises seven churches located north of the Jordan River, while the second group comprises four churches situated south of the Jordan River. *Bete Ghiorgis* is located in isolation on a sloping rock terrace southwest of both the first and the second group of churches. (See fig 4.2)

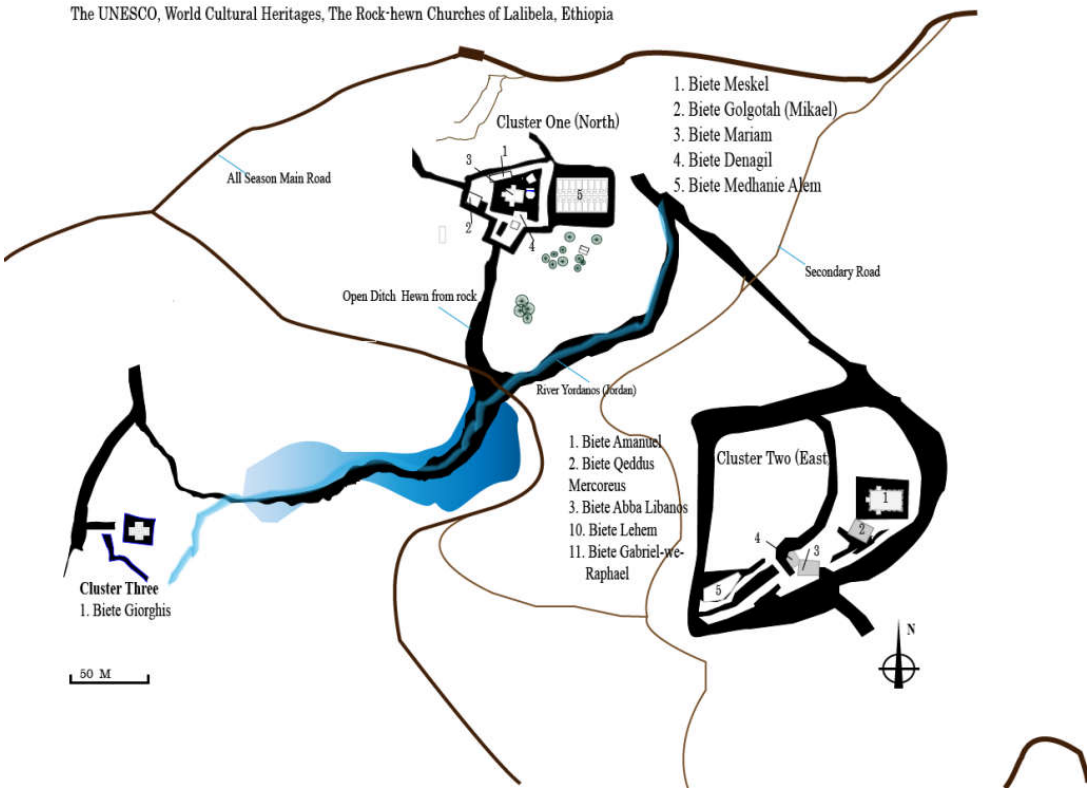


Fig.4.2. The churches of Lalibela in three groups

Table 4.1 *The Three Groups of Lalibela Churches*				
Item	First Group	Second Group	Third Group	Remark
1	Bete Medhanealem	Bete Gabriel we Rufael	Bete Giorgis	
2	Bete Mariam	Bete Merkorios		
3	Bete Meskel	Bete Amanuel		
4	Bete Denagli	Bete AbaLibanos		
5	Bete Debre Sina and Golgotha			

The churches in the "First Groups" are believed to have been the first to be constructed. The first group consists of Bete Medhanealem in the east, the Bete Mariam sub-group (including Bete Denagil and Bete Meskel) in the centre and Bete Debre Sinai-Golgotha. Trenches and tunnels connect the churches to one another. This group of churches symbolizes the earthly Jerusalem. From this group of churches, Bete Mariam and Bete Medhanealem are strictly monolithic, while the others are semi-monolithic with four walls entirely detached from the rock mass. From the whole complex, Bete Medhanealem, Bete Mariam and Bete Golgotha are well known and distinguished mainly by their own unique features. Bete Medhane Alem stands out due to its huge size and the large number of pillars (both inside and outside), Bete Mariam due to its exterior porches and mural paintings (decoration), and Bete Golgotha due to its bas-relief figures, several altars, and the presence of the tomb of king Lalibela. And, Bete Denagil is the least impressive, lacking basically and kind of decoration and Bete Meskel is the smallest. The Bete Hawariyat is known by its golden colour roof and ways to endless cave and the remains of holy people.

The second group is situated south of the Jordan River and separated from a rock plateau in the north, east and south by a broad artificial outer trench, which is about 11 meters deep. A cone-shaped hill, locally called *Betelehem*, occupies the centre of this group, surrounded by a partially exposed trench. The oldest *Axumite* architecture style is more reflected in the second group of churches than in the first complex. For example, *Bete Amanuel* with its projecting and recessed walls is typically *Axumite* in style. The monumental facades of *Bete Gabriel* and *Bete Aba Libanos* have also some features identical to the *Axumite* style of architecture. From this group, only *Bete Amanuel* is purely monolithic. From this group the original entrance of *Bete Gabriel* is still hidden and unknown; presently the access to the church is provided by a

long bridge crossing the main trench. And also, there are well unknown structures below the churches which are very shallow.

In the third group, there is only one monolithic and isolated church, *Bete Ghiorgis*. It is distinctively cross shaped and traditionally considered as the last work of *Lalibela*. It is situated afar from the other two groups of churches and accessed by a cave way. The building is inside the courtyard which is perforated by caves holding remains of holy peoples. Its walls, going up, slightly narrow, but horizontal bands of different width make an optical illusion so that it appears perfectly symmetric and monumental. It is decorated by two rows of windows. The nine windows in the bottom row are blind and imitate the *Axumite* "monkey-head" framework. The twelve windows in the upper row have ogival arches and bracket capitals. It has three doors in the west, north and south. The main entrance in the west is approached by seven wide steps (representing the seven heavens). The main doorway has a shallow porch ornamented by simple moldings. Its roof top is concentrically cross shaped and stepped down to drain the roof top through stone spout centered at each arms of the cross.

It is an isolated monolithic church situated a few minutes‟ walk to the southwest of both the first and second groups of *Lalibela* churches. Access to the church is possible through trenches with gateways and tunnels. It is excavated as a beautiful monolithic church at the centre of a rectangular courtyard. In the wall of the courtyard, there are burial niches, small round caves, and chambers. In the floor of the courtyard, there is a cistern or baptismal pond. The cruciform shape from top to bottom has the form of piece liturgical furniture, the *Menber* (the resting place for the *taboo*). The church is standing on a sort of three-stepped base. A relief of three similar Greek crosses inside each other decorates its roof. On the north, south and west sides, there are gutters and spouts that drain water from the roof.

The interior space is a simple cruciform area without freestanding pillars. Its floor plan is a cruciform with nearly equal arms. The dome, the arches and the four high reliefs pillars and very harmoniously planned and carved. There is no genuinely free standing pillar; instead, the arches are supported by four three sided pillars (pilasters) with corbels. The most interesting feature here is that the thickness of the wall increases step by step downwards. The architecture is also sophisticated in that the horizontal bands of mouldings of the exterior walls correspond to similar bands in the interior. Generally, the stepped platform, the projecting corner beams in doors and windows of the bottom row, and the tower-like characters indicate the influence of *Axumite* architecture on it. The designation of the church

is dedicated to the martyr St. George. Its cruciform plan, proper orientation, harmonized proportion and decorations are features that distinguish it from the other churches. These outstanding and precise architectural elements represent the apex of rock-hewn church tradition in medieval Ethiopia

4.1.3 The rock-hewn churches in Tigray

The rock-hewn churches in Tigray were first exposed to the outside world in the mid 1960s after an Ethiopian Catholic missionary; Abba Tewoldemedhin Yosef (P.hD.) conducted a survey of rock-hewn church (Assfawossen 2002)[207]. He prepared list of the churches with abstract descriptions of each. He identified 126 rock-hewn churches in the Tigray region. According to his report, 94 churches were still in use of church during his survey, 6 were monasteries, while the remaining 26 were abandoned. More than 100 of these churches found in eastern and central Tigray within a radius of 50 KM. the major districts where these rock-hewn churches found are, Ghera'alt, Hawzen, Wukro, Tsaeda Imba and Atsbi in Eastern and the district of Temben in central zone of Tigray. In the second half of the 1960s a team of French scholars from the Ethiopian Institute of Archeology (EIA) conducted survey of these rock-hewn churches. The result of the survey was published in a form of a book after four decades in 2005, (Lepage and Mercier, 2005)[208].

The local tradition claims the earliest churches were hewed in the first half of 4th C.AD and the latest in 13th and 14th C.AD. Scholars who studied the churches recently didn't agree with the dates presented by the local tradition (Phillipson, 2010). But, they agreed on most of the Tigray rock-hewn churched to be hewed prior to the churches in Lalibela. Phillipson (2010)[209] has proposed a construction period of 7th to 9th C.AD for the rock-hewn churches found on the Hawzen plains; 9th to 11th C.AD for Tigray cross-in-square churches and 12th to 14th for the churches found in the Ghera'alta Mountains.

Most of the churches in Tigray are hewn into facades of a cliffs and in to the pre-existing caves, few churches are semi monolithic with a 'cross – in – square' layout and the interiors of most the churches resembles a basilica church layout. Detailed sketches and photographs of the churches and their interior decorations are given in Lepage and Mercier (2005)[210], though not precise, plans and dimensions of some the churches are also provided by Plant (1985)[211] and dimensions of six churches are provided by Asfawossen (2002)[212]. Whereas, the challenges of the rock hewn churches from the perspective of architectural conservation

interventions and traditional conservation techniques preservation is not addressed by these previous studies though the scale of the deteriorations and conservation challenges these churches are facing is huge.

The Tigray rock-hewn churches broadly can be classified in to three groups. The first belongs to the cave like churches, churches entirely hewed in to the body of the rock mountain with one façade is exposed. The second group is of those with cruciform layout; commonly referred as the 'cross-in-square' rock-hewn churches of Tigray. Three churches which belong to this group are found in eastern Tigray. These are partly freestanding, and the front part is detached from the main body of the rock while the rare part remains attached to the living rock. The third group includes those churches partly hewed and partly built. According to the survey on the geology of the rock-hewn churches of Tigray, the churches are predominantly hewed in to two types of rocks: Entich Sandsctone (Permo-Charboniferous) and Adigrat Sandstone (Triassic-Middle Jurassic) as for Asfawossen (2002). The churches found in the Ghera'alta and Hawzen cluster are curved out of Entich Sandstone. The church found in the area of Wukro and the other churches found south of Gheralta and in the Atsbi cluster are predominantly curved in to Adigrat Sandstone (Ibid).

These churches were first exposed to the outside world in the mid 1960s. Abba Tewolde Medhin conducted a survey of rock-hewn church of Tigray (Assfawossen, 2002) and prepared his list of the churches with abstract descriptions of each. According to Pankhurst, R. (1985)[213], Abba Tewelde Medhin had presented his work to the Third International Conference of Ethiopian Studies, in 1969, in Addis Ababa. After a year, in 1970, a British architect Ruth Plant published the first architectural drawings of some of the churches on Ethiopian Observer (Ibid). Latter, she, (Plant, 1985), published a book in the architecture of Tigrai.

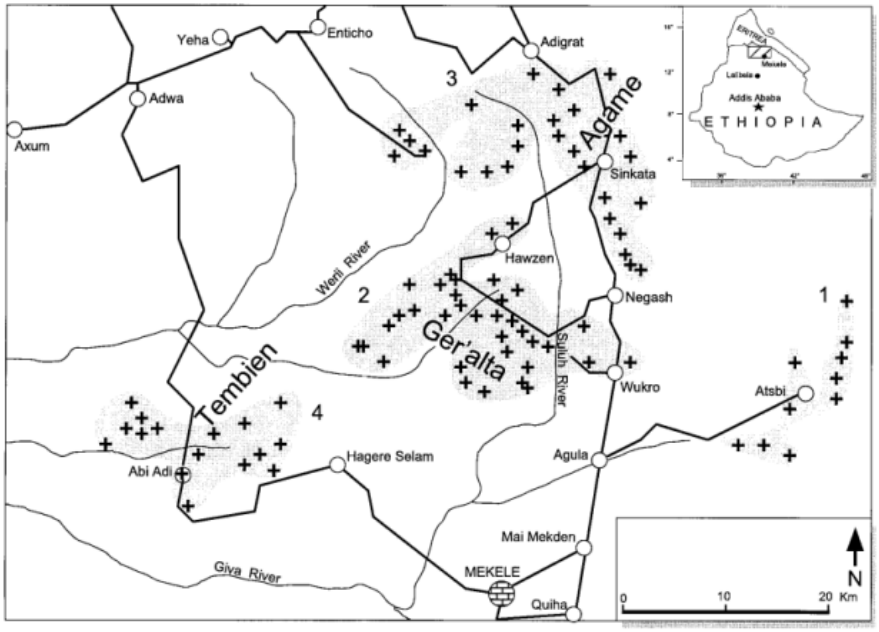


Fig.4.2. Distribution of the rock-hewn churches of Tigray, After Assfaw 2002,

Phillipson, (2010) wrote a book entitled "the ancient churches of Ethiopia"[214] where the churches of Tigray discussed from oral tradition, history and archaeology perspective while the architecture history is also discussed fairly. On the other hand, the most recent book by Fitzgerald, M.A., Marsden, P (2017); main focus is on the living tradition of the churches[215], the religious ceremonies, and geographic location of the sites and the aesthetics of the landscape upon which the churches located. Graduate students of Shibaura Institute of Technology and Keio University, were also preparing measured drawings of some of the major churches in the last two decades. However, the challenges of the rock hewn churches from the perspective of architectural heritage conservation interventions and traditional conservation techniques is not yet addressed as expected comparing to the amount of challenge these churches are facing.

These rock-hewn churches are facing sever conservation challenges, due to age, environmental burden, poor management and poorly comprehended "conservation" interventions. The regression level of some of the churches is posing a question of survival. The resource scarcity, lack of well established and properly equipped institution on one hand; the shortage of adequately trained man power on the other are aggravating the challenges. The issue related to the conservation challenge is going to be presented in the following chapters.

The studies conducted in the late in the 1960s and early 1970s, by the pioneer of Aba Teweldemedhin, the team of the French scholars from the Ethiopian Institute of Archeology (EIA) that follows his foot print, and other subsequent survey conducted on the rock-hewn churches of Tigray have produced a site map for nearly 100 rock-hewn churches (See Fig. 4.2). As clearly illustrated in the map, the rock-hewn churches are found in four main clusters. Three of the four clusters are found in the Eastern Zone of Tigray.

The rock-hewn churches of Eastern Tigray

Ethiopia's main concentration of rock-hewn churches is found in the northeastern part of Tigrai Region. Many of these edifices are timeworn, whose compact interiors often decorated with ancient ecclesiastic art. The Tigray's rock-cut churches mostly predate those in Lalibela. Oral tradition dates the oldest excavations to the fourth century, while academic opinion inclines more towards the tenth. Except for some churches, the vast majority of these churches remained unknown until the 1960s. Since, the intention of this study is not history, I am not going to discuss about all the churches, thus due to the huge amount of the churches, six churches that has been selected for their characteristic to best represent the rock hewn churches of Tigray are going to be introduced hence after. These churches are selected based on their variation of accessibility, their time of construction, the level of deterioration undergoing and the level of intervention by different stakeholders. The Tigray's churches are located more scattered in comparison to their counterparts in Lalibela. Most of the churches are located near the top of the sandstone cliffs and outcrops that characterize the region, making them very scenic but also hard to reach.

Hence, three churches from the Wukro cluster: Abreha we Atsibeha, Wukro Cherkos, and Adi Kesho. Two from the Gheralta cluster: Debre Tsion and Mariam Korkor; and one from two Atsbi cluster: Debre Selam and Mikael Imba will be briefly introduced as follows.

Abreha we Atsibeha,

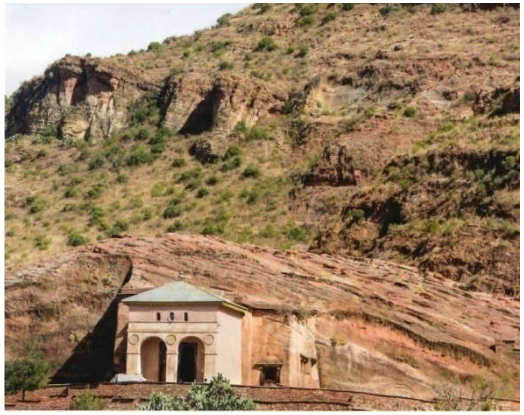
It is widely regarded as one of the finest rock-hewn churches in Tigrai, is one of the most accessible rock hewn churches of Tigray. It is also the most important of the cross-in-square' churches, the other being Mikael Imba and Wuro Cherkos. The church is situated in a hill side that overlooks the Hawzien plains, practically alongside the road to the Gheralta escarpment only 17km northwest of Wukro, in a village called with the same name. It is free standing except for the eastern end, which is embodied in the rock. This is the part of the

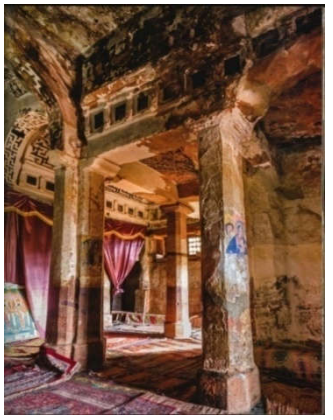
church that contains not only the sanctuary but chambers that are important for their reliquary or funerary functions. It is also one among the spacious churches in the area. It has a nave emphasized by barrel dome and four aisles.

Unlike to the claims of the scholars who conducted a study on the churches history the dating for the origin of the church in the oral tradition is in the first half of the fourth century. It is claimed to be constructed by the first Christian kings Ezana and Saizana (Aka. Abreha Atsibeha). The tradition on the church narrated that; the church was founded by Aba Frumentius (with his Christian name Aba Kesatie berhan Salama), the first archbishop of the Ethiopian Orthodox Church, a regent to King Ezana of Aksum.

Frumentius was responsible for the fouth century conversion to Christianity to King Ezana and his twin brother King Saizana. The two brothers became known as Abreha and Atsibeha after the adoption of the Christian faith. Their remains are believed to be in wooden coffin in the chamber to the right of the sanctuary on the south side. The celebration of these saintly kings, the festival of Abreha and Atsibeha is second in importance in Tigray only the festival of St Mary celebrated at St Mary Tsion in Aksum is superior. The church is richly decorated with frescos painted directly onto the walls and has a cupola carved with palm leaves and tracery of a style used in the tenth to twelfth century Egypt, Syria, and Mesopotamia. The two vaulted ceilings above the transept have been chiseled out in geometric pattern that are highlighted with stucco. This sophisticated technique made its first appearance in the city Samara in Mesopotamia.

According to the Portuguese priest Francisco Alvarez, the ceiling was partly covered in gold. Alwareze's witness goes well eith the oral tradition. This was destroyed when the church was sacked by the Muslim invasion led by Ahmad Gragn [Ahmed the left handed]. The best paintings are to be found in the narthex. These were painted by the female artist Woizerit Genuber at the end of the nineteenth century, probably in the 1870s.in its entirety, perhaps, this church is the most sophisticated of all the rock-hewn churches in the region, with an elaborately carved roof supported by monolithic pillars and decorated arches. The church is said to have been hewed by Ezana and Atsbeha [Abreha we Atsibeha] in the mid 4th century.



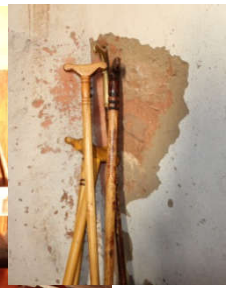



Observation in 2011, 2016 and 2017 Abreha we Atsibeha

In the last 8 years, I have been to the church three times with the purpose of research and many other times for pilgrimage. Hence, the following points are noticed as major conservation problems of conservation:-

- Water leakage – the damage from water leakage is intensified from time to time. The major water ways for the leakage are fault lines and the joint points of the portico and the monolithic pronas. The water entering from the windows is also other problem.
- Moulds are flourishing on the ceiling and the upper part of the walls. According to the clergy, the problem is severing in the sanctuaries.
- Paintings are deteriorating due to two major reasons: 1st washed away by the water, this problem is more sever in the northern wall of the portico. 2ndsource of deterioration for the paintings is friction. Furniture and ecclesiastical equipments placed against the wall are damaging the paintings and the wall.
- A modern museum built next to the main church is creating visual closure from the north point view and its size out of proportion taking the place it is located in into consideration.





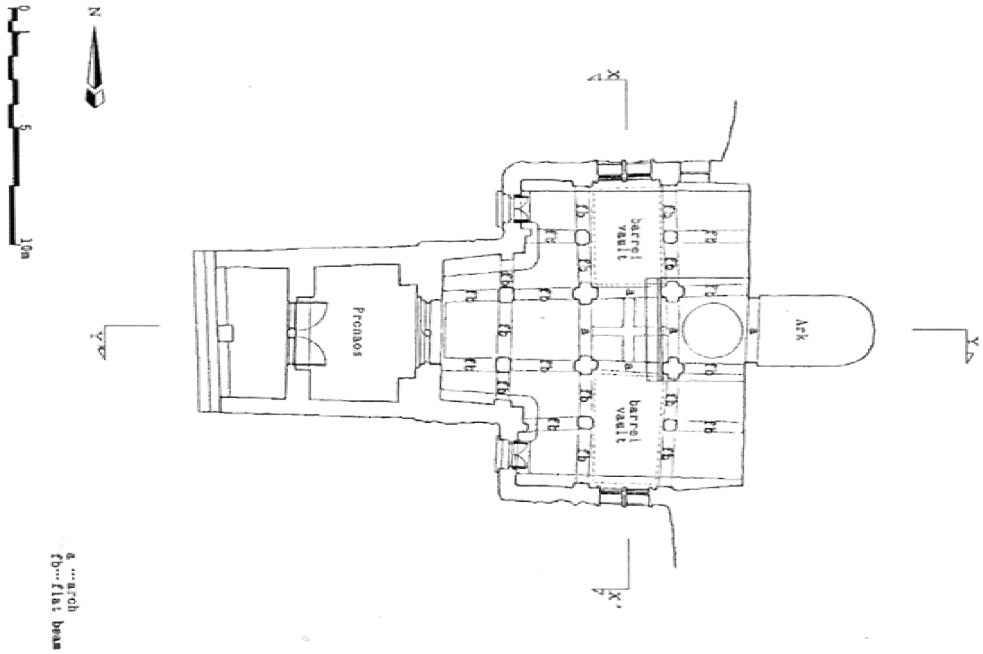




4.3 Ceiling of Abreha we Atsibeha Church



4.4. Abreha we Atsibeha Church, panoramic view



4.5. Abreha we Atsibeha Church, Plan, (Source: Phillipson, 2010, after Mercier, 2005)

Wukro Chirkos

The local tradition suggested the same period of construction for Wukro Chirkoswith Abreha we Atsibeha. The church is most easily accessible of the churches in the region. It is s located on the eastern outskirts of Wukro town, a town on the main road that connects Mekelle and Adigrat. Recent studies however suggested a period between eleventh and twelfth century. Although it is less precisely executed, it is a 'cross-in-square' church like the other two. Even though it is narrower, its height and solid pillars manage to convey some of the grandeur of the basilica. It is free standing except for the eastern end, which embodied in the rock. This is the part of the church that contains both the sanctuary and the chambers. It is located on the ancient route taken by the salt caravans. According to the tradition, the caravan stopped here to resupply with water and food for the men and the animals. They also paid a toll to the church for providing security. For many years, this was the only rock-hewn church in Tigray known to the outside world. Lord Napier in his exeditio to Mekdela, visited the church. The soldiers bivouacked long enough in the vicinity to allow the expedition artists to make detailed engravings of the churches interior. The church is dedicated to St Cyricos and has two side altars with the copy of the ark [tabot] dedicated to Archangel Mikael and Genbrial. On either side of the entrance are the same large protective crosses as in Abreha we Atsibeha

to keep evil at bay. The interior has a barrel-vaulted ceiling and domed sanctuary on a raised platform. The problem in Wukro chekos is discussed in detail in the case study following this section.



Fig. 4.6. Wukro Cherkos Church, Ceiling view

Abuna Abraham Debre Tsion

It is located in the Gheralt sandstobne cliff. Some thirty rock-hewn churches are located in the chain of the mountain. The tall sandstone cliffs of Gheralta rise to 2580m above the rocky plains northwest of Wukro and south of Hawzien. The jewel of Gheralta is Abuna Yemata Guh, a small but exquisitely painted church carved into a lofty perpendicular sandstone pinnacle at the west end of the escarpment. Other important edifices include Abuna Abraham Debre Tsion, a large monastic church reputedly founded in the fourteenth century. Yohannis

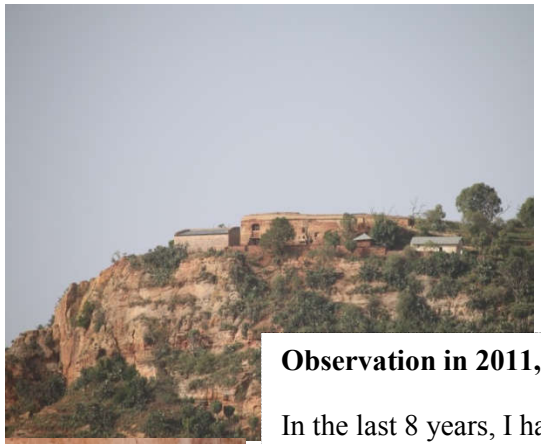
Maikudi**,** Debre Maryam Korkor and Daniel Korkor are other most important churches the area, both of which are decorated with distinctive murals.

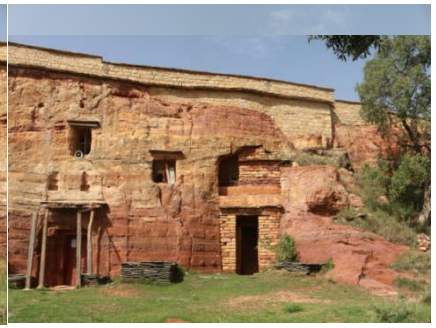
Debre Ttsion is founded by Abuna Abreham (. 1350-1425), an Ethiopian sait eventually reached to the shores of Lake Tana. He was responsible for creation of several churches in Estern Tigray including Medhane Alem Adi Kesho, Mikael Barka, and Maryam Hibito. Like Abba Libanos at Lalibela, the church's east-west axis is parallel to the cliff face, with an excavated processional ambulatory, at the east end of which is his prayer room.



4.7. Plan,Abune Abreham Debra Tsion, (Source, Mercier, 2005)

Despite its non descriptive façade, Debre Tsion is the most thoroughly decorated of the rock churches in Tigray. The ceiling, walls, columns, arches and domes are all covered with fifteenth century paintings that, for the most part, have survived reasonably well. The frescoes include some of the earliest representation of Ethiopian Saints. Three-tiered arcades of recessed niches featuring saints, martyrs, and bishops are on all the walls except for the sanctuary wall. Most of the figures in this portrait gallery are looking towards the fresco of Christ in Majesty above the altar. The geometric design used to frame these portraits, as well as the designs on the capitals of the pillars, the panels in the Aksumite freezes, and on the vaulted sections of the ceiling, mimic the pattern found in the elaborated frames of manuscript canon tables. Thus, while the design had been in use for centuries, its use in church murals was not new innovation but a manifestation if the cultural continuity.

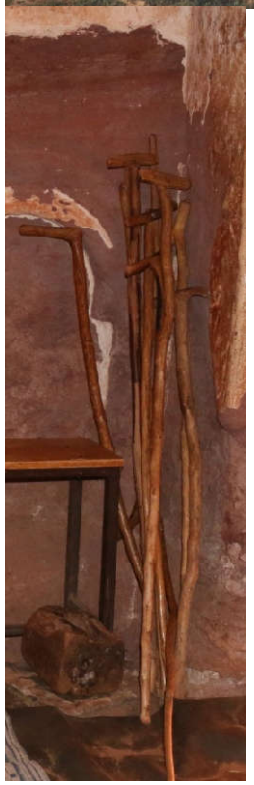


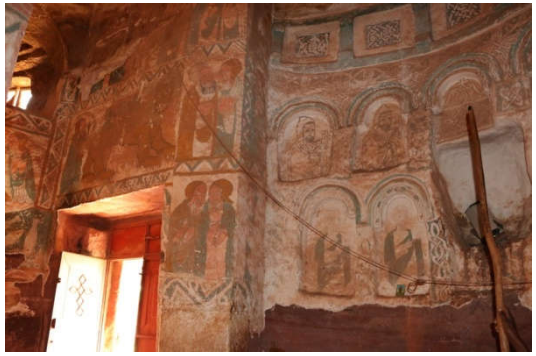



Observation in 2011, 2016 and 2017: Debre Tsion Abuna Abreham

In the last 8 years, I have been to the church three times with the purpose of research. Hence, the following points are noticed as major conservation problems of conservation:-

- Water leakage – Like the majority of the rock-hewn churches in the area, water leakage is a potential source of to this church too. However, since this church is more popular for its entirely painted interior, and as a home to some of the oldest painting in the country, the water induced damage is more destructive here.
- In 2009 a new layer of flag stone was placed on the roof to protect water leakage but it was proven a failed attempt within two rain seasons. By 2011, the flagstone was already removed and replaced by a plastic cover as a temporary shelter. This served first three to four years, but by 2016 water was already leaking and continued to damage the church.
- Paintings, wall surface and pillars are deteriorating due to inappropriate placement of furniture and ecclesiastical equipment.
- Animals waking into the roof of the church are also creating unnecessary load and contributing to the damages.






Mariam Korkor

This church if one of the great churches in the Gheralta Mountains. It is located top of a mountain cliff yet to other smaller mountain on top. The ascent takes one hour or more starting with s steep climb up. It is said that Abba Daniel, a priest and aristocrat living in the second half of the thirteenth century, established a church and monastery here on the Korkor peak of the Gheralta range. With five bays, it is tha largest of the churches in the Gheralta. The riot of murals covering almost every surface is wonderful. Some of the scenes are huge, measuring five by four meters, but most are badly damaged by water seeping through the roof. They are true frescoes painted onto a thin layer of gesso. The strong Byzantine influence results from Ethiopian ties with Constantinople. An inscription confirmed that the frescoes were executed at the times of the church's excavation. This makes them the oldest fresco in Tigray. The sanctuary has four tabots dedicated to St Mary, Abba Daniel, St George, and the Trinity. According to the priests, there is also an altar of white marble that dated back to the pre-Christian times.

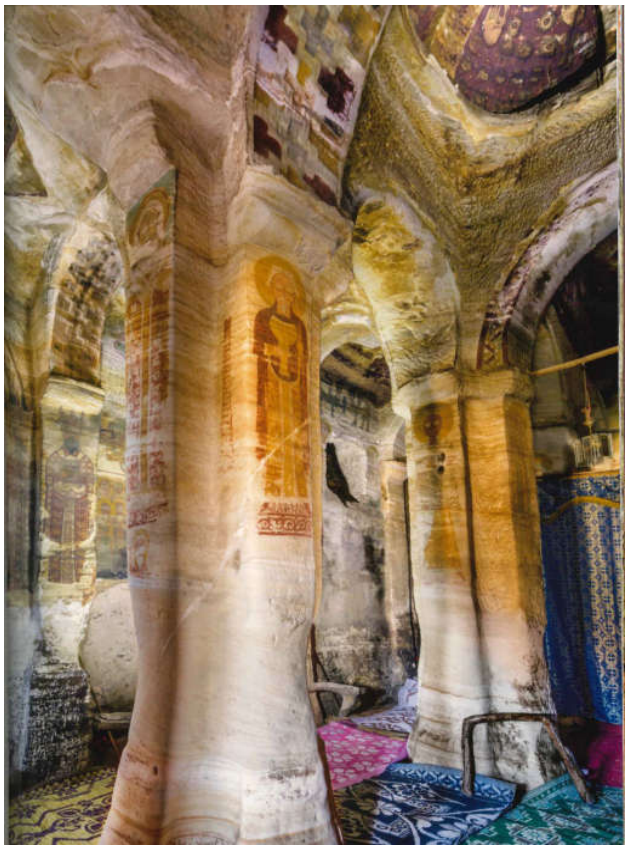


Fig. 4.8. Interior View of Mariam Korkor, (Source, Mercier, 2005)

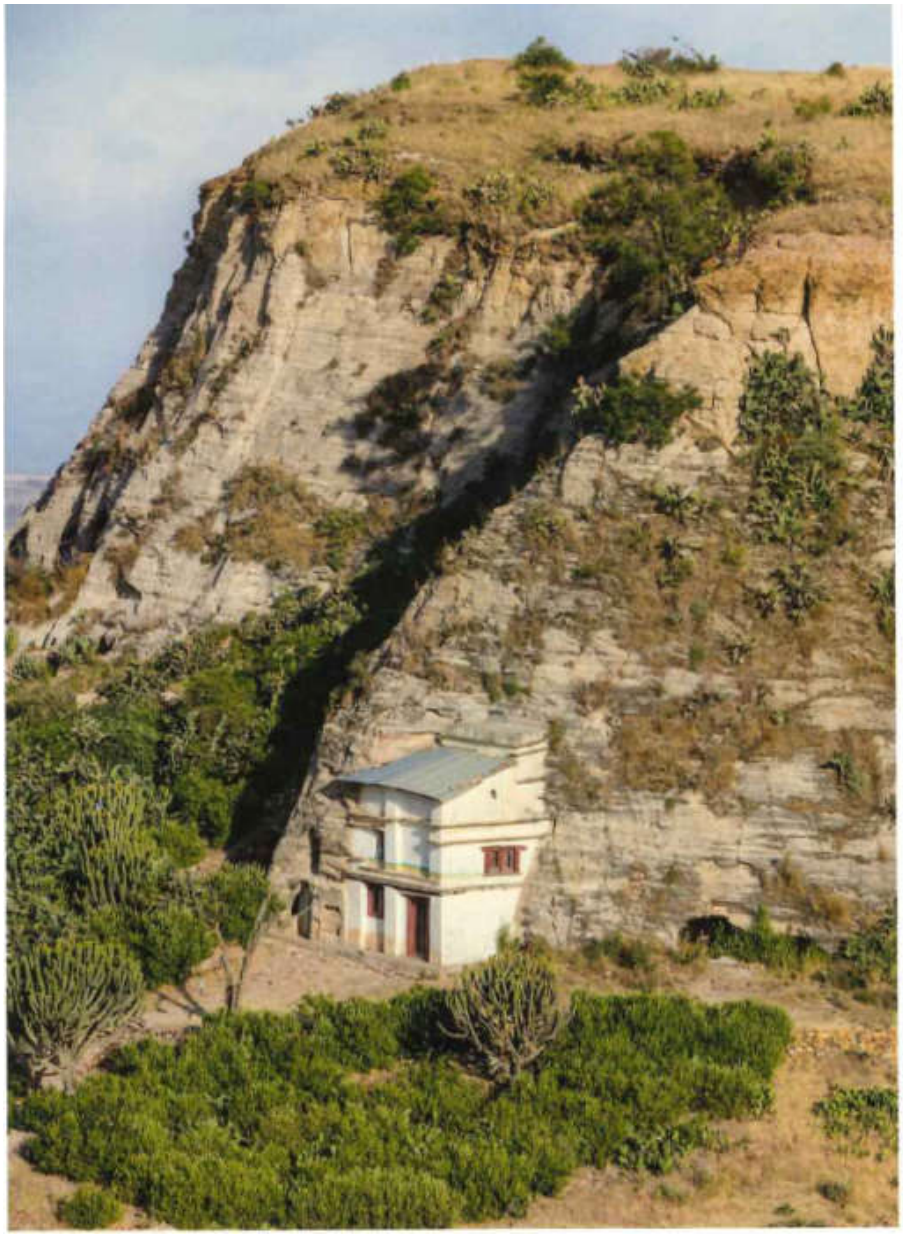


Fig 4.9. Mariam Korkor Church view

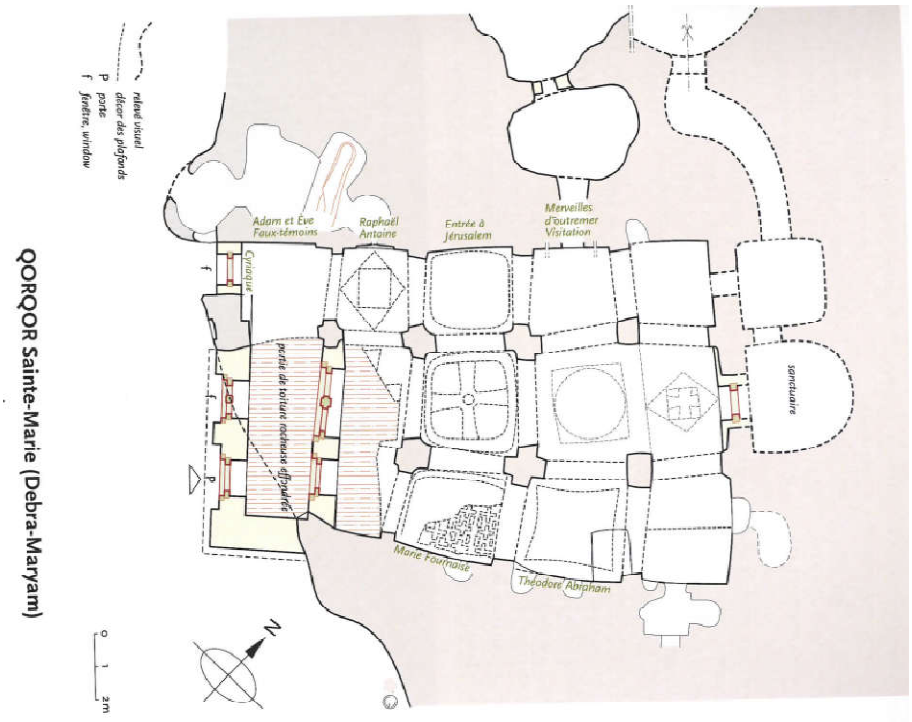


Fig. 4.10. Plan, Mariam Korkor, (Source, Mercier, 2005)

Adi Kesh Medhan Alem

This church doesn't resemble the other churches in the area, particularly the western façade. This was originally an open portico with four massive pillars, an architectural odd in Ethiopia but common in the basilicas of Greater Syria during the early centuries of Christianity. The portico was walled during the second half of the twentieth century to protect the antechamber from the elements. It leads to five bays, three of which form an anteroom that opens into the main body of the church. The two end bays open in to passage where access is restricted to clergy. They were once intended to become an ambulatory around the church. The church has no murals, but much effort has been put into decorating the exceptionally high ceiling with carvings that mimic wood coffering. Potholes leading up to the church are refered to locally as the hoof-prints of St. George's horse.









Fig 4.11. Medhanealem Adi Kesho
Fig 4.12. Medhanealem Adi Kesho, Door detail
Fig 4.13. Medhanealem Adi Kesho, Ceiling detail

Mikael Imba

It is a church dedicated to the Archangel Michael. Te layout of the hurch is a ‘cross-in-squere’; similar in configuration to Abreha we Atsibeha and Wukro Cherkos churches. The term ‘cross-in-squere’ is coined to describe a square floor plan containing a nave and transepts that from cross. Mikael Imba is semi-monolithic, with pillars, and may have been an earlier inspiration for some of the Lalibela churches. The church sits atop a 2,500 meter altitude flat-topped mountain [Amba], surrounded by a farm lands on the eastern lip of the Tigray Highlands. It is thought to have once controlled the salt rout between Aksum and the Red Sea. Its founding is variously and inconclusively dated between the eight and eleventh centuries. The three easternmost bays where the sanctuary lies were separated from the nave and two central aisles by a wooden screen: the central and south panels are still there. The curved pattern resembles the marble screens used in the liturgical function of churches of the Byzantine Empire in the sicth century. All churches with fences, or screens, separating the sanctuary from the main body of the church were built before the eleventh century, like its sister churches, Mikael Imba had a reliquary and funerary function, although there is no evidence of who may be buried there. The courtyards around the front of the church and to its sides were also hewn from rock, a massive feat. There are rock-cut pools of water on ech side of the church. One is used to heal the sick, the other as a water supply.

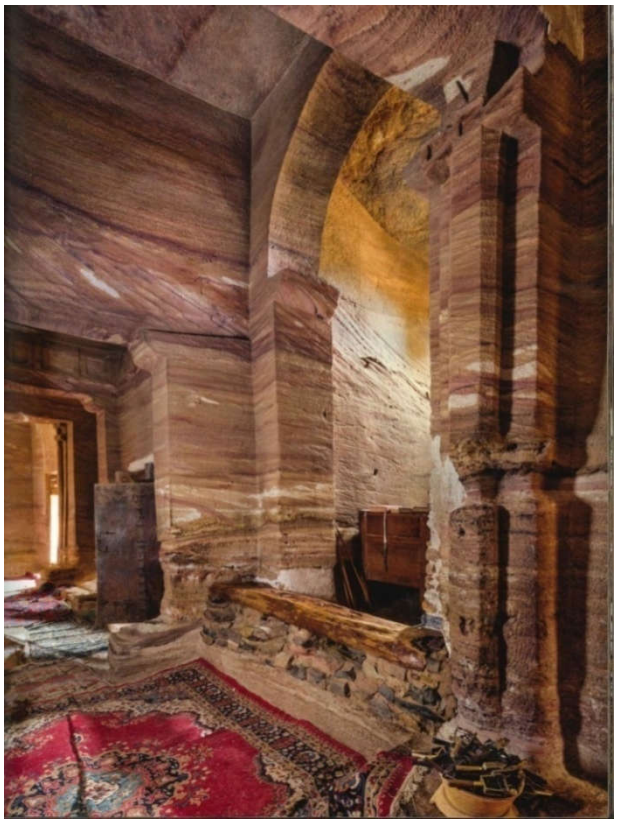


Fig. 4.14. Mikael Imba, Interior view



Fig 4.15. Mikael Imba, Chapel entrance

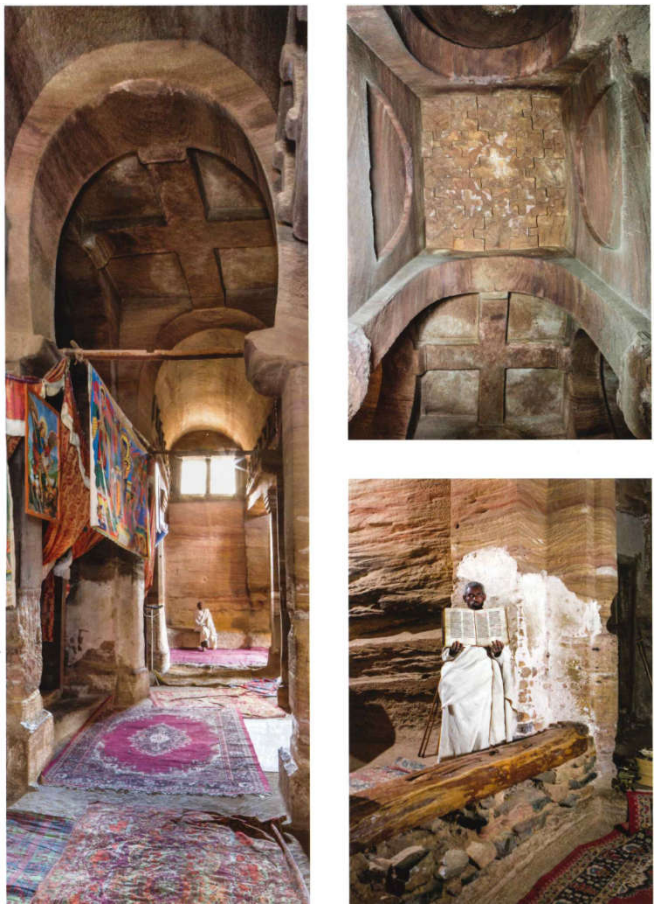


Fig. 4.16. Mikael Imba, Interior view

Dikae'l Debra Selam,

This church is known as the 'church within a church'. It is a partly built and partly hewed church. This church is home to the oldest surviving paintings in Ethiopia, dating back to the eleventh or twelfth century. The principal theme is a celebration of Jesus. This church was first brought to outside attention by Georg Gerster (1967) then more detailed information has been provided by, Buxton (1971), Plant (1985), Lepage & Mercier (2005). It is located in a low-roofed cave 8 Km north-west of Atsb.

It is thought that the church, which is a small basilica, is significantly older than its paintings. Partly built in Aksumite style and partly rock-hewn, it is praised as an architectural gem for its refined workmanship. The stonemason and master builders drew on wide range of skills, using several mediums to create a work of exceptional craftsmanship. The lower part of the south and east walls is built with alternating wood beams and stone courses held in place with quoins (blocks at a corner of a wall to provide additional strength), while the upper part is hewn out of the rock of the cave in which it sits. Part of the north wall was excavated to accommodate the north aisle. He dressed-stone pillars, capitals, and moldings have all been executed with great precision. The anteroom has a finely carved and well preserved wood paneled ceiling. Remarkably, the screen and triumphal arch in front of the sanctuary, which demarcates the boundary between the clergy and the laity, have survived in excellent condition. The priests and deacons emerge through this arch at the start of procession, a liturgical system adopted from the churches of Palestine and Egypt. The murals however, are faded and flaking, making it difficult to discern the subject matter- as is the case with an important mural of Christ Enthroned in the sanctuary. Murals of exotic animals such as the elephant and peacock, associated with Near Eastern potentates, are no longer easy to view. The church also has the earliest known Ascension scene in Ethiopia.



Fig. 4.17. Mikael Dabra Salam, Exterior view



Fig. 4.18. Mikael Dabra Salam, Interior view, Aksumite architecture

4.2 Challenges of the rock-hewn churches conservation in Tigry, Ethiopia

4.2.1 Introduction

In 2011, a preliminary survey of the conservation status of architectural heritages in Tigray was initiated by the newly established Ethio-Japan research center in the Institute of Paleo-environment and Heritage Conservation (IPHC) of Mekelle Univesity, Ethiopia. The research team was led by the primary author of this paper. 15 rock-hewn churches from the Greralta, Wukro-Tsaeda Amba and Atsbi clusters were included on the survey. The result of the survey shows that, 9 out of the 15 churches were suffering from water leakage. Use of cement to fill cracks and to replace missed components of the monolithic pillars was recorded in 7 churches. Façade of 4 rock-hewn churches was painted with synthetic colors without any consultation with TCTB and mural paintings of 1 church were white washed. In addition, Termites and growth of Termite mounds was a common problem reported by most of the churches.

The roof of three major rock-hewn churches: Abreha-we-Atsibeha, Wukro Cherkos and Abune Abreham Debre Tsion were covered with flagstones to control water leakage. The project was proposed and implemented by TCTB between 2008 and 2009 on the consent of ARCCH. During the 2011 survey, the introduced remedial measure was proven to be a failure in Debre Tsion and Wukro Cherkos, within two years of its implementation. The problem was not occurred in the third third church, Abreha we Atsibeha; not due to the effectiveness of the intervention but the problem of water leakage was not existed in the first place. The intervention was as a proactive intervention in this case.

A field research was conducted on six selected rock-hewn churches of Eastern Tigray, in April 2016 and November 2017 as part of a doctoral dissertation research by the first author. Hence, the water leakage is found to be one of the major challenges of the churches and is remained to be the most threatening challenge for the survival of the majority of the rock-hewn churches of Tigray as well. Inappropriate conservation interventions are aggravating the problems. The gap in technical analysis skills and the misunderstanding on the basics of conservation interventions, lack of set of standards and principles are the pre-cursors of the ineffectiveness of the conservation projects. The result of the intervention in most cases ended up being more destructive, and the mutual trust between the stakeholders are deteriorating. Henceforth, a case study on Wukro Cherkos rock-hewn church is presented in order to demonstrate the state of the problem so as fulfill the objectives of the study.

4.2.2 Case Study on the rock-hewn church of Wukro Cherkos

4.2.2.1 4.2.2.1 Outline

Wukro Cherkos is one of the renowned rock-hewn churches of Tigray and the only that has been known to the outside world prior to the mid 20th century. Its presence was first reported by the Portuguese traveler Francis Alvarez in the first half 16th C. AD (Doress, 1959)[216]. The 18th C. AD traveler Henry Salt witnessed the presence of the church and wrote about it (Phillipson, 2010)[217]. An artist from the members of the British expedition to Mekdala engraved the interior of the church in 1868 (Ibid).

The layout of the church resembles to two other churches found namely Abreha-we-Atsibhe and Michael Imba. The space arrangement of the churches embodies the basilica architecture with three sanctuaries. Its nave is emphasized with a barrel dome ceiling; the aisles are marked by raw of columns and it has a vestibule with a central pillar (See Fig. 4.19).

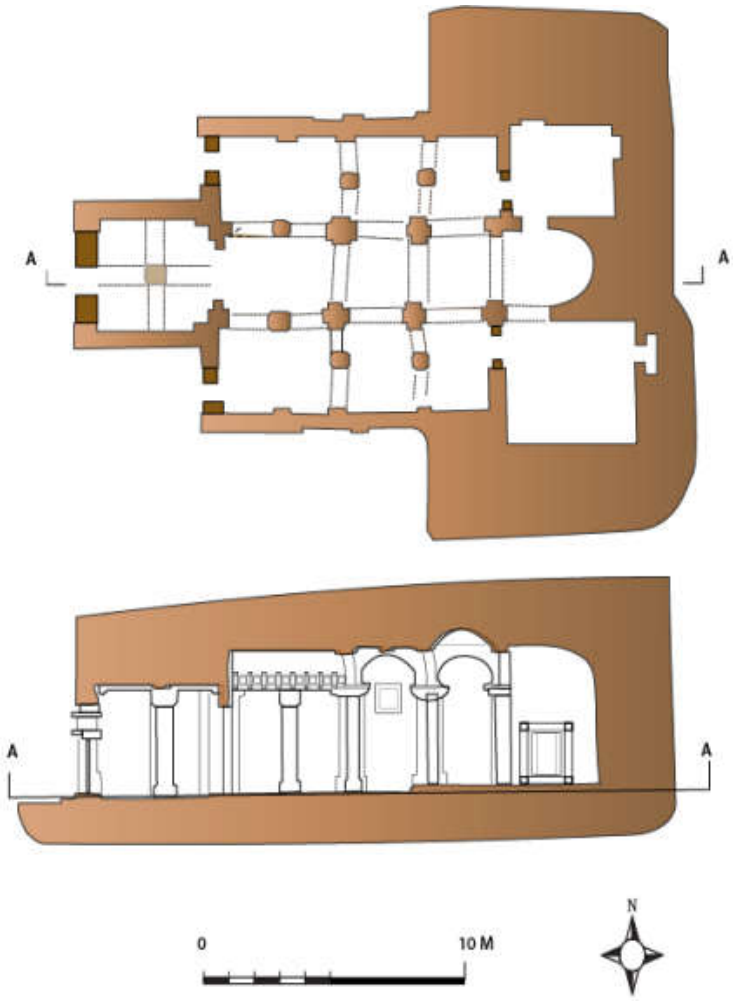


Fig. 4.19 Wukro Cherkos rock-hewn church plan and elevation

The church has seven free sanding pillars square in cross-section and six pillars cruciform in cross-section. There are also columns partly detached and interconnected to the free standing pillars and the ceiling with arches. The ceilings are decorated with low relief engravings of austere and precise Axumite geometric polychrome (Fig. 4.26). The freezes are demonstrating Axumite architectural details of false windows and the sanctuary is emphasized with a dome. The local tradition ascribed the construction period to the year 347 C.AD though this dating is not accepted by scholars who studied the churches recently. Phillipson (2010) proposed a date to be between 7th C. A.D and 10th C. AD, Fitzgerald (2017) agreed with this proposal.

Wukro Cherkos is located on the northern end of the small town of Wukro, the city that has tailored its name after the church (Ibid). It is in a distance of 10 minutes' walk north-east of the Mekelle – Adigrat main road. This makes it the most easily accessible church compared to other rock-hewn churches of same type. The church is hewed in to small hill of Adigrat sandstone. Due to ease of accessibility, the church had experienced major plunders and many uncensored interventions. Even though it is possible to identify which part of the church is original and which is not, to find out documentation that clearly provides answer to inquiries related to the when, why and by whom these interventions were is difficult. Therefore, the major source of information to address such inquires is interviewing and conducting group discussions with senior individuals in the local community, the clergy. Analysis of rare images and documents are also relevant sources to address the inquiries.

4.2.2.2 Data presentation and analysis from the case study

The analysis of the findings of the field research, the interviews, observations focus group discussion is presented henceforward.

Flagstone "*Quatsela*" roofing and other major interventions on the main church building

The main building: The height of the front façade of the rock-hewn church is increased by about 1/3 of the total height of the rock-hewn church with the stone masonry wall. This additional wall is plastered with concrete cement and painted red ochre to match the natural color of the rock. A cross made up of steel is placed on top of the front vestibule roof (See Fig. 4.20 and 4.21 to compare). The informants indicated, the wall was built in 1958, and painted red in the mid 1990s.



Fig 4.20. Wukro Cherkos church in after 2009

Roof: The monolithic roof is entirely covered with flagstone (locally called *Qatsela*) jointed by cement concrete (See Fig. 4.23). This was the most sensitive intervention of all in impact.



Fig 4.21. Wukro Cherkos church prior, 1958

Doors: The rectangular wooden door frame is replaced with cement concrete plastered wall frame and an arch. The door panel made up of Acacia wood board is replaced with metal sheet on metal angle frame door. The height of the door is extended by merging former open window which was above the door. This intervention was in 1998 and steps that led to the door were built in 2009 (Fig. 4.20).

Windows: Wood framed windows and screen on the northern and southern façade are replaced with wire meshes on metal frame.

Columns: A deteriorated part of two columns and cracks are sealed and filled with cement concrete and white gypsum. The informants indicated that, the wall replaced the former parapet of dray masonry was constructed in 1958. A local mason, with the contribution an individual from the locality did the job. The layer of lime mortar and soils was in its place until finally cleared in 2009 by the expert from TCTB and replaced with a layer of plastic sheet and flagstones.



Fig 4.22. A column with Gypsum maintenance



Fig 4.23. Flagstone roofing, Wukro Cherkos, 2016

Two conservation professionals, one who had participated on the project as supervisor and the other who is responsible to follow up the performance of the conservation intervention currently, were specifically interviewed about the process of the intervention and the performance of the project. In their responses they shared that, the layer of soil was cleared to get rid-off the extra load on the monolithic roof and the structure of the church. They elaborate that, the action taken was in concord with the recommendations set by structural engineers from Addis Ababa University and ARCCH.

The intervention was considered to be the best and readily available solution to effectively deter the water filtration to the best level of their understanding and their expectation though it ended up being a failure. While they illustrate the process, up on the clearance of the pile of, the cracks identified in the roof and were sealed with a cement concrete. Then, a plastic sheet was placed on the surface of the roof before the flagstones were placed. Finally, the joints of the slates were filled with sand and cement concrete. It was expected to serve as waterproof surface to the roof.

As it was confirmed from the field research in 2011 and the consecutive visits and the reaffirmation of the informants, the newly introduced method couldn't serve its intended purpose effectively even for a duration of the first two rainy seasons. The concrete in the joints had broken, the slates started to dismember and the plastic tear. Apparently, the water found a way to infiltrate through the roof and to the fault lines then the interior of the church.

Ever since, due to lack of immediate and effective measures, intensity of the leakage is growing and its effect is worsen.

The interviewees reported that, the flow of water leakage in the last three rainy seasons (2015, 2016, and 2017) was growing in an alarming rate. As a result, the southern sanctuary had been flooded frequently, shrubs and micro plants are growing on the roof and the wall, and the dampness in the ceiling is getting sever. Dismembered parts of the ceiling and the arches are starting to fall down and these problems are affecting the service of the church and creating anxiety on the clergy and the disciples.

Water leakage related problems and traditional remedial techniques

The result of the interviews, discussions and the subsequent observations shows that, water leakage is the major and immediate danger for the survival of the church. Water is damaging the interior and exterior wall, mural paintings and reliefs in the ceiling. Moulds are propagating and expanding, the problem is intensive on the ceilings and wall of the southern aisle and the southern sanctuary. Dampness is witnessed all over the ceiling, the capital of the monolithic pillars and the arches too. The head priest stressed that, the water infiltration to the southern sanctuary, is creating enabling environment for the deteriorating agents to flourish and surface sediments are getting washed away.

The observation and discussions with the clergy led for these three questions worth addressing: What kind measures were traditionally taken to deter water related problem? How long it has been since the water leakage problem have reached its current status? And, why the water leakage is more sever in the southern sanctuary? Each question is discussed as follows:

4.2.2.3 Regression control mechanisms implemented and their impact

What kind of traditional conservation measures was used to control water leakage?

The senior informants specified that, in the past, the water leakage prevention techniques and routines that are used for HudmoII house were implemented for the rock-hewn churches two too; to control water infiltration. As per the informant with hands on experience, the common practices on the maintenance of Hidmo roofs are clear: primarily conducting a careful and regular follow-up of the performance of the roof before and after every rain season, and then taking corrective measures accordingly. The common corrective measures were: Maintaining

fault lines that will allow water to pass in through; compacting loosened parts and adding an extra layer of selected soil (on an interval of two to three years to replace the layer washed away by rain and wind.), to making sure that a modest convex curve of the roof top is maintained with the layer added up. This was one among the critical engagements that helped the technique to work better. Because, it is that low pitch convex curve that facilitates the water to drain easily without eroding the roof surface. Hence, this same practice was applied to the churches roof too.

In the case of the church, a team of senior clergy, local elderly and individuals with hands-on experience were set to evaluate the performance the roof and coordinate the local community. The major interventions that were common prior to the 1970s were usually on the interval of three to five year, though the cycle depends on the performance of the roof and the nature of the rainy season. The time interval presented by the informants was difficult to confirm with other sources; though an interval of seven two eight years is suggested by two informants. But, there is no need to wait that long for regular follow up and minor maintenances. However, the trend of adding a layer of lime mortar was not witnessed after the mid 1970s; according to the informants.

In the case of the church of Wukro Cherkos, prior to the 2009, regular follow-ups were carried out by the treasurer, '*Aqabie Newayat'* and simple maintenance interventions were carried out by the member of the clergy and devoted members of the local community. On the other hand, people who actually allowed go on to the top of the church roof must be members of the clergy. Non clergy individuals are not allowed to stand on top of the church; because the spaces found beneath the roof floor is the sanctuaries, which is forbidden to step-in for the non clergy. Whereas, participating on other processes of the work is open to all. In 2009, during the implementation of the roofing project this restriction was violated by the project coordinator from TCTB.

The selection process and use of the soil was relatively strict in the case of the churches compared to the *Hidmo* buildings. If placing more layer is found to be necessary, a lime soil local named "*Nora* or *Bereq*" was collected from a place called *Baegel Yeid*. The place is in the sub district of Debre Tsion, about 30 KM west of Wukro. The collection of the *Nora* was the mandate of the households who actually have strong attachment to the *gulti*[III] of the church or other forms of attachments like to have a family grave yard-*Melgeb*[IV]-within the church property.

The collected lime was soaked for extended period and mixed on an interval of a week or so. This routing was followed so as to get a homogeneous mix and to give a sticky character to the lime mortar. This traditional mechanism was effective in controlling the water infiltration if it is backed by regular maintenance. The layers of the soil accumulated as a result of this tradition can be seen from Fig.4.21. One can set a hypothesis by looking on the volume of the accumulated layer, that, this tradition has been in practice for at least a couple of hundred years. The ~ 120 centimeter high or so layers of soils and rubbles filled up the former parapet masonry can be considered as an instance of longstanding culture of maintenance; according to the opinions of the informants.

How long it has been since the problems related to water leakage become sever?

The water relater challenge was there for long time, as far as 70 years back according to the senior informant who is serving in the church for more than 70 years. Other informants also agreed and said that the problem was known by the former generations too. The difference is that, the capacity of the church to take continuous preservation measures, mainly prior to 1930's was in a better position. The church had 44 *gulti*, and *semon*^{V} land; thus, its capacity to tackle the problem with traditional techniques, to support the work with internal revenue and the churches' advantage to use free labor from local community were the potential resources. There were also monks who permanently reside on the church compound and supported their living with the *semon* and entirely devoted to the service of the church. With these resources, the church was capable to continuously engage on maintenance and to make the local community engage actively.

Why more damage to the southern wall and southern sanctuary?

The southern wall and mainly the southern sanctuary and the ceilings of the southern aisle are suffering the most due to water infiltration and water flow. Thus, an effort was made to farther investigate why the problem is severing on the northern side of the church and on the northern sanctuary specifically?

According to the head priest an eye witness[VI], "during the construction of the roof pavement, a hole with a shape of upturned cone and a depth of about the length of his arm (`50 to 60 cm) and about the same diameter was exposed on the roof of the church after the removal of the soil. Then, it was filled back with a mix of cement, aggregate and sand on the decision of the project leader from TCTB and the slate stone was placed on top of it. Further, the informant was asked if he can locate the position of the hole on a roof plan and he did point out a place where it is perpendicular to the northern sanctuary between point "C" and point "B" (see Fig. 4.24 for reference).

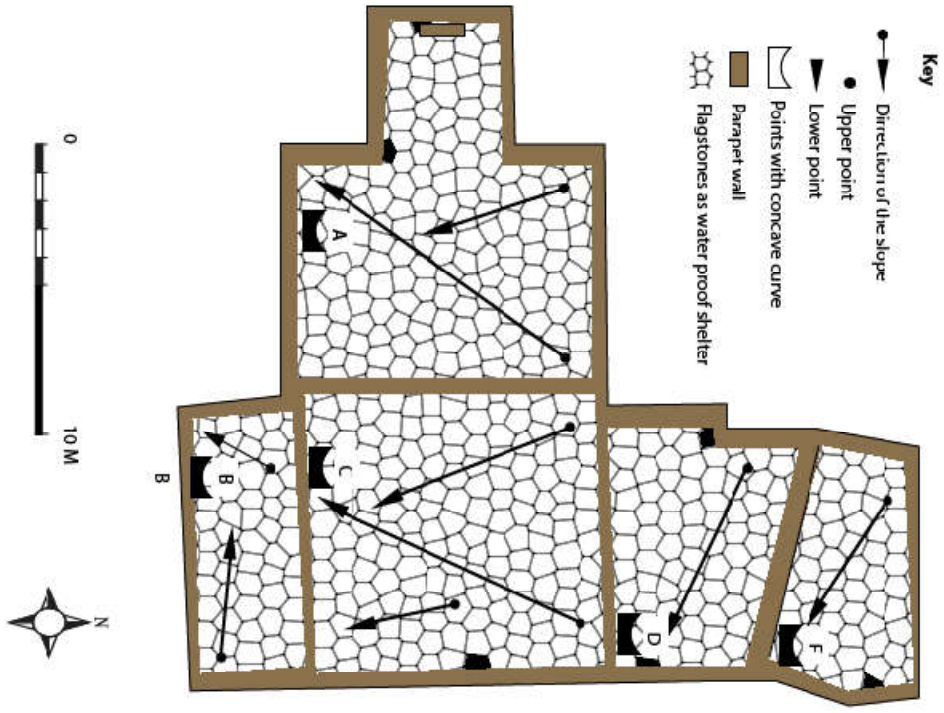


Fig 4. 24. Illustration of the water flow

The observation carried out to study the morphology of the roof surface confirmed that, it is not plain and it has many irregularities. The slope of the roof is going in general from the northern wall dawn towards the southern wall and it has created a skewed concave curve before it reached the parapet walls in the positions marked by English alphabets of "A" to "E" in Fig. 4.24 The place where water is severely leaked to the interior of the church is

found to be around these points. The spear headed lines drawn on the roof plan are roughly illustrating the direction of the slope. Areas around point "A" and "B" are the lowest positions in the floor and these points roughly correspond to the locations where the church is severely affected by water leakage.

4.2.2.4 Consequences of the water leakage on the activities of the church and conservation of the church

According to the head priest and the treasurer of the church, in the last three rainy seasons the *Tabot* (the copy of the arch of the covenant), the altar and other ecclesiastical equipments from the southern sanctuary were relocated to the northern sanctuary due to the flooding. In *summer*[VII] 2015 and 2016 the water flow was heavy. Due to the intensity of the problem and the reluctance of TCTB to take remedial measures, the clergy were forced to build a water tank attached to the southern wall within the southern sanctuary before the rainy season of the year 2017 without knowledge and approval of TCTB. This is due to the deterioration of the relationship between the clergy and the heritage conservation authorities at district and regional level.



Fig 4. 25. Mould growing in the ceiling and a n arch falling apart



Fig 4. 26. A deteriorating ceiling decoration



Fig 4. 27. Algae blooming, grass growing and mould in on the exterior wall

The senior informants and the "*Sebeka gubae''* representative added that, they were and yet they are calling up-on the responsible authorities to take proper measure and to safeguard the heritage. There was neither a practical action nor permission was provided to the church to address the problem independently. Thus, the clergy and the local community have started taking actions on their own to make sure that the church is ready for the daily service.

4.2.2.5 Local communities response towards the interventions

4.2.2.5.1 Expectations of the clergy and the local community and the response of authorities

In principle, the approval of TCTB is needed to do any maintenance or construction of new structure within the main compound of the church not alone on the church buildings. In effect of this principle, the main compound wall reconstruction and a main compound gate construction were halted and suspended by TCTB in the last five years. The clergy and the sponsor of the gate construction are waiting for the final decision of TCTB whether to carry on or to halt the work; but, TCTB seems to have no response for this case too.

The member of the ''*Sebeka gubae''* reported that, they did a continuous effort to discuss the issue of the roof with TCTB and to get technical or material support to control the water leakage and its consequences. But, years have passed without any tangible response and a number of unfulfilled promises. The head priest added, the least response they and the "*Sebeka gubae*", are waiting from TCTB is whether to provide the material and technical support to solve the problem together or to the minimum to let them act by themselves.

Members of the focus group discussion believed that, what it takes to act on their own with the cooperation of the local community is a letter that clearly states the regional and national authorities are not providing material and financial support. The obstacle is that, the local community believes that the costs related to conservation of heritage sites are the responsibility of TCTB and ARCCH. Therefore, having the letter will help to clear the misunderstanding and to moblize the local community that it is their collective responsibility to raise the fund to safeguard the heritages.

In Tigray, including in Wukro and its surrounding area, new churches worth of millions of dollars are getting built with the contribution of the local community time and again. This shows that if the community is convinced that raising the resource for the preservation is its responsibility, certainly it will work; because, Wukro Cherkos is the source of pride for the local community. The change of the city name from Dongolo to Wukro shows how strong

the relationship of the city and the church is. In addition, in the tradition of the people of Tigray and other Christian communities of the northern highlands of Ethiopia, contribution for the construction of the church is one among the major sources of individual, family and community pride.

- In general, having witnessing the current condition of the church, the feelings of the clergy and the reactions of the heritage conservation authorities, the following points can be noted as summary points of the case study:
- The water induced regression on the church is posing an immediate danger of survival on the churches. The relatively stable exterior look of the church is not portraying the realty in the interior condition of the church.
- The church is falling apart from within from time to time in an alarming rate; and to find out a piece of debris fallen from the ceilings, arches and the upper wall parts is becoming common.
- For, the members of the clergy and the local community, such a regression process is becoming a bitter experience and they are feeling excommunicated from acting their way to safeguard it.
- The uncensored use of gypsum, concrete, and cement etc….to fill missed parts without consideration of property of the materials is compromising the material integrity, aesthetics and authenticity of the church. It is also intervention tough to reverse.
- The church are getting poor after they lost farming lands following the expulsion of the farm land right and the church to collect revenue with the fall of the imperial government in 1974. This hindered the capacity of the church to support major maintenance works, forced the monks who permanently used to live in the church to go away. In consequence, it created a gap on regular monitoring of the condition of the church and the minor maintenance routine.
- The idea of using the slates to serve as a water proof surface in an irregular surface was poorly analyzed decision and using cement and sand mix concrete to join the flagstones worsen the impact.
- There is an eminent communication gap between the clergy, local community, and local and national heritage conservation authorities. These problems are not exclusive to the rock-hewn church Wukro Cherkos but it is common trend shared by the

majority of the rock-hewn churches Tigray and Ethiopia, too. Last but not least, an intensive research and documentation of the traditional conservation systems and skill sets, which is extremely underutilized yet, needs to be taken seriously.

4.2.3 Case study conclusion

In architectural heritages like the rock-hewn churches of Tigray, Ethiopia; churches yet serving the local community as places of active worship and as a sacred territories where religious procession are taking place every day. The relationship of the local community with these churches is expected to be very strong and it is multifaceted, indeed. As heritage properties owned by the church, the preservation effort is highly dependent on the degree of the empowerment and the level of the involvement of the church community. Hence, identifying the local, regional and national institutions and other stakeholders with regard to the use and conservation of the heritage resources is the base upon which the true partnership might be established to safeguard the heritages while keeping the interest of the community to actively interact with the heritages.

The traditional conservation mechanism in the rock-hewn churches of Tigray was mainly dependent on locally available materials and local skills. The remoteness of these sites had contributed for the traditional skills to survive until early as the 1970s. The interventions were minimal, reversible and mainly on the roof. Thus, the majority of the churches were yet in their original condition. But, recently, major interventions were witnessed on some churches and minor but inappropriate interventions in many churches. In the last two decades, the national and regional authorities for conservation had started to carry out conservation interventions on the rock-hewn churches; but, the intervention which intended to save the churches from water leakage were ended up to be a failure and accelerated the problem in some cases. Lack of enthusiasm in taking proper remedial measures to reverse failed interventions is worsening the challenges and roughening relations between different actors of in the conservation of heritages.

Understanding the local context as a core process of conservation intervention is a critical step forward to effectively propose and implement conservation interventions. Analysis of local actors' approach and understanding of the heritage resources found in their locality; the evaluation of local resources and traditional skills that can be effectively incorporated are essential to draw up short, medium and long-term conservation strategies. This can be

achieved through confidence building between stakeholders. To this end, an intensive research and documentation of the traditional conservation systems and traditional skills is a vital issue at this moment to realize a comprehensive conservation mechanism that is sustainable, which depends on the locally available materials and local skills and that engages the local community. In order to safeguard the rock-hewn churches sustainably, an inward looking conservation strategy that keeps the local community as the primary stakeholder; the traditional skills, local knowledge and the locally available materials as its core resources and as integral part of its implementation strategy is suggested. Because, sustainable conservation and effective management of living heritages is greatly depends on the active role the local players.

Notes:

I. Council with 5 or 7 member elected by the general assembly, led by the head of the church which is the only member by default. The "Sebeka-gubae" is the power center of the church and the church community except for the matters related to the daily prayer service arrangements.

II. Hidmo is a traditional house common in Tigray rural area and historical urban centers. It is a flat roof house covered with layers of wood, straw, and slate and with a mud and hard packed soil as the upper most layers. Its layout could be rectangular or circular and single or multiple story building.

III. Gulti is a traditional land tenure system in Ethiopia where the emperor gave a right to collecting 1/3 or 1/5 of the harvested products of one or more territories to the local lords or to the churches and monasteries. Legally it was abolished in 1966, but in Tigray, it was not working since 1930s.

IV. A family grave yard, locally called *Melgeb*, in the tradition is a sign of prestige and social class among the local community. Those families who afford to have the *melgeb* needs have two located side by side one for each sex. Thus, if any member of the family passed away, they open the seal and place the body together with the bodies of other members of the family passed before.

V. Semon is a farm land controlled by the church. This system was abolished in 1974 by the socialist military government.

VI. In Ethiopia, the main rainy season is from May to August.

VII. He said he was working as a daily laborer in the project during implementation.

4.3 Heritage conservation challenges and Local communities reactions on the World Heritage site of Lalibela – Case study 2

4.3.1 Introduction

The rock-hewn churches of Lalibela: Lalibela is a small town in the mountainous region of the Northern Ethiopia Highlands. It is located in the district of Lasta, the Amhara Regional State of Ethiopia. The town is named after the 13th century Emperor of the Zagwe Dynasty, and the mythical builder of the Rock-hewn churches, King Lalibela (Taddesse, 1972[218]; Phillipson, 2007)[219]. The 11 Churches (see *fig 4.28,* for the list of the names on a site plan) were hewn from a living rock with the earliest around 800 AD and the latest in the 2nd half of the 13th-century, (Phillipson, 2007, 2010). The churches are situated in three clusters, surrounded by a village with vernacular buildings of circular-shaped and thatch roofed dwellings.

In 1978, Lalibela churches have registered as a World Cultural Heritages (WCH) fulfilling criteria I, II, and III, i.e. (i) the unique artistic achievement manifested on execution of the churches, the size, variety and boldness represented by their forms; and the quality of the workmanship; (ii) the intangible cultural assets interconnected with the presence of the churches architecture, and (iii) as unique testimony to the Ethiopian medieval Christianity and civilization (ICOMOS, 1978)[220].

Lalibela churches are living heritages which are in service of their original purpose, to this date. The earliest record on the churches was by the Portuguese travelers in 1520s. Deterioration on the buildings was witnessed since the late 19th century. An intensive, and in most cases inappropriate physical interventions were took place in the churches, since the first quarter of the 20th century, according to the local memories and rare accounts. From the mid 1950s five major conservation*[1)] interventions had been executed on the churches. Thus, the interventions will be examined in light of the local community role and reactions and on the ongoing public debates.

- The objective of this part of the study is to examine the local communities' reaction towards the preservation interventions by the International institutions for conservation

and preservation of the World Cultural Heritages of the Rock-hewn Churches Lalibela since the 1950s. The specific objectives are to find out

- How the impacts of the preservation projects were perceived from the local community's perspective;
- How traditional conservation knowhow and skills were addressed by the national and international players; and
- How cultural and religious assets of the site and the local community's role were integrated in the preservation process.
- An observation of the research sites and key informants interview and discussions with the members of the local community and the clergy was held in 2013 and 2016. Inputs from personal experience*[2)] to the sites by the primary author are used to see the research problem in perspective.

A review of relevant literature, heritage conservation laws and conservation projects report were conducted to find out the facts and figures related to the research. To have an in-depth look of the case, a field research to the sites in Lalibela was in effect in 2013.In 2016 an interview with experts from the Authority for Research and Conservation of Cultural Heritages (ARCCH) of Ethiopia was conducted. Discussions and unstructured interviews with potential informants and individuals actively engaged in the field of architectural heritages research and preservation, and with the members of the clergy were conducted in June 2013 and May 2016. The discussions were considered in analyzing the results. A snow ball method was used to reach individuals with the better knowhow of the traditional preservation techniques and the local history of the rock-hewn churches of Lalibela and Tigray.

This section is structured as follows: a brief outline of the interventions by the international and national players in the conservation and restoration efforts of Lalibela Rock-Hewn churches presented first. The local communities' opinion towards the interventions and discussion of the tradition know-how and skills will follow. Then, the analysis of findings and the conclusion and remarks will follow.

4.3.2 **Outline of Conservation Interventions in Lalibela since the mid 1950s**

In the mid 1950's, the first organized effort to preserve the Rock-hewn Churches of Lalibela initiated by the Imperial Government after a century since the beginning of the modern

Ethiopia history, 1855 (Pankhurst, 2005)[221] and Beyene, (2010)*3). In 1956, the Ministry of Public Works sponsored a "restoration" project given to the Italian Sebastian Console (Tsehay, 2013). Console, like his predecessors introduced new materials like cement and tar to the roofs and walls of the monolithic churches. By the 1960s, due to the hash interventions of the past, from 1920, 1954 and 1956 and 1958-59, the roof of Biete Medhane Alem was covered with the layers of Tar, Cement and corrugated iron sheet (Intrnational Fund For Monuments, Inc., 1967). The roof of Biete Amanuel, and Biete Mariam were also covered with tar and cement and the walls were partly covered with cements, tar and painted with red ocher. The color was used to matching the maintained part to the natural rock (ICOMOS, 1978). The corrugated iron sheets were bolted to the roofs in the attempt of protecting water leakage in 1956 to Biete Medhane Alem, and from 1958 to 1959 to Biete Amanuel and Biete Aba Libanos.

In 1966, a restoration project for Lalibela on a joint fund of the World Monuments Fund (WMF) and the Imperial Government of Ethiopia was launched (World Monments Fund, 1996). The main mission of the project was to reverse and correct the damages induced by the preceding intervention (Intrnational Fund For Monuments, Inc., 1967)[222]. UNESCO was engaged in the facilitation of the project and the funding, with the invitation of the Crown Prince Mereed Asfawasen in 1965 (Beyene, 2010). To UNESCO, it's participation makes it the first intervention by international institute to the site. The project was supervised by Architect Sandro Angelini*4), said Assefa, (2013)[223].

The tar and cements from the previous project were removed and replaced with a mix of crushed local stone and neutral cement. Iron rods were used to bond shifting rocks and the corrugated iron sheets bolted to the roof of the church removed and a heavy layer of natural cement used in place. A water repellent solution was also added to the monolithic roofs to prevent further water damage (Intrnational Fund For Monuments, Inc., 1967; ICOMOS, 1978).

By 1989, the mural paintings of 5 churches were severely damaged due to the water leakage (Tsehay, 2013, Gebreselassie, 2013). Thus, the Ministry of Culture of Ethiopia and UNESCO carried out a construction of temporary shelter for the affected churches. A shelter made from simple wood frame and corrugated iron sheet roofing (Tsehay, 2013). This project is considered successful intervention by the members of the local community and the clergy. The response was immediate and the objective was clear: saving the mural paintings from

complete deterioration and the churches from total damage until sustainable solution will be found.

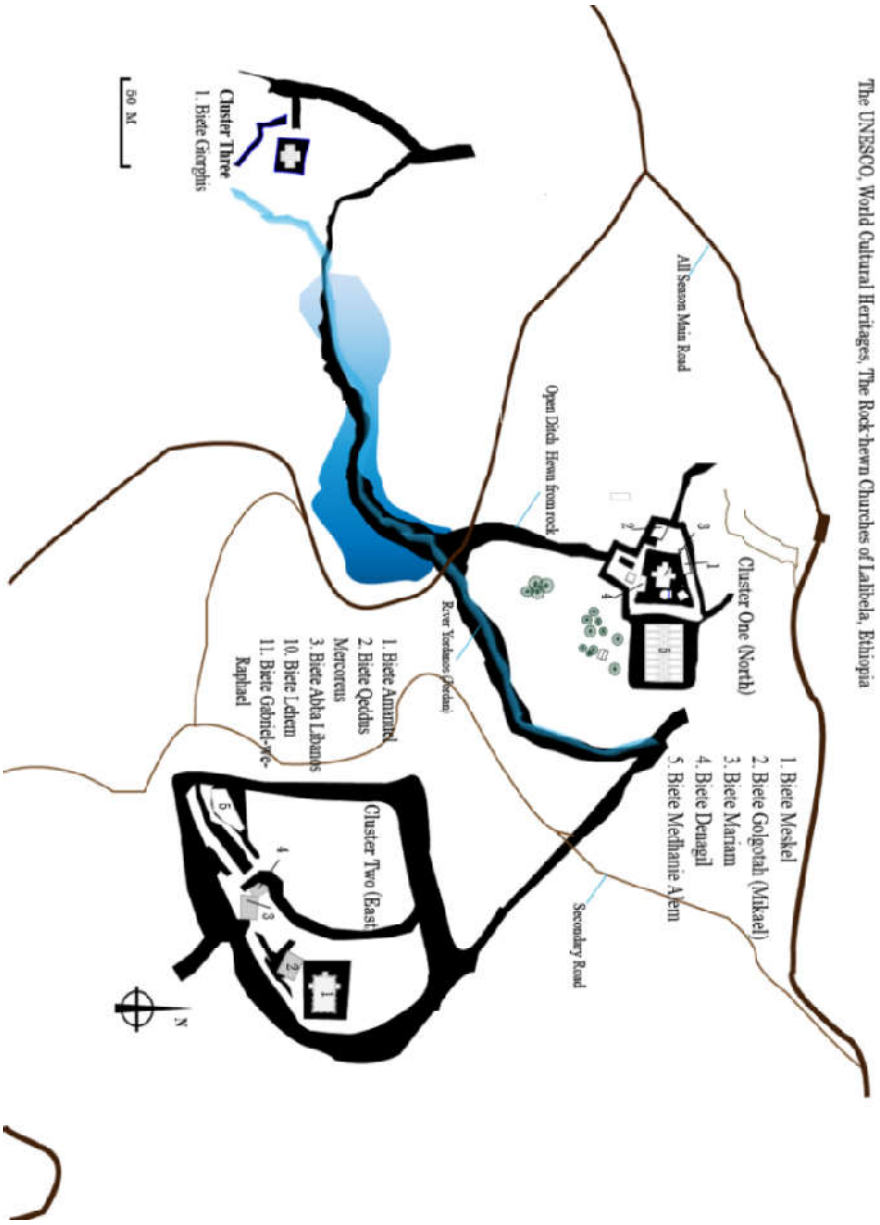


Fig.4.28. The map of the rock-hewn churches of Lalibela, after Ephrem *et al*. 2018

In 1995, ARCCH with a conservation planning, technical and financial collaboration of UNESCO launched an international movement to safeguarding the WCHs of Ethiopia. Accordingly, UNESCO began its international mission for the churches of Lalibela in 1996 (ICOMOS, 2007)[224]. With the finance secured from the EU, in 1997, a joint committee from UNESCO and the International Union of Architects (IUA) held a Temporary shelter design

competition. An Italian firm *Terpin Associati* won the competition; and, in 2006*[5)] the construction of the new shelter started. The work finished in 2008. It's been a decade since the new but temporary shelter constructed. Hitherto, the problems in the construction process, the immediate and long term impact of the shelters, and proposed time span for the shelters are topics of debate among the Ethiopian scholars, the conservation experts and the local community.

4.3.3 Problem of "Temporary Shelter" and reactions of the Local Community Opinion

The local community*[6)] and clergies' opinion on the construction of the "Temporary" shelter, their participation and the traditional conservation and preservation know-how's role on the preservation interventions are presented henceforth:-

1950s

Aba Gebreselassie, is a Monk who is serving at the churches of Lalibea for about 50 years. He was interviewed in June 2013 about his opinion on the former and the latest conservation works. He recalled that in the mid 1950s part of the façade of the Church of Biete Aba Libanos, posts on thee porches and one corner of Biete Mariam were reconstructed by foreigners. The roof of the churches had been covered with a black and thick [Tar] liquid and the walls plastered with cement and painted with red color. Soon after, [in 1956] other foreigner with a small group of young Ethiopian [students from the former Building College, in Addis Ababa] came and covered the roof of Biete Medhanealem (see, fig 4.29) with corrugated iron sheets. In actuality, the iron sheets were bolted to the monolithic roof.

In the 1950s intervention, the members of the clergy and the local community were happy to see the demolished parts maintained. The intention of protecting the churches from water leakage makes them hopeful on the future of the churches. But, the material choice disappointed the local community and the clergy. The use of Tar was totally against the will of the clergy and the local community. The dissatisfaction was that primarily the reliefs on the roof of Biete Medhane Aleme were covered with the Tar (See fig 4.29 3 and 4.30). The color of the Tar [black] has a bad connotation on the traditional-believe system. And, the smell of the Tar was too bad, according to the aforementioned informant. Painting the naturally reddish surfaces of the churches with red color was a horrible surprise to the local community. The use of the Tar and painting the rock surface was proven inappropriate both from the perspective of the local community and its effectiveness as conservation

intervention. Thus, in a year the corrugated iron sheets shelter introduced because the tar was failed to prevent the water leakage. The color was also scraped and cleared away in 1967.

The reaction towards the corrugated iron sheet roof was relatively modest and was welcomed by some members of the clergy. At the time, in Lalibela, only few (maybe less than five) buildings were with iron sheet roofing (Gebreselassie, 2013), mainly public buildings. The remaining dwellings in the neighborhood were thatch roofed, small circular buildings of masonry walls plastered with a mud mortar. Thus, use of iron sheet roofing in these days was considered as a mark of class and privilege[*7)] by the local community.



Fig. 4.29 Bete Medhane Alem in from 1956 to 1967

1966-67

A Priest from Biete Ghiorgis was interviewed on the suggestion of Aba Gebreselasssie. His origin is from Lalibela, and he is son of a priest. He said that, he grew listing about the

churches of Lalibela; accordingly, some of the interventions on the 1960s [1966-67] were welcomed by the local community.



Fig. 4.30 Bete Medhane Alem after the restoration of 1967

The removal of the tar, the paint and the cement concrete from walls and roof, the restoration of roof reliefs of Biete Medhane Alem's (see Fig 4.30) after the removal of the corrugated iron roof were some among the celebrated moves.

The clearing of sediment from the drainage network were also highly appreciated. Whereas, during the removal of the tar, the chiseling works was panicking experience to the clergy and the community. The concern was that, the church might be damaged in the process. The heaviness of the natural cement layer used for the roofs in order to prevent water leakage after the removal of the tar, from the previous project was worry some, and it failed to control the water percolation like the previous work.

1989

Water continued to become the main source of problem of the churches. Regardless of the previous efforts, the percolation through the cracks and the roofs and walls continued (ICOMOS, 1978). In the mid 1980s, the damage to the mural paintings reached a point of no return. Water and dampness kept deteriorating the engraved reliefs of the monolithic ceilings.

The call from the local community, the consistent pushing from the clergy and urgency from experts facilitated the construction of the Temporary shelter.



Fig. 4.31 Biet Mariam 1989-2007

1989 on the joint efforts of UNESCO and the Ministry of Culture of Ethiopia (MoCE), the shelter had been built from a simple frame of wood and corrugated iron sheet roofing (see fig. 4.31). This project is exclusively perceived as success by the local community and the clergy. It was an objective intervention with a clear mission to save the mural paintings and reliefs from extinction (Tsehay, 2013). Mrs. Tshehay, opinion supported by Mr. Hailu, on a telephone interview in 2016, both from ARCCH. One thing emphasized in the discussions was that, the 1989 response was quick and effective though it was conducted while the country was at the apex of the civil war. The project site [Lalibela] was in a proximity to the major battle fields of the armed struggle.

1995-2007/8

The latest and major project was from 1995 to 2008. The actual construction of the temporary shelter on the site was in 2007. It was a project to construct a temporary shelter to replace the shelter built in 1989. A joint committee formed by UNESCO, the state party [Ethiopia] and the financer, EU. The design competition of temporary shelter for 5 churches of Lalibela, held between eight European firms in 1997. In 2000, an Italian firm *Terpin Associati* was announced the winner on a unanimous vote of the jury (ICOMOS, 2007).

On a recommendation of ICOMOS and a joint effort of the World Heritage Center and ARCCH, early in 2006, a major change to the winning design was made (*see fig4.32. and 4.33*) by *Terpin Associati* (Ibid, 2007). In the mean time, the Italian *Endeco Spa and Icom Engineering Spa,* in Joint Venture, took the role of contractor for the temporary shelter from the client i.e. ARCCH, on a total cost of 6.3 million Euros financed by EU (Ibid, 2007). All in rush, in the same year, the site work for the construction of the shelter and the manufacturing of the parts [in Italy] started. The hustle may have been caused by the expiration of the contract within one year, December 2007, said (Waqtora, 2013). MH Engineering, an Ethiopian engineering firm, was given the role of inspection by the client. The construction of the shelter realized a decade after the project launched with the design competition.

According to the Employee of the Woreda[*8)] Culture and Tourism office on an interviewed held in 2013, he said that, the local community and clergy felt excluded in the decision making process on the major intervention to the site they own and administer[*9).] The locals also claimed that, it was their role given to others while the contractor brought skilled and daily laborers from areas outside of Lalibela. On the other hand, the misunderstanding of the local values and the culture of working on and around the churches by the workers came from other places created conflict with the local community. According to the informants, these workers were working on days that are not dedicated to work but for prayer according to the religious tradition. Coming to the churches after consuming food and drink on the fasting days, stepping in and entering to the churches while wearing a shoe which is forbidden in the religion, were some issues aggravated the conflicting interests in addition to the exclusion from the decision making process, as mentioned earlier.

The Priest at the church of Biete Amanuel, interviewed in 2013, confirmed that, a part on the church was damaged due to carelessness of the labors from a falling part of scaffolding. This incident along with the disappointment of the local community on the proposal of placing of the column of the shelter of Biete Aba Lobanos on top of the roof of other church intensified the grievances. Thus, the Woreda administration intervened and helped on bridging the conflicting interest. As a result, the dispute on the column was solved, despite the fact that the contractor kept on relaying on the non-local workers on the project.

According to the interviewees, the ferenji[*10)] [UNESCO] and the federal [ARCCH], they planned and built the shelter without the consideration of the local community and the

church's interest. Neither members of the clergy nor representatives of the community were involved on the decision process. The officials of ARCCH presented the proposal to the church administration after the design competition was over and the winner design was announced. According to the original design, the shelter was anchored to columns placed outside of the church complex (see fig.4.32.). In 2007, the shelter construction started with its heavy columns located within the church complex; a thing which didn't exist on the original design presented to the members of the clergy. These changes made the clergy feeling tricked and thought the values associated to the churches are less a priority to the Institutions [UNESCO and ARCCH].

The clergy and some members of the local community believed that, the intention of UNESCO and ARCCH is commoditization of the churches for tourism. They blame them for ignoring the intangible assets. On the contrary, interviewees from ARCCH, local culture and tourism office and tourist guides accused the church administration and clergy for abandoning preservation as their primary role; and, for focusing more on maximizing the benefits from the increasing tourist flow after the registration of the churches as WCH.

The clergy's tendency is that however, the restoration and preservation of the churches is exclusively the responsibility of UNESCO, ARCCH, and the Regional Culture and Tourism Bureau. They believe that preserving the intangible assets is mainly their role, the church service is theirs. Most of the claims and counter complains of the clergy and the members of the local community are by large ascertained on the interviews held with the employee of the local tourism office and the curator of the church museum too.

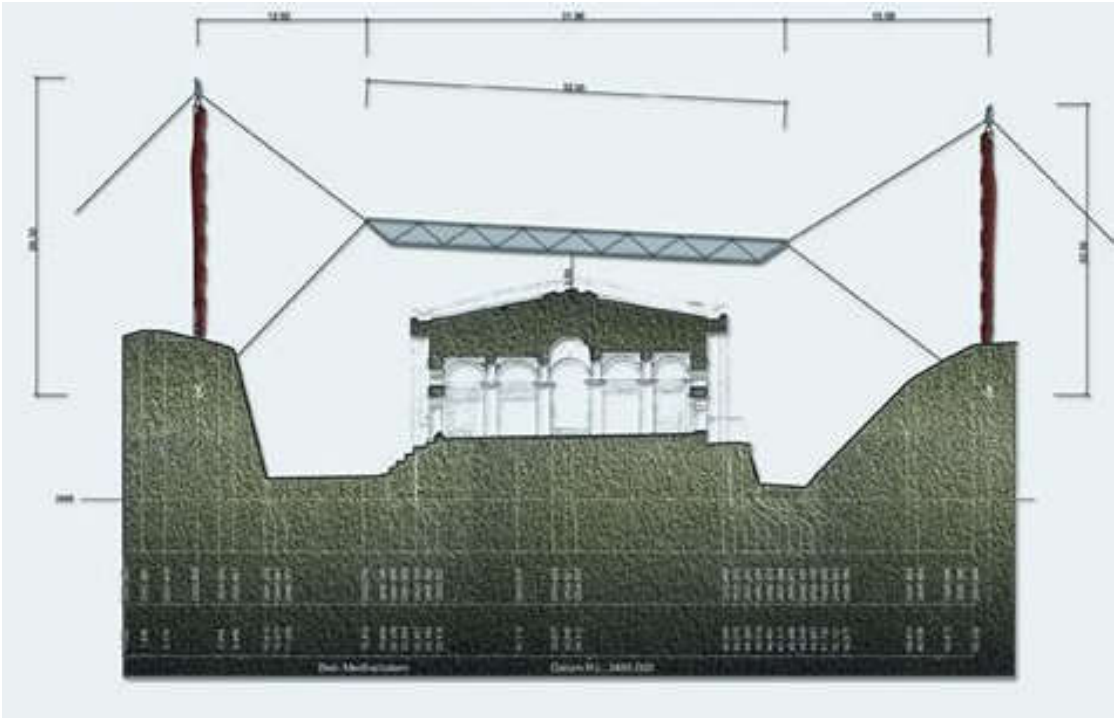


Fig. 4.32 The wining shelter design

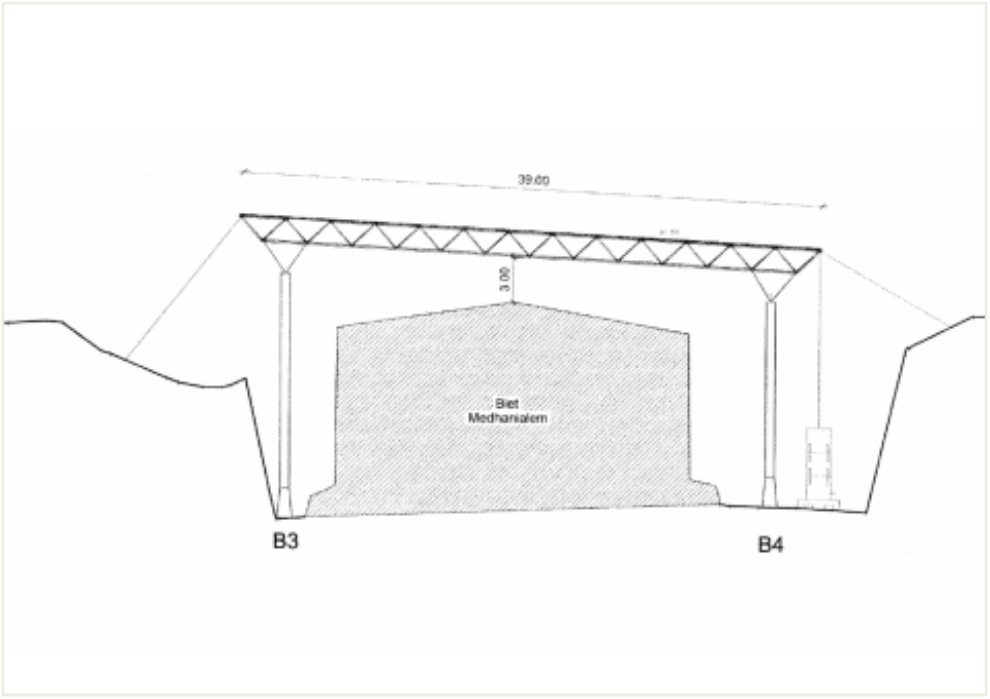


Fig. 4.33 The revision of wining shelter design



Fig. 4.34 The realized shelter

4.3.4 Different Opinion of Clergy and Local Expert

Lalibela is a site of living heritage that is not only associated to the memories of the past but to the living practice of present too. Therefore, the presence of differing opinions on the conservation intervention is expected; as presented henceforth.

Clergy:

- The clergy were not expecting a temporary shelter again. The complexity and solidity of the shelter, doesn't make the clergy believe this work is temporary, for 20 years only, and a permanent solution will come soon in two decades.
- They feel excluded from the entire process from planning to construction; and locating the columns within the main church complex without considering the obstacle to the church services is its manifestation. They preferred the original design.
- The size of the columns creates visual barrier to the facades of the churches and becomes an obstacle to the liturgical services.

ARCCH Experts and a Local Curator:

- The shelter structure is too heavy to be considered temporary and the visual distraction too is not avoided (Waqtora, 2013).
- The time span of 20 years is not confirmed from any credible document yet, according to the curator in the museum of Lalibela.

- Actuality of the temporary shelter took 13 years, and it is been 7 [now 10] years since. So that, it is less probable to see the permanent solution realized in 10 years from now, since noting has been heard about the project for permanent solution yet.
- The cracks appearing on the footage of the columns of the shelter, vibration and hovering of the shelters under influence of wind are new concerns to the churches survival. And, the new microenvironment created beneath the shelters has become a refuge for birds that they will leave corrosive guano on top of the church floors. This opinion is shared by members of the clergy too.

4.3.5 Local Knowledge and Traditional Craftsmanship for Maintenance of Church

The local tradition on the construction technique, construction technology and the constructor of the churches of Lalibela is yet shrouded in mysteries. According to liturgical book Gedle Lalibela or Acts of Lalibela, (Pankhurst, (2005)[225] as cited in Phillipson, (2007)), the churches were built in the likeness of what he [the king] had seen in the Heaven through a vision, with the help of both men and angels. Though who those men were and from where they came in the help of the king's mission of construction these churches are not mentioned. Archaeologists who studied the rock-hewn churches of Lalibela and Tigray suggested that evidences within the church construction tradition of the country show that "they originated from a common but diverse tradition [of rock-hewn churches construction] over a substantial period of time" (Phillipson, 2007). Similar opinion to that of Phillipson, (2007)[226] was mentioned on the 1978 WCH screening report of ICOMOS (ICOMOS, 1978). Ethiopian scholars on the field like Fassil Ghiorgis shared similar opinion.

The tradition manifests the presence of a strong culture of rock-hewing and a local knowledge that helped their survival for centuries. Accordingly, some of the local and traditional preservation mechanisms that were used to preserve the churches from deteriorations mainly caused by water leakage were identified from the interviews. The following traditional methods were some:-

4.3.5.1 Traditional conservation methods

Use of animal hide: Qorbet

Animals' hide were used as sheltering mechanism to help the churches survive the rainy season and to control water percolation (Bogale, Abebe, and Afe Memhir Mengstie,

interview in 2013). The hides were carefully drayed and waxed with natural lubricants such as animal fat and bone fluids to give the hide smooth and impervious surface so that to drain the water easily. A skin of domestic animals, specifically of Caw, Oxen, and rarely got and sheep was donated by the local community. It is locally called Qorbet.

A hide from the animal slaughtered for marriage ceremony, in memory of deceased relatives and for festivals of the church and the local community were commonly donated to this service. Most of the ceremonies are on the dry season after the harvesting, according to the tradition. The Querbet after serving its purpose as a shelter, it wasn't thrown away, but put into other use. Because, it is considered as a holy material and believed to have healing power. Thus cut in to pieces and distributed to the people in need.

Lime Mortar: Nora

The possibility of the use of Lime Mortar in Lalibela was investigated from observation and interview. Accordingly, it has been reported that, use of Lime mortar was other traditionally practice to protect the churches from water leaking through the monolithic roofs. A lime soil from a nearby village was used for this purpose. The preparation of the mortar, according to the local tradition was taking months. The lime mixed with water, fine residue of a food grain named Teff, Haser and other grains for extended period while mixing it on a biweekly and sometimes weekly to facilitate the fermentation and harmony to get more sticky and improved quality of lime mortar (Interviewees Aba Gebreselassie and Bogale, 2013). This process was also recognized by the Expert in ARCCH according to the interviews. Sandro Angelini also witnessed remains of lime mortar on the roof of Biete Gebriel and Raphael (ICOMOS, 1967)

Waxing: Besem Mewetef

Waxing, Besem Mewetef, literally is to mean sealing with wax. It was other traditional practice to control the water leakage through the cracks. The paste to feel the minor cracks used to be made from a mix of organic materials and a wax made from Haney Bee Breads as a main ingredient. It was preferred for its ease, availability and for it helps the water to easily slide down. A trace of such a traditional preservation technique was in existence on the rock-hewn churches of Tigray, until very recent.

The rock-hewn churches of Tigray hidden within the mountain chains of Eastern Tigray, Ethiopia, were unknown to the majority of the international community and Ethiopians too, until the 1960s. In April 2016, a preliminary survey was conducted by the author to the sites of six rock-hewn churches in and around the Gheralta Mountains, where many rock-hewn churches are abandoned. Hence, according to the informants,, Wax sealing of the small cracks and use of carefully selected and compacted soil [in most cases lime] on the roof before every or every other rainy season, as the locals acknowledged its performance over the monolithic roofs from the previous rainy season, was in practice until the mid-1980s (Group discussion in the Monastery of Debre Tsion Abune Abreham, 2016).

On a site observation, a trace of lime mortar found on the roof of Debre Tsion, was an instance of the tradition. Traces of the same manner were witnessed by Sandra Angeline in 1966-67, as he found Lime mortar traces on the roof of a church in Lalibela. Use of Lime mortar and a layer of carefully selected soil are common practices in the Hudmo House roof protection from water leakage throughout Tigray Region. Hence, use of local available materials for maintenance of the churches was a common practice in the building culture.

4.3.6 Analysis of the findings

In the 1950s, the interventions were to the disappointment of the local community, in most cases. The problems were, primarily, the local community was ignored in the planning process and its role was limited to working as none-skilled daily labored. Secondly, the material integrity, the nature of the material and aesthetic values of the churches were compromised with the interventions. The local values associated to the interaction with the church buildings and the ethics to be strictly followed within the main complex of the church was violated due to lack of understanding and negligence.

A continuous attempt was made to control water leakage as it was the major mission of all the interventions. Four of the five projects were carried out by Italian Firms and led by Italian Architects. This made the intervention Euro-centric, and mainly Italian. With the beginning of the UNESCO led intervention in the 1966 and 67, there was a growing attempt to keep the material integrity and visual values of the churches; whereas, the avoidance of the local community from the planning and execution process of the preservation interventions continued. The violation of the essence of the place worsened. The interventions were neither appropriate from conservation intervention perspective nor effective in solving the problem

of water leakage. Thus, the water leakage remained to be the major problem of the churches to this date.

There is no major intervention recorded on the churches of Lalibela in the 1970s[*11)] until the late 1980s. It 1989, a temporary shelter which lasted until 2007 was built. This intervention unlike its predecessors and the later intervention, it was welcomed by the local community and appreciated by experts for its simplicity and reversibility. It was entirely constructed by local experts and it was in response of the local community and the clergies' call and experts' urgency to safeguard the mural paintings and ceiling reliefs affected by water leakage. The latest of all and yet controversial intervention by UNESCO and ARCCH is the shelter built for five churches in 2007 and 2008 with the fund from EU. This intervention managed to control the water coming from the roof but not the water coming from the side walls. It also imposed other dangers to the churches. Primarily, the structure is too heavy to be considered temporary and it is not in accordance with the cultural landscape. It is also dominating the landscape due to its size and its color [white]. The effect of wind on the temporary structures was poorly considered. After all, the local community and the clergies were estranged in the process.

In the local tradition, presence of traditional conservation know-how, skill and active public engagement to protect the churches from environmental and man-made threats was learned from the research. On the other hand, with the arrival of the national and international players, actively engaging the local communities to safeguard the heritages and the exploitation of the tradition conservation know-how and skills was undermined and if not entirely ignored throughout.

Generally speaking, there is a strong desire by the local community to see the churches properly safeguarded from the natural and manmade hazards. The presence of the local know-how and skill on water leakage control and the associated intangible cultural assets was evident though these assets were totally estranged on the interventions took place since the 1950s. As a consequence, the traditional conservation know-how and mechanisms remained poorly understood and only on the memories of few individuals, elderly, and it is on the verge of eradication due to lack of documentation and total avoidance. The local community's involvement on the preservation efforts, in most cases which were led and organized by UNESCO, was minimal and full of conflicting interests.

4.3.7 Case study conclusion

Active participation of the local community and proper use of the local and tradition knowledge and skills is a crucial step for sustainable results. In this regard, the role of the local community, the local knowledge and traditional skills in the restoration and preservation works on the WCH sites of Lalibela was underutilized. As a result, the community is feeling neglected, the traditional conservation knowledge is diminishing and the traditional skills regarding the preservation of the churches are on the verge of extinction. So therefore, it is suggested that, an inward looking approach that keeps the local community role at the center of the conservation process from planning to implementation to be considered by the responsible institutions i.e. ARCCH, the Ethiopian Orthodox Church and the Regional Culture and Tourism Bureau.

The international institutions such as UNESCO, ICOMOS and World Heritage Center and other international stakeholders along with their commitment of safeguarding the physical structures of the churches, they should also focus on the facilitation of the building of the local capacity for conservation of world cultural heritages. Providing a working system that acknowledges the complexity and advantage of engaging the local communities is timely; if the conservations of heritages to be sustainable.

The local community on the other hand should take initiatives proactively in preservation of the heritages regardless of their status as national or world heritage. The World Cultural properties mainly, living heritages like the Rock-hewn Churches of Lalibela are in most cases very close and more relevant to the local communities while they remain being the priorities of the national and international community and humanity in general. Thus, the role of the local community, the traditional know-how and skill will remain very relevant. Protecting it sustainably, in return it will have a positive impact on and contributed to the preservation of heritages.

Notes

*1) The word conservation in this paper is used in its form on its legal definition in Ethiopia's cultural heritage law: "Conservation" means a general protection and preservation activity carried out on a cultural heritage without changing its antique content;" (Proclamation No.209/2000).

*2) The visits were, in 2001 for pilgrimage, in 2010, on an academic excursion as a student of School of Heritage Conservation, Mekelle Uiversity's, Ethiopia, and since 2011, frequent visits to the site as a researcher, and specifically in 2013 and 2016 to research the topic of this study.

*3) A restoration by foreigners [Arabs] in 1919-20, was barely documented. Director of Archaeological Museum of Bergamo, Italy. Member of the Committee for Restoration and Preservation of Lalibela Churches in the time.

*4) The actual works on site was started February 2007

*5) To analyze the role of local community, it is necessary to define what the local community is in the sense of this study. Hence, local community in this study's sense is referring to the clergy, the tourist guides and residents of Lalibela who have strong bond to the day to day activities of the church.

*6) In spring 2013, ARCCH's Employee, Mr. Eyob Waqtora was interviewed by the author. He stated that, in the mid 20th c. corrugated iron was new to many parts of Ethiopia, and were considered as mark of prestige. Thus, roofs of many old and important churches were replaced with iron sheets.

*7) Woreda is Amharic word for of district. It is third-level administrative division in Ethiopia; after Federal and Regional Governments

*8) The Churches of Lalibela are owned and Administered by Ethiopian Orthodox Tewahdo Church (ARCCH 209/2000, 2000.)

*9) Ferenji is a word used to refer to the white man by the local community in Lalibela and its use is common all over Ethiopia.

*10) In the 1970s, the Imperial Ethiopia was at the climax of political and economic crises. The Monarchy was facing tough resistances from different social and religious groups. In 1974, the Imperial government was overthrown by the military and the country fall under the socialist military rule. Ever since, the country was in crises until the end of the regime change in 1991. The cultural heritage conservation movement worldwide was showing advancement in the 1970s; whereas, the focus of the government in Ethiopia was on the pressing current political and military crisis. Hence, in Ethiopia, the Center for Research and Conservation of Cultural Heritages was organized in 1976 under the Ministry of Culture and Sport Affairs. Due to the aforementioned problems and the lack of financial and trained manpower the country faced no progress was recorded regarding active engagement in conservation of

cultural heritages. Whereas, in 1978, UNESCO registered the Rock-hewn churches of Lalibela and the Simien National Park as the first world heritage sites from the sub-Saharan Africa and as part of the first 12 world heritage sites registered by UNESCO worldwide.

4.4 Conclusion

In architectural heritages like the rock-hewn churches of Tigray, Ethiopia; churches yet serving the local community as places of active worship and as a sacred territories where religious procession are taking place every day. The relationship of the local community with these churches is expected to be very strong and it is multifaceted, indeed. As heritage properties owned by the church, the preservation effort is highly dependent on the degree of the empowerment and the level of the involvement of the church community. Hence, identifying the local, regional and national institutions and other stakeholders with regard to the use and conservation of the heritage resources is the base upon which the true partnership might be established to safeguard the heritages while keeping the interest of the community to actively interact with the heritages.

The traditional conservation mechanism in the rock-hewn churches of Tigray was mainly dependent on locally available materials and local skills. The remoteness of these sites had contributed for the traditional skills to survive until early as the 1970s. The interventions were minimal, reversible and mainly on the roof. Thus, the majority of the churches were yet in their original condition. But, recently, major interventions were witnessed on some churches and minor but inappropriate interventions in many churches. In the last two decades, the national and regional authorities for conservation had started to carry out conservation interventions on the rock-hewn churches; but, the intervention which intended to save the churches from water leakage were ended up to be a failure and accelerated the problem in some cases. Lack of enthusiasm in taking proper remedial measures to reverse failed interventions is worsening the challenges and roughening relations between different actors of in the conservation of heritages.

Understanding the local context as a core process of conservation intervention is a critical step forward to effectively propose and implement conservation interventions. Analysis of local actors' approach and understanding of the heritage resources found in their locality; the evaluation of local resources and traditional skills that can be effectively incorporated are

essential to draw up short, medium and long-term conservation strategies. This can be achieved through confidence building between stakeholders. To this end, an intensive research and documentation of the traditional conservation systems and traditional skills is a vital issue at this moment to realize a comprehensive conservation mechanism that is sustainable, which depends on the locally available materials and local skills and that engages the local community. In order to safeguard the rock-hewn churches sustainably, an inward looking conservation strategy that keeps the local community as the primary stakeholder; the traditional skills, local knowledge and the locally available materials as its core resources and as integral part of its implementation strategy is suggested. Because, sustainable conservation and effective management of living heritages is greatly depends on the active role the local players.

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CHAPTER FIVE: CULTURAL PROPERTIES PRESER-VATION AUTHORITIES AND SYSTEMS IN JAPAN

5.1 Introduction

This chapter is dealing with two major topics. The first one is presented at section 5.1 is dealing with the Cultural properties preservation authorities, legal frameworks and their implication on the preservation of the traditional conservation skills. The part which follows at 5.2 is dealing with the actual case study on Mutus-city of the Aomori prefecture. It will discuss the heritage potential of three temples, the relation of the temples with the local community with the socio-religious structure, the *danka* system, and it will also discuss the reconstruction of an 18th c. Temple and the interaction of the local community on the process. Commentaries of a local craftsmen family on the process and on the issue the Japanese traditional conservation skills is discussed in brief. Lastly, in section 5.3 a concluding remark is given on the previous sections, the way forward and on the possible lessons to be considered in the Ethiopian system and practice of cultural properties preservation, mainly the living architectural heritages.

5.2 Cultural properties preservation authorities and systems in Japan

5.2.1 Japan's Traditional of Reconstruction, Repair and Restoration of Shrines and Temples

Traditional conservation techniques and craftsmanship skills are self standing intangible cultural heritages by law in Japan (an amendment in 1975 to the Japanese Law for Protection of Cultural Properties, Law No.214/1950). According to the UNESCO-ICH, (2003)[227], "Traditional craftsmanship is perhaps the most tangible manifestation of intangible cultural heritage". International conventions prior to these documents concentrated on preservation of the antiquity, monuments and tangible products. Less focus was due to the importance of preserving the skills involved in the production of the tangible output. According to Knut E. (1994)[228], there are documented evidences of conscious efforts to preserve buildings of high importance for posterity, since the Nara period. The intention behind these efforts, according to Knut was for the "people's respect to the founder", and the original carpenters' legacy. In repairing and reconstruction of important buildings, the reuse of materials and reproduction of decayed parts are techniques rooted to the Japanese tradition of carpentry.

It's evident that the Japanese Temple architecture is introduced along with the religion-Buddhism to Japan. The foundation of Shinto Shrine traditionally associated with nature was adopted the culture of Temple construction and started to enshrine Shinto Deities on magnificently constructed Shrines. But, the reuse and reproduction of materials in the Japanese tradition might be there long before the arrival of Buddhism and its architectural influence in Japan. For the matter of fact, Shinto is the indigenous 'religion' of the Japanese society and the tradition of demolition and reconstruction of shrines is a popular practice in this house of worship as a religious practice. The culture of demolishing and rebuilding of the Shinto Shrines at a fixed time interval, which strictly followed the same blue print and construction technique (William H.C. 2002)[229]; the Vicennial cycle of reconstruction (of Ise Shrine) which probably was in a shorter cycle in the far past (Knut E., 1994)[230]; are rooted mainly in religious beliefs (Kawazeo as cited by Zhonglie L., 2010)[231]. The intention of the reconstruction is not associated to the preservation of physical structure (Ibid), which is not as such in practice too (Knut E., 1994). It is for the spirit imbued in the physical form, not the form itself. According to Kawazeo – as quoted by Zhonglie L. (2010), on the Ise Shrine's tradition of reconstruction, "it was the style, not the actual structures embodying it, that they sought to preserve for posterity. What the Japanese wanted to preserve was not even the style

as such in all its details, but something else, some intangible essence within the style." Hence, the recreation of the Ise Shrine is not considered as a preservation of heritage building but a religious practice. However, this tradition of recreation is playing an indispensable role in conservation of architectural heritages of Japan.

The preservation of the craft techniques and the construction knowhow and the total system with its all sophistications is playing unparalleled role for preservation of Japanese Architectural Heritage. The essence of the recreation of Ise Shrine at a cycle of 20 years is with a broader scope than the preservation of the physical structure, as claimed by Kawazeo (Ibid). It's about passing on the traditional wisdom in shrine carpentry for generations and to keep the very know how and workmanship alive. The role is not limited to the skill and the knowhow but to the preservation of the traditional equipment. Zhonglie L. (2010) further claimed that, Kawazeo and his colleagues have attempted to establish the core principles of the Metabolism movement on the basis of the basic essence of the most remarkable feature of this tradition: the notion of 'death and rebirth', the natural process, in relation to "The historical continuity and paradoxically achieved practice of complete rebuilding over 1300 years in Ise Shrine".

The latest recreation of the Ise was completed in 2013. The recreation of Ise Shrine in its practical consideration, "a carpenter who once participated in the process would possibly have a second (Knut E., 1994)", even a probable third and fourth opportunity of participation in the reconstruction of the shrines during his career with a various role and level of engagement. Such an opportunity helps to bridge generations of carpenters to keep the originality of the design and the carpentry techniques live and intact. The role of this practice in preservation of the skills involved and smooth transfer of knowledge across generations is invaluable. The demolition and reconstruction of Shrines is vernacular. The influence of Buddhism on the Shrine architecture is inevitable; in return the influence of the Shinto tradition on the Temple restoration and preservation is also unavoidable. Above all, the Japanese tradition of 'using the most of what is available' is playing an important role in preserving the Architectural heritages for generations.

5.2.2 Japan's Institutions and legal frameworks

Since the late 1800's Japan has understood clearly the importance of the need to establish systems which work towards protection of structures (T.L. Park, 2013)[232]. Kakiuchi E.

(2014) says the first legal attempt to preserve the cultural properties of Japan was the enactment of the Proclamation for Protection of Antiques and Old Properties in 1871. Except for the immovable cultural properties, other cultural properties were subject to the first systematic survey.

This shows that the architectural heritages were not prior concern for the first proclamation. On these early years, the Meiji Government was not keen to preserve the immovable cultural properties, but the movable antiquities (Siegenthaler P.D. 2004)[233]. The devotion to restore the "Japanese Values" and the new Meiji government was moving on to the clearing of Buddhist and other none Japanese heritages to maintain the strong hold of the Shinto. This was resulted in loss of many important cultural properties, mainly built heritages (Ibid). Soon, the interest of keeping the Buddhist heritages restored, and then the government started on providing financial support for declining Temples and Shrines. What was mainly sought to be maintained at the early times was not the building at the first place but the life in these religious institutions (Ibid). Early to this time, the traditional craftsmanship skills were getting recognition.

The need of becoming more accommodative to other cultures leads to the initiative to strengthen the protection of cultural and historic heritages. This initiative was followed by the enactment of the law for the protection of the religious built heritages and the living culture in within: the Law for Protection of Old Shrine and Temples, 1897. The effort of the preservation of cultural properties gained more and more depth and scope with the enactment of various consecutive laws. The Law for the protection of Historic Sites, Places of Scenic Beauty and Natural Monuments in 1919; the National Treasures Preservation Law in 1929; and the Law Regarding the Preservation of Important Works of Fine Arts 1933.

Most importantly, the Law for Protestation of Cultural Properties, Law number 214/1950, comprehensively defined the scope of cultural properties and the reach of authorities and the involvement of stakeholders in this regard. With this law, cultural properties of Japan were classified under three categories namely: (1) Tangible Cultural Properties, (2) Intangible Cultural Properties and (3) Monuments. This clearly shows the amount of due focus given to monuments and intangible properties by the Japanese. Japan have signed the World Heritage Convention adopted by UNESCO in 1972 after 20 years in 1992, and the Convention for Safeguarding of the Intangible Cultural Heritage in 2004 after it was adopted by UNESCO one year earlier. The fact is that, the safeguarding of intangible heritages was well taken by

the Japanese system deep in the tradition. Preservation of the craftsmanship skills and the traditional conservation techniques were part of the Japanese tradition of inheritance of carpentry.

Moreover, the craftsmanship skills, the traditional conservation technique knowhow and skills are protected by law in Japan, with the amendment done to the Japanese Law of Protection Cultural Properties in 1975. Those craft techniques, skills and the designated Selected Conservation Techniques are indispensable for the preservation of cultural properties. According to the Agency of Cultural Affairs of Japan, as of 2015, there are 57 individuals and 14 groups for craft techniques; 55 individuals and 31 groups for Selected Conservation Techniques designated under this same law by the National Government. Architectural Heritages Preservation in Japan is therefore, not about the tangible and physical preservation only; it is a set of one whole with the preservation of the knowledge system and the craftsmanship.

The World Intangible Heritage Committee declared in 2013 that, in line with the notion of Intangible Cultural heritages and the Japanese use of the designation of "The Living National Treasures", it is not only the object or the product as such worth of preservation, but the knowledge and the methods and the techniques helped the property to pass on generations are equally important. Therefore, beyond recognition, the documentation, protection and preservation of the traditional knowledge systems and the craftsmanship skills is the most concrete and sustainable way to preserve the tangible cultural properties and the Japan's precedence in this regard is a potential spot to learn from.

In Japan, with the establishment of the legal system for protection of cultural properties, institutions were formed with different level dependence and autonomy under different ministries and councils. Early in 1871 the Council of State was the responsibility. In 1872, the Survey of treasures was conducted under the Ministry of Interior. A Tentative Bureau for Nation-Wide Investigation of Treasures established under the Ministry of Households in 1888[234]. In 1950, the Law for protection of Cultural Properties becomes a basis for the establishment of the cultural Properties Protection Committee later in 1668 becomes the Agency for Cultural Affairs of Japan, the responsible authority under the Ministry of Education, Culture, Sport, Science and Technology of Japan[235] . The Japanese organizational set-up for protection of cultural properties is a fully developed with a long historical background of nearly one and half a century and with a numerous Independent

Administrative institutions working hand-in-hand for a common goal: Promoting, protecting and developing the cultural values of Japan. So therefore, the Japanese institutional set-up for protection of Cultural Properties is a potential spot to learn from as for the protection of craft skills and traditional conservation skills protection for countries like Ethiopia; with a pre-matured and poorly organized very young institution responsible for this big responsibility.

5.3 Case study on the Architectural Conservation practices from Mutsu city, Aomori prefecture, Japan

This chapter gives a brief description of three temples in Mutsu city. The local community's role in the preservation and reconstruction in efforts, the public dialogue on the reconstruction of Entsu-ji temple and the local craftsman and local authorities' role are the focuses. Literature research, observation and interviews were major data gathering methods. Strong engagement of the local community through the *danka* system, genuine concern and willingness of local craftsman to help a temple reconstruction and the local authority's capacity limitation to help the architectural preservation works are the major findings.

5.3.1 Introduction

Mutsu is a city in the northern tip of the main land Japan in Aomori Prefecture. The former Tanabu town makes the center to the current City of Mutsu after merged with the town of Ominato in 1959. Tanabu is known to be the place of exile for the defeated ex-samurai lord of the Aizu Clan in 1868. The Temples known to have a strong association to the leader of Aizu clan and his family, Entsu-ji and Tokugen-ji are located in this locality of the city along with other Temples and Shrines.

The history of the Buddhist Temples in the city center, the proximity of Mount Osorezan – one of the Japan's most sacred sites – to the city and the presence of an ongoing public dialogue on the reconstruction process of Entsu-ji, makes Mustsu city a potential study area to understand the cultural properties preservation status in local cities like Mutsu City, in Japan..

The scope of this paper is limited to three temples, namely Entsu-ji, Jonen-ji, and Tokugen-ji. The condition of the temple buildings, the *danka's* role on the preservation of Temples and the relationship of the *danka* [refers to a Japanese households that voluntarily supports the Buddhist temples on the basis of their affiliation] with the temple administration are the issues investigated. The local authority's position on the preservation, local craftsman family's role and opinion on the reconstruction and the preservation of temples in Mutsu was also taken into consideration.

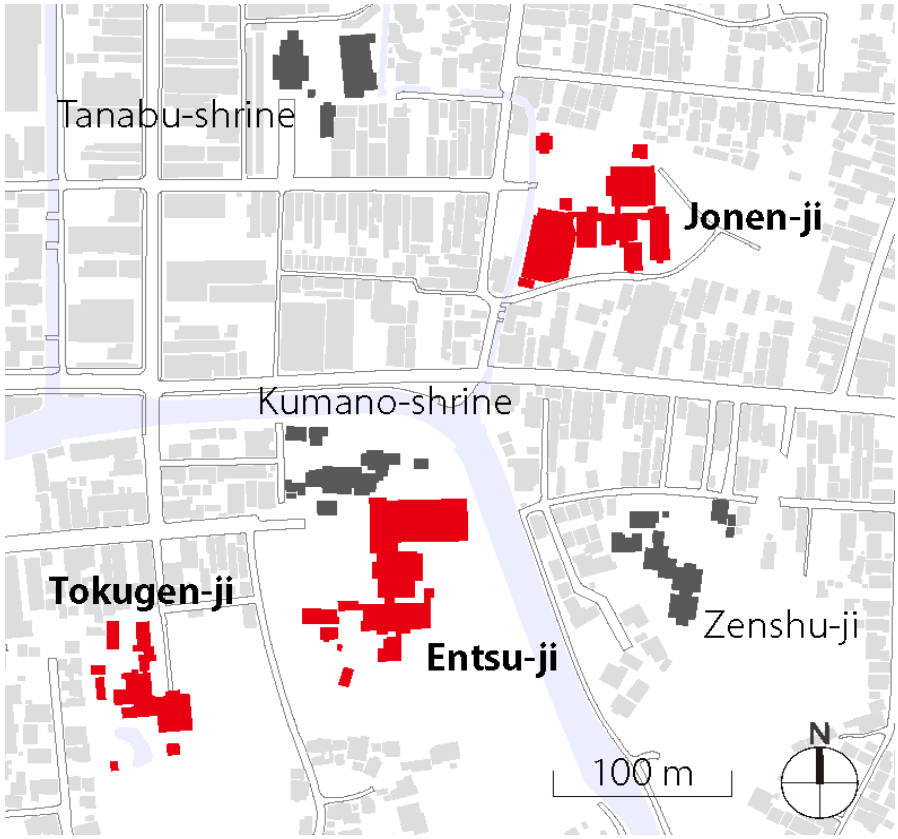


Fig. 5.1 Study site

The purpose of the study is to investigate the role of the community and local craftsman on architectural preservation of three selected temples in Mutsu city. And, the ongoing public dialogue on reconstruction of Entsu-ji Temple. The significance of the study will be to understand the local community's role on architectural heritages preservation efforts in the local cities both from the local and an outsider's perspective so as to learn from the findings and to forward working recommendations. The methodology used to aquire the data was mainly observation, interview and group discussion.

In July 2016, preliminary site visit to Mutsu City was conducted to define the scope. Discussions were held with the priests, member of the local traditional craftsman family. On the basis of the preliminary survey, three temples identified for the study and the scope was opened up to accommodate the *danka*, and the local craftsman and the clergy.

In June 2017, on a second visit to Mutsu city, a comparative observation was conducted on the selected Temples and the newly reconstructed Entsu-ji temple. A structured interview was conducted with officials from the City Board of Education, with the priest and administrator of three temples and members of the local traditional craftsman family and owners of an architectural firm dedicated to the building and conservation of Temples and shrines. Informal discussions and hearings were also conducted with members of the local community.

The site visits conducted, the informal discussions held, and the interviews were by the authors (Japanese architectural historian and professor, a Ph.D candidate and a master's student and language assistance). The data gathered from the preprimary sources, the observations and interviews were backed with the literature study of the local history of Mutsu area and the background history of the Temples to address the purpose of the research.

5.3.2 Case studies

Mutsu city is a home to interesting Buddhist Temples from the 16th and 17th centuries. These temples are interesting both from history, architecture, local community's engagement and the local craftsmanship perspectives. Entsu-ji, Jonen-ji, and Tokugen-ji are some good instances of these qualities.

5.3.2.1 Case study 1: The Buddhist Temple Jonen-Ji

Jonen-Ji is a Jodo-shu sect Buddhist Temple located at the heart of Tanabu, the old district of Mutsu city. It was found in the late 16th c. The first temple was constructed in 1596. The temple is the home to the more than 1000 years old sculpture of the Great Buddha, believed to have been sculpted by a Buddhist priest from Kyoto. This statue was registered as Important National Property in 1915 and it is an Important Cultural property since 1950. The statue is brought from Kyoto by the 4th generation priest as a gift for the inauguration of the Temple after its rebuilding in 1675.

Jonen-ji temple was destroyed by fire three times: in 1675, 1686 and in 1968. Hence, the current Temple was constructed in 1970 by Makoto Kikuchi the fifth generation of the Kikuchi family, during the 18th generation head priest. The 18th generation head priest was the 3rd generation since the Seki family inherited the head priest-hood role.

Kikuchi-Gumi, an architectural firm is currently operated by the 7th generation of the Kikuchi's: Makoto Kikuchi and Kazuyuki Kikuchi[1)].

The observation and the interviews showed that, the current condition of the main temple building is good. The high quality of craftsmanship on the construction details and construction technique is exhibited on the main building. Zen style is the dominating feature of the architecture.

The 1970 construction of the temple introduced an elevated ground with a concert foundation. The floor is constructed on top of concrete posts; as a result, it is a suspended floor. This construction technique considerably minimized the problem related to water leakage. But, due to the continuously increasing snow accumulation level, the water leakage is yet a serious concern in winter.

The young priest said that, the most recent physical intervention was the replacement of the wood foundation of the mortuary chapel. It was due to the decomposition of the foundation from snow accumulation. The future plan of intervention is also related to the same building: the Mortuary chapel. It is to make it two stories building so as to get more space while abiding to the Fire Service Act on floor area ratio.



Fig. 5.2. Yonen-ji main hall



Fig. 5.3. Statue of Buddha, an Important Cultural Property of Japan from Yonen-Ji

Regarding the maintenance and preservation interventions, he said that, “we are in no ways to repair by ourselves, but it is important to notice ahead of being pointed out by others, for instance the *danka*.” Planning with the participation of the local community and acting on the approval of the *Danka* representatives is a crucial procedure the temple always wanted to follow and to keep the tradition. The guidance of the people with the right skill and know-

how is important, thus, the temple, consulted Yamada Giken, the local firm engaged in the field of (temple and shrine) construction when their advice is needed.

5.3.2.2 Case study 2: The Buddhist Temple Tokugen-Ji

Tokugen-Ji is founded in the mid 17th (1655-67) that makes it among the oldest temples in Mutsu area. It is also headquarter of the *Jodo Shin-shu* sect in Shimokita County. The Aizu clan, after losing its fight with the immerging Meiji Government in 1868 was exiled by the Meiji Government and was arrived in Mutsu abandoning its original domain. According to the local history, this temple has a strong association to the migrated noble family. Matsudaira Nobunori, the son of the exiled leader of the Aizu Clan and his fellows seem to have taken a dinner together in this temple, while his father preferred to stay in Entsu-ji.



Fig. 5.4. Tokugen-Ji main hall

The main hall (*Hondo*) of Tokugen-ji is intact since the Tanabu fire in 1815. The major interventions after the reconstruction of the Temple following the Tanabu fire are: the reconstruction of the Temple gate and the bell tower in 1954, the re-thatching of the roof in 1967 and a reconsolidation work of the foundation and the stone added to the foundation of the building. These interventions were all by the 14th2) Generation Priest, and the father of the current officer of Tokugen-ji, Mr. Fumito Ishizawa. Kikuchi family's role on these interventions was significant.

An investigation on the status of the temple building was conducted from the observations and the interviews. The finding shows that, the major problem is related to the deterioration

of the foundation due to the accumulation of the snow. The problem is aggravated by the nature of the ground on which the temple is situated, i.e. wetland. Thus, if there has to be any major intervention, it should be related to the foundation. The officer of the temple pointed out that, replacing the current foundation with concrete foundation and elevating the level of the floor is what they think as a solution. But, they are also very conscious that, if they have to introduce and new work of construction or maintenance, they will consult the Kikuchi-gumi. Kikuchi-gumi and the Kikuchi family had a strong tie since the 14th generation priest. They are very keen and strongly associated to the temple due to the marriage tie with the family of the priests. Even though the relevant carpenter for Tokugen-ji, according to the informant was a carpentry form Morioka in Iwate prefecture; there was no contact since the Edo period. Thus, Kikuchi-gumi is now more relevant.

The office of the temple clearly stated that, construction of new temple is not a plan of Tokugen-ji at all, at least this time. What they wanted to do is that, to keep the Temple originality with a minimal maintenance intervention. The officer in Tokugen-ji temple is also eager to see the temple designated as cultural property. Mr. Ishizawa is concerned that, the city and the prefecture responsible authorities are not doing enough effort to realize Tokugen-ji registered as cultural property.

5.3.2.3 Case study 3: The Buddhist Temple Entsu-Ji

Entsu-ji is a Soto-shu sect (Zen sect) Temple located in Mutsu city. It is headquarter to the Soto-shu Sect Temples in the county. Bodai-ji, the Temple located in mount Osorezan, belongs to Entsu-ji under one head priest and a centralized administration.

Entsu-ji Temple was found in 1522. Between 1688 and 1704, Renge-ji (A Tendai sect Temple) was competed with Entsu-ji for the domination of Osorezan. Entsu-ji won the fight and its dominion was approved in 1780. Entsu-ji like Tokugen-ji temple has a strong association with Aizu domain ruled by the Matsudaira Clan under Lord Matsudaira Katomori. Entsu-ji was where the leader stayed.

The main temple building of Entsu-ji, which was built in 1759, was believed to be the second oldest temple building in the locality after Daian-ji's main gate: a structure survived from the 1754 fire. The 255 years old main building of Entsu-ji temple was demolished for the reconstruction started in autumn 2014 and completed in March 2017.

The demolishing and its construction process was an issue of active dialogue among the local community on our visit in July 2016. The decision making process on reconstruction, the quality of the reconstructed temple compared to its predecessor and the neighboring temples, and the reconstruction work financing mechanism were points of active public debate at times of the visits. Hence, these points are discussed on the following parts based on the inputs of interviews and the observations.

5.3.3 A comparative study of the old and the new Entsu-Ji main hall

As it was discussed in the previous parts, from the opinions of some members of the local community, the clergy and the local craftsman, one can concluded that, losing the former temple Building of Entsu-ji was not easy. Hence, a comparative case study conducted between the old and the reconstructed Entsu-ji temple buildings and with the neighboring temples was conducted. Accordingly,

- No change on the main layout of the temple and floor plan.
- But, entrance of the clergy is not in its original location, the roof shape is changer and the width is decreased
- Concrete foundation added and floor level elevated.

The posts on the front porch of the former building were sat on a stone plinth which is a characteristic element of the Zen-style. Whereas, these stone plinths do not exist (Compare #3 in Fig. 5.5 and 5.6) on the reconstructed building. Though, the use of plinth is common practice in all other temples mentioned in this study.

The image of the façade is changed. Size and number of windows is reduced solid walls introduced on place former windows. The wall is painted white.

- The quality of the crafted details is inferior to the former work (Compare the pictures) diminishing on
- Quality of the details on the new building compared to the former and to the two temples discussed is inferior.
- Visual connection between the interior and the outer space declined due to the blind walls introduce.



Fig. 5.7. A decoration from the Old Entsu--Ji main hall, incorporated to the new, reconstructed temple



Fig. 5.5. Old Entsu--Ji main hall, demolished in 2016



Fig. 5.6. Old Entsu--Ji main hall, reconstructed in 2017

5.3.3.1.1 The decision making process for the reconstruction and the financing of Entsu-ji Temple

The reconstruction work for the main building of Entsu-ji temple was started in autumn 2014. In March 28, 2017, the reconstructed Temple of Entsu-ji was officially inaugurated to mark the completion of the work. On the time of the inauguration, it was reported that the reconstruction work was the first in 258 years for the main Temple[4)] building.

Therefore, with the intention of researching the decision making and financing process of the reconstruction work, two consecutive attempts were made to interview the head priest of the Entsu-ji temple and members of the temple administration. These attempts were not successful. However, an interview on the same topic was conducted with members of the local community, *danka* sponsors and a local craftsman. The findings show that, a communication barrier between the temple and the *danka* members and the local craftsman were evident. Members of the clergy from the neighboring temples were also interviewed for their opinion on the same issue. Thus, neither of them satisfied with the process, and especially with the result.

Entsu-ji has the biggest number of *danaka* sponsors comparing to the other two temples. The amount of the annual contribution is also higher. The construction of the Temple cost 1.4 Billion Yen, according to the information provided by the local craftsman. The *danka* sponsors were told[5)] to contribute 500,000 yen each to cover part of the construction cost. The amount of contribution by the members of the *danka* council is 700,000 yen each and 10,000,000 yen by the *danka Sodai* (Kikuchi, 2017).

Apart from the amount requested, the contribution collection method was not following the tradition. Traditionally, the collection of the contributions, both the annual fees and the irregular contributions was collected by the *danka* representatives. People well respected by the local community took the primary initiatives in the contributions as a *danka* representative. But, recently, the bank transfer system for the *danka* contribution is introduced. This modal is widening the communication barrier between the temple and the community. Though many thought that the amount requested is exaggerated, the bank transfer makes meeting the head priest and his family and expressing their feelings difficult.

A *danka* sponsor interviewed expressed dissatisfactions on the communication process of the reconstruction of Entsu-ji temple. He believed that he is entitled to know what is going on the

Temple he is a member to. But, transparency is not in place. The dissatisfaction makes him think to quite his role as *danka* sponsor and move on to other temple. But he felt that, doing so will be a betrayal to his ancestors and will make him lose his posthumous Buddhist name[6]. Thus, decided to continue on his *danka* sponsor role with his grief.[7]

A local craftsman and experienced temple/shrine builder was interviewed about the reconstructed temple building. He stated that, the former Temple of Entsu-ji, in particular the condition of the foundation, was badly deteriorated. In such a case, reconstruction is common practice in the tradition of Japanese Temple and shrine architecture. But, after witnessed the reconstructed new temple building, built by the Tokyo based firm, *Aoki-Kun Komuten*, he felt that, what has happened is very regrettable. He believed that, the quality of the work is inferior to its predecessor and the cost of the construction, 1.4 billion Yen, is not rational. According to his experience, it is possible to build such a quality on half price. The temple and the *danka* sponsors are paying for a job way inferior in quality to its predecessor.

The officer from Tokugen-ji temple believed that, the demolition of the former Entsu-ji main building was not a wise decision. It was old, historically very important and the quality of the workmanship was better than the reconstructed one. He farther went on wishing that, it would have been a great support if Entsu-ji is willing to donate the main pillars and lintels of the demolished temple to be used for the maintenance of his temple, Tokugen-ji. He mentioned that, the size and the quality of the wood from the demolished temple of Entsu-ji is difficult to find this days.

The local cultural properties protection authority

An interview was conducted with two sector leaders of Mutsu city board of education. The Municipal board of Education is the responsible authority for the protection and promotion of cultural properties of the city. According to the informants, there is no Temple or Shrine in Mutsu city designated or registered as cultural property to any level. Thus, it is reported that, there is no tangible experience on architectural heritages preservation at local authority level.

Regarding the reconstruction of Entsu-ji, the interviewees said that, there is no official mandate that engaged them on the reconstruction of the temple. Their know-how of the reconstruction process is limited to the information they have as residents of the city.

The city has designated one important cultural property and two tangible cultural properties; both are modern heritages. Regarding financial support for cultural properties preservation, the officials claimed, financial capacity at the city board of Education is limited, so does the personnel. Thus, due focus is given to other pressing issues and "Let's protect valuable things together" is the message ingrained to the designation of properties as cultural properties. On the other hand, the relationship with the local carpenters is not existed. Whereas, presence of two companies actively engaged in the construction and maintenance of shrines and temples is known, the Kikuchi-gumi and Yamada Giken.

According to the officials, the tendency of the owners of the temples on registration of the temples as a cultural property is minimal. The reason is that, the fear of the complicated procedures and the restrictions on the alteration and repair interventions and management of the temple buildings that will follow registration of the property. But, the condition in Tokugen-ji is to the contrary. The interest of the officer in Tokugen-ji is to see the temple designated as cultural property. Therefore, he is looking forward the authorities to study the temple's potentials and realize the registration of the temple as cultural property.

5.3.4 The relationship of temples and the local community

As for most religious institutions, the Japanese Buddhist temples' relation with the Japanese community is associated to the provision of religious services: indoctrination, prayer and memorial and funeral ceremonies and other services.

In Japanese Buddhism, the religious congregants system is called *danka seido*. To point out the exact time for the beginning of the *danka* system in the Japanese Buddhist tradition is difficult[3)]. Registration of the Temple affiliates through the *danaka* system became the mandatory obligation of Buddhist Temples by the Tokugawa government in the 1660 (TAMAMURO, 2009). The legalization of the Temples to certify their affiliates and to keep the registry of the affiliates gave the Temples a legitimate power on the society. This legitimacy strengthened the relation of the *dankas* (family groups) with the nearby Temples. Even after abolish of the mandatory registry by the Meiji government, the bond between the Temples and the community through the *danka* system continued.

The main elements deep ingrained in the *danka* system during the Tokugawa regime as mandates of the Temple affiliates were attending funerals, memorial services, and visits to graves of relatives and ancestors. In Mutsu city, these practices are yet the most relevant

conditions that kept the *danka* system strong and its members close to the temple and actively engaged on its matters.

The number of the *danka* sponsors, the amount of the annual contribution and the amount of the regular contribution and the level of their engagement on issues related to the temple are different form temple to temple. Entsu-ji temple has about a 1000 *danka* Sponsors. This number is very close to the number of the *danka* sponsors of Jonen-ji which is between 900 and 1000. But, the number for Tokugen-ji, stands at 200 *danka*. Regarding the amount of the annual contribution for Entsu-ji's, for the *danka* sponsors it is 6000 yen and 10,000 yen for the members of the *danka* council. For Jonen-ji, the amount is 5000 yen on two pay, 3000 and 2000 yen respectively. The annual fee doesn't substitutes other mandatory contributions in case of urgent financial needs for things like major maintenance or reconstruction plans.

The major sources of revenue are different from temple to temple, but donations, parking lending and annual fees and hall usages pays are common. In the case of Jonen-ji, the revenue from offer is kept on a special saving account while the remaining revenue is used for the daily routine of the temple service and as a pocket money for the priest.

The priest informant from Jonen-ji, said that, not alone a rebuilding of an entire temple, to make minor restorative interventions demands a huge amount of money. Hence, planning in advance, starting saving early and getting the strong and genuine support of the *danka* are crucial. If a major project is planned, the cost should be paid from the saving of the priest's pocket money, the contribution of the *danka* and from the Jodo-shu sect. The opinion of the young priest is shared by the officer of Tokugen-ji temple, while he speaks about his future plan of maintaining some parts of the temple.

According to Hur (2007) as cited in (Hur, 2013), the *danka* system [in Japan], currently simply denotes that the affiliation between the sponsoring families and funerary Buddhist temples. Whereas, the depth of the relationship and the concern manifested during the course of the study in Mutsu city transcends the above description. The *danka* members concern on issues related to the reconstruction and fundraising process of Entsu-ji temple doesn't denotes simple affiliation with a temple on the basis of offerings and funeral services. It was a genuine sense of belongingness and ownership of the Temple. The concern shows that, the tradition on the relationship between the Temple and the *danka* members and representatives

in Mutsu is deeply rooted. The *danka* members wanted to be heard, their concerns addressed by the temple administration and their role improved.

5.3.5 Local craftsman family

In Mutsu City there are two prominent local firms engaged in the construction and maintenance of shrines, temples and traditional architecture. Yamada Giken is providing consultation services to Jonen-ji Temple on issues related to the architecture. But, the current temple was constructed by Kikuchi-gumi.

Kikuchi-gumi is a 160 years old architectural firm actively engaged in the construction and maintenance of shrines and temples. Kazuyuki Kikuchi is the 7th generation to the family and he is a renounced temple/shrine builder. Currently he is the field supervisor and most experienced craftsman of the firm. He was trained by his father with the hand tools of his grandfather [the builder of Jonen-ji temple], and started practicing traditional craftsmanship under the supervision of his father.

Kazuyuki Kikuchi has worked on more than 30 temples and shrines so far. He is also a *danka* sponsor to Entsu-ji Temple. His involvement on the reconstruction of Entsu-ji was limited to his role as a *danka* sponsor, because the process was not engaging.

Kikuchi family also has a close tie with Tokugen-ji temple. Thus, Tokugen-ji is depending on the consultation of the Kikuchi family on issues related to the maintenance and preservation of the temple building. Kikuchi family is a major potential in the city worth of further research to clearly define their role.

5.4 Conclusion

The Legal protections and institutional set-up for protection of cultural properties in Japan is well established. The availability of sophisticated training facilities and capacity building endeavor and certification process is also other potential. The traditional knowledge systems and local craftsmanship skills in Japan are also legally protected. The preservation of architectural heritages is therefore well integrated to the preservation of the traditional craftsmanship and both are interdependent. This makes the Japanese system for preservation of tangible and intangible heritages preservation mutually interdependent.

The efforts of recognition, certification and provision of financial support and permanent tenure for the holders of the traditional knowledge and skills; is an important initiative worth of adaptation. Having all these efforts in place, this field is not winning the interest of more successors to join the field. Compared to other occupations, mastering these skills is hard to achieve and it's time consuming. On the other hand the financial gain and the prestige are inferior compared to the required effort and to other fields of other fields of architecture and engineering.

Regarding the temples in Mutsu area, the current status of the two temples is good. However, a potential source of deterioration for the temple of Tokugen-ji is related to water induced damage on the foundation, due to the growing level of snow accumulation from one winter season to the next. The problem related to the deterioration of foundation is not limited to Tekugen-ji, Yonen-ji and Daian-ji are facin the same challenge but less in its intensity. The deterioration on the floor elements due to snow accumulation is also a potential threats shared by the temple that needs to be deterred with informed intervention.

It is good to take lesson from the complete demolition of Entsu-ji which is replaced with a new main building that clearly demonstrates a poorer quality to its predecessor. This case could be good manifestations of the 18th century architecture of Mutsu city and its environs for a reconstruction that lacks the quality of the demolished one, both in material and workmanship; which is an eminent danger to the preservation of the architectural tradition of the area.

The documentation of the temples architectural and social history, to enhance the management of the temple architecture and the movable cultural assets sheltered on temples is necessary. Studying and documenting the *danka* system, which is in good shape compared to the big cities, to pass on the coming generation is important.

The *dankas* relation with the temples in Mutsu city is based on mutual understanding, Except for Entsu-ji. The local craftsman too tare also playing great role on the preservation of the temple's architecture through provision of guidance and hands-on engagements.

Meanwhile, it is recommended that the city board of education to strengthen its staff those who can dedicate to the preservation of cultural properties. Taking the under representation of the northern region of Japan on the architectural heritages registration, the nominating of Tokugen-ji temple, to be designated as a cultural property, at least in municipality level, as

the oldest temple remained intact in the locality for its architectural and historic merits is timely. Doing so would be a great promotion to the temple, the local craftsman and the *danka* system that is playing active role in the temples protection. Hence, a thorough investigation on the potential of Mutsu City temples is timely.

The Ethiopian cultural properties preservation legal framework and institutional setup which is in an infant level compared to the Japanese counterpart needs to take lessons from Japan's way in this regard. Ethiopia, on its endeavors to safeguard the architectural heritages, mainly the churches and monasteries, should take the Japanese experience of Temple and Shrine conservation as a bench mark: on issues of organization skill, process documentation and the motivation of the public and private sectors to take part on the preservation works. The public participation in the form of *danka* is other source of potential lesson. Above all, integration of the preservation of cultural tangible properties with the protection the intangible cultural property, folk skills, craft skills and traditional conservation systems is very enlightening to take a pace after. The notion of "Living Treasures" is living in the Japanese system and practice of heritage conservation, thus it is a framework and a practice worth of adoption to the Ethiopian context.

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CHAPTER SIX: ANALYSIS- CHALLENGES OF SUSTAINABLE COMMUNITY MANAGEMENT IN CONSERVATION OF RELIGIOUS BUILDINGS

6.1 Introduction

In this chapter, data gained from the focus group discussions, field visits, in-depth interviews and from the secondary data sources focus groups are analyzed in order to explore: *How the community could be integrated into the preservation process for sustainable conservation of religious built heritages*? The five research questions this study intends to address were:

- *What are the major sources of regression of the heritages?*
- *What are the level and the impact of conservation intervention by different actors?*
- *How the impacts of the preservation projects are perceived by the local community?*
- *How far is the role of traditional conservation know-how and skills on the preservation of the rock-hewn churches? How these know-how's and skill were integrated with conservation interventions by the conservation authorities?*
- *How the cultural and religious assets of the churches and the values of the local community are integrated into the preservation process?*

Hence, question number one through question number five were addressed in the previous chapters, mainly in chapter three through five. However, the finding from the case studies clearly demonstrated that the role of the local communities is undermined in all cases studies

in Ethiopian and in one of the three cases from Mutsu, Japan. On the other hand, the importance of engaging the local community for sustainable conservation of living religious buildings was found to be a crucial issue that needs further investigation. As a consequence, this chapter is dedicated to analyze the challenge of sustainable community management in conservation of religious heritages. A cross-case analysis is utilized as the discussion method. Interest, regulation, resource, technology and operation are key word used to develop the discussion.

6.2 Local community's Interest on conservation of living religious buildings

The concept of 'community' is complex; it sometimes is also confused with a neighborhood. In the pre-industrial community as the traditional forms of living, were created around a shared interest is often historically related to commonly owned assets, such as churches, temples, natural resources, holy places, and/or local myths. However, the modern industrial societies need to be understood as more structured and defined by their formal institutions. In the traditional community or the modern communities occurred when people get together and form groups out of the combination of individual interest and the interest shared by the commons. Hence, regardless of the driving force, people belong to a community with whom their shared a traditional or institutional interest, and they feel entitlement to it and shared its goals, values and beliefs.

The results of the study show that, the interest of the local community on the conservation of the Temples in Mutsu and the rock-hewn churches is high. In Tigray, the relationship of the churches and the local community is very strong. The local community is involved in every administrative decision of the churches through its representatives in the Parish committee. The smallest unit in the structure of the Ethiopian Orthodox Church is a single churches and every church have its own Parish representatives committee. In the case of Mutsu, the local community's involvement on the matters of the temples, including the conservation decision is very strong. The *danka* system is playing a strong role in this regard.

The nature and organization system of the *danka* and the parish council (*Sebeka Gubae*[1]) looks similar; however their level of engagement is different. In Mutsu's case, the influence of the *danka* differed from temple to temple and it is mainly depending on the willingness of the head priest. From this perspective, the *danka* councils in Yonen-ji and Tokugen-ji are involved in the matters of the temples and the relationship with the temple administration is

very smooth. On the other hand, Entsu-ji's temple administration doesn't seem to have a smooth relationship with the *danka* council and its members. Unlike its predecessors, the current head priest and his family are less connected to the local community and the *danka*, but functions mainly on the order of the head quarter, in Tokyo. As a result, against the local tradition, the *danka* council and the local community's say on the reconstruction process of the temple was passive and they were asked an amount of contribution of each *danka* family without prior discussion as a surprise.

In the rock-hewn churches of Lalibela, the strong link between the church and the local community is present, but challenged by the interest of the conservation institution where they pretend as the guardian of the heritages. In this regard, the local community is feeling excommunicated and its interest ignored when it comes on to the decision making process on the conservation engagements on the world heritage site.

6.3 Regulations on conservation of living religious buildings

In this regard, the Japanese experience is well developed. The countries legal and institutional capacity is among the best in the globe. The problem is that, these temples and shrines which are not designated as cultural properties are not safe regardless of the heritage value of the properties.

In Ethiopian case, there is no any legal framework or regulation that gives due focus to the religious buildings exclusively. All cultural heritages are regulated by a single document that is too narrow in its scope to cover all varieties of the cultural properties and too generalist in its definition and categorization of heritages. However, there is a strong tendency on the local communities and local institutions in considering religious buildings as heritages buildings in general and the rock-hewn churches in particular, regardless of their designation or registration level. This sense of ownership is saving many churches from total distraction. On the other hand, the sense of ownership coupled with the lack of the understanding of conservation principles and standards, is aggravating locally initiated but unchecked 'maintenance' and 'beautification' interventions which turned to be a destructive interventions when examined against the conservation standards and principle.

6.4 Resource for conservation of living religious buildings

The presence of local community organized in the form of *dank* system in Mutsu, and the parish council (Aka *Sebeka Gubae*) in Tigray churches is the most critical resource for the conservation of religious buildings. The locally available resource, the local traditional knowledge and members of the temples and the churches with a technical knowledge of the traditional conservation skills are assets identified for their potential to playing the most crucial role for sustainable community based conservation of religious buildings.

The material resource on the other hand is a short coming observed in both cases. However, the intensity of the shortcoming is different. In Mutsu, the members of the *danka* are able to contribute financially for the preservation of the physical structures and the temple service. On the other hand, the new generation is showing no interest to take the role of priesthood in the temples; hence this is a potential threat for the preservation of the living element of the temples, the service. This problem is immediate to Tokugen-ji temple, were currently is running without the presence of head priest. Relatively, Entsu-ji is safe from such shortcoming at list at this time. Because, the temple is generating relatively higher amount of revenue from the tourism activities on its sister temple located at mount Osorezan.

The production of the future generation of priests is also a challenge in the Ethiopia, but, the churches with higher tourist flow are relatively in good shape in this regard. New generation of young clergy is immigrated to these churches from the less fortunate and remotely located churches.

6.5 Technology on conservation of living religious buildings

The tradition local conservation technology is living in Japan, due to the practical and legal efforts the government of Japan placed in the issue. The traditional conservation skills are subject of conservation and the skill holders too; and they are well institutionalized. However, the interests of the new generation to prepare for this task are dimensioning from time to time. The complexity of the traditional conservation skills, the time and dedication it takes to master the techniques and the knowhow and the financial gain and the social status achieved afterwards are making choosing it as a carrier difficult.

The local skill with the construction of rock-hewn churches is yet living, but traditional local conservation technology in Ethiopia is about to disappear. On the other hand, because of the

nature of the material, stone, the deterioration was a process of hundreds of years. Hence, the traditional conservation skill is difficult to pass it from generation to generation. However, due to the similarity of the traditional conservation treatment required for the churches water leakage problem from the roofs and the traditional housing of the localities the *Hidmo*[II] house, this specific skill has managed to survive. The problem here is that, the skill is surviving as a hoppy not as carrier.

The conservation education in Ethiopia is only a decade old, poorly equipped and it is suffering from material and personnel shortcomings. On the hand, the national conservation authority, ARCCH is counting half a century since its establishment. Using the potential at the national authority might contribute a lot in narrowing the gap in the need of instructors with hands on practical knowledge of conservation.

6.6 People centered conservation of living religious buildings

Understanding the local context as a core process of conservation intervention is a critical step forward to effectively propose and implement conservation interventions. Analysis of local actors' approach and understanding of the heritage resources found in their locality; the evaluation of local resources and traditional skills that can be effectively incorporated are essential to draw up short, medium and long-term conservation strategies. Lving heritages is greatly depends on the active role the local players.

Active participation of the local community and proper use of the local and tradition knowledge and skills is a crucial step for sustainable results. In this regard, the role of the local community, the local knowledge and traditional skills in the restoration and preservation works on the case studies were examined base on the data found from the interview and FGDs.

In Mutsu Temples, a genuine interest of active participation on the preservation of the temples was observed in the discussions with the members of local craftsman family, a senior craftsman and his fellow, a deputy head priest of Yone-ji, the administrator of Tokugen-ji and other informants. I was unable to get the opinion of the head priest of Entsui-ji though a repeated effort was due. Most importantly, the interviews with the danka members were very informative to draw the following rmarks regarding the level of the participation.

The local community's participation in Yonen-ji and Tokugen-ji', the *danka* members are consulted for every major decistions regarding the temple and even minor interventions are well communicated to the danka members. When it comes to the decision process, the *danka* council is actively representing the *danak* members and decides on their behalf, and the general members participate on the process by being consulted or by answering questions. Any member of the *danka* or anyone interested in the matters of the temple can point out a problem need to be addressed but defining the problems is up to the hands of the *danka* and the head priest. Having said this, it is also good to point out that the head priests have some level of autonomy to decide independently, but not on grand interventions.

The *danka* members also participate by contributing resources, in the form of fixed regular *danka* membership fee and a conditional contribution if the *danka* council asked for contribution. The level of participation is that, from defining the problem to e addressed until joint analysis of the problem, devising action plans, forming task forces and execution. Participation is seen as a right and as a means of coexistences of the temple and the local community.

In Entsu-ji temple, though they have the biggest danka compared to the other two temples; its participation on the maters of the temple seems to have been passive. Taking the recent reconstruction work as instance, the decision was mainly by the temple and the approach they preferred to collect the financial contribution of each danka family seems manipulative, according to the opinions of the informants, who are also danka families belonging to the temple.

In regard with the roc-hewn churches of Lalibea and Tigray, Understanding the local context as a core process of conservation intervention is a critical step forward to effectively propose and implement conservation interventions. Analysis of local actors' approach and understanding of the heritage resources found in their locality; the evaluation of local resources and traditional skills that can be effectively incorporated are essential to draw up short, medium and long-term conservation strategies. This can be achieved through confidence building between stakeholders.

In this regard, the role of the local community, the local knowledge and traditional skills in the restoration and preservation works on the WCH sites of Lalibela was underutilized. As a result, the community is feeling neglected, the traditional conservation knowledge is

diminishing and the traditional skills regarding the preservation of the churches are on the verge of extinction.

The international institutions such as UNESCO, ICOMOS and World Heritage Center and other international stakeholders along with their commitment of safeguarding the physical structures of the churches, they should also focus on the facilitation of the building of the local capacity for conservation of world cultural heritages. Providing a working system that acknowledges the complexity and advantage of engaging the local communities is timely; if the conservations of heritages to be sustainable.

The local community on the other hand should take initiatives proactively in preservation of the heritages regardless of their status as national or world heritage. The World Cultural properties mainly, living heritages like the Rock-hewn Churches of Lalibela are in most cases very close and more relevant to the local communities while they remain being the priorities of the national and international community and humanity in general. Thus, the role of the local community, the traditional know-how and skill will remain very relevant. Protecting it sustainably, in return it will have a positive impact on and contributed to the preservation of heritages.

To this end, an intensive research and documentation of the traditional conservation systems and traditional skills is a vital issue at this moment to realize a comprehensive conservation mechanism that is sustainable, which depends on the locally available materials and local skills and that engages the local community. In order to safeguard the rock-hewn churches sustainably, an inward looking conservation strategy that keeps the local community as the primary stakeholder; the traditional skills, local knowledge and the locally available materials as its core resources and as integral part of its implementation strategy is suggested. Because, sustainable conservation and effective management of living heritages is greatly depends on the active role the local players.

So therefore, it is suggested that, an inward looking approach that keeps the local community role at the center of the conservation process from planning to implementation to be considered by the responsible institutions i.e. ARCCH, the Ethiopian Orthodox Church and the Regional Culture and Tourism Bureau.

Summary

In architectural heritages like the rock-hewn churches of Tigray, Ethiopia; churches yet serving, the relationship of the local community with these churches is very strong and it is multifaceted. The preservation effort is highly dependent on the degree of the empowerment and the level of the involvement of the community. Hence, identifying the role of the stakeholders is the base upon which the true partnership should be established to safeguard the heritages while keeping the interest of the community to actively interact with the heritages.

The traditional conservation mechanism in the rock-hewn churches of Tigray was mainly dependent on locally available materials and local skills. The remoteness of these sites had contributed for the traditional skills to survive until early as the 1970s. The interventions were minimal, reversible and mainly on the roof. Thus, the majority of the churches were yet in their original condition.

In the last two decades, the national and regional authorities for conservation had started to carry out conservation interventions on the rock-hewn churches; but, the intervention which intended to save the churches from water leakage were ended up to be a failure and accelerated the problem in some cases. Lack of enthusiasm in taking proper remedial measures to reverse failed interventions is worsening the challenges and roughening relations between different actors of in the conservation of heritages.

	Interest	Regulation	Resource	Tehnology	Operation
Ethiopian ARCCH/ TCTB	They show strong interest	No specific law on community participation	Limited financial capacity to sponsor conservation works Growing tourism, New programs in conservation studies	Local technology available	The authorities play the role of the guardian
Lalibela	Local community is strongly linked with the churches. The interest on the tourism sector is growing rapidly	It is World Heritage Site and protected by a separate law	High tourist flow	Local technology reviving	Strong parish committee but underutilized in the past and was excluded from the conservation decision process
Wukro	Eger Local community TCTB is showing interest in the church and WHS nomination is already submitted	It is National Heritage protected by law and nominated for WHS	Free labor, Growing tourism	Survived traditional technique	Strong parish committee but underutilized in the past and was excluded from the conservation decision process
			Parish member number increasing		
Debre Tsion	TCTB is showing interest in the church and WHS nomination is already submitted. Growing interest from mural painting restoration professionals and researchers.	It is National Heritage protected by law and nominated for WHS	Parish member number decreasing Local resource required for the conservation of the church's roof with the traditional material is available near to the church	There is a demand for modern technology to restore and preserve the mural paintings from deterioration	The parish is getting weaker and the number of the clergy is decreasing. However, those who preferred to stay in the same parish; they are willing to give a fee labor and to provide local resources for conservation.
Japan/Mutsu	Members of the local community and temple administration (Tekugen-ji) believed that the resignation of the temple as cultural property will increase the tourist flow to the city	No temple in Mutsu is registered or designated heritage	There is a huge capacity to represent city on the map of Japanese architectural heritage	There are two families of craftsmanship with the hands on skill and organizational capacity. These families are a potential of preservation	The *danka* system is in good shape and the local community is actively engaged in the preservation of the temples. But, Entsu-Ji
Yonen-Ji	The temple and members of the *danka* council are interested in building multistory service buildings as expansion	Not protected legally	It sheltered a registered "Important Cultural Property" , the statue of Buddha	The local craftsmanship family has strong link to the temple.	The *danka* system is in good shape and the local community is actively engaged in the preservation of the temples.

Tokugen-Ji	Registration as cultural property Interest in raising the foundation of the temple	Not protected legally	Historical documents and paintings from the medieval age	The local craftsmanship family has strong link to the temple.	The *danka* system is in good shape, the local community is actively engaged in the preservation of the temples.
Entsu-Ji	Shows no interest in preserving the historical and 256 years old building and demolished it. Local community and local craftsmanship family interest was for conservation intervention not demolish and rebuild.	Not protected legally	It has huge tourist flow compared to any temple in the area due to its sister temple at Osorezan. Big *danka* family Bigger size of clergy and administrative staff compared to the other two temples	It ignored the local craftsman skill and knowledge and preferred in hiring a temple builder from Tokyo.	They have the biggest crowed of *danka* families, but the relationship of the Temple administration with the local community and the *danka* families is not smooth. Unlike the other two temples, and the decision making process is authoritarian, not participatory.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATION

7.1 Conclusion

7.1.1 The Rock-hewn churches of Ethiopia

In architectural heritages like the rock-hewn churches of Ethiopia, churches yet serving the local community as places of active worship and as a sacred territories where religious processions are taking place every day, keeping the interest of the community to actively interact with the heritages while the heritages are effectively preserved is one crucial goals that needs to be achieved. The relationship of the local community with these churches is expected to be very strong and multifaceted. In such a case, identifying the local, regional and national stakeholders' interest with regard to conservation of the heritage is the platform upon which the effective communication and true partnership for conservation intervention might be established. As heritage properties owned by the local community and the church, the preservation effort of the churches is also highly influenced by the level of the empowerment and the degree of the involvement of the church and the local community.

The traditional conservation mechanism in the rock-hewn churches of Tigray was mainly dependent on locally available materials and local skills. The remoteness of these sites had contributed for the traditional skills to survive until early as the 1970s. The interventions by the church and the local community in many cases were minimal, reversible and mainly on

the roof, and the façade. Thus, the majority of the churches were yet in their original condition. But, recently, major interventions were witnessed on some churches and minor but inappropriate interventions in many churches. In the last two decades, the national and regional authorities for conservation had started to carry out conservation interventions on the rock-hewn churches. The interventions which were intended to save the churches from water leakage were ended up to be a failure and accelerated the problem in some cases, for instance in Wukro Cherkos and Debre Tsion. Lack of enthusiasm in taking proper remedial measures to reverse failed interventions, on the other hand, is worsening the challenges and it is becoming a reason for the luck of mutual trust and affecting the relationships between the owners of the heritages, the local community and the church, and the local and national heritage conservation authorities and their employees.

Understanding the local context as a core process of conservation intervention is a critical step forward to effectively propose and implement conservation interventions. Analysis of local actors' approach, understanding of the heritage resources found in the localities and the evaluations of local resources and traditional skills that can be effectively incorporated are essential to draw up short, medium and long-term conservation strategies. This can be achieved through confidence building between stakeholders. To this end, an intensive research and documentation of the traditional conservation systems and traditional skills is a vital issue at this moment in order to realize a comprehensive conservation mechanism that is sustainable, which depends on the locally available materials and local skills and that engages the local community.

Generally, in order to safeguard the rock-hewn churches of Tigray, sustainably, formulating an inward looking conservation strategy that keeps (1) the local community as the primary stakeholder, (2) traditional skills, local knowhow and locally available materials as its core resources, and (3) that keeps both as the core values of the conservation interventions and as an integral part of the implementation strategy is suggested. Because, sustainable conservation and effective management of living heritages is greatly dependent not on borrowed skill sets and conservation approaches; imported materials and remotely available expertise but it depends on the active use and empowerment of the local capacity. The conclusion is summarized as follows based n the research questions:

1. What are the major sources of regression of the heritages?

The major sources of deterioration are mainly related to the poor management of the resources, rain water, and irresponsible interventions; interventions that includes but not limited to the inappropriate modification of the façade, use of cement to fill up cracks, and construction of new structures which are incompatible to the cultural landscape, out of proportion in sized, and I some cases that creates visual barrier. The rain water induced damage is, of course, sever of all. The interventions with the intention of deterring the water induced damage are in most cases turning to become sources of more deterioration. The biological deterioration is another source identified. Plants are growing on the rock-hewn churches, Lichens are covering surfaces of the churches, and moulds are propagating due to dampness. Termites are also other sources of deterioration, mainly on the Gheralta churches.

2. What are the level and the impact of conservation intervention by different actors?

The conservation intervention in Tigray is intensified in the last two decades; in Lalibela for the last six decades. In Lalibela, the most resent, 2007/8, was the construction of temporary shelter on four of the eleven churches. The construction of temporary shelter on these churches was not for the first time; it is the third for two of the four and the second for the remaining. However, this time's shelter is the most controversial and the most aggressive intervention too. The local community is demanding for the removal of the shelter because from the very beginning it was not an idea welcomed by the local community and surrounded with many questions. The shelter is temporary, its deconstruction is must to do challenge on waiting, and the disassembly process is for sure more challenging and dangerous task than its first assembly. Hence, this intervention is turning to an immediate danger of survival of the churches right after its completion. The intervention is becoming a source of disappointment and political conspiracy among the local community, and it is perceived as an intentional attack on the identity of the community. On the other hand, it is too solid to be considered as temporary shelter; it doesn't fit with the landscape features the churches are dug into and it is also too bright and dominant in the landscape, which undermines the mega monolithic. The obstacle the footing of the shelter created in the daily service of the church was under considered in the process of the construction and the space between the roof and the shelters is creating a habitat for birds which their residue is becoming other source of deterioration.

Minor interventions are common in Tigray rock-hewn churches and in mot case the interventions are reversible. However, interventions in the last two decades are becoming more destructive and irreversible. One of the major problems is the perception of "cement as

good material for maintenance of cracks and sealing of fault lines." This perception is resulted from the lack of understanding of the material properties of the churches. Use of market Gypsum on maintenance of columns (created a bold contrast with the reddish color of the church); incompatible floor pavement (with flag stone not natural and had nothing to do with the traditional technique) are other problems observed.

Tigray Culture and Tourism Bureau were aggressively engaged on "preservation" interventions between 2000 and 2009 after. One of the notable interventions is the use of flag-stone to deter water percolation from the monolithic roof. This was done two three churches and failed to serve its purpose in all. The intervention was a total failure that worsened the water induced damage. The good thing here is, the intervention is reversible intervention (as it was with the case of Debre Tsion), but there is reluctance to do so. The other problem noted in the issue of the flagstone is, the uncertainty on which kind of preservation mechanism to focus following the removal of the flagstones.

The construction of onsite museums [stores] sponsored by European Union and the TCTB are other sources of problem. Primarily, the material use is incompatible with the cultural landscapes (except for the case of Abraaha we Atsibaha), they are oversized and created visual barrier and their construction site is great proximity with the main churches.

3. How the impacts of the preservation projects are perceived by the local community?

Both in Lalibela and Tigray, the clergy and the local community believed that the government is not giving the expected level of support to preserve the churches. There is also a distorted perception that, every foreigner is rich and can help to solve the problem. This perception is followed by the other equally distorted perception of the perception: because of the visit of the foreigners the government is collecting revenue and it should cover all required costs for the conservation of the churches. The clergy, especially the monks believed that, tourism is spoiling the new generation of clergy (sometimes the senior) and it is becoming a disturbance to the life of hermits. Regarding the role of traditional conservation know-how and skills on the preservation of the rock-hewn churches and how these know-how's and skill were integrated with conservation interventions by the conservation authorities? The role of the traditional conservation techniques on the current conservation interventions is negligible. Hence, it was not integrated with the current interventions. This is due to the lack of knowledge of the traditional skills and lack of preservation skill of the

skills is contributing to this end the problem. However, regardless of the negligence, in some cases, the traditional skills are yet in use, and their effectiveness is promising.

4. How the cultural and religious assets of the churches and the values of the local community are integrated into the preservation process?

The roc-hewn churches of Ethiopia are all living heritages serving their intended original purpose without interruption for centuries. The life of the local community is also highly integrated with the churches (the community living around these churches is almost entirely follower in of the EOTC): from birth to death, baptism, early education, marriage, arbitration and others. But, when it comes to conservation, the authorities didn't seem to value this strong attachment. Most of the time, they approach the community after they made their final decision just to inform what is planned

7.1.2 Temples in Mutsu, Japan

The Legal protections and institutional set-up for protection of cultural properties in Japan is well established. The availability of sophisticated training facilities and capacity building endeavor and certification process is also other potential. The traditional knowledge systems and local craftsmanship skills in Japan are also legally protected. The preservation of architectural heritages is therefore well integrated to the preservation of the traditional craftsmanship and both are interdependent. This makes the Japanese system for preservation of tangible and intangible heritages preservation mutually interdependent.

The efforts of recognition, certification and provision of financial support and permanent tenure for the holders of the traditional knowledge and skills; is an important initiative worth of adaptation. Having all these efforts in place, this field is not winning the interest of more successors to join the field. Compared to other occupations, mastering these skills is hard to achieve and it's time consuming. On the other hand the financial gain and the prestige are inferior compared to the required effort and to other fields of other fields of architecture and engineering.

Regarding the temples in Mutsu area, the current status of the two temples is good. However, a potential source of deterioration for the temple of Tokugen-ji is related to water induced damage on the foundation, due to the growing level of snow accumulation from one winter season to the next. The problem related to the deterioration of foundation is not limited to

Tekugen-ji, Yonen-ji and Daian-ji are facin the same challenge but less in its intensity. The deterioration on the floor elements due to snow accumulation is also a potential threats shared by the temple that needs to be deterred with informed intervention.

It is good to take lesson from the complete demolition of Entsu-ji which is replaced with a new main building that clearly demonstrates a poorer quality to its predecessor. This case could be good manifestations of the 18th century architecture of Mutsu city and its environs for a reconstruction that lacks the quality of the demolished one, both in material and workmanship; which is an eminent danger to the preservation of the architectural tradition of the area.

The documentation of the temples architectural and social history, to enhance the management of the temple architecture and the movable cultural assets sheltered on temples is necessary. Studying and documenting the *danka* system, which is in good shape compared to the big cities, to pass on the coming generation is important.

The *dankas* relation with the temples in Mutsu city is based on mutual understanding, Except for Entsu-ji. The local craftsman too tare also playing great role on the preservation of the temple's architecture through provision of guidance and hands-on engagements. Meanwhile, it is recommended that the city board of education to strengthen its staff those who can dedicate to the preservation of cultural properties. Taking the under representation of the northern region of Japan on the architectural heritages registration, the nominating of Tokugen-ji temple, to be designated as a cultural property, at least in municipality level, as the oldest temple remained intact in the locality for its architectural and historic merits is timely. Doing so would be a great promotion to the temple, the local craftsman and the *danka* system that is playing active role in the temples protection. Hence, a thorough investigation on the potential of Mutsu City temples is timely.

The Ethiopian cultural properties preservation legal framework and institutional setup which is in an infant level compared to the Japanese counterpart needs to take lessons from Japan's way in this regard. Ethiopia, on its endeavors to safeguard the architectural heritages, mainly the churches and monasteries, should take the Japanese experience of Temple and Shrine conservation as a bench mark: on issues of organization skill, process documentation and the motivation of the public and private sectors to take part on the preservation works. The public participation in the form of *danka* is other source of potential lesson. Above all, integration of

the preservation of cultural tangible properties with the protection the intangible cultural property, folk skills, craft skills and traditional conservation systems is very enlightening to take a pace after. The notion of "Living Treasures" is living in the Japanese system and practice of heritage conservation, thus it is a framework and a practice worth of adoption to the Ethiopian context.

- The Legal protections and institutional set-up for protection of cultural properties in Japan is well established.
- The availability of sophisticated training facilities and capacity building endeavor and certification process is also other potential.
- The traditional knowledge systems and local craftsmanship skills in Japan are also legally protected.
- The preservation of architectural heritages is therefore well integrated to the preservation of the traditional craftsmanship and both are interdependent.
- This makes the Japanese system for preservation of tangible and intangible heritages preservation mutually interdependent.
- The efforts of recognition, certification and provision of financial support and permanent tenure for the holders of the traditional knowledge and skills; is an important initiative
- Compared to other occupations, mastering these skills is hard to achieve and it's time consuming.
- Regarding the temples in Mutsu, the current status of the two temples is good.
- A potential source of deterioration for the temple of Tokugen-ji is related to water induced damage on the foundation,
- Daian-ji is also facing same challenge but less in its intensity.
- The deterioration on the floor elements due to snow accumulation is a threats
- The demolished Entsu-ji could be good manifestations of the 18th century architecture of the area
- The reconstruction lacks the workmanship and material quality of the demolished
- Studying and documenting the *danka* system, which is in good shape compared to the big cities, is necessary
- The local craftsman too tare also playing great role on the preservation of the temple's architecture through provision of guidance and hands-on engagements.

- It is recommended that the city board of education to strengthen its staff
- The northern region of Japan is under represented on the architectural heritages registration,
- Nominating of Tokugen-ji temple, to be designated as a cultural property, at least in municipality level
- This could be great promotion to the temple, the local craftsman and the *danka* system

7.1.3 What to learn from Japan

The cultural properties preservation legal framework and institutional setup in Japan is well established. The Ethiopian counterpart is in its infant level compared to the Japanese. Hence:

- The Japanese experience of Temple and Shrine conservation could be considered as a bench mark on issues of organization skill, process documentation and the public private partnership. .
- The motivation of the public and private sectors to take part on the preservation works is worth noting.
- Above all, integration of the preservation of cultural tangible properties with the protection the intangible cultural property, folk skills, craft skills and traditional conservation systems is very enlightening to take a pace after.
- The notion of "Living Treasures" is living in the Japanese system and practice of heritage conservation, thus it is a framework and a practice worth of adoption to the Ethiopian context.

7.2 Recommendation

- A Joint actions for conservation of the rock-hewn churches between the local and national institutions, the clergy and the local community needs to be introduced for the realization of sustainable conservation and management of the rock-hewn churches.
- The role of the conservation authorities should be that of coordination, guidance, and monitoring of the conservation processes, and provision of material and technical support that is beyond the local capacity. However, the local community and local

experts need to be motivated to take the lead role on conservation works so as to assure the sustainability of the churches.

- Participating in the construction of new churches is a source of individual, family and local pride, as a culture. So, promoting the care for heritages and the contribution for their preservation to become the source of pride is a wise act.
- Studying the traditional method and considering them with improvements is a timely and sustainable solution which need attention.
- TCTB needs to take the issue of the rock-hewn churches seriously and should invest resource and personnel for the survival of the church. It is also good choice to allow the clergy and the local community to act on their own with a technical support and guidance from the professionals than prohibiting them to act while doing nothing on its part.

ACKNOWLEDGEMENTS

This work would not have been possible without the generous support of the Japanese Government, MEXT Scholarship. I am especially indebted to my advisors Professor Takeo OZAWA, Professor Riichi MIYAKE, Asso. Professor Satoru KAKU, Assi. Professor Hui PING and my classmate Mr. Yuya GOTO, for the unreserved support they provided to the realization of this wok. I am also very grateful for all friends and classmates who have been very supportive throughout my stay in Hokkaido University. Mekelle University, my second home, I thank you for providing the permission for my study leave. I am very thankful to all of those with whom I have had the pleasure to work during this and other related projects. Each of the members of my Dissertation Committee has provided me extensive personal and professional guidance and taught me a great deal about both scientific research and life in general. I would especially like to thank once again my professors and the examiners committee. As my supervisor and mentor, Professor Takeo Ozawa has taught me more than I could ever give him credit for here. Nobody has been more important to me in the pursuit of this project than my family, thus I would like to express my deepest love to them, for shouldering the burden of missing me around. I would like to thank my parents and my siblings, whose love and guidance are with me in whatever I pursue. Most importantly, I wish to thank my loving and supportive wife, Mar, and my two wonderful sons, Joseph and Naod, who provide unending inspiration to my journey.

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