Report of the UNESCO/ICOMOS/ICCROM Advisory mission to Rock-Hewn Churches, Lalibela (Ethiopia)

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EXECUTIVE SUMMARY AND SUMMARY OF RECOMMENDATIONS

The ancient churches of Lalibela are a living heritage attracting hundreds of thousands of pilgrims regularly during the year. They are the spiritual centre of the Ethiopian Orthodox Tewahedo Church governed by rules and rituals handed down through generations of the clerical community since the 13th century CE. Following the inscription in 1978 of The Rock-Hewn Churches of Lalibela on the World Heritage List, a formal custodianship of governmental institutions on the national and regional level was introduced. As a result, complex stakeholder relationships dominate the management of the World Heritage property, which in the past has also been affected by different institutional responsibilities within the Federal State system for the culture sector and tourism-related activities.

The four protective shelters erected over five of the rock-hewn churches in Lalibela were completed in 2008 on the understanding that they would protect the churches from further weathering, in particular water infiltration from the roofs, and that they were in place temporarily to allow conservation and repairs to be carried out. These modern shelters (which mostly replaced previous shelters at the same location) had been a matter of concern to the World Heritage Committee since the technical specifications for their construction were presented by the State Party in 2006.

The lack of any formal inspection and maintenance regime on the shelters and the absence of any substantive work to the covered churches in the last ten years has only exacerbated those concerns, which have extended to the local community who state unequivocally that they are not willing to accept these shelters "any longer." Part of this is due to the fact that the shelters cause vibrations and extreme noise when under wind pressure – disturbing liturgies and visitors to the churches. This was demonstrated by the sense of panic that was felt (during a period of high wind) among people gathered in February 2018 for a visit of the Ambassador of the United States of America to celebrate the successful completion of the World Monuments Fund (WMF) conservation project for Biete Gabriel.

The Orthodox Church, as the owner of the property, understood that the process of removal had already been initiated and cannot understand why there should be any more delays in this matter. The question of the safety of the shelters is a cause of real fear within the cleric community consisting of around 800 individuals directly employed by the Church; this fear has subsumed any understanding they may have had as to the practical purpose of the shelters. They feel that they are not consulted or involved in decisions on the churches and now have urgently requested safety guarantees for the shelters until they are dismantled.

The fundamental fact is that the dismantling will be a complex process and expensive and, even if the political will is expressed, funding will be required over several years. Moreover, dismantling must be tightly controlled and will be dependent on necessary conservation action to the churches being undertaken beforehand.

The conservation projects of World Monuments Fund (Biete Gabriel in 2016 and Biete Mikael in 2018) have been successful, although they have taken place on uncovered churches. There have been some challenging circumstances to overcome, including a general mistrust about the nature of the work, limited access to the structures, unclear management structure, difficulty in obtaining materials, and the experience and skills of the labour force. Despite these challenges, the work has been carried out to a high standard and has involved adopting a pragmatic approach, slowly adapting from the scientifically desirable to the practically achievable.

The conservation challenges for the churches that have been covered will be different as a result of the microclimate that has existed under the shelter; the completely dry environment has led to significant crumbling of the rock. The interventions that will be needed to overcome these issues must be based on detailed examination and assessment of the stone but must also build on materials and techniques already used in the recent projects.

Fundamental to the success of these projects will be ongoing and regular maintenance of the churches; this can only be effectively carried out under the auspices of the church community itself. The conservation and repair work to the churches that is necessary prior to dismantling the shelters provides a unique and special opportunity for the transfer to the local community of the knowledge, experience, and skills built up by the team of the WMF and the Italian contractor company. This transfer can only be effective if a permanent well-resourced workforce of stonemasons, carpenters and conservators is established to provide for the ongoing maintenance and repair of the churches in Lalibela and, in time, for other churches in the region as well.

The wider context of the churches in Lalibela brings other challenges, which relate to the nature and surroundings of the World Heritage property, the well being of the community and the experience of visitors and pilgrims. Much of this information was collated, described and considered in the Management Plan issued in 2013. However, much of the understanding and many of the recommendations of this plan have not been heeded or acted on. There continues to be a complex and often overlapping management structure although steps are now being taken to unify that into a Local Management Committee under the guidance of ARCCH. The resettlement programme has taken place, but it has left a denuded and abandoned open space around the churches as well as a displaced community around Lalibela. Only a very few of the traditional Tukul traditional houses have survived.

The general goal of the World Bank-funded Ethiopian Sustainable Tourism Development Project (ESTDP) in Lalibela was to contribute to poverty reduction through increased income generated by cultural assets and handicrafts development also targeting private tourism service activities. The objective of the project to foster the local economy has not been fully achieved since the funding was diverted to initiate infrastructure improvements on a larger scale instead. According to statements received from the World Bank, the executed activities did not meet their expectations due to the lack of planning provisions for efficiently managing newly created facilities after hand-over; these appear to have been conceived in a top-down approach and not sanctioned by the community. There has also been insufficient implementation of World Bank procedures in the large-scale resettlement programme, which adversely affected several hundred households that previously lived directly around the churches. To date, a post-project evaluation of the ESTDP project in Lalibela has not taken place.

Embedded in a remote mountainous landscape with little income-generating possibilities, the increasing popularity of Lalibela as a national and international tourist attraction has led to a dynamic urban growth around the ancient religious nucleus. The majority of the areas foreseen for city expansion have already been filled with new constructions. The dynamics of urban growth in Lalibela are extraordinary in scale and velocity and have already resulted in the demolition of most of the traditional village within property, seen in the ICOMOS evaluation of 1978 to be the holder of medieval traditions through its two-storey circular houses of which 150 still existed in 1985, and included in the Statement of Outstanding Universal Value (SoOUV). Despite the building moratorium that is still in place for large parts of the buffer zone and the property, the general urban growth dynamics have the high potential for further adverse impacts on the Outstanding Universal Value unless constrained.

The mission, therefore, is convinced that heritage preservation efforts in Lalibela in the long term cannot be separated from the challenges of a growing city, especially in the African context. The existing Structure Plan for the town of Lalibela from 2010 is supposed to be reviewed soon. Key aspects that will need to be addressed include any proposed development on the hilltops surrounding the town and also the location of new settlements. In order for this to be satisfactorily delivered, it will also be necessary for a Local Development Plan to be drafted for the environs of the property, the buffer zone and its wider setting, and approved to deliver the Structure Plan. The other main and more immediate reference for addressing these aspects is the Management Plan for the property prepared in 2013, which unfortunately has not been followed up since then.

The report is structured as follows. Section one gives the background information to this mission while section two provides information on the legal and institutional protection framework in place and gives a short summary on previous preservation programmes. The existing issues related to the WH property are summarized in section four. After assessing the current situation, the mission has elaborated a set of recommendations in the following five domains. These are briefly summarized below and explained in detail in section five of this report.

1. The establishment of the “Advisory Committee” on the local level as stipulated in the national reserve act to the property (proclamation Nr. 344/2015) should be followed with urgency to allow the formation of a transparent and accountable **management system** for the property. This should regenerate the collaboration among all involved stakeholders (as already practised during the Management Plan consultation process in 2013) leading to an updated revision of the Management Plan, which should include adequately resourced work packages that would allow stakeholders to have a clear understanding of their roles and responsibilities in the future management of the property. The mission recommends the updated management plan together with the authenticated maps clearly indicating the property and the buffer zone should be submitted to the World Heritage Committee as a request for minor boundary modification before February 2019 for review by the Advisory Bodies.

2. Addressing the concerns and reported impairments to ecclesiastic life and rituals resulting from the **shelter constructions**, the mission recommends a **phased framework programme for action** that includes:

    i) A structural analysis of the shelter construction by independent inspection engineers to certify the structural integrity and stability of the shelters and allow for an operational permit for the period until their removal; this must incorporate sufficient time for the proper execution of the necessary conservation work

    ii) A comprehensive **roof repair and maintenance project** for the five sheltered churches based on thorough documentation and monitoring of results according to the methods and procedures established in the more recent pilot conservation projects. Access to the church roofs must be maintained over at least one rainy season to allow for monitoring of the executed works during a period when the roof substrate will be liable to changes as a result of exposure to the environment.

    iii) The allocation of adequate funds and resources to initiate a **dismantling projec**t for the shelter construction; this will require close collaboration between structural engineers and conservators to ensure the detailed plan incorporates the execution of works within the dismantling process. In particular, this project will have to consider provision for a scaffold construction that will allow both for the proper execution and monitoring of the conservation works on the church roofs as well as for the removal of membranes and steel pipes after the conclusion of conservation works.

    iv) Full detail of both projects under (ii) and (iii) are to be submitted to ensure review by the World Heritage Committee within the cycle of State of Conservation reports.

    v) Provisions for the long-term conservation and maintenance of the property are to be aligned with a training and capacity-building programme in close cooperation with the main stakeholders of the property.

3. In order to maintain the authenticity of the property, **intangible aspects related to the religious practice** of the churches in Lalibela should be safeguarded. This includes the

long-term preservation of the movable heritage. This must be considered in addition to the preservation efforts for the structural integrity of the immovable tangible heritage. The mission, therefore, recommends that the **Theological School project** be revised and developed further to clearly express a holistic approach to conservation and safeguarding of a religious place of such scale. The current, proposals are not generally realistic in overall size and scale.

Regarding the interrelation of tangible and intangible aspects, the mission recommends:

i) maintaining existing traditional knowledge systems (including craft-making), by promoting the revival of clerical and artisanal traditions within the premises of existing facilities at the property;

ii) allowing for an appropriate accommodation of the many services related to the pilgrimage practices by refurbishing the existing modern construction at the entrance to the property (currently housing storage for clerical objects) and to focus new infrastructure onto an Ecclesiastical Museum for appropriate preservation and presentation of the movable heritage of Lalibela (including worship artefacts, pilgrimage practices etc.);

iii) investigating positive side effects that can result from active artisanal traditions as a vital part of the community and its economy in providing design guidance, business training and improvement of technical skills as well as establishing links to the commercial markets for artisanal products.

4. Controlling and planning the **urban growth** and the improvement of living conditions of households living in the direct vicinity to the churches in the setting will require huge efforts and expertise on both the cultural and the urban planning side and new tools. The mission recommends that the following need to be addressed with urgency:

   i) Agree on a Vision Statement that defines the way Lalibela should develop to optimise its cultural, social and natural assets;

   ii) Revise the Management Plan, based on a Vision Statement, to include provisions on urban density, vistas/view sheds and favourable and unfavourable types of construction; these aspects should be agreed upon with the Municipally and Regional Planning Authority and formally integrated in the revision of the new Urban Development Plan for Lalibela which is expected to be initiated very soon;

   iii) Define the setting and delineate a buffer zone that is identifiable on the ground with adequate legal protection in the cultural as well as the urban planning sector;

   iv) Revise and strengthen the Structure Plan of Lalibela and develop a Local Development plan for the environs of the WH property and the buffer zone for its implementation that sets out clear planning zones.

   v) The boundaries of the property need to be formally clarified by the World Heritage Committee and therefore need to be submitted as a request for a Minor Boundary Modification to the World Heritage Centre.

5. From the scientific and historical point of view, the study of the original artefacts, wall paintings, architecture and archaeology of Lalibela holds the potential to reveal many

more significant aspects. Further **study and research** are also required to address matters such as the structural integrity of the churches in case of unprecedented seismic activity. The mission, therefore, recommends further international collaboration in the academic field among all those engaged in the preservation of the World Heritage of Lalibela through the establishment of an Educational Research facility within the existing Community Centre. The State Party should draw on the expertise and initiatives within national and international research institutions and promote further academic networking between them.

1 BACKGROUND TO THE MISSION

Inscription history

The State Party of Ethiopia ratified the World Heritage Convention in 1977, and the property Rock-Hewn Churches of Lalibela was among the first twelve properties to be inscribed on the World Heritage List in 1978. The establishment of the site is attributed to King Lalibela in the 12th century CE, when it was the capital of the country under its original name Roha.

It consists of eleven typological different (cave-like, hypogea, monolithic) church structures cut out from the solid rock surface located in the highlands of the Lasta mountain range of the Amhara Region. The churches are exemplary for the specific typological phenomenon of rock-hewn churches in this region and the spiritual centre of worship for the Ethiopian Orthodox Tewahedo Church community.

Initially the proposition for inscription comprised eleven church precincts out of a total of fourteen (excluding the most sacred chapel areas of Debre Sina/Biete Mikael, Selassie, and Aouariat/Apostles carved in the rock-mass encircling the major free-standing churches).

Though the inscription dossier did not include any map of the site, the ICOMOS evaluation considered the minimum standards of documentation sufficient at that time and proposed the site for inscription.

The eleven churches are grouped as follows:

Northern Group (Biete Medhane Alem, Biete Maryam, Biete Mascal, Biete Denagel, Biete Golgotha Mikael)

Eastern Group (Biete Amanuel, Biete Mercurios, Biete Abba Libanos, Biete Gabriel

Rafael, Biete Lehem)

Western Group (Biete Ghiorgis and associated Holy Water fountain)

A giant artificial/partly natural ditch symbolizing the River Jordan separates the different groups. It is part of a system of interconnected tunnels and dug out ditches providing drainage for the area containing the churches and serving as ceremonial passages. The churches are carved out of solid rock imitating architectural features of sanctuary buildings such as barrel vaults, pillars, domes, depicting various stylistic influences from foreign (Byzantine/Syrian/Egyptian) as well as domestic (Aksumite) origin.

The World Heritage property is a living heritage site with an active spiritual community of almost 800 priests deeply connected with the community of the fast-growing adjunct town of Lalibela. It is a centre of worship and pilgrimage with daily church services and attracts thousands of pilgrims, especially during Ethiopian Christmas and Easter periods. The original vernacular architecture to be found in the landscape around the churches consists of round two-story structures “tukuls” [1] built of irregular rubble stones embedded in clay mortar with traditional conical shaped thatched roofs. The thatch roof requires regular maintenance to conduct the rainwater away since the clay walls are very vulnerable to water.

Criteria and Outstanding Universal Value

The retrospective SoOUV was adopted by the World Heritage Committee in 2012:

Brief synthesis

In a mountainous region in the heart of Ethiopia, some 645 km from Addis Ababa, eleven medieval monolithic churches were carved out of rock. Their building is attributed to King Lalibela who set out to construct in the 12th century a ‘New Jerusalem’, after Muslim

[1] In 1985 around 150 tukuls are reported to exist ***(Aalund 1985)***

conquests halted Christian pilgrimages to the Holy Land. Lalibela flourished after the decline of the Aksum Empire.

There are two main groups of churches – to the north of the river Jordan: Biete Medhani Alem (House of the Saviour of the World), Biete Mariam (House of Mary), Biete Maskal (House of the Cross), Biete Denagel (House of Virgins), Biete Golgotha Mikael (House of Golgotha Mikael); and to the south of the river, Biete Amanuel (House of Emmanuel), Biete Qeddus Mercoreus (House of St. Mercoreos), Biete Abba Libanos (House of Abbot Libanos), Biete Gabriel Rafael (House of Gabriel Rafael), and Biete Lehem (House of Holy Bread). The eleventh church, Biete Ghiorgis (House of St. George), is isolated from the others, but connected by a system of trenches.

The churches were not constructed in a traditional way but rather were hewn from the living rock of monolithic blocks. These blocks were further chiselled out, forming doors, windows, columns, various floors, roofs etc. This gigantic work was further completed with an extensive system of drainage ditches, trenches and ceremonial passages, some with openings to hermit caves and catacombs. Biete Medhani Alem, with its five aisles, is believed to be the largest monolithic church in the world, while Biete Ghiorgis has a remarkable cruciform plan. Most were probably used as churches from the outset, but Biete Mercoreos and Biete Gabriel Rafael may formerly have been royal residences. Several of the interiors are decorated with mural paintings.

Near the churches, the village of Lalibela has two storey round houses, constructed of local red stone, and known as the Lasta Tukuls. These exceptional churches have been the focus of pilgrimage for Coptic Christians since the 12th century.

Criterion (i):

All the eleven churches represent a unique artistic achievement, in their execution, size and the variety and boldness of their form.

Criterion (ii):

The King of Lalibela set out to build a symbol of the holy land, when pilgrimages to it were rendered impossible by the historical situation. In the Church of Biete Golgotha, are replicas of the tomb of Christ, and of Adam, and the crib of the Nativity. The holy city of Lalibela became a substitute for the holy places of Jerusalem and Bethlehem, and as such has had considerable influence on Ethiopian Christianity.

Criterion (iii):

The whole of Lalibela offers an exceptional testimony to the medieval and post-medieval civilization of Ethiopia, including, next to the eleven churches, the extensive remains of traditional, two storey circular village houses with interior staircases and thatched roofs.

Integrity

The drainage ditches, which were filled up with earth for several centuries, before being cleared in the 20th century, have been disrupted by seismic activity. This has resulted in a severe degradation of the monuments from water damage, and most of them are now considered to be in a critical condition.

Structural problems have been identified in Biete Amanuel, where an imminent risk of collapse is possible, and other locations need to be monitored. Serious degradation of the paintings inside the churches has occurred over the last thirty years. Sculptures and bas-reliefs (such as at the entrance of Biete Mariam) have also been severely damaged, and their original features are hardly recognisable. All of this threatens the integrity of the property.

Temporary lightweight shelters have now been installed over some churches and these, while offering protection, impact on visual integrity.

Other threats include encroachment on the environment of the churches by new public and private construction, housing associated with the traditional village adjacent to the property, and from the infrastructure of tourism.

Authenticity

The Rock-Hewn Churches of Lalibela are still preserved in their natural settings. The association of the rock-hewn churches and the traditional vernacular circular houses in the surrounding area, still demonstrate evidence of the ancient village layout. The original function of the site as a pilgrimage place still persists and provides evidence of the continuity of social practices. The intangible heritages associated with church practices are still preserved.

Protection and management requirements

For centuries, the Church and State have been jointly responsible for the holy site of Lalibela. Home to a large community of priests and monks, it is a living site which draws many pilgrims to celebrate the great feasts of the Ethiopian Christian calendar. This active and energetic perspective is central to the management of the site.

No special legal framework is provided to protect the Rock-Hewn Churches except the general law, Proclamation No. 209/2000, which has also established the institution in charge, the Authority for Research and Conservation of Cultural Heritage (ARCCH). With the Ethiopian Church as a partner, the ARCCH has a representative in Lalibela but a principle difficulty has been the harmonization of the different projects and effective coordination between the partners.

The property is administered under the regional and the Lasta district culture and tourism office. To prevent the property from the impact of development, a draft proclamation has been prepared but this is not yet ratified. A management plan has not yet been established. A four-year Conservation Plan was established in 2006 but this has yet to be fully implemented.

The boundary for the property has not yet been clearly delineated and a buffer zone has not yet been provided.

There is a need for stronger planning controls for the setting of the churches that address housing, land use tourism and for a management plan to be developed that integrates the Conservation action plan, and addresses the overall sustainable development of the area, with the involvement of the local population. Property Lower Valley

Examination of the State of Conservation by the World Heritage Committee

Examination by the Committee and Advisory Bodies has been ongoing since 2006 when the property received much attention from the World Heritage Centre and the Committee due to the EU-funded shelter project.

When the State Party reported on the technical specifications for the shelter project in the final stages of planning, construction was to start soon. The State Party intended to initiate a conservation programme jointly with the erection of the shelters following recommendations established in a conservation action plan that was to be prepared jointly with World Monuments Fund and UNESCO.

In its decision **30 COM 7B.40 (Vilnius, 2006)** the World Heritage Committee urged the State Party to ensure that the Action Plan included a detailed description of the project activities, the financial resources required and short and long-term timetable for the restoration of the property. The project activities would include detailed investigation into the causes of deterioration of the structure of the property, a monitoring system for the historic site, a system for the maintenance of the shelters and their subsequent dismantling, and the development of an overall management plan. All of this should include the participation of the local communities.

Therefore in 2006, to mitigate adverse impacts on the OUV of the property a Reactive Monitoring mission was requested during the 30th session of the Committee (Vilnius, 2006) to assess the technical specifications of the shelter project with the objective to modify the design before construction. The European Commission actively supported the prompt intervention of the Committee and confirmed that without consent of UNESCO/World Heritage Committee the funding for the project would not be provided to the State Party.

The mission resulted in a design change of the structural system. In a joint agreement of all involved parties, it was confirmed that the shelters were to be temporary and were to be removed after successful completion of conservation works. The realised shelter construction ensured full reversibility with minimal environmental impact on the landscape during construction and avoided any excavation for the foundations by reducing the weight of individual parts of the construction. A constant concern was the likely change of the microclimate below the new shelter construction and their general effectiveness, which would require a system of monitoring to be installed. The request for a maintenance plan was included in the contract with the construction company for the shelters to ensure the durability of the new roofing. The Advisory Bodies suggested assessing the hydrological situation of the site in general focusing also on the broader environmental and social changes of land use induced by the urban growth dynamics around the site. The Committee requested the World Heritage Centre to foster efforts in capacity building also by involving Ethiopian personnel during the planning and implementation of projects (Decision 31 COM 7B.44, Christchurch 2007) [2].

However, the situation regarding the shelters remained problematic. In 2008 the State of Conservation report noted that though the work on the shelters had been carried out respecting the integrity of the property and had caused no notable damage to the structures or the environment, the recommended monitoring of the microclimatic effects of the shelters on the monuments as well as their general effectiveness in reducing the decay factors threatening the churches remained matters of concern. Moreover, the last shelter constructed over Biete Abba Libanos was erected against the advice of earlier missions and the Advisory Bodies. The concern was due to a risk of landslides of the rock through the load of the shelter foundation build on top of the church, which at this location is carved into the vertical face of the cliff. The State Party was encouraged to start an emergency conservation project with this church as well as with Biete Gabriel Rafael, which was not covered by one of the new shelters. The visual impact of the shelters was significant. It was recommended to carry out regular monitoring of the shelters during and after the end of the works, and the construction company was supposed to provide a maintenance and dismantlement plan of these shelters.

Apart from the issue of the shelters and the problems of weathering on the churches, threats resulting from uncontrolled urban development were reported and caused by the lack of a clear delineation of the property. The Committee suggested the preparation of appropriate maps (lacking from the original nomination dossier) and the creation of suitable legal and regulatory protection schemes including defining an appropriate buffer zone around the property.

Therefore the Committee recommended that a process for an integrated management plan should be initiated. This should include a Conservation Plan and cover Development Control and Touristic enhancement of the property and should integrate the views of the local community. The State Party was requested to comment on the progress of these issues (Decision 32 COM 7B.47, Quebec 2008)[3].

As a follow-up, the World Heritage Centre, together with World Monuments Fund and the Authority for Research and Conservation of Cultural Heritage (ARCCH), successfully implemented activities such as an architectural documentation study of the property, analysis

[2] See State of Conservation Report 2007 (https://whc.unesco.org/en/soc/1003)
[3] See State of Conservation Report 2008 (https://whc.unesco.org/en/soc/908)

of the physical decay factors and in particular the structural problems in relation to seismic hazard, and a pilot study of the Gabriel Rafael church within the property; in addition, the World Heritage Centre conducted a training workshop in lime mortar techniques for local workers and contributed to building the management capacity of the local administration (Tonietti et al. 2009; Laureano, Tonietti, and Rovero 2010; Laureano and Giorgi 2008).

However, in 2009 the World Heritage Centre and ICOMOS remained concerned about some issues including:

- the lack of defined boundaries for a buffer zone and the property,
- the lack of planning controls to protect the property and its environment from adverse impacts of new housing and tourism development,
- the lack of an integrated conservation and management plan for the property,
- the lack of monitoring reports on the shelters and
- the lack of a Statement of Outstanding Universal Value (SoOUV) for the property.

These concerns were aggravated by the start of a massive tourism development project for Lalibela implemented directly through the State Party and financed through a loan instrument of the World Bank. Since the State Party did not report on these issues in time, the World Heritage Committee reiterated its request to establish a management plan for the property that integrated the Conservation action plan, the measures aiming for a sustainable development of the property involving the local populations and the measures foreseen in light of the touristic enhancement project for the property (Decision 33 COM 7B.43; Sevilla, 2009)[4].

In 2010, a report on the state of conservation of Rock-Hewn Churches, Lalibela was submitted by the State Party addressing some of the issues outlined in Decision 33 COM 7B.43 (which in turn referred to Decision 32 COM 7B.47, Quebec 2008). The Committee acknowledged the progress made by the State Party in essential conservation and monitoring and requested, in turn, the State Party to submit details on the type and frequency of monitoring arrangements of the temporary shelters.

The State Party reported that progress had been made towards defining the boundaries of the property in consultation with all stakeholders and external support through the University of Dublin (Negussie 2010); they confirmed the creation of authoritative maps once the legal process with the National Mapping authority had been accomplished. The Committee expressed its concern at the uncontrolled urban encroachment that threatened the property and urged the State Party to halt this encroachment.

The importance of a management plan that could link the management and successful conservation of the churches to the sustainable development of the broader setting of the property was recognized, and the State Party was requested to pursue such a site management plan with the support of the World Heritage Centre. In this regard, the implementation of the pilot project at the Biete Gabriel Rafael church in cooperation with World Monuments Fund was requested to enable a sustainable solution to be found that would allow the removal of the temporary shelters. With respect to the World Bank guided tourism development project being implemented at the property, the Committee requested all related conservation and enhancement projects planned for review by the Advisory Bodies and by the World Heritage Centre prior to any commitment being made in accordance with paragraph 172 of the Operational Guidelines (Decision 34 COM 7B.44, Brasilia, 2010) [5].

In 2012, the State Party responded to the request to provide further information. The report included an official map depicting the property and the delineation of the buffer zone in the context of the entire city of Lalibela. The report, however, failed to provide monitoring

[4] See State of Conservation Report 2009 (https://whc.unesco.org/en/soc/746)
[5] See State of Conservation Report 2010 (https://whc.unesco.org/en/soc/500)

information on the shelters but requested further international assistance to achieve this purpose. Progress was reported on the efforts to establish a management plan with the involvement of all stakeholders and that a Memorandum of Understanding was signed between the Government of Ethiopia and World Monuments Fund to implement the conservation measures on Biete Gabriel church according to the previously established Action Plan.

The purpose of the World Bank tourism project was specified with activities targeting four areas (destination development, capacity building, site promotion and community involvement) including to some extent road improvements within the property as well activities targeted to improve the living conditions of the people directly living around the churches. The World Heritage Centre and the Advisory Bodies acknowledged the submission of detailed maps for the property boundaries and suggested buffer zone; they requested the State Party to submit the finalized maps in the context of the retrospective inventory and plans of the suggested buffer zone as a minor modification (neither of which has yet been done).

However, it was noted that the development plan, draft site Management Plan, resettlement action plan as well as further details on the World Bank Tourism Project and the monitoring type and frequency for the temporary shelters were not submitted. It was requested that all these documents be made available for review by the World Heritage Centre and the Advisory Bodies. The World Heritage Committee further requested that details of the type and frequency of monitoring arrangements for all temporary shelters, including their microclimate effects be submitted. The request included regularly providing information about the World Bank Tourism Development Project that was being implemented at the property and to pursue its efforts to implement the pilot preservation project at Gabriel Rafael Church in cooperation with World Monuments Fund. The Committee further requested the State Party to conduct a Heritage Impact Assessment (HIA) (in conformity with the ICOMOS Guidelines on Heritage Impact Assessments for World Heritage cultural properties) to evaluate the potential impact of any planned demographic or other changes that might affect the Outstanding Universal Value of the property. An updated report on the state of conservation of the property and the implementation of the above was expected for examination by the World Heritage Committee by February 2014. (Decision 36 COM 7B.42, St. Petersburg 2012)[6].

On 28 January 2014, the State Party submitted a report on the state of conservation of the Rock-Hewn Churches, Lalibela[7]. It also submitted the Management Plan for the property. The State Party reported that, concerning the maps of the property's boundaries and its buffer zone, all data required had been obtained and was to be included in a new legal instrument for the management of the property, expected to be endorsed by the Council of Ministers.

The Management Plan was developed as a participative process, and a validation workshop for its finalisation took place in December 2013. It considered the management of the property as a cultural landscape to include natural corridors and associated hills and valleys keeping essential view lines free of construction. The Management Plan also stressed the intangible elements associated with the property. Regarding the resettlement plan, the State Party indicated that it is one of the four components of the World Bank project and that relocation from the inscribed property had commenced to the newly designed settlement zone. Concerning the assessment of the temporary shelters, actions had started in January 2014, and a first draft of the report had been received.

This report included very brief information about the implementation of the World Bank Tourism Development project. Regarding conservation activities on the site, the Authority for

[6] See State of Conservation Report 2012 at https://whc.unesco.org/en/soc/166
[7] See https://whc.unesco.org/en/list/18/documents/

Research and Conservation of Cultural Heritage (ARCCH) accepted the pilot project on the Biete Gabriel Rafael Church and works were expected to begin shortly.

The World Heritage Centre and the Advisory Bodies, therefore, considered that a subsequent report to the Committee was not necessary at this stage. This would provide more time for the State Party to finish the shelters evaluation and assess potential courses of action. It was proposed to continue with the exchange of information with the State Party on the evaluation of the management plan, on the expected law for the management of the property and on the implementation of the specific projects to ensure that the Outstanding Universal Value of the property was adequately protected and sustained.

Since 2014 no further reports were submitted by the State Party for consideration by the World Heritage Centre or the Advisory Bodies.

Justification of the mission (terms of reference, programme, and composition of mission team provided in Annex)

The State Party of Ethiopia requested an Advisory Mission to Rock-Hewn Churches, Lalibela World Heritage property to monitor progress on the conservation of the property and particularly to advise the State Party on their recently stated wish for dismantling the temporary shelters of the churches as well as several other ongoing projects regarding the property.

During a series of discussions in November 2017 at UNESCO Headquarters between representatives of the State Party and UNESCO, all parties agreed on the need to assess the situation of the removal of the shelters in a manner that will have no negative impact on the Outstanding Universal Value of the property. The State Party made this request for a UNESCO/ICOMOS/ICCROM Advisory mission in a letter dated 1 December 2017 to the World Heritage Centre. In this regard, the State Party submitted to the World Heritage Centre a series of documents, including:

- Proposal on Comprehensive Conservation Plan of Lalibela Rock-Hewn Churches (Addis Ababa Institute of Technology, Nov. 2017);
- Sustainable Heritage and Tourism Development Project for Lalibela Theological Heritage School (submitted Nov 2017 by ARCCH on behalf of the Lalibela Church authorities);
- Project document for the Preservation of Beta Golgotha and Mika'el Churches (Studio Croci, Nov. 2017) and tender document (Dec. 2017).

It was agreed that in addition to a review on the current situation of the shelters an assessment on the executed conservation works on the Biete Gabriel church and the current works on Biete Mikael should take place. Also, the mission was requested to report on the status of planned developments around the property.

2 NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY

The State Party ratified the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage in 1977 and the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage in 2006. It has played an active role in the Committees of both Conventions and hosted the 11th session of the Intangible Cultural Heritage Committee meeting in December 2016 in Addis Ababa.

The Government of the Federal Democratic Republic of Ethiopia (FDRE) / Ministry of Culture and Tourism has issued a new cultural policy document in 2016 to streamline all its activities in the cultural field revising the previous policy paper from 1990. The policy paper envisions all aspects of culture to "play their legitimate role as the pillars of the nation's peace, independence, democratization, and sustainable development." It defines as basic principles the respect of cultural diversity and the contribution of activities related to culture, social and economic development in encouraging participatory processes in cultural education, protection, and research for the public benefit. The policy transmits the idea of cultural diplomacy as a contribution to a broader African identity based on "cultures of peace", mutual respect and national democratic consensus built upon the spirit of international solidarity and cooperation.

The property, Rock-hewn Churches, Lalibela, was inscribed on the UNESCO World Heritage List in 1978 at a time when the National Law on the Administration of Antiquities (1958) was governing activities on the physical cultural heritage within the Kingdom of Ethiopia.

Since 2000, the law governing all Ethiopian cultural heritage (tangible and intangible) is the "Research and Conservation of Cultural Heritage proclamation 209/2000" Act. The Authority for Research and Conservation of Cultural Heritage (ARCCH) within the Ministry of Culture and Tourism implements this law (Federal Negarit Gazeta 2000).

Protected area legislation

By Article 42 of proclamation 209/2000, which defines the provisions for establishing reserved areas protected by law, the *Monolithic Churches of Lalibela World Heritage Reserved Area Designation -- Council of Minister's regulation No. 344/2015* -- was published in the Federal Negarit Gazette of the Federal Democratic Republic of Ethiopia No. 69, on 28th August 2015 in Addis Ababa. This proclamation is composed of four parts. Part I gives general definitions, Part II gives the official names of the eleven churches inscribed on the World Heritage List and a set of GPS coordinate points marking the boundary of the property (Core Zone of the Reserved area – 38 GPS points) and the Buffer Zone (74 GPS points). Part III indicates the legal provisions for the establishment of an "Advisory Committee" designated to the administrative management of issues related to the site (see management section, page 21).

Part IV "Miscellaneous Provisions" refers to activities that are prohibited (Article 10 "Prohibition") on the premises of the property (labelled Core Zone in the proclamation) and its buffer zone. Here, for the ***Core Zone***, the general regulations of Article 42(2) of Proclamation 209/2000 shall apply. They prohibit carrying out building or road construction, excavations of any type or any operation that may cause a ground disturbance in an area declared reserved without a permit issued by the Authority for the Research and Conservation of Cultural Heritage (ARCCH). Also, Article 10(1b) generally prohibits "carrying out any activity which is not authorized by the Authority."

For the ***Buffer Zone*** the following activities shall be prohibited without prior authorization of the Authority:

a) construction of buildings affecting the visual integrity or the OUV of the site
b) installation of high tension electric and telephone transmission towers

c) construction of water reservoirs
d) mining and quarrying activities
e) planting of trees that can cause damage to the heritage.

Furthermore, any "person who intends to carry out activities permitted within the Buffer Zone shall consult and get the approval of the Authority" (Article 11 of the 344/2015 proclamation).

Proclamation 344/2015 thus put a robust regime of control over the property and buffer zone. An annex to the proclamation contains a small-scale map depicting the outline of the property and its buffer only; the map does not show any further topographic information, such as streets, buildings, contour lines or even the features of the property itself.

Institutional framework and management structure

The Authority for Research and Conservation of Cultural Heritage (ARCCH) is an autonomous institution within the Ministry of Culture and Tourism and is responsible for the management of cultural properties, especially the World Heritage sites, throughout the entire country on behalf of the State Party.

ARCCH is composed of six departments:

(1) Ethiopian National Museum
(2) Archaeology and Palaeoanthropology
(3) Conservation, Laboratory, and Documentation
(4) Inventory and Inspection
(5) Cultural Paleo-anthropology
(6) Preservation and Restoration
    i) Building conservation
    ii) Painting/Arts – mural painting conservation

Since decentralization measures were implemented in Ethiopia in 1995 and 1996, heritage preservation is under the responsibility of the Ministry of Culture and Tourism, but implementing the projects and local planning schemes are generally supervised by the Culture and Tourism Office of the National Regional States. In the case of Lalibela, it is the Culture and Tourism office of the Lasta District – Amhara Region that is financing the staff of the offices. ARCCH provides funds and experts for conservation and maintenance work when requested - or deemed necessary - based on the availability of resources.

The Church of Lalibela exclusively administers income generated by entrance fees to the World Heritage property.

Ad-hoc committees have been convened at various levels to discuss activities related to the property; this has resulted in a management system with sometimes-competing competences and unclear accountability for projects. At the time of the present mission, there was no officer of the ARCCH active in the Culture and Tourism office in Lalibela.

In 2013, a Management Plan (see ARCCH 2013) was finalized after intensive consultation with various stakeholders to summarize the conservation objectives for the World Heritage property and to provide guidelines relating to the urban development so as not to jeopardize the Outstanding Universal Value for which the property was inscribed on the World Heritage List.

Response to the recognition of values within previous programmes

In 1968, the preservation and development of the cultural heritage of Ethiopia were promoted for the growth and development of tourism along the "Historic Route" connecting Addis Ababa with the historical remains of Axum in the north (Angelini 1971; Angelini and Mougin 1968). As a result, from 1966 to 1969 the monuments in Lalibela were restored by removing previous consolidations and additions considered "false" so as to re-establish the original monolithic form and character regarded as "authentic." This initiative was realized upon the

invitation of the Kingdom of Ethiopia funded by World Monuments Fund (International Fund for Monuments and World Monuments Fund, 1967).

In 1980, at its fourth session the World Heritage Committee proposed, in co-operation with the Ethiopian authorities, the preparation of a project for a photogrammetric survey of the monuments of Lalibela[8]. The project resulted in two international fellowships in terrestrial and architectural photogrammetry at the School of Photogrammetry in St. Gall, Switzerland. It generated stereoscopic surveys of Biete Abba Libanos, Biete Maryam, Biete Maskal, Biete Ghiorgis and Biete Danagel (Gory 1984) conducted by a French expert of the Institut Géographique National, Saint-Mandé (France). However, since at that time there existed no plotting device in the country to generate measured drawings from the photographs, there is no trace today of the results of this first photogrammetric documentation (Stott and van Regteren-Altena 2004:16).

In preparation for further international assistance for Ethiopia, a Master Plan study was conceived (Aalund 1985) to set the milestones for an international safeguarding campaign for the country as a whole[9]. Part V of this study (pp. 49-60) summarizes the interventions on the property of Lalibela up to that date and outlined action areas for future interventions. The recommendations highlighted the necessity of preventive maintenance activities such as cleaning of rock-surfaces and trenches to ensure a rapid water run-off, consolidation of exposed surfaces and smaller fissures using a readily applicable lime-based mortar and a restoration programme for churches of Biete Amanuel and Biete Abba Libanos. The plan also highlighted the need to control the urban growth of the modern settlement of Lalibela and to coordinate interventions with other international bodies and agencies to improve the living conditions of the traditional settlement around the churches. This was however at a time when the entire country suffered the effects of yearlong drought and consecutive famines.

In 1989, the International Campaign to Safeguard the Principal Monuments and Sites of Ethiopia was launched officially by the Director-General of UNESCO with a view to preserving the country's six most significant sites[10], making them accessible to national and international visitors and adapting them to the needs of the local communities.

In 1993, this resulted in a request of the Ethiopian authorities to the European Commission for a major preservation project for each of the churches in Lalibela. A preliminary study was realized on all the churches and water infiltration through the roof was identified as the primary environmental destructive agent. It proposed a two-phased approach explicitly aimed at the churches of Biete Maryam, Biete Amanuel, and Biete Abba Libanos. The first phase consisted of covering the churches with shelters accompanied by emergency conservation actions for the roof and mural paintings as well as the most delicate movable liturgical artefacts within the churches.

The proposed second phase was envisaged as a broad scientific study programme aimed at collecting data of environmental variables thus establishing baseline information to identify the causes for the superficial and structural decay of the rock material. Only after a better understanding of the underlying decay processes could a proposal for targeted interventions aimed for the long-term preservation of the entire site be developed and successfully implemented; this would include a programme of regular maintenance and continued monitoring of the affected areas. The recommendation, together with a budget estimate for the cost of the work and a provisional timetable was included in the global report for financing by the European Union (Anfray et al. 1995), which had reserved approximately 2 million Ecu for this project.

At the same time, UNESCO initiated cooperation with the Ministry of the Environment of Finland, under the umbrella of the Finnish international development aid assistance

[8] Decision: CONF 017 III.B.10 (1980) see http://whc.unesco.org/en/decisions/2775/

[9] The General Conference of UNESCO adopted the according resolution 19C/4.126 at its nineteenth session in Nairobe in 1976

[10] The sites included; Axum, Tiya, Lalibela, Gondar castles, Lake Tana´s churches and Harar walled town

(FINNIDA), in order to carry out a project for rehabilitating the site of Lalibela; this concentrated particularly on environmental issues with a contribution of approximately US$ 2.2 million[11]: In the context of the FINNIDA project, a shelter construction was erected to cover Biete Madhane; this consisted of a corrugated iron roof based on a timber support framework. The project also included an initiative to contribute to the development of a City Master Plan for the town of Lalibela.

The progress of the UNESCO Safeguarding Campaign was monitored in an evaluation report in 1996; the remarks on Lalibela concentrated on the decades of restoration attempts on the site. Though many activities had taken place in the past, no active memory on the facts and findings existed at the site. For restoration measures planned in the future, it was regarded essential at that time to review archival material thoroughly and to compile all available documentation on research and investigations carried out so far. Apart from more scientific research on the history and archaeology of the site and the wider region, studies in the sociological aspects and the present-day religious function of the site - with its clergy community and its relation to the faithful pilgrims and popularity as a holy space - were considered helpful to enrich the knowledge on the site. It was recommended to establish a general inventory of the cultural properties of Ethiopia to which all information should be submitted for archiving and analysis as a future research facility (Hirsch 1996).

In 1996, the World Heritage Committee felt that it is especially important to ensure coordination of the work between all national and international partners engaged in the activities of conservation and preservation of this World Heritage property. It considered that the Centre for Research and Conservation of the Cultural Heritage (CRCCH)[12] should assume this coordination and ensure that, by the principles of the Global Strategy, the activities on the site were not limited to interventions on the monuments. It, therefore, appeared essential to take into consideration the aspects of the living culture by associating the entire ecclesiastic hierarchy in the efforts made to preserve and enhance this site[13].

In 1997, UNESCO was informed that the European Commission was prepared to release essential funds for the construction of temporary shelters to protect five churches from degradation in Lalibela due to heavy rains as part of a significant investment in the tourism sector of the country. Concerns were raised about the size of the proposed project and its foreseen time span of at least 20 years. UNESCO described the construction work of the shelters in Lalibela as ‘only a temporary answer,’ and that only recourse to the appropriate restoration techniques would lead to a solution that is architecturally suitable. On its 21st session (Naples, 1997) the World Heritage Committee underlined the importance of an integrated preservation and management plan that also included activities geared towards the socio-economic development of the surrounding village[14] particularly as the site had already at that time been experiencing increased tourism development.

In 1998, an agreement was reached between the European Union and UNESCO on the temporary and removable nature of the shelters, and that the project should integrate a thorough conservation programme of the entire site based on photogrammetric records of the structures and hydrological and geological studies of the surroundings. The Committee expressed the wish that the co-operation between Ethiopia, UNESCO, and the European Union be strengthened through systematic monitoring of the projects envisaged at Lalibela.[15]

By the end of 1999, the European Union organized an international architectural competition for the construction of shelters over five churches in Lalibela. The winning design was chosen by a jury on which UNESCO was represented. The first prize was awarded to the Italian architectural firm TEPRIN Associati, whose proposal entailed a structure sustained by

[11] See State of Conservation Report 1995 at https://whc.unesco.org/en/soc/2029
[12] Renamed to Authority for the Research and Conservation of Cultural Heritage (ARCCH) in 20xx
[13] See State of Conservation Report 1996 https://whc.unesco.org/en/soc/2074 and 20 COM VII.D.49/51
[14] See State of Conservation Report 1997 at https://whc.unesco.org/en/soc/2136 and 21 COM VII.C.46/50.
[15] See State of Conservation Report 1998 at https://whc.unesco.org/en/soc/3042

braces and tie-beams, balanced by high pylons set outside the trenches (Teprin Associati, 2008). At the time of choosing the design, the contribution of the EU was calculated at approximately 3 million USD, of which the half was foreseen to cover the cost of studies dedicated to the restoration of the churches and capacity-building activities for the national authority in general[16].

A tender for construction entitled “Temporary shelters for five rock-hewn churches” was launched in 2002 to construct the winning design from the international campaign; unfortunately no tenders were submitted leading the EU to request UNESCO to actively participate in the shelter project (Williams 2004:3) The tender for construction was re-launched in 2005 and encouraged broader participation of construction companies

The process of decentralising responsibilities to the regional level and unclear management structures hampered efforts to ensure that information obtained from previous projects was passed on; this had a negative impact on the effectiveness of ongoing projects in Lalibela which, as a result, came to a halt for some time. The main aim of the International Safeguarding Campaign was to set up a coherent system of documentation and inventory of cultural properties for the entire country (Anfray, Turner, and Ould-Khattar 2001); the campaign helped to secure external funding and international assistance (e.g., World Bank/EU) for other World Heritage Properties of the country (such as Axum and Simien National Park). (Stott and van Regteren-Altena 2004).

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[16] See State of Conservation Report 2000 at https://whc.unesco.org/en/soc/3089

3 IDENTIFICATION AND ASSESSMENT OF ISSUES

The following section presents the issues that have been identified after consultation with the following stakeholder groups

- The Authority for Research and Conservation of Cultural Heritage (ARCCH)
- The Ethiopian Tewahedo Orthodox Church in Lalibela and Addis Ababa
- The National Scientific Committee as Advisory Group to the Ministry of Culture and Tourism
- The Municipality of Lalibela represented by the Deputy Mayor
- Around eighty individuals of the laymen and the church community of Lalibela in the context of a public meeting at Lalibela
- Project officers of the European Commission and the World Bank in charge for the implementation of projects in Lalibela in the context of International Aid Assistance
- The UNESCO Office in Addis Ababa

Upon arrival in Lalibela, the mission met with some 80 individuals of the Lalibela community at the premises of the EU-funded Lalibela Cultural Centre. Together with the representative of the State Party the mission explained the essential terms of reference and gave the gathered community members an opportunity to express in their own words their views and concerns regarding the actual condition of the World Heritage property. This meeting enabled the mission to obtain valuable first-hand information on critical issues.

The Bishop of Lalibela Abba Tsige Selassie accompanied the mission on a daily basis everywhere within the property ensuring that free access was granted to the premises of the property on behalf of the Church. At no point was the movement restricted, and it was possible to inspect all relevant areas.

The mission inspected the current situation regarding four major international projects related to the World Heritage property:

a) the EU-funded shelter project “Preservation and Conservation of Lalibela churches” within a significant environmental, cultural and biological heritage conservation programme funded until the end of 2008;

b) the completed conservation works on the church of Biete Gabriel Rafael (2014 – 2016) and the newly started (2018) conservation works on Biete Golghotha. These works were undertaken by World Monuments Fund, supervised by ARCCH and based on assessments and proposals by UNESCO experts.

c) the effects resulting from the resettlement activities within the World Heritage property through the World Bank loan-financed *Ethiopian Sustainable Tourism Development Project (ESTDP)* implemented directly through the Ministry of Culture and Tourism/Ministry of Finance during 2009-2015.

d) The proposed Lalibela Theological Heritage School for Sustainable Heritage and Tourism Development

During the mission, the representatives of the EU delegation also presented its outcomes from the recent “Promoting Ethiopia’s Heritage for Development (PROHEDEV) Programme”; implemented by the European Union with the nine regional offices of Culture and Tourism of the National Regional States, currently one of the largest international support programmes for the cultural heritage sector within the country. In Lalibela, this programme is directly implemented by the Culture and Tourism offices of the Amhara Region. Part of this programme includes activities on capacity-building for these regional offices regarding conservation activities and in particular the preparation of new World Heritage nomination

dossiers. In this context, it was reported that the regional authorities are considering for nomination an extension of the existing World Heritage property to include more churches in the broader region around Lalibela (the Rock-hewn churches of Lalibela and Lasta).

a) Management

The legal responsibility for the World Heritage property lies with the Authority for Research and Conservation of Cultural Heritage (ARCCH) at the level of the Federal State and Government of Ethiopia as representative of the State Party. On the national level, a Scientific Committee comprised of various national experts advises the Ministry of Culture and the Directorate of ARCCH on matters related to the management of the entire Lalibela World Heritage property. The Scientific Committee meets on a regular basis for the exchange of views and provides scientific expertise to the Ministry upon special request.

Activities related to the World Heritage property in Lalibela are being administered by the local Culture and Tourism office of the Amhara National Regional State, supported by the ARCCH with specific technical skills especially in matters of documentation and conservation. The local office of Culture and Tourism in Lalibela (operated by the authorities of the Lasta Region) has a member of staff trained as architect/conservator at Mekele University in the Tigray region and who participated in earlier workshops and conservation training at the site.

The regular maintenance of urban areas and landscape (cleaning of roads and paths, sanitation, repair of public facilities) within the property and buffer zone falls under the responsibilities of various local bodies such as the Culture and Tourism office, the Municipality, and the Church administration. Although not directly involved in construction works on the World Heritage property in Lalibela, the local municipality is involved in matters of urban security, safety, and health. In particular, it administers the overall security of the activities undertaken in the town, especially during annual festivals and holidays when the pilgrims total more than 100,000 people on special occasions.

The local clergy body of the Ethiopian Orthodox Tewahedo Church is the only authority to allow or deny any access to the premises. The local clergy body is represented by the Abba Tsige Selassie, Bishop of Lalibela and Head of the local clergy community. The clergy community discusses and decides all issues related to the churches within a “Local Committee” composed of local politicians, churchmen, and local government officials. It has been created as a local initiative of the community of Lalibela to avoid repetition of mistakes that are perceived to have happened in the past. The Local Committee serves as an interlocutor between parties carrying out work on the property, the community of Lalibela and the Church.

In terms of management of visitors to the site, the location of the churches is not always clear owing to a lack of maintenance of signage, which have become partly illegible. Pathways do exist in most areas, but they are generally poorly maintained creating hazardous conditions for visitors (pilgrims and tourists alike) to the site, particularly during and after the rainy season when the rocks can become slippery and paths blocked due to accumulated rubble. However, it should be noted that most of the group visits including schools are carried out under the guidance of qualified and certified tour guides.

Design and landscaping aspects must always respect the spiritual and natural character of the site. The authenticity of the site is due to the spiritual experiences of the pilgrims and local population who come to pray or mourn; they would prefer spaces used for these activities to be separate from general visitors or tourists to the property. On the other hand, interactions between the different groups to Lalibela can contribute to a positive visitor experience of both pilgrims and tourists. The current system of licensed tour guides that accompany visitor groups upon request is reported to be successful in providing an “authentic” visitor experience to tourists while at the same time ensuring that the religious ceremonies and customs are executed without disturbances through tourist groups.

All activities executed on the World Heritage property require the consent of the clergy community represented by the Church Parish Council as the owner of the property. The Church has its own canons and regulations to which all activities on the church premises must adhere. Therefore the Church has and executes a “veto” right on activities that are incompatible with the church practices. Decision processes on current matters related to the public authorities are complex and made on an ad-hoc basis based on consultations within a “Local Scientific Committee” composed of local politicians, churchmen, and local government officials (including engineers and architects working at the local level).

In the past, capacity building was focused on the governmental institutions on national (ARCCH), and regional (Culture & Tourism office) level whereas the involvement of members from the clergy community in the previous conservation activities has remained marginal. Some local training in masonry and artisanship have however taken place involving local people (including members of the clergy) and supported by World Monuments Fund.

Documentation and access to previous project results regarding monitoring and conservation activities are limited to the premises of ARCCH in Addis Ababa. There is no archive or documentation unit accessible at the property.

In the course of the mission, it became clear that the distribution of responsibilities concerning regular maintenance and repair is not fixed in legal terms, despite the identification of shared responsibilities of all stakeholders in the Management Plan and agreements reached in 2013 during its preparation. This is partly due to a change of personnel since then and partly to a general weakness of all institutions involved in ensuring follow-up measures after successful completion of projects.

In 2015 the “Monolithic Churches of Lalibela World Heritage Reserved Area Designation Council of Ministers Regulation No. 344/2015” (Federal Negarit Gazeta 2015)” defined a new management structure for the management of the World Heritage Property in Lalibela. It proposed the creation of an Advisory Committee consisting of several members that would streamline the decision-making process. Chaired by the Lalibela Town Mayor, it would receive administrative assistance through a site manager installed by the ARCCH. The remaining members would be: Head of the regional Lasta Woreda administration, Head of the Lalibela Town Culture and Tourism office, Head of the Woldia University Community Service, representative of the Church in Lalibela, a representative of each religious institution in Lalibela[17], two representative of renowned Elders from the Town of Lalibela, two representative of the women and youth association, one representative of Lalibela Town tourist service delivery institution operators. At the time of the mission, the above-mentioned Advisory Committee had not been convened and was not yet operational.

The stated intention is that ARCCH will create the post of a site manager for Lalibela; this person will also be the secretary for this soon to be established Advisory Committee and will help to effectively initiate and drive the consultation and decision-making processes envisaged in the management plan.

b) EU-funded Shelter Project

Four shelters funded with a significant contribution by the European Commission (7.4 million Euros) have been installed to protect the five churches below from water infiltration through their roofs, replacing older shelters at the same locations.

The preparation phase for the erection of the shelters lasted from 1993 to 2002 and involved a number of investigations and studies. Subsequently, there were two tender processes and a significant design change before the erection of the shelters began. The primary purpose of the shelters was to protect the churches from rain and sun (perceived to be the two primary causes of decay) while allowing conservation of the churches to take place. This would be facilitated by keeping the support of the shelters well away from the churches and allowing

[17] no details on the institutions is given in the proclamation

full access to the stone, unlike the previous shelters, which were constructed on timber supports set adjacent to the walls of the churches.

The community and the representatives of the Church have expressed grave concerns about the temporary shelters based on:

- The shelters are generally thought to be fundamentally unsafe and to be showing signs of distortion
- Vibrations and noise from wind can be extreme and have adverse effects on ecclesiastic rituals and daily life
- Some of the bases of the pylons of the shelters are thought to be set on areas with voids or tunnels directly beneath; this is thought to constitute a high risk of collapse to the shelters and putting the churches (which they are supposed to protect) in danger.

This led to an initiative of the local community together with the Patriarch of the Church to request from the Government of Ethiopia the immediate removal of these shelters. It is reported that the Government signalled its consent to this request and, based on the outcomes of the present advisory mission, to proceed with further planning.

c) Lack of Monitoring

In spite of many requests of the Committee there has been no monitoring of environmental conditions (such as temperature, relative humidity, moisture content) or of the state of conservation of stonework. See additional information below in Section 4, Conservation.

d) Sustainability of projects funded by International Aid assistance

The lack of harmonization of different projects built on or in the vicinity of the World Heritage property and the lack of effective coordination between the involved national and international partners due to a fragmented management responsibility has been a matter of concern to the World Heritage Committee.

In particular, the local community has repeatedly complained of not being sufficiently involved in the decision-making processes during the implementation of works around the property. As a result, according to the Church administration, church property has sustained damage resulting from a lack of supervision of the work undertaken by contractors.

At the first meeting the mission held in Lalibela with some 80 local members of the community, it became very clear that the clergy community generally feels “deprived of its property and not directly involved in decisions regarding the future of the churches and its premises…” In particular, the church and community highlighted some specific issues:

- The fundamental reason for the shelters was to allow conservation work to take place but it took ten years for practical conservation work to start in Lalibela, and that was on uncovered churches
- The community continues to experience fear for the security of the shelters as a result of the noises and vibrations that they make during periods of heavy wind. This perception was forcefully referred to by many community members
- Governmental Resettlement programme with the assistance of World Bank has depopulated the property by moving local residents far away. The landscape around the churches is now devoid of all modern construction leaving only some of the traditional “tukul” houses, most of them uninhabited and in a precarious state of conservation. The boundary wall around the depopulated area removed during the World Bank-supported projects remains unfinished allowing open access for unwanted activities.
- The sanitation programme to improve living conditions has led to a “landscape of non-functional toilets” with a questionable discharge of wastewaters that cause

environmental concerns. This includes apparent diverting wastewaters from the city into the historical ditches close to a spring that provides “Holy Waters” and is fundamental for spiritual rituals at the site of Biete Ghiorgis. All the sanitation facilities are currently closed due to non-functional installations.

- The Cultural Centre has been constructed with installations (especially lights and roof) that are difficult and expensive to procure and maintain.
- The lack of sustainability of projects due to the lack of personnel and activities to ensure maintenance and continued use (for example paths and steps installed by the World Bank have become unmaintained and unsafe)
- Frequent missions from international bodies that do not result in any benefits and solutions to their challenges such as the removal of the temporary shelters.

e) General Urban Development around the property

The World Heritage Committee decisions and previous reports from UNESCO stressed the importance of an integrated management plan for Lalibela that would take into account the whole territory of the World Heritage property and the neighbouring settlement. This Management Plan was finalized in 2013.

The *Lalibela Structure Plan* was officially published in April 2010[18] replacing the old Master Plan of 1998 and prepared through the Amhara National Regional Government-Urban Planning Institute (UPI) and the office of Lalibela Town Municipality. It is the legal basis for providing or denying construction permits through the engineering office of the Municipality of Lalibela. This plan has served as a planning basis for the development in Lalibela since its publication in 2010.

The procedures of licensing permission for construction purposes were explained by the Deputy Mayor and a town engineer to the mission. The Structure Plan defines the urbanization limits of controlled development for the town of Lalibela. Urbanization dynamics in the entire region are high, and the provision of the Structure Plan is strictly followed.

The World Heritage property is clearly identified in the Structure Plan, and its declared objective is to harmonise development in a manner that does not jeopardize the heritage values of the property. The primary instrument used for this is the limitation of building height throughout the town. Unplanned and hazardous urban development in the past had resulted in socially and environmentally incompatible activities (mainly relating to overpopulation and poor sanitation) within the Core Zone of the World Heritage property. Resettlement of residents had therefore been under discussion for decades in order to halt further expansion of settlements. The regional authorities imposed a development moratorium on the residents in the vicinity to the historical areas until such full-scale resettlement could be undertaken.

An additional instrument for guiding the development of the urbanized areas is the Land Development Plans (LDP) that are prepared and published through the planning institutions at the level of the Regional Amhara Authority. These LDPs govern the implementation of forms and functions of development projects (sanitation, electricity, free and urbanized urban space, roads) in detail, while the Structure Plan regulates the land use and functions in general terms. There is currently no LDP in place for the World Heritage property or for the buffer zone. Consequently, the construction moratorium imposed is still in place for these areas.

There are two direct consequence of the construction moratorium; firstly living conditions within the area of the buffer zone - where many people still live - remain precarious since no upgrading of structures is allowed and secondly, there is prohibition of any new service

[18] See Annex Document SP-08-PROPOSED LANDUSE MAP-10000_Layout1.pdf

installations desired by the Church administration to provide amenities to the many pilgrims that come to the site.

However, since there is no other legal provision in place, the regulations of the Structure Plan prevail for any decision of the municipality. The Deputy Mayor announced that a new consultation process for the creation of a new urban plan will start soon since the areas designated for urban development in the Structure Plan of 2010 have already reached their limits.

During the mission, the municipality Deputy Mayor, as well as his officer for town planning, declared that they do not know the content of the Management Plan, although the previous mayor actively took part in its creation. It has been reported in the past (during other projects in Lalibela) that one of the main challenges to effective project implementation is the change of personnel, the lack of institutional memory, and unclear responsibilities within the Municipality.

The mission stresses the self-definition of the structure plan, considered to be a "framework for detail development to take place" (WUB Consult and Wubshet 2010 p. 76) that require an additional level of planning through the Local Development Plans (LDPs). The mission notes, that in the context of the creation and early implementation phase of the Structure Plan the outline of the World Heritage property and the buffer zone were identified in the stakeholder consultation process before the Management Plan of 2013 and finally legalized in 2015.

The mission also notes a significant disconnection between the visions and ideas expressed in the Management Plan of 2013 and the content of the Structure Plan. In particular, the importance to maintain visual corridors towards the World Heritage property and the background mountain setting by keeping them free of construction is not reflected in the Structure Plan. Contrary to the suggestions of the Management Plan, the Structure Plan even encourages the commercial development (hotels) on the entire hilltops in general terms – but without providing detailed construction guidelines.

Therefore the mission notes, that in relation to the Structure Plan of 2010, the urbanisation of the hilltops is not consistent with the provisions of the Management Plan, which considers aspects of visual integrity and recommends that visual corridors be left open. Retaining these visual corridors including the hill and mountain tops are the minimum that can be done to retain the visual integrity of the property in the face of the mushrooming urban developments within and outside the periphery of the property.

f) Effects of the World Bank-financed Tourism project

In the context of the creation of the current Structure Plan around 2009, the limits of the World Heritage boundary were gradually marked and defined and the areas of the construction moratorium extended to include the entire core and buffer zone of the World Heritage property. Consequently, property holders in this area were denied the possibility of any property transaction or permission to construct new buildings and even to improve their houses (except for minor maintenance).

Objectives defined in 2009 within the Structure Plan project included the "cleaning" of the historical place by resettlement of the population, dismantling of more recent constructions and the prohibition of any new building construction without a positive confirmation on behalf of ARCCH confirming compatibility to "UNESCO requirements". The mission noticed that "the removal of unwarranted activities" from the World Heritage property as the defined objective has become established practice since the introduction of the Lalibela Structure Plan. The advent of the Ethiopian Sustainable Tourism Development Project (ESTDP) further boosted the momentum of the resettlement programme that had already been initiated by the regional and local governments (see The World Bank Resettlement Action Plan for Lalibela Town. 2011).

Apart from the large numbers of pilgrims in Lalibela during the main festival periods, domestic and international tourism in Lalibela is on the rise; this is leading to a dynamic economic environment that is attracting development especially in the hotel sector. According to an urban study based on the analysis of remote sensing data by Columbia University's Graduate School of Architecture, Planning, and Preservation (GSAPP), Addis Ababa University - Ethiopian Institute of Architecture, Building Construction, and City Development (AAU-EiABC), and World Monuments Fund (2017), the urban footprint of Lalibela doubled in the period from 1994-2014 comprising around 300 hectares. From 2014 to 2015, there was an increase of 50 hectares of additional urban land use along the main road partly due to the completion of the resettlement programme. This is taking place in a mountainous environment with hardly any flat area favourable for construction and with a general low-level one-family building typology. This inevitably results in low-density land use for urbanization.

After consultation with the office of the World Bank, the mission can state that due to the availability of funding through the ESTDP, substantial resettlement of population from the property took place up until 2015. There were also a number of infrastructure activities on the property including construction of pebble-covered access roads, installation of toilets and underground sewage conducts, demolition of non-historic structures and the construction of (still unfinished) walls around the perimeter of the property. The mission stresses that these activities were planned and executed without examination by the World Heritage Centre, the Advisory Bodies or the World Heritage Committee.

The outcomes of the World Bank-financed activities are controversially discussed within the Bank itself. It is known that at several stages the project was liable to fail due to what is claimed to be mismanagement on behalf of those tasked with implementing it. Although no post-completion evaluation of the project has taken place to date, the World Bank[19] has admitted that the project was not in line with World Bank policies with regard to mitigating risk and ensuring negative social impacts as a result of resettlement activities. The expertise of the World Bank in implementing projects was not sufficiently active; this led to a suspension of the project for almost two years. This is said to have been partly due to lack of effective communication with appropriate personnel within the Ministry of Finance. The Tourism branch of the Ministry of Culture and Tourism administered the project leaving ARCCH few opportunities to intervene. There has also been a lack of follow up by the municipality in maintaining the infrastructure provided by the project; this has mainly affected the newly built sanitation facilities that were intended to serve both pilgrims and tourists but are currently closed due to lack of or damaged facilities.

As a result of these activities, the immediate vicinity of the churches is now devoid of local people. There exists only some few traditional "tukuls", most of them in a very delicate state of conservation since many collapsed during the demolition works at the site[20]. The mission visited some hidden private places within the properties, inhabited by a small pious community of women monks, and it is reported that there are still some parts of the historic settlement in place. But the most substantial part of the traditional village within the limits of the World Heritage property - mentioned in the ICOMOS evaluation of 1978 to be the holder of the medieval traditions of the site - no longer exists. The mission briefly had the chance to meet some of the previous residents of the area; they reported that although the evacuation of the place happened on a voluntary basis, and with compensations paid for the loss of property, the current situation is not satisfactory for the affected communities. The connections to the sacred areas (especially the proper functioning of burial practices) have been massively disrupted, and there is nothing to prevent the newly gained open space from neglect and vandalism. The people from the affected communities were relocated to different

[19] Taken from briefing through the Project Manager at the World Bank Ms. Zenatu Fenael

[20] There has been reported that there still exist around 150 historical "tukuls" from a documentation activity by the Columbia University New York together with Addis Ababa University – no copy of this report was provided to the mission but an architect at service for the church administration took part in it

new settlement areas losing the social ties to their traditional "Idirs"[21], which are mutual benefit associations formed by the free will of households for social support. Due to this very strong bond between people and place, some of these communities still congregate once in a year to celebrate a reunion with food and drinks around the church precinct. One such event took place during the mission, and the team were able to experience this feeling of loss and reunion as they were invited to join the party. To the community, that is the only way they can now reunite with their former neighbours as well as collectively experience the spirit of the place.

g) Proposed new Theological School project

The proposed project entitled Lalibela Theological Heritage School - Centre of Sustainability is an initiative from the Church of Lalibela to address matters of tourism management and heritage conservation in Lalibela in a holistic way using income deriving from tourism for the project. The stated vision is a preserved World Heritage property with enhanced community participation and capacity building in conservation and management. From the explanations received, this initiative stems from experiences of the local community of "not being fully involved" in such activities organized on the World Heritage properties by national as well as international institutions (UNESCO; World Bank, EU) in recent years.

The project presented at this stage comprises a 33-page document with a brief project scope, extensive tables on room requirements, some overview maps and technical drawings for twelve different buildings that would be located at the western limits of the property and the buffer zone. The plans depict the building only in floor plan grouped around the edge of a slope. The general architectural idea is to place the buildings entirely below the level of the topography to reduce their visual impact and preserve the outline of the topography. The resulting floor space, therefore, must be considered underground, with only a small façade as an interface to the exterior. The technical drawings do not show any vertical cross-section, the plan of the topography only roughly indicates the height changes. At this stage, the project concept is not translated adequately into a convincing architectural idea. The proposed underground spaces will depend heavily on artificial lighting and ventilation with more limitations due to limited access, circulation, and movement.

Furthermore, the project proposal also includes less intrusive components such as stairways to ease the access of pilgrims to the site from the lower camping areas (at the bottom of the valley to the west of the buffer zone) and some benches close to the entry gate at Mesquel Square within the premises of the property.

As a concept, the project proposal provides a general idea and understanding as to what functions and skills are required for the effective management and conservation of a site such as Lalibela. However, the mission considers that the project is not generally realistic in its overall size and scale.

The mission questioned the installation of new buildings given the difficulties and past experiences with other major infrastructure projects created for the support of cultural and preservation activities, e.g. the EU-funded Cultural Centre. This centre is equipped with necessary facilities (conservation, archive, storage) also mentioned in the "Theological School" proposal. The response received indicated the general difficulties of making shared-use of available infrastructure due to poor liaison between those with different domains of responsibility. The Community Centre was funded by the same EU project as the shelters but handed over to the municipality after completion of the project. The municipality lacks funds and skills to operate this building. In the meanwhile, a solution has been found through the

[21] *Idirs* own communal property (tents, chairs, tables, and cooking utensils) and are the basis for a basic social support system. There exist also and savings organizations mostly used for funeral management helping a member during mourning and providing monetary assistance for the funeral and other expenses. These burial practices are very important for the community and form one of the principal ties to the church precinct.

local Culture and Tourism office, which can operate, repair and maintain this building partly with funding through the current EU-PROHEDEV project. The Church as well is affected by the constant change of key personnel with the institutions on the federal and regional level and proposes its project as a more sustainable approach due to the longevity and autonomy of the Church system.

It was explained that components of the Theological School programme, such as 'Church schools' are already functional but dispersed over the premises of the property and the town. These serve as temporary residences or classroom spaces and workshop areas for church-related activities such as caretaking for children and chanting or recitation classes. Some of these schools operate in the previously abandoned "tukuls".

The more recent facilities built near the entrance area are used for various activities but are in need of modernization. The space designated to house the local museum is not appropriate for the many valuable and unique ecclesiastical artefacts (crosses, liturgical vestments, scripts) in terms of storage, exposure to light/climate. Moreover, the simple door construction cannot ensure the required level of security.

From discussions with the Bishop and the Church administration, but also from the comments of the community, it is understood that there is a clearly identifiable need for a Theological School facility to maintain the intangible aspects of this property. The religious community in Lalibela is ageing. Young followers appear to be joining church service as a temporary job alternative (the Church is able to pay a modest salary to priests out of the access fees) but lack the ability to complete the complex ecclesiastic education in script and liturgy, which requires a commitment for at least eight years. Consequently many are dropping out of the church system in the later stages of this training.

Theological schools exist elsewhere in many places throughout the country, and it is a matter of urgency to have such an institution well established at the most sacred place of the Orthodox Church in Ethiopia. Therefore, the clergies were imploring the mission to allow for this school since the cleric community has invested great hope into this project.

h) Boundaries

There is no cadastral information available for the boundaries of the property or its buffer zone. Moreover, the boundaries of the property have not yet been adequately clarified and nor has a buffer zone been submitted for approval through a request for a Minor Boundary Modification.

According to the information obtained by the municipality, it is assumed that the World Heritage property is owned entirely by the Church whereas the buffer zone constitutes a mixture of landowners (National State, Regional State, Private, and Church).

This lack of clarity of boundaries and setting is clearly not helpful to the planning and management processes.

i) Summary of factors affecting the property

Based on the summary of the detailed State of Conservation reports consecutively since 1995, the factors affecting the property identified were as follows (as of 2014):

a) Lack of clearly defined boundaries for the property and the buffer zone;
b) The absence of a Management Plan for the property;
c) Insufficient urban and architectural regulations;
d) Urban development and encroachment around the property;
e) Impact of the four temporary shelters constructed in 2008;
f) Impact of rainwater and humidity on the church's structures;
g) The possible impact of earthquakes based on geological and architectural characteristics of the property.

The factors under (a) and (b) have been partially addressed since the last decision of Committee in 2014. The boundaries have been defined and legalized by national proclamation 344/2015, and official maps are currently being prepared by the National Mapping Agency. But these have not yet been formally submitted to the World Heritage Centre.

A management plan was elaborated in 2013. However, this plan needs to be revised and actively implemented to adequately address the issues (c) to (g), and greater clarity given to the management structures and involvement of different communities.

Factor (d) urban development and encroachment has significantly increased since 2014 as has concern at the lack of adequate urban regulation and also the impact of temporary shelters (e).

A new concern is the demolition of most of the traditional “tukul” dwellings.

4 ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

Shelters

Between 2007 and 2008, following an extensive design and tendering process, four temporary shelters were erected over five churches with considerable funding from the European Union.

The largest shelter was constructed over the premises of Biete Medhane and another over Biete Mariam and part of Biete Mesquel from the northern group. The third shelter covers Biete Amanuel and the fourth shelter Biete Abe Libanos from the southern group. These shelters mostly replaced existing wooden shelters similar to that still in place on Biete Lehem.

The design of the EU-funded shelters was changed shortly before their erection to ensure full reversibility of all structural elements (roof, pylons, and foundations). The structures consist of a roof made out of spatial frame assembled by individual light steel pipes covered with a translucent membrane. The lower part of the roof is sealed by a perforated membrane. In the space in between the membranes, a lighting system has been installed to allow for the presentation of the churches after sunset. This part of the roof is not accessible; there is no staircase or scaffold tower in place to reach the roofs, which rise some 15 to 20m from the ground floor nor are any catwalks installed within the space covered by the upper and lower membrane.

The roof of each shelter rests on four tree-like steel columns, each assembled out of individual steel components bolted together. These columns are firmly connected to a square steel base frame that is fixed to a concrete foundation lying on top of the rock surface. According to the revised design, these foundations are not permanent and are kept in place by heavy counterweights.

The concrete foundation rests on top of the natural rock surface. Steel plates are placed on top of the steel base frame to ensure stability against uplift of the structure in case of negative wind pressure. These ballast plates are piled up in four segments around the column, secured at each corner by a threaded steel bolt. These ballast plates are therefore not firmly fixed nor are they perfectly aligned with each other. Due to vibrations of the entire structure, the ballast plates tend to move and change their position slightly, but as their purpose is entirely to introduce ballast onto the square base frame, this aspect is of secondary importance. The slight movement has however been identified by the community as an illustration of the apparent instability of the shelters.

It is undoubtedly the case that, despite many reminders, there has been no formal regular assessment or maintenance of the shelters. In 2014, at the request of ARCCH, Addis Ababa Technical University undertook a study on the conditions of the shelters. During this study, it was highlighted that the shelters were constructed according to the national building codes of Ethiopia EBCS-1 of 1995, which were in force at the time and were included as part of the technical specifications included in the tender document for the construction of shelters.

In 2012, these building regulations were revised to match similar international standards. A significant consequence of these newly introduced standards was the change on “Design Wind Loads”; the Wind Reference Speed was altered from 22m/s (1995 Edition) to 35m/s (2012 Edition) in order to comply with structural stability requirements even under extreme conditions such as tropical thunderstorms, cyclones or hurricanes.

In the study carried out by Addis Ababa University, the question was raised whether the structural frame of the shelter construction as built could sustain higher wind forces than initially requested with the tender documents. For this purpose, a computer model simulation of the steel frame was carried out in standard engineering software and tested under the maximum wind speed conditions implied by the national building code of 2012. The report identifies that the simulation model indicates the structural failure of individual components of

the steel construction at reference wind speeds higher than 30m/s. If this conclusion is correct, the current construction is incompatible with national building code standards in force since 2012.

According to the draft report resulting from this study, intense weather phenomena have been recorded in Lalibela. Records from the National Weather station of Lalibela in 2013 and 2014 suggest the occurrence of maximum wind speeds in the range of 28m/s. The report concludes therefore by questioning, in general, the stability of the shelter construction under extreme weather conditions.

The study further claims that there has never been any exploratory geotechnical investigation conducted of the ground where the pylons rest on their foundations (Asrat and Gebreyohannes 2014).

The result of this study was communicated on many channels nationwide in Ethiopia and has increased the concern on the general stability of the shelters especially among the community of Lalibela but also among international donors.

Prior to the mission, ARCCH invited the constructing company ENDECO to Ethiopia to inspect the shelters and to provide their assessment on their stability. The construction company in a report dated 16th April 2018 submitted after a visual inspection of all shelters during a two-day visit to Lalibela on 13th and 14th April reassured the State Party that they could not observe any uplift movement of the shelter. This conclusion was based on visual inspection of the column bases and the hypothesis that any uplift movement of the columns would have left cracks in the grouting of the square base frames or the tuff stone claddings built around the foundation concrete.

The constructor also provided information in his report on the results of geological investigations undertaken in March 2007 to investigate up to a depth of 3m for any cavity or anomaly that would influence the loading capacity of the rock at the location of the planned pylons of the four shelters. The conclusion presented was that the georadar investigation did reveal smaller holes or other anomalies not greater than 20-30cm and not deeper than 50cm at some few points, thereby constituting no threat to the overall bearing capacity of the rock.

Furthermore, the constructor affirmed to the State Party that all the shelters are in good condition. Considering ten years have passed without any maintenance activity, this argument was put forward to prove the quality of work and to confirm that the shelters can still serve their purpose for several more years to come.

The constructor also offered his services in case the State Party wished to verify the implication of the more severe wind load provisions on the structures as per the recent update of building code regulations. The contractor affirms that he is prepared to perform and check the required structural calculations and to suggest and perform additional safety measures on the structures. Such measures most likely would entail the increase of ballast plates to individual columns.

The situation at the time of the mission can be summarized as follows:

- The local community is not willing to accept these shelters "any longer" since the shelters (perhaps as a result of the type and shape of the membranes) do cause vibrations and extreme noise when under wind pressure sometimes disturbing the course of liturgies and causing visitors and pilgrims to the churches to be fearful. Visual observation from the ground allows only a limited assessment of the condition of the shelters. There are no provisions installed to reach the roof for detailed inspection of membranes and cables. Nor are any “catwalks” installed between the outer or the inner membrane that would allow any inspection inside the roof construction.
- The report by the Italian constructor (dated 14th April 2018) stated: “No sign of structural deterioration or loosening of connections between elements on the columns

elevation structure is observed". In contrast to this statement, the mission has observed at several locations a widening of the joints between the flanges of the columns. A further detailed systematic examination of all columns is required to determine if the apparent deformation occurred due to critical tensile stress levels within the column segments or if it already existed when the shelters were erected.

- The State Party is inclined to consider the removal of the shelters to relieve the local community from this stressful situation. It is understood that the physical removal of the shelters should not cause damage to the church structures and that following appropriate conservation and assuming continued maintenance, the absence of the shelters will not have a negative impact on the churches. The State Party can only achieve these goals with sufficient time and resources; it has expressed its willingness to contribute to the creation of a general framework of coordinated actions and activities that are accepted by all national and international stakeholders. In this regard, the recommendations of the missions are awaited in order to proceed with further consultations at the national level.

Documentation of mission results and previous conservation works

The idea of protecting the churches from rain is not a new one; it is reported that historically the roofs were covered in thatch or carpets or with sheep and goatskins sewn together to provide a waterproof membrane. This would be applied during the rainy season. This realisation that continued care and maintenance is essential for the effective preservation of the churches is a lesson that needs to be heeded now more than ever.

There are a number of interventions since 1920 that have endeavoured to provide a way in which the rainwater could be prevented from ingressing into one or more of the churches. These have included the application of lime mortar to cracks (Biete Mariam, Biete Amanuel, Biete Golgotha, Biete Danaghel in 1920), concrete applied to all areas (Biete Medhane Alem in 1958), tar and red paint applied to whole roof (Biete Amanuel in 1958) and hydrophobic coating – the so-called Prof Lewin liquid - in 1965 (International Fund for Monuments and World Monuments Fund 1967).

Aside from any structural issues, the likely effect of the shelters on the rock beneath can only be surmised since unfortunately there has been no monitoring of environmental conditions (such as temperature, relative humidity, moisture content) either outside or inside the churches. Observation and some research into the mineralogy of the rock confirms that the rock has dried out and with that there has been a shrinkage of the clay minerals (especially montmorillonite (see Margottini 2005; Margottini 2006) within the rock. As a result of this drying, many of the roof surfaces have become detached and powdery; this is especially evident on the surface of Biete Abba Libanos.

Although some crack gauges installed during the restoration campaign of World Monuments Fund/Angelini in 1968 are still in place and serve as primary indicator on structural movements over a 50-year interval, these have not been monitored. This omission and disparate analysis efforts in the last ten years means that there is still no clear picture on specific structural factors and how different measures (including the shelters) applied in the past have altered the situation.

The completed and recent conservation works executed by World Monuments Fund are preceded by a condition assessment based on photographs and plans that are derived from the previous 3D laser scanning of all churches (Rüther and Palumbo 2012). From this data a comprehensive map of the site has also been prepared by researchers from the Centre Français des Études Éthiopiennes – CFEE - (Bosc-Tiessé and Derat 2011) for use as reference material. More recently students from the Columbia University Graduate School of Architecture, Planning and Preservation and the Addis Ababa University - Ethiopian Institute of Architecture, Building Construction, and City Development (AAU-EiABC) also prepared a GIS system to evaluate the urban growth of Lalibela in the last twenty years.

Overall perspectives on conservation

The shelters were erected to protect the churches from rain and sun. So that they can be removed, it is imperative that appropriate steps be taken to ensure that the churches – the roofs in particular – can withstand the effects of any weather to which they will be exposed.

In two cases (Biete Medhane Alem and Biete Mariam), the existing shelters replaced previous shelters, so the church roofs have been substantially dry for over 20 years. It is known that the rock contains minerals and expanding clays so before the shelters are removed, there must be consideration given to the likely effect of rainfall on these clays and minerals. Even in the other two cases (Biete Amanuel and Biete Abba Libanos) where there were no shelters previously, the protection provided by the current shelters will have allowed the rock and roofs to dry out to significant depth; any subsequent wetting may have unintended consequences on both the rock itself and any interventions applied to it.

It is the roofs that provide the main interface between the churches and the weather. However, it is also important to consider not just the direct impact of rain on the flat or shallow-sloped roofs but also the potential for uncontrolled run-off to enter into the structure through existing fissures or to cause direct damage to the vertical elevations of the church. Any conservation work must primarily focus on the roof and the way in which water falls onto it and how it is then channelled off.

Any interventions that include grouting and filling of fissures will (over the short to medium term) be liable to cracking and detachment. This is not due to inappropriate materials or methodology used but rather to the stresses that arise from expansion and contraction (whether from hydric or thermal effect) of the substrate; any cracks that do form are likely to allow water to percolate through the fissures.

It is therefore essential to classify the scope of intervention clearly as “caretaking” activities aimed to reduce the speed of deterioration of the material. The conservation and repair of the roofs by itself will, therefore, provide only a temporary solution. In the longer term, regular monitoring and maintenance must be carried out by well-trained and skilled staff that are available on site at all times to address issues as they arise.

Once the rainwater has been led or fallen to the ground, the drainage channels connected to the courtyards are thought to be working well; they do however require regular clearance and maintenance. Although there may be localized areas of standing water following rainfall, there is no evidence to date of significant decay caused by groundwater penetration into the walls of the churches. The historic ditch system has grown over time, and its original purpose and function are still not comprehensively researched. According to archaeological findings, there are indications that it has also served other purposes such as for defence or as a water reservoir. Using the historical ditches therefore for draining the site requires a careful observation during cleaning operations to ensure adequate run-off and avoid the creation of shallow areas that might create artificial water ponds.

Monitoring provisions and general maintenance

There is no functioning system of monitoring of environmental conditions inside and outside of the churches. As a result, there is no possibility currently to validate and quantify the observable alterations of the microclimate below the shelters based on scientific data. This is regrettable since it is known from earlier evaluations works done that such systems were installed, but no sustained recording took place. At the border of the cliff, close to the shelter of Biete Amanuel, there is still a non-functional weather station in place that now poses a safety threat since the planks to which it was fixed have rotted.

Metal gauges were installed over significant cracks in 1968 by the Architect Angelini, and more recently a system of high precision tell-tales was installed to capture micro-movements of structural discontinuities (Laureano, Tonietti, and Rovero 2010), but the observation and recordings ceased soon after the closing of project activities.

The general appearance of the environs of the property (landscape, paths, sustaining walls) shows traces of neglect and maintenance. Paths are not cleared from rubble and litter collection takes place sporadically. There are indications that there is a shortage of resources allocated for this purpose also due to unclear responsibilities (municipality, Church, ARCCH) to maintain the place itself and a clear overdependence on external donors funding to address these issues.

A Maintenance and Monitoring Plan has been drawn up by ARCCH and World Monuments Fund following the completion of the work to Biete Gabriel Rafael in 2016. This provides a comprehensive methodology for continued maintenance, but it must be ensured that there are sufficiently trained personnel to carry out the necessary inspections and to be able to interpret the results of their observations. From experiences gained in the last years, it is assumed that the Church should have a leading role in coordinating such ongoing monitoring and maintenance.

Current and recent conservation programme

Regarding the details of the work, this substantially follows the guidelines established in the following documents:

- o '*Conservation of the Rock-Hewn Churches of Lalibela – A set of notes for the guidance of conservators and architects'* (Tony Steel, January 2016)(Steel 2016)
- o '*Preservation at Beta Golgotha & Mika'el, Lalibela - Condition Analysis and Scope of Work recommendations'* (World Monuments Fund, February 2017) (World Monuments Fund 2017)
- o '*Preservation at Beta Golgotha and Mika'el, Lalibela – Conservation Plan'* (Studio Croci, November 2017)(Studio Croci and WMF 2017)

As with any project, any conservation proposal is subject to amendment once the site is fully accessible and that the problems can be studied at close range. Some issues have arisen due to a misunderstanding of this fact and a lack of effective ways of notifying the stakeholders of any changes that have become necessary.

It is also the case that each church building has slightly different challenges so materials and methodology that worked satisfactorily on one church may not necessarily be the best for another. Such variation can be due to factors such as the condition of the rock, local environment, orientation of the façade and previous treatments. This needs to be understood particularly given that the trial works have been carried out to two churches that have not had shelters and hence will have significantly different conditions to those that are under shelters.

Inspection of the works to Biete Rafael completed in 2016 revealed that the work had been completed to a high standard and there had been no further water penetration in the church's interior. However, the inspection and subsequent discussions revealed that there had been and remain some issues:

- The roof mortar seems mostly intact although it is evident that there will be a need for ongoing maintenance.
- The Local Committee had expressed some concern that although the specifications called for the use of Ledan Base B grout, because of supply difficulties, Ledan Base A grout was used. These do have different formulations, and Base A is more suitable for micro cracks, but in the circumstances, the use of Base A will not have been detrimental to the structure.
- Some concern was expressed that the Local Committee had not approved the parapet around the whole perimeter.
- Metal mesh was used on the roof, and some doubts have been expressed by the Local Committee as to whether this was approved or suitable. The use of metal in

stone or mortar always runs the risk of differential thermal movement, and it would be appropriate to consider the use of a more inert material. There is a range of pultruded basalt products (helical dowels and mesh of various sizes) that are lighter than stainless steel, have at least twice the strength, remain inert even at high temperatures and would be more compatible.

- Outside in the courtyard, there are very significant mortar repairs. Most of these remain sound, and despite concerns that they sound hollow when tapped, they remain generally well adhered with an only minor detachment of feathered areas of mortar around the edges.
- There are a few joints that have cracked, and some repairs at high level appear to have somewhat a bleached appearance.
- The entrance passage to the church was not in the scope of works but is prone to rock fall due to detachment of rock fragments; this must be considered a potential safety hazard. It was strongly recommended that temporary protection using simple wooden support beams should be put in place to ensure the safety of visitors.

Regarding technical issues that are being used or have been specified in the current work on Biete Golgotha Mikael:

- The proposal to use an acrylic resin (Paraloid B72) to protect/consolidate areas of powdering stone has not been adopted for the current project. This is correct as the use of such a resin on external stonework subject to direct heat and fluctuations of temperature and humidity would be inappropriate.
- The methodology of application of mortars should be reviewed to ensure that the mortar does not dry out before it has carbonated and that it does not crack. These faults are not necessarily due to the formulation of the mortar although quality control of constituents must be an on-going process. Faults are more likely to be due to a lack of skill and experience in the use of mortar under challenging conditions. This was evident from on-site observation of people working under pressure of time and in hot weather. It was also apparent that supervisors/project managers have too many other commitments (especially in dealing with the concerns of the local community), which prevents them from satisfactorily carrying out on-site training and supervising conservation work.
- Specially formulated epoxy resin (sometimes mixed with micronized silica) is being selectively used both as an adhesive (for loose stones), grout and as filler. Although the documents referred to above identified the use of epoxy for localized adhesion and for securing dowels, its use for grouting cracks should be urgently reviewed. After the visit of the mission, discussion with the on-site conservation director from the World Monuments Fund confirmed that this particular methodology has ceased, and epoxy resin will no longer be used for grouting.
- New parapet stones are currently being secured by fibreglass dowels set into rebates cut into the top surface of the stone; the dowels are embedded in epoxy resin and then the rebate filled with mortar. There is some concern that this fill mortar might deteriorate and the epoxy is likely to become brittle in time. It would be better to consider securing the stones by using helical dowels drilled into the vertical face of adjacent stones. This would mean that the dowels are hidden, and there is no weakness on the top face of the parapet stone.
- Steam cleaning is being used effectively on the internal rock faces, but externally, small scrapers and toothbrushes are being used to remove the dirt, which is substantially organic in origin. Steam cleaning is particularly effective at removing organic deposits so it would be appropriate to try the steam cleaner on external faces as well.

Structural stability of the churches

The churches are dynamic structures with many geological discontinuities. There has always been - and will continue to be - movement along these faults; the movement will almost always be slow and imperceptible except, of course, in the event of seismic activity. There may also have been movements in the structure caused during excavation when load paths were substantially altered or subsequently due to the weight distribution of the roof acting on un-buttressed walls. Any movement can only be expertly evaluated when measured and recorded through long-term monitoring.

This need for monitoring has generally been understood by the stakeholders, and there have been a number of monitoring programmes that have either been proposed or instigated. Unfortunately for a variety of reason none of these programmes have generated useful long-term data; this means that there remain opportunities for unwarranted (and sometimes alarmist) conclusions to become treated as fact.

One of the monitoring programmes in the past was the installation of gauges by Angelini in 1968. Very few subsequent reports acknowledge these gauges, but during inspection by members of the mission, at least twelve were found, all but one of which showed the movement of 3mm or less over the 50 years since they were installed. This represents the inevitable movement of a dynamic structure that has many geological discontinuities as well as design-driven stresses. It is unfortunate that the location of these gauges has not recorded and indeed they have not been monitored, therefore 50 years of structural data has gone unrecorded.

In 2008, a limited monitoring programme was undertaken by the University of Florence working under the auspices of World Monuments Fund. This used mechanical devices to measure strain, displacement and other criteria on the Gabriel Rafael church over an 18 month period (Report *Conservation of the Site of Lalibela; Bete Gabriel/Rafael monitoring,* November 2010*,* (Laureano, Tonietti, and Rovero 2010). The conclusions highlighted that the highest risk to the structures remains seismic activity but also how seasonal variations affect the rock, in particular, the way in which it expands during the rainy season.

A further programme of structural monitoring of unsheltered churches was proposed by ARCCH and World Monuments Fund in 2016. This involved installation of displacement transducers feeding into a Data Acquisition Unit. This proposal has not yet been activated (World Monuments Fund and S. Battle 2016).

Management of the conservation work

The mission was able to view work in progress on Biete Golgotha Mikael and also to talk to those involved in conservation activities:

Cristiano Rosso (lead consultant) – Studio Croci & Associates

Domizia Colonello (conservator) – World Monuments Fund

Simon Warrack (conservation director) – World Monuments Fund

Fkereselasse Sifir (site architect) – World Monuments Fund

The intended roles had been established in a document issued by World Monuments Fund in February 2017 (‘*Preservation at Beta Golgotha & Mika’el – Implementation Methodology’*), but it is not clear whether this proposed organizational structure had been effective. Discussions held with those currently involved on site and with the local community and members of the local and technical committees revealed a certain lack of trust between the parties.

It was reported that work within the premises of the church is prone to interruption on a frequent basis. This is due to a number of factors:

- Numerous religious rituals that take place regularly within the churches as well as religious holidays during which work cannot be performed by local staff
- Unanticipated interruptions due to perceived issues with materials and methods being used on the site. This often leads to the cessation of work, which is only allowed to continue once an understanding has been reached with the clergy community
- Access denied to the churches for ad hoc reasons; this can directly affect conservation, monitoring and maintenance activities.

These interruptions are having a direct effect on the conduct, and possibly quality, of the work since the time that should be spent by the project leaders on site supervising the workers is often being spent dealing with the concerns and questions raised by the members of the local community; in addition the numerous holidays lead to a lack of adequate time for the project work to be completed within the anticipated programme.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Management System and the revision of Management Plan

The current overall management process of both practical works on the churches and of the World Heritage property as a whole was observed. Despite the good intentions and hard work of many individuals, it was found to be fragmented and not always effective. The management is inevitably complex with many local, national and international bodies involved but if the concerns of the community are to be addressed and conservation work to be successfully carried out, a more appropriate management system needs to be in place.

The mission noticed that, based on past experiences, there is a deep sense of disappointment felt by members of the religious and secular community of Lalibela towards activities of the international community and their actions on the ground. On the other hand, the representatives from donor agencies very often raised the issue of “weak collaboration among stakeholders” due to a constant flux/change of their counterpart personnel at various levels during planning and implementation of projects.

On the basis of statements from different stakeholder groups, the mission noted that such perceptions are not given appropriate attention and too often viewed as “mistrust towards the works of others”, which hinders efforts to collaborate among the various stakeholder groups.

The mission noticed that this dynamic has had an adverse impact on the ability of many past and recent preservation efforts to fulfil their potential. The mission noticed that this is also partly due to there not being sufficient provisions and procedures to address the challenges that inevitably occur during the implementation of projects.

The Management Plan of 2013 already correctly suggested a general co-management approach bringing all players together based on an idea of collaboration, with the division of responsibilities clearly identified among all the stakeholders. Already during the process of its creation “anomalies in the management system” were identified at that time, partly due to the missing institutional links between authorities at the governmental, regional and municipal level and the Church Body in Lalibela.

As a first and most crucial step, it is therefore essential to revive the Management Plan process under the lead of the Authority for the Research and Conservation of Cultural Heritage (ARCCH) bringing all stakeholders at regional and local level together. At the same time, the particular role of the Church of Lalibela as the owner of the property has to be acknowledged appropriately.

The management of the Rock-Hewn Churches, Lalibela World Heritage property seeks to preserve/safeguard both the tangible and related intangible attributes that convey OUV. The resulting challenges of undertaking preservation/safeguarding efforts at a living and working religious heritage site, with a large population living in the buffer zone under poor economic conditions, can only be addressed in a spirit of continuous collaboration, and mutual respect between the representatives of each stakeholder group. This also includes the timely and transparent reporting of identified challenges and obstacles, especially within the context of the regular cycle of State of Conservation Reports submitted by the State Party for examination by the World Heritage Committee.

The mission notes the lack of an overall vision for Lalibela to which all stakeholder groups can unanimously agree. This is partly due to the strong emphasis that is given to material aspects such as income generation through the growth of the tourism sector and the focus on isolated infrastructure interventions. The mission notes a tendency on the regional and local level to “commodify Lalibela”, which, if continued without reflection, might pose threats to the values of the property in the future.

The National Cultural Policy highlights the values embedded in an intact natural and cultural environment and calls for a management approach for heritage that communicates its significance and its conservation needs to the host community and visitors alike. Lalibela is starting to experience both the positive and negative impacts resulting from an increase in investment in the tourism sector, which to date has been considered by the State Party to positively contribute to preservation efforts of cultural heritage assets.

Management Plan process

The State Party is encouraged to develop a vision statement that clearly shapes Lalibela not only as an increasingly valuable resource - one which is produced, exhibited and consumed - but is also an essential element in shaping and projecting identities from the level of the individual to that of the society as a whole. Such a vision statement should be the overarching theme for the Management Plan.

The mission would emphasize the recent initiatives of ICOMOS within the Framework of the United Nations International Year of Sustainable Tourism for Development 2017, which promotes closer linkages between tourism, living cultures and cultural and creative industries. Further, the mission recognizes the fact that heritage can be a driver for sustainable development. In this regard, Lalibela should also be considered as a resource for sustainable development in line with the Africa Agenda 2063, the UN Sustainable Development Goals, and the World Heritage Committee Decision 39 COM 5D on World Heritage and Sustainable Development. However, the use of the property especially for economic benefit must not only take into account its delicate nature but more importantly the absolute necessity to recognize, ensure, sustain and even improve the property's Outstanding Universal Value, based on both its tangible and intangible characteristics and values.

For Lalibela, improvements in this direction can be achieved by linking the management efforts for the well-known tangible values for which Lalibela has been inscribed on the World Heritage List with support activities to the social and religious life in Lalibela, especially during periods of pilgrimage and important religious festivals such as "Meskel". The inscription of the *Commemoration Feast of the Finding of the True Holy Cross of Christ* (Meskel festival) on the Representative List of the Intangible Cultural Heritage of Humanity in 2013 provides a good foundation for this. Such intangible religious events are essential components to the OUV of the World Heritage property. It is important therefore that they can be performed in close proximity to the churches so as to underline the interrelation and interdependence of these values.

The State Party, the national, regional and local authorities are encouraged to actively support the Church in the proper execution of its customs, beliefs and religious activities by providing adequate spaces and services for these activities. This can partly be achieved by increased preservation, conservation and restoration efforts of the movable heritage artefacts that can be found in all churches in Lalibela. However, these activities cannot be executed adequately within the current premises of the site museum.

It is recommended that the following three key steps be taken towards fulfilling this ambition:

1. The Authority for the Research and Conservation of Cultural Heritage (ARCCH) shall revive as a matter of urgency the Management Plan process by enabling the proper functioning of the "Advisory Committee" according to the stipulations of Proclamation 344/2015. This committee shall adopt its own rules of procedure according to paragraph 9(4) of the proclamation including the definition and formalisation of responsibilities and duties of the key stakeholders. In order to acknowledge the special role of the Church as the property owner and without prejudice to other provisions, the mission recommends this newly established committee to consider the appointment of the Bishop of Lalibela as a permanent Member to this committee.

2. The Advisory Committee shall further update and revise the Action Plan included in the Management Plan of 2013 to reflect the recommendation of the present report and to adapt the timetable to the available resources and funding. Provisions of the Action Plan shall also foresee mechanisms for conflict resolution in case of dispute prior to or during execution of works. To this extent, representatives from third party, funded projects shall have the opportunity to explain the scope of research or conservation work to the Advisory Committee.
3. The church of Lalibela shall revise its Theological School project to include conservation and education programme propagating a holistic approach to the preservation of the tangible and intangible values of Lalibela including immovable (churches) and movable (crosses, scripts) heritage objects.

The institutions of the State Party and the administration of the Ethiopian Orthodox church are encouraged to promote a spirit of collaboration and broad participation in the preservation and safeguarding efforts; this should include existing key national and international partners such as universities, research institutions, embassies and funding agencies.

5.2 The protective shelters and Framework Programme for Action

The shelters are a most challenging issue currently affecting the churches and community at Lalibela. For reasons of perceived and actual safety, potential damaging effect on the churches and negative aesthetic contribution to the property, the mission agrees that they need to be removed. However, this must only be done after the necessary conservation works to the churches have been carried out.

Structural stability of shelters

The concerns relating to the shelters can only be completely removed by dismantling them, but it is acknowledged that this a complex undertaking that may take several years to complete assuming that the necessary considerable financial resources are available. It is essential however that, as a matter of urgency, the current safety concerns are acknowledged and assessed.

It is recommended that the following steps be taken:

1. Commission inspection and detailed assessment of all four shelters (structure and membranes) by independent structural engineer including calculation of current and anticipated ground and wind loadings and proposing any temporary works required to increase stability over the period required to allow for dismantling of the shelters. This is likely to involve the following procedures:

    - Review of the existing documentation of the shelter project including the inspection of the structural calculations that were used to comply with the prescribed safety regulations;
    - Planning of a scaffold tower construction to ensure access to the shelter roof for detailed inspection;
    - Structural assessment of the steel construction and membranes based on detailed site survey;
    - Detailed reporting on survey and findings including conclusions, recommendations and concept designs for any remedial proposals.

2. Commission independent detailed topographical survey within a 10-metre radius of the pylons and combine resulting data with existing 3D laser scan data to identify any potential threat posed by underground tunnels allegedly passing by close to some

pylons.

3. Commission (in the light of the results from the inspection) detailed plans for the removal of the shelters including for any works required to guarantee their on-going stability during the time that will elapse before their removal can be completed. The conceptual plan for the removal shall be developed in close cooperation with the conservators to develop a scaffold construction that will serve both the works on the conservation of the roofs and the subsequent removal of the shelter membranes and steel construction.

Removal of shelters

The proposed dismantling of the shelters must take place after the conservation works, which are described in more detail in the conservation section below. The process of removing the shelters must be considered similar to the process of their erection but in reverse order. It will require extensive scaffold access and careful dismantling of all elements and their removal from the site. Considering the steep topography and difficult access especially at the Eastern Group, there is considerable planning required in advance of such an operation.

There is, however, a way in which the removal of each shelter can be phased so as to benefit the conservation works. This is the outline recommendation:

Phase 1:

- Following structural assessment (see above) and further design as required, construct a multi-purpose lightweight scaffold suitable to serve as a works access platform to allow for conservation to the roof and external elevations.
- Once conservation work to the roof and elevations is complete, the scaffold would then be extended to provide access for removal of the shelter. Such scaffold systems are widely available, easily transportable and not very costly.
- After removal of the shelter, the scaffold would be reduced back to the initial works access area and retained while the conserved roof establishes equilibrium with external conditions.

Phase 2:

- Complete conservation works to the external elevations and possible further works to the roof (subject to the effect of the weather).
- Works access scaffold dismantled and removed from the site.

This programme can be flexible, but there should be one rainy season (May – July) between the two phases. Suitable protection of the churches must be in place during all erection and dismantling processes

Documentation and monitoring

Although extensive and excellent documentation on the state of conservation of the site has been prepared during programmes in the last twenty years, the access to this material is not satisfactory. The status of documentation at the central archive of ARCCH remains unclear, but there is no documentation available at the site either to the local office for Culture and Tourism or to the church administration. It took the mission great efforts to obtain an overview of the previous mission reports, and it was noted those currently involved in the projects are not aware of the older material.

In order to ensure that existing information is accessible, the mission recommends:

1. A local documentation department should be established under the supervision of the new Advisory Committee. This should collect copies of all documentation relating to previous programmes (including condition surveys, research documents, conservation reports, etc.) and should ensure the collected material is catalogued and available for re-use.
2. Parts of the EU-funded community centre should be converted into a research facility to host the archive and documentation unit and provide a study and work area for use by researchers who come to Lalibela and for the use of site-based activities of the heritage course at Woldiya University.

There have been a number of both detailed and summary condition surveys over the past few decades, but as the conditions change, these need to be updated. The mission therefore recommends:

1. A complete condition survey on all churches should be undertaken in order to provide information for their conservation. This condition survey should cover the churches under shelters in a priority phase and the unsheltered churches in a second phase. This corresponds to the prioritization identified in the Risk Assessment Study of WMF (World Monuments Fund and S. Battle 2016). The conditions survey shall follow the established methodology of mapping damages in detail, analysis of material properties and decay factors and establishment of a treatment plan.
2. The damage plan should be recorded on orthographic scaled drawings of all facades (interior, exterior, roofs, and vaults) based on the 3D laser scan documentation of the site. This should be augmented by observed damages and location and in-situ measurements of major cracks recorded in separate drawings or photographs.
3. The damage plan should include information on the specific lithography of the rock and the related degree of weathering and identified type of damages using a terminology following the proposed ICOMOS International Scientific Committee for Stone (ISCS) illustrated glossary on stone deterioration patterns (ICOMOS-ISCS 2008)[22].

Monitoring (whether of structures or environment) has been sporadic and generally incomplete. In order to build up a more complete picture of the current state of the churches, the mission recommends:

1. The installation of a simple, easily recordable crack monitoring system (displacement gauges) under the supervision of ARCCH and the establishment of a repeatable recording routine of readings through the local community. This should be developed in addition to the existing gauges (installed as part of earlier monitoring exercises). The task of regular recording should be the responsibility of members of the clerical community who should be trained for this purpose and also be involved with the documentation unit.
2. The mission could not determine whether Angelini left records in 1968 regarding the location of the metal gauges that he installed across many cracks over the site. It is clear however that they provide a useful measure of the extent of movement in the 50 years since they were installed. These metal gauges should be identified and recorded as part of a detailed structural condition survey (based on the documentation of the damage plan); the results should be interpreted to identify the scale of movement since the installation of the metal gauges.

[22] The publication can be obtained free of charge from the ICOMOS webseite https://www.icomos.org/publications/monuments_and_sites/15/pdf/Monuments_and_Sites_15_ISCS_Glossary_Stone.pdf

3. Based on this structural condition survey, the areas of movement should also be evaluated to provide information about the location of any further installation of displacement gauges.

Conservation and Maintenance

The programme of conservation is a fundamental part of any programme so that the future of the fabric of the church can be secured. Much of the preliminary work regarding the materials and techniques of conservation has been done during the conservation works to Biete Rafael and Biete Mikael. Works on other churches must follow the same principles and approach but with minor amendments to materials and techniques as dictated by the condition of the stone.

The roofs are known to pose a particular problem; they have always been more liable to deterioration, and there have been many interventions in the past. The concern is that because the rock has dried out so much as a result of the shelters the change in environment (once the shelters are removed) might have unforeseen consequences for the stone and for the interventions applied to it. The phased approach allows for works to be carried out to the roof and then for it to be subject to weather over one rainy season and then be re-assessed to check that the interventions remain sound. Despite this, it is absolutely essential that the conservation work to the roofs be followed up by regular maintenance and inspection; this can only be accomplished by building local capacities to establish the required skills and expertise.

The conservation works are integral to the removal of the shelters and should follow the phased programme as set out for the shelter removal. There are of course other uncovered churches that will require conservation and these must be included in developing any long-term programme.

It is recommended that the outline programme for the conservation of the covered churches be as follows:

1. Assessment phase:
    - Carry out detailed damage assessment of roof structures, elevations and interiors of the five covered churches resulting in a complete documentation on the state of conservation of the stone surfaces. The documentation shall be based on precise geometric information of the structure (scaled drawings), precise identification of the areas and types of damages in the scaled drawings (see also recommendation in Documentation and Monitoring).
    - Draw up conservation specifications and schedules of work for each church using and developing existing specifications for interventions such as cleaning, grouting, repairs, pinning, introducing new stone parapets where required and rendering.

2. Initial conservation phase (to be completed with shelter in place):
    - Following erection of scaffold (see Shelter section), carry out conservation works to roof and external elevations of church

3. Final conservation phase (after removal of shelter):
    - Inspect and carry out necessary remedial action to works on roof
    - Carry out conservation work to interior of church including paintings and decorative elements

The division of the work into two phases is required in order to ensure that the conservation interventions to the roof have a period (extending through one rainy season) during which they are able to achieve equilibrium with external conditions and, in particular, are subjected to rainfall. By retaining the scaffold in position, access to the roofs can be maintained to monitor the initial conservation interventions over a short period. The second phase of conservation should also include the work to the interiors, which should be dry, as the initial phase will have stopped water infiltration.

If all the works were to be carried out concurrently (as has been the case with the recent works on uncovered churches) before removal of the shelters, there is a significant risk of failure of the interventions and continuing water ingress once the churches are exposed to rain. This phased process provides a scenario for achieving the best results.

Training and capacity building

The conservation works provide a unique opportunity for the training of a local workforce. Throughout the programme, priority should be given to the development of skills of a Lalibela conservation/maintenance team that would receive training on site.

In order to achieve these important goals, the mission recommends the following actions:

1. ARCCH should working together with the Church and other stakeholders to identify suitably qualified team leader to be in charge of the instigation and development of the Lalibela conservation/maintenance team.
2. Suitable premises should be acquired or adapted to allow for suitable training spaces as well as storage of materials perhaps making use of existing traditional “tukul” houses within the site.
3. A core team of workers should be identified who can be offered full-time work as members of the conservation/maintenance team preferably from the clergy and local community.
4. Working in partnership with on-site contractors and local, national and international training organizations, a training programme should be established to run throughout the church conservation programme. This should involve significant on-site training in practical skills but also some theoretical background to the decay and repair of stone. This might also include awareness of the nature and preservation of artefacts related to prayers and other religious practices. Training in observation and recording skills should also be provided.

By the end of the church conservation and shelter removal programme, the conservation/maintenance team should be capable of:

- Monitoring and recording structural gauges;
- Carrying out inspections of churches and identifying conservation and maintenance needs;
- Carrying out necessary conservation and maintenance works;
- Recording and reporting to the Lalibela Advisory Committee;
- Identifying and carrying out maintenance to the existing ditch system. Any removal of original material must be carried out with the assistance of experienced archaeologists.

Proposed outline programme

The programme has been drawn up to show a possible timeframe for the works. It must be acknowledged that this sort of work requires detailed planning and must be very carefully executed; it will also require considerable funding.

The mission recommends:

1. Assuming funding is available, the work to Biete Abba Libanos should start as soon as possible following the assessments identified in the recommendations. This church has easily accessible roofs and elevations (for assessment purposes) and also has a shelter that appears to have the most challenging structural issues. This represents the best chance of obtaining results in a short time frame and will help to build trust and experience in the overall project
2. The priority for work on the other churches should be established following results of the engineering inspection on shelters, the conservation assessment phase, decisions by the community about decommissioning of the churches, the speed with which the Advisory Committee can be convened as well as the availability of financial and human resources. The mission considers that, if all these complex pieces can be brought together, complete conservation of churches and shelter removal would be possible within five years from commencement; this might require scaffolding or work on more than one church at a time.
3. Throughout the period involving shelter removal, the conservation work on other uncovered churches should continue. This should adopt the same principles, methodology and materials as used for the two recent projects.

ACTIVITY	2018	2019		2020		2021		2022		2023	
MANAGEMENT PROCESS											
- Establish Advisory Committee											
STRUCTURAL STABILITY OF SHELTERS											
- Commission detailed review of structures											
- Commission detailed topographic survey											
REMOVAL OF SHELTERS											
Phase 1											
- Erection of scaffold (Beta Libanos)		Beta Libanos									
- Dismantling of shelter (Beta Libanos)		Beta Libanos									
- Erection of scaffold (other churches)											
- Dismantling of shleter (other churches)											
Phase 2											
- Dismantling of works access scaffold (Beta Libanos)				Beta Libanos							
- Dismantling of scaffold and shelter (other churchess)											
DOCUMENTATION AND MONITORING											
- Assembly of archive											
- Identification and recording of Angelini gauges											
- Installation of crack monitoring system											
- New detailed structural monitoring											
CONSERVATION											
Assessment phase											
- Assessment of condition of 5 covered churches											
- Draw up conservation specifications and schedules for 5 covered churches											
- Assessment of uncovered churches											
Initial conservation phase											
- Carry out conservation works to roof and external elevations (Beta Libanos)		Beta Libanos	Beta Libanos								
- Carry out conservation works to roof and external elevations (other churches)											
Final conservation phase											
- Carry out conservation works to internal elevations (Beta Libanos)				Beta Libanos							
- Carry out conservation works to internal elevations (other churches)											
- Inspect and cary out remedial actions to roof (Beta Libanos)				Beta Libanos							
- Inspect and cary out remedial actions to roof (other churches)											
Conservation work to uncovered churches											
TRAINING AND MAINTENANCE											
- Identify Iteam leader for Conservation and Maintenance Team											
- Acquire/construct suitable premises											
- Employ core team of workers for Conservation and Maintenance Team											
- Set up and run training programme											

The suggested timeframe for Biete Abba Libanos is based on the need to have a rainy season between the two conservation phases. This process would need to be adopted for other covered churches.

5.3 Preservation and presentation of the intangible values of the property

Theological School project

The proposed Theological School project derives from the wish of the local community to achieve more autonomy in matters of preservation and conservation and to regain a sense of ownership, which it feels is being lost. For that purpose, the community wants to develop capacities on matters of management and conservation since it is understood that there exists little expertise within the Church system to fully address issues of protection, conservation, and management of World Heritage properties.

The proposed project at this stage is essentially focussed on creating technically ambitious new buildings for all areas of activities related to conservation and management. Experiences from other projects in Lalibela reveals that a too-narrow focus on buildings and infrastructure results in weak project results due to unclear follow-up provisions and under-used facilities.

It is unclear from the proposal how all these proposed building facilities are going to be staffed and what skill level is expected for efficiently running and maintaining them.

In order to address this and other various issues relating to the use of the site, the mission recommends:

1. The general idea of the Theological School for Management and Conservation as a long-term vision should be encouraged and promoted. However, further thought is needed on how this might translate into feasible building requirements. The mission encourages the Church administration to revise its current proposal to include making use of existing structures, such as the conservation and repair of the traditional “tukul” houses within property.
2. The social component of the Theological School project requires services for more substantial amounts of people. Serious consideration should be given to achieving the ambitions by the reorganization and refurbishment of the existing facilities at the entrance gate including the possibility to extend existing facilities at a modest scale.
3. Abandoned areas within the World Heritage property and the proposed buffer zone should be restored together with a holistic landscaping and gardening programme including reforestation with autochthonous plants; this “Lalibela Church Garden” should include the allocation of small areas for use by the relocated community for subsistence gardening. Such a programme would satisfy the needs of the local community, pilgrims, general visitors and international tourists alike and would reflect the religious significance of the natural environment that was shaped by King Lalibela for a specific purpose.
4. This large-scale landscape programme should allow for sub-projects, such as the design of special areas for the use of pilgrims, for controlled access paths for visitors and additional service amenities embedded within a general Garden theme.

Presentation of the movable heritage of the property

The movable heritage objects are currently inadequately stored at the site museum located in the basement of the entrance gate building and should be moved into a newly established **Lalibela Ecclesiastic Museum**, dedicated to the presentation, conservation, and research of the movable heritage artefacts of Lalibela (including liturgical scripts). This would require an extensive inventory to be undertaken and items all accurately catalogued so as to build up resilience in case of loss or illegal appropriation of artefacts in the future. This initiative

should make use of contemporary digital technologies for the research and enhanced presentation of these unique artefacts.

Such an institution should incorporate a didactic component of the Theological School concept aimed to support ecclesiastic life – a place for the learning and training of the practical skills connected to the performance of the liturgies in the churches. Located in the vicinity of the public market area at the western part of the buffer zone, such a museum would also serve as a meeting place for people from different cultures and would provide additional opportunity for “authentic” visitor experiences easily accommodating related service infrastructure.

The present museum building could, however, be used for Sunday school activities reckoned to have the participation of over 300 youths at any time. The building could be augmented with a reasonably small-sized structure adjacent to it but out of sight of the churches to be used for administrative purposes related to the Sunday school and community issues. This will not only make the area active and alive but also address the challenges currently faced by the Church in serving its audiences.

5.4 Urban growth of Lalibela and urban development around the WH property

Tourism Infrastructure

The pressure from urban development is also a major challenge for the property.

This has been compounded by the outcomes of the Ethiopian Sustainable Tourism Project (ESTDP), funded by the World Bank.

In line with the requests of the World Heritage Committee since 2012, the mission reviewed the state of the ESTDP, which was planned to encompasses four main components (1) Destination Development (2) Market Development, (3) Institutional Development and Capacity Building, and (4): Implementation Support and Results Monitoring (The World Bank 2011 p.12).

With reference to the last state of conservation report submitted by the State Party to the World Heritage Centre in January 2014, the mission notes the following.

- The project was active in the years 2009-2015 and already nearing completion at the time of the above-mentioned 2014 report. The World Heritage Committee continued to request more details on the resettlement plan as well as further details on the World Bank Tourism Project and insisted that the State Party, prior to execution of the works, conduct Heritage Impact Assessments (HIA), in conformity with the ICOMOS guidelines on Heritage Impact Assessments for World Heritage cultural properties.
- The resettlement project affected the majority of the traditional neighbourhood around the rock-hewn churches and deeply impacted the demography of the Lalibela community; currently, an unsatisfactory situation regarding the landscape of the property exists.
- The “Destination Development” component of the ESTP in regard to establishing hygienic condition at the property has not been achieved. Although the area has been depopulated the abandoned traditional “tukul” houses serve as informal toilet facilities while the many newly installed toilets remain non-functional and closed.
- The area of the property is vast, and access cannot be controlled. This situation has led to a dilapidation of the environment as evidenced by the accumulation of garbage and fast-growing bushes.
- The building of some pebble stone pavements to ease access across the property are considered a positive achievement although some of the new roads are closed to vehicle traffic to reduce possible negative impact from vibrations on the monuments.
- No Heritage Impact Assessment was executed at any stage of planning, and it appears that due to mismanagement from the implementing party during project execution and in violation of World Bank policies, the project was halted for a significant period and only resumed under difficult conditions. The component to improve services for the tourism market sector could not be implemented according to the schedule and remained rudimentary with respect to support of micro-business, said to be partly due to the diversion of funds towards improving the water supply for the tourism sector.
- The resettlement activity has been understood to restore an assumed historical condition in which the surroundings of the churches were supposed to be free of residential use. However, the value of the vernacular environs of the churches have been recognised in the evaluation of the World Heritage nomination by

ICOMOS in 1978. The interactions of people around the churches, therefore, were an integral part to community life in the more recent history and added to the richness of the heritage of the site and the visitor experience.

- Although they were consulted during the Management Plan process, local communities have been marginally involved in site planning and conservation since the Management Plan was completed
- In the course of the Tourism Development Project, communities were removed from the life of the historic sites resulting in depopulation of the site. In the final phase of the project (2014-2015), this also involved tearing down less traditional informal buildings surrounding the traditional "tukul" structures. Although some of the traditional "tukuls" were retained, several of them have since collapsed. While the Church currently uses some for schools, temporary classrooms, and related activities, most of the traditional houses remain empty and unmaintained.
- The resettlement has contributed to significant growth in the urban footprint.

In summary, the ESTDP project must be considered a significant infrastructure investment programme that according to a statement received from the World Bank did not meet its objectives fully. As a result from this experience, the World Bank representative showed reluctance in future support for large-scale investment in the tourism industry.

In the light of these facts, the mission recommends the following:

1. The State Party should investigate the results (both positive and negative) of the ESTDP through a post-project assessment. This investigation would benefit if it were carried out together with the World Bank to identify shortcomings more clearly and develop mitigation measures for similar large-scale projects in the future.

Future Urban Development Strategy for Lalibela

The mission also considered the more general problems related to the rapid pace of urban development although this was not the main focus of the mission.

Embedded in a remote mountainous landscape with limited income generating possibilities, the increasing popularity of Lalibela as a national and international tourist attraction has led to a dynamic urban growth around the ancient religious nucleus. Most of the areas foreseen for urban expansion have already been filled with new constructions. The dynamics of urban growth in Lalibela are extraordinary in scale and speed and have already resulted in the demolition of most of the traditional village within property and have the high potential for further adverse impacts on the Outstanding Universal Value unless constrained.

The existing Structure Plan for the town of Lalibela from 2010 is expected to be reviewed soon. Key aspects that need to be addressed include any proposed development on the hilltops surrounding the town and also the location of new settlements.

Controlling and planning the urban growth and the improvement of living conditions of households living in the direct vicinity of the churches will require huge efforts and expertise on both the cultural and the urban planning side and new tools. The mission recommends that the following actions need to be addressed with urgency:

i. Agree on a Vision Statement that defines the way Lalibela should develop to optimise its cultural, social and natural assets;

ii. Revise the Management Plan, based on an agreed Vision Statement, to include provisions on urban density, vistas/view sheds and favourable and unfavourable types of construction;

iii. Define the setting and delineate a buffer zone identifiable on the ground with adequate legal protection both within the cultural as well as the urban planning domains;

iv. Revise and strengthen the Structure Plan and develop an appropriate Local Development Plan for its implementation including the ideas on urban planning contained in the Management Plan indicated by clear planning zones;

These aspects should be agreed upon with the Municipality and Regional Planning Authority and formally integrated in the revision of the new Urban Development Plan for Lalibela, which is expected to be initiated very soon.

The provisions of the Management Plan, as well as priority vistas, should be jointly defined by all stakeholders to ensure that, within the spread of these vistas, no high-rise buildings shall be allowed. Moreover, provisions on the nature and colour of roofing should be established. These provisions should urgently be brought into a legally binding form and integrated into the urban development policy by formal amendments of the current Structure Plan of 2010.

The State Party under the initiative of ARCCH should initiate (in cooperation with the Federal Urban Planning Institute and national and international experts) a workshop on the future planning of Lalibela. This should take place prior to the setting up of the revision of the current Structure Plan and should investigate the future expansion of the town of Lalibela against the background of sustaining the Outstanding Universal Value (OUV) of the World Heritage property and in its wider regional context.

The State Party is advised to consider its legal provisions to include Heritage Impact Assessments (HIA) as an obligatory component for planning activities that could impact on the OUV of the property.

These development pressures require a broader discussion and could not be accommodated in detail during the current mission. Such discussions should include urbanization plans for the wider region of Lalibela, especially the foreseen five-storey constructions in the lower plains and the airport area, as well as the entire regional context in relation to general population growth dynamics in order to relieve some development pressure from the landscape around the town of Lalibela. All these issues must play a role in the proposed revision of the current Structure Plan. The urban development pressures on the property cannot be solved within the narrow confines of the Lalibela urban area.

Boundary and Buffer zone

The State Party had followed the advice of the World Heritage Committee regarding the creation of suitable legal and regulatory protection schemes including defining an appropriate buffer zone around the property.

The boundaries of the property need to be formally clarified. These also need to be delineated on maps at appropriate scale and size and submitted officially by the State Party to the World Heritage Centre to allow formal clarification.

The boundaries of the buffer zone delineated on maps of appropriate scale and size should be submitted officially through ARCCH to the World Heritage Centre as a request for a Minor Boundary Modification together with details of how it is to be protected and managed.

Once the boundaries are approved, and in order to effectively make use of this provision, the State Party is strongly advised to indicate the boundaries of the property and the buffer zone in an identifiable manner on site at Lalibela.

The extent and implications of these delineations has to be shared and made understandable to the local community, especially to the planning authorities at the local and regional level.

The resulting maps must be included in the revision of the Management Plan.

5.5 Further academic networking and scientific investigations in study and research

The mission stresses that many of its recommendations have already been proposed as follow-up measures during previous projects. However, there has been very little effect at the site, and this may be partly due to the inability to recruit sufficiently qualified personnel in the past. The mission also noted that throughout the country, conservation programmes are set up at the university level in cooperation with foreign research institutions.

The mission therefore recommends:

1. ARCCH should establish a research collaboration policy in the field of cultural heritage engaging both national and international scientific partnerships for more exchange in education and research at the national and international level. A harmonized framework would allow collaborative working with national institutions at historic sites and would enable co-funding opportunities with international research agencies as part of other nationwide conservation and research efforts in Ethiopia.

2. An academic research and vocational training facility should be established within the Cultural Centre collaboratively managed by ARCCH, the Tourism and Culture Office of the Lasta Region, the Church Administration of Lalibela and partners from the national and international field. A principal objective of this facility shall be to promote knowledge acquired on the rock-hewn churches in Lalibela so that it may be accessible and adaptable to other similar situations throughout the country.

For Lalibela, the mission identified the following benefits from such cooperation:

- Joint national and international student campaigns for labour-intensive mapping/drawing condition of the churches and also the historical “tukul” structures;

- A mid to long-term structural survey programme for the churches undertaken jointly by national and international experts;

- Inventory, conservation, and presentation of the movable heritage of Lalibela;

- Topographic and hydrological survey of the landscape around the churches;

- Preservation of tangible and safeguard of intangible heritage in line with the UN Sustainable Development Goals;

- Urban analysis and development perspectives of Lalibela in the context of growing cities of the Global South.

6 ANNEXES

Terms of Reference

UNESCO/ICOMOS/ICCROM Advisory mission to Rock-Hewn Churches, Lalibela,

Ethiopia 20 - 25 May 2018

The State Party of Ethiopia has requested an Advisory Mission to Rock-Hewn Churches, Lalibela World Heritage property in order to monitor progress on the conservation of the property and particularly to advise the State Party on the dismantling of the temporary shelters of the churches and several ongoing projects regarding the property.

During a series of discussion in November 2017 at UNESCO Headquarters between representatives of the State Party and UNESCO, all parties agreed on the need to undertake an assessment of the situation of the shelters with a view to their removal in a manner that will have no negative impact on the Outstanding Universal Value of the property. This request for a UNESCO/ICOMOS/ICCROM Advisory mission was made by the State Party in a letter dated 1 December 2017 to the World Heritage Centre. In a letter dated 15 December 2017, the Director of the World Heritage Centre confirmed UNESCO's agreement to support the costs of an advisory mission at a mutually convenient time. In this regard, the State Party submitted to the World Heritage Centre a series of documents, including:

- Proposal on Comprehensive Conservation Plan of Lalibela Rock-Hewn Churches (Addis Ababa Institute of Technology, Nov. 2017);
- Sustainable Heritage and Tourism Development Project for Lalibela Theological Heritage School (submitted Nov 2017 by ARCCH on behalf of the Lalibela Church authorities);
- Project document for the Preservation of Beta Golgotha and Mika'el Churches (Studio Croci, Nov. 2017) and tender document (Dec. 2017).

The State Party sent an official invitation to the World Heritage Centre dated 20 April 2018.

The State Party will facilitate the meetings in Addis Ababa and Labella with the above-mentioned representatives. The State Party will also ensure that all relevant documents, and especially details on the Labella Theological Heritage School Project (status, timeframe, funding and high-quality version of the map on p.20 of the project document) are provided to the World Heritage Centre for transmission to the experts prior to the mission.

The Advisory mission will carry out the following tasks:

- Hold consultations in Addis Ababa and in Lalibela with the relevant Ethiopian authorities, including the Ethiopian National Office for UNESCO, the representatives of the Ministry of Culture and Tourism, the Authority of Research & Conservation of Cultural Heritage (ARCCH), the site manager, Amhara Culture Tourism and Parks Bureau and Addis Ababa University (Institute of Technology). This mission will also meet with representatives of the UNESCO Office in Addis Ababa, World Monuments Fund, Studio Croci, the European Union, Ethiopian Orthodox Tewahedo Church, and the Debre Roha Lalibela Church Administration, the World Bank and other local stakeholders.
- Visit the entire property and the buffer zone, with particular attention to shelters and the restoration work underway at the Biete Golgotha and Mikael churches and consider the following:
- Shelters:
    - Review the current situation of the shelters.

- Propose framework for the removal of the shelters to ensure minimum damage to the rock structures, including an assessment of the necessary conservation works that must be carried out on the churches before the shelters can be removed to ensure their continued conservation;

- Conservation
  - Assess and review the project for the restoration of Biete Golgotha and Mikael Churches, December 2017 and review work inaugurated in February 2018.
  - Assess and review the document entitled 'Proposal on Comprehensive Conservation Plan of Lalibela Rock-Hewn Churches', November 2017.
  - Propose guidelines for the overall long-term conservation of the structures and buildings.
- Proposed development
  - Assess the outline Landscape Enhancement Design proposal for the Lalibela Theological Heritage School and review its potential impact on the OUV of the property.
  - Comment on the overall protection and planning structures for the property and its buffer zone within which these proposals have emerged;

Based on the assessment of available information and discussions with the State Party representatives and stakeholders prepare a report on the findings and recommendations of this Advisory mission in the format agreed between the WHC, ICOMOS and ICCROM no later than four weeks after the completion of the mission.

The composition of the mission team

International Experts

- Mr David Odgers (ICCROM)
- Mr Georgios Toubekis (ICOMOS)
- Mr George Abungu (UNESCO, Chief of Mission)

Ethiopian Experts

- Mr Yonas Desta, Director General of ARCCH
- Ms Tsehay Eshetie, ARCCH focal point
- Mr Hailu Zeleke, Director of Conservation ARCCH

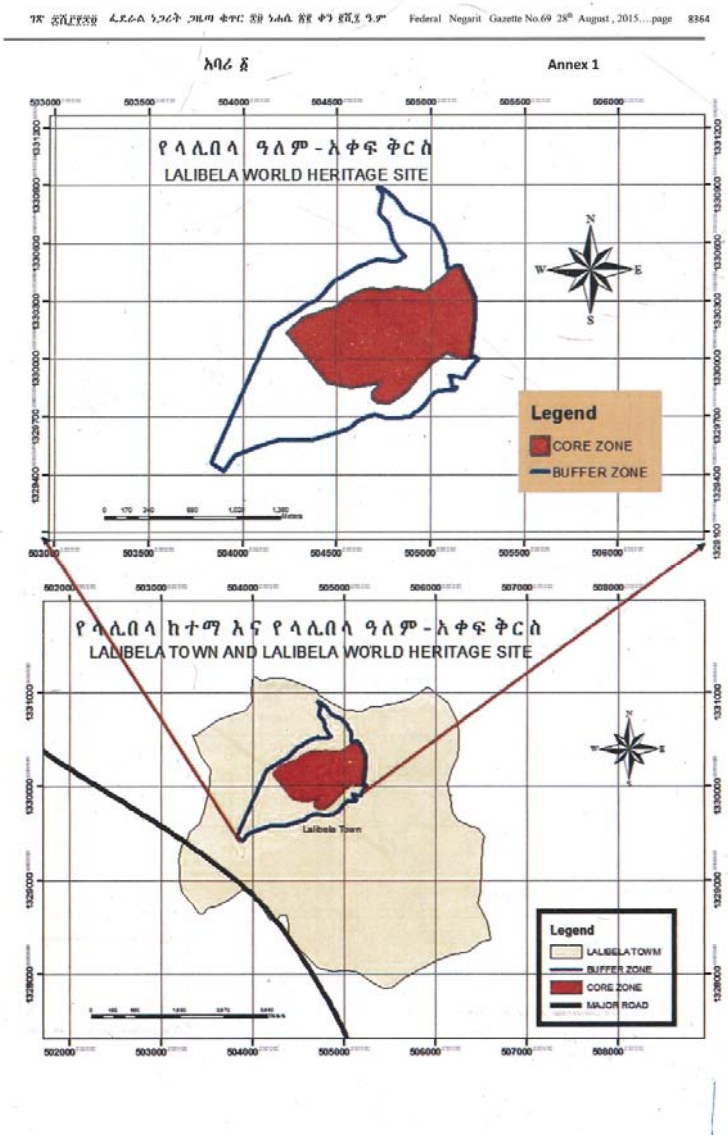
Itinerary and programme

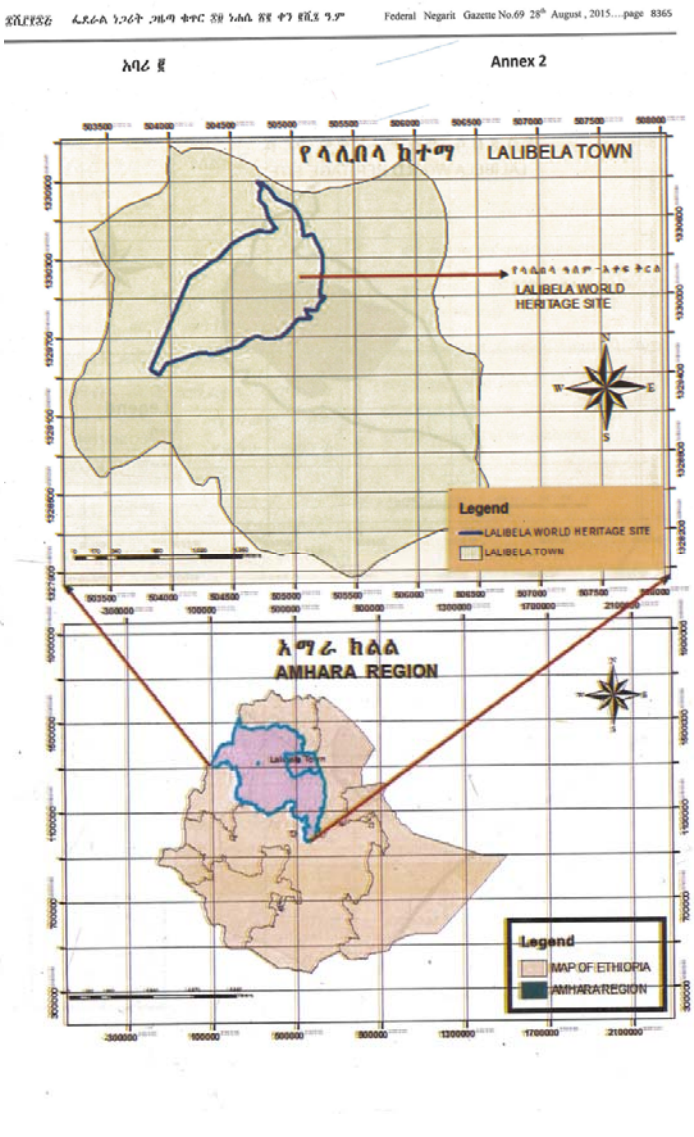
FINAL PROGRAMME FOR THE UNESCO/ICOMOS/ICCROM ADVISORY MISSION TO THE ROCK-HEWN CHURCHES OF LALIBELA (20-25 May 2018)

20 May 2018	Activities	Venue	Remarks
	Arrival in Addis Ababa • 5.55 am G Toubekis (ICOMOS) flight ET 0707 • 6.35 am D Odgers (ICCROM) flight ET 701 • G Abungu (UNESCO) 9.10 am Flight KQ 400	Bole International Airport	Airport pick up arranged by Capital Hotel Go to Capitol Hotel booth at the arrivals area. 0914 31 68 68
	Hotel Transfer	Capitol Hotel and Spa 22 Mazurka Haile G/Selassie ave. Addis Ababa	http://www.capitalhotelandspa.com/ +251 116 672 100 +251 116 192 000
16.00 -18.00	Briefing Meeting the Director General of ARCCH Yonas Desta	National Museum of Ethiopia	
21 May 2018			
11.00- 12.30	European Union Delegation representatives	Head Office of the Delegation	
14.00-15.00	Meeting representatives of Addis Ababa University institutes of Technology and Earth Science	ARCCH	
15.00-16.00	Ethiopian National Office for UNESCO (Mr Mebratu Birhan)	ARCCH	
16.00-17.00	Meeting UNESCO Liaison office representatives	ARCCH	
22 May 2018			
06.30-07.80	Airport Check-in	Bole International Airport	
08.00-11.00	Travel and arrive in Lalibela	Lalibela Airport	
09.50-10.30	Hotel Transfer	Mountain View Hotel	Hotel tel: +251 91 156 3568 http://mountainview-hotel.com/
11.00-12.30	Site Visit to Biete Mariam Church shelter	Lalibela Cultural Centre	
12.30-14.00	Lunch		
14.00-17.30	Meeting Lalibela church administration, local and regional officials	Lalibela Church precinct	Lalibela Cultural Centre
23 May2018			
9.00-12.30	Site Visit to Biete Amanuel Church shelter	Lalibela Church precinct	

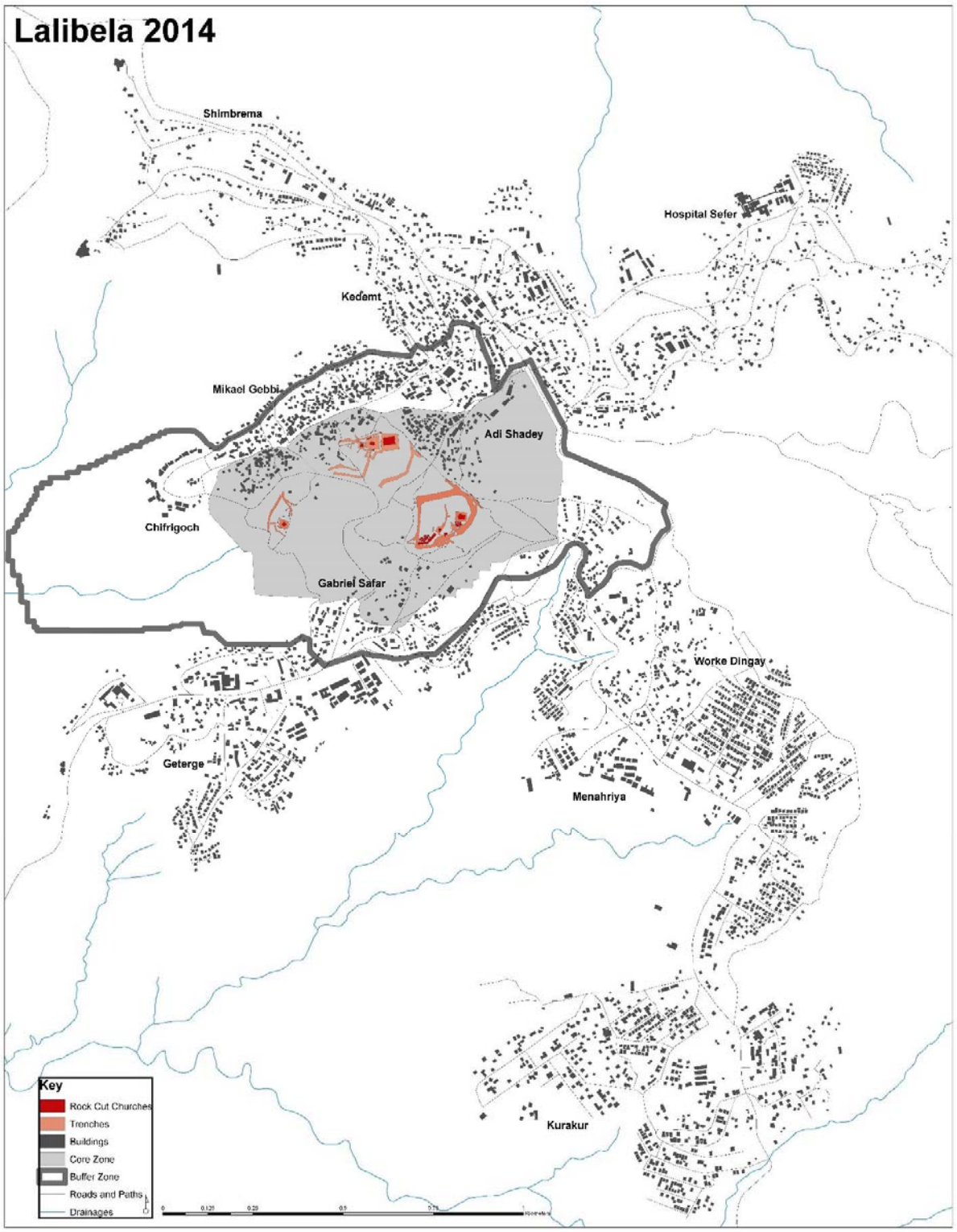
13.00-14.00	Lunch		
14.00-17.00	Site Visit to Biete Abba Libanos and Debriefing	Lalibela Church precinct	
19.00-20.00	Dinner		
24 May2018			
19.00-12.30	Site Visit to Golgotha Mikael Conservation project and debriefing	Lalibela Church precinct	
12.30-14.00	Lunch		
14.00-18.00	Site visits to the proposed church-landscaping project including debriefing with municipal planning and site management authorities.	Outside Lalibela Church precinct	Deputy Mayor of Lalibela and Technical Engineer presenting the Urban Map of Lalibela
19.00-20.00	Debriefing meeting with Bishop Aba Tsingai Selassie and Church administration Lalibela	Seven Olives Hotel	
25 May2018			
07.30-08.00	Airport Transfer	Lalibela Airport	Confirmed
9.40-10.40	Fly back to Addis Ababa	Bole International Airport	FLIGHT WAS CANCELLED – Actual Flight Time 12.00 AM
11.30-12.30	Meeting Ethiopian Orthodox Tewahedo Church officials	Church Head Office	DUE TO FLIGHT CANCELLATION Rescheduled to 17.00 – 18.30
14.00-15.00	Meeting World Bank representatives based in Addis Ababa	Local World Bank Office (Bole Area)	
15.30-16.00	Debriefing the minister of Culture and Tourism	Head Office of Ministry of Culture and Tourism (MoCT)	Confirmed
17.00 – 18.00	Debriefing Ethiopian Orthodox Tewahedo Church officials		Rescheduled from morning time
19.00 - 21.00	Debriefing UNESCO Director Dr Yumiko Yokozeki	UNESCO Guesthouse	
From 21.00	Airport transfer	Bole International Airport	23.20 G Toubekis (ICOMOS) flight ET 0706 Sat 26 May 1.05am D Odgers (ICCROM) flight ET 700 Sat 26 May 9.50 am. G Abungu (UNESCO) flight KQ 401 (Addis- Nairobi) (night in Addis at Capitol Hotel

Maps

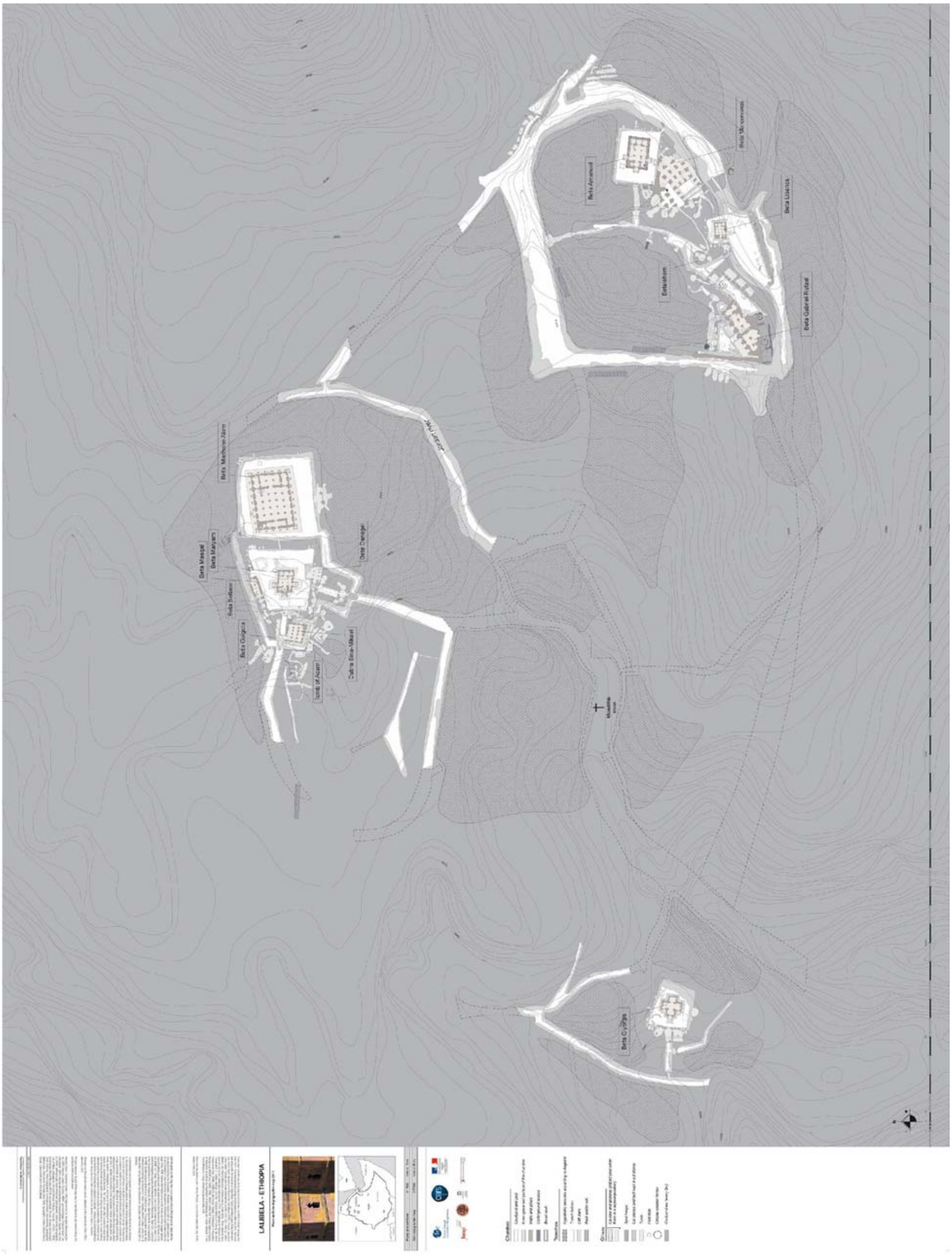


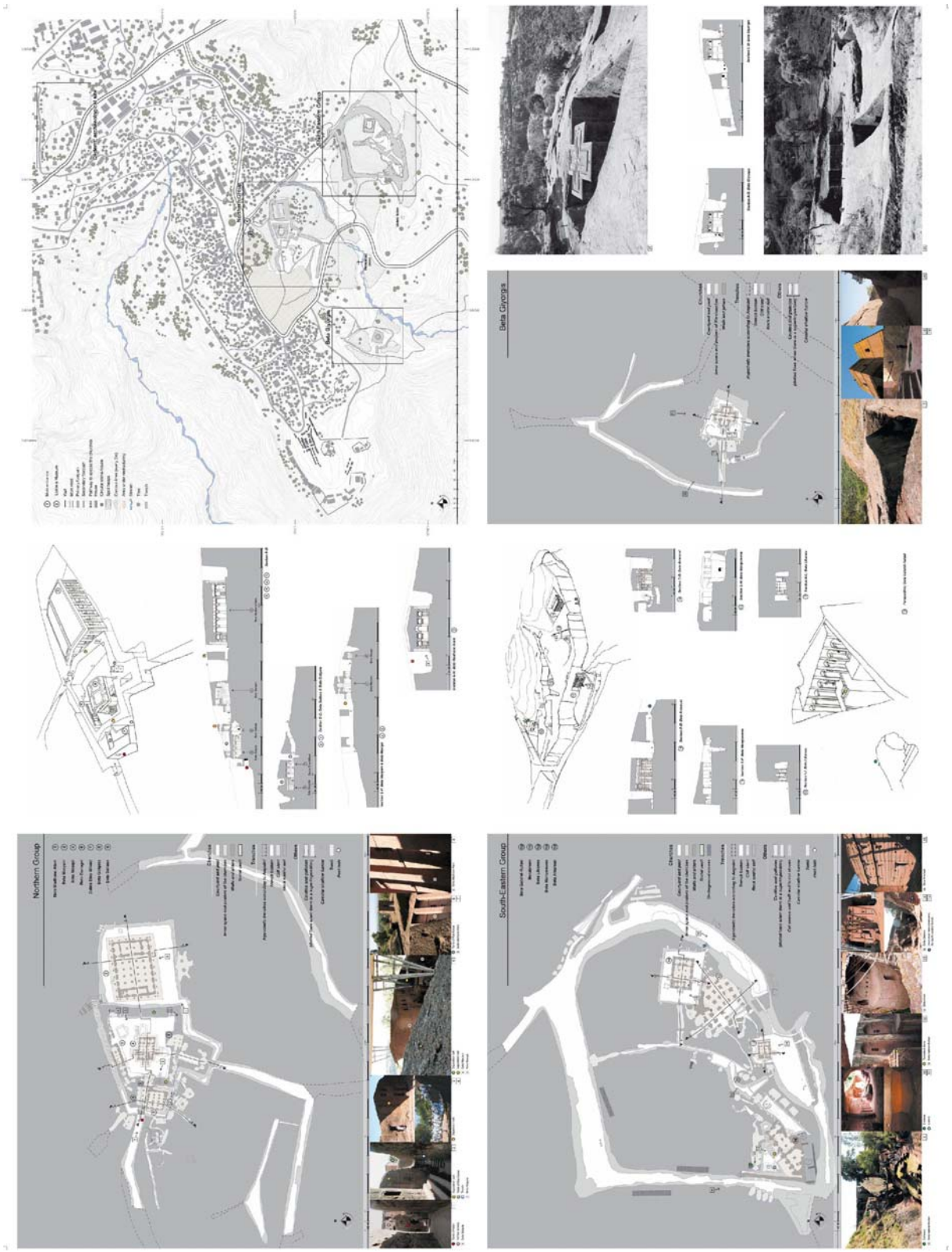


Maps of the property and buffer zone (Annex of Council of Ministers Proclamation 344/2015)

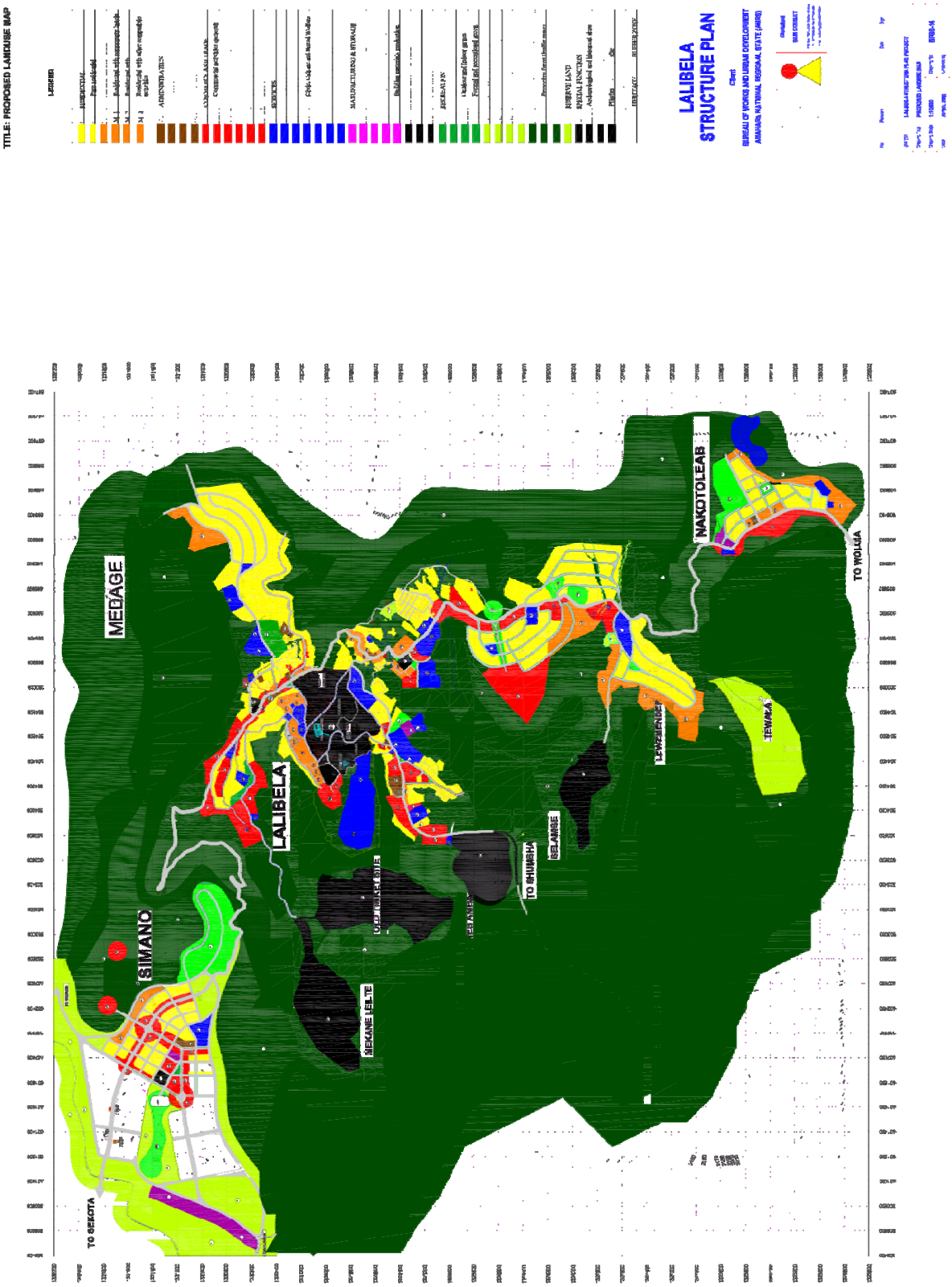


Source of Map: Heritage, Tourism and Urbanization, Understanding the Landscape and Development of Lalibela, Ethiopia, Columbia University Graduate School of Architecture, Planning and Preservation Preliminary (GSAPP) & Addis Ababa University - Ethiopian Institute of Architecture, Building Construction, and City Development (AAU-EiABC) Joint Survey and Study, Preliminary Report 2016,


LALIBELA - ETHIOPIA
Beta Amanuel
Beta Libanos
Beta Gabriel-Rufael
Beta Medhane Alem
Beta Maryam
Beta Masqal
Beta Danagel
Beta Golgota
Tomb of Adam
Beta Giyorgis



Map of Lalibela , Ethiopia, plans and topographic map, Addis Ababa, Centre Français des Études Éthiopiennes (CFEE) , 2011 prepared by Claire Bosc-Tiessé and Marie-Laure Derat of CNRS based on 3D Laser Scan Data from World Monuments Fund



Structural Plan Lalibela (2010) - this map is the result of the revision of the previous Master Plan for the town and giving the structural guidelines for its future development. The plan is very complex and has additional textual information summarized in the *Report of the Structural Plan of Lalibela (2010)* prepared by the contractor on behalf of the planning authorities for the Urban Planning Institute of the Amhara National Regional State.

Figures

Credits: George Abungu/David Odgers/Georgios Toubekis

Figure 1 - *Listening to the comments of the clergy and local community during an open meeting with members of the mission*

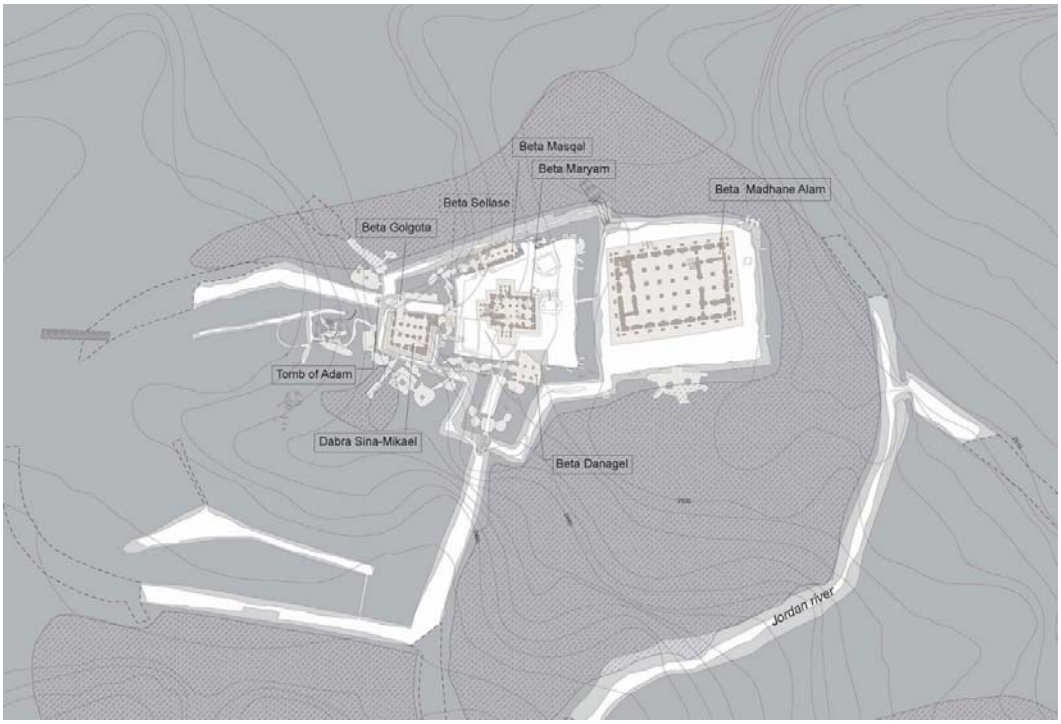


Figure 2 - *Detail of an archaeological map prepared by CFES showing the Northern Group of churches*

Figure 3 - *Modern shelter for Biete Medhane Alem erected in 2007*

Figure 4 -An *earlier shelter for Biete Medhane Alem erected in 1995*

Figure 5 -- *Biete Medhane Alem at ground level*

Figure 6 -*View towards the east with Biete Medhane Alam in the background*

Figure 7 -*View towards the north with Biete Maryam in the foreground*

Figure 8 (a/b) – *Pylons composed of individual parts bolted together and used to support the shelter construction*

Figure 9 - *Detail of pylon foundation with metal ballast plates*

Figure 10 -*Upper joint of a pylon at Biete Medhane Alem*

Figure 11 -*Detail of upper joint of pylon showing example of the joint opening between individual tube parts*

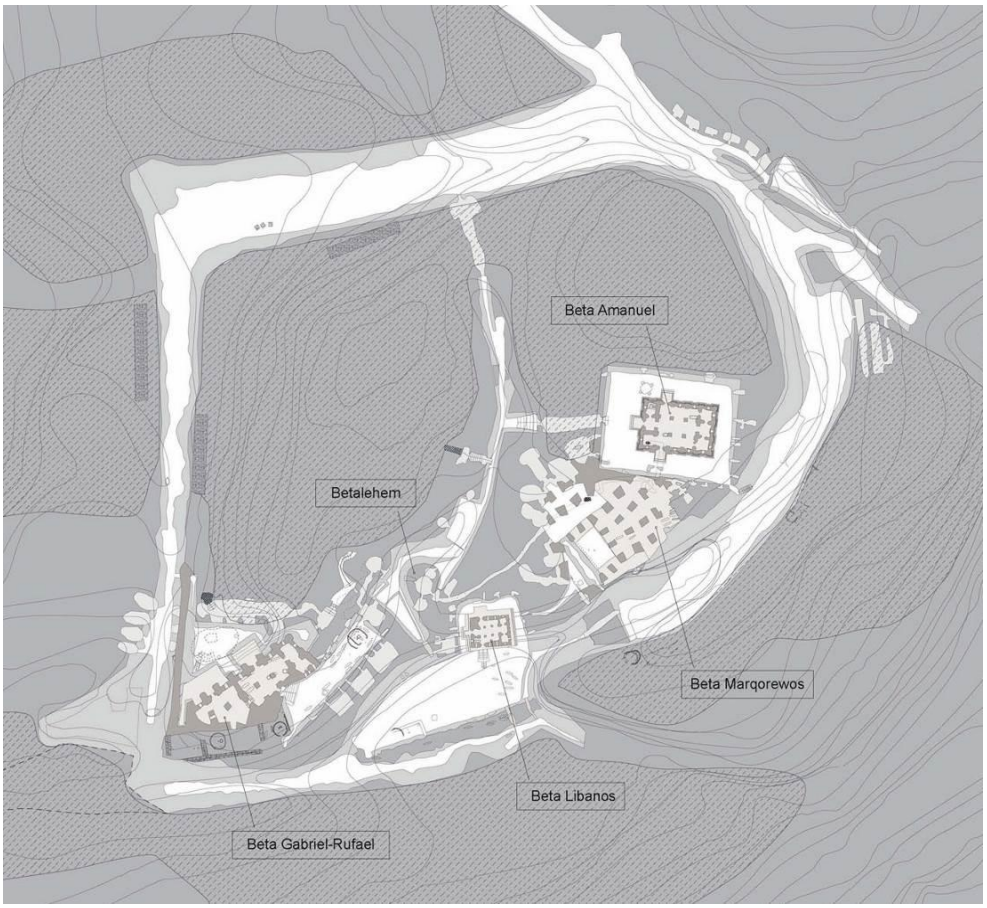


Figure 12 -*Detail of an archaeological map prepared by CFES showing Southern Group of churches*

Figure 13 -*Roof of Biete Gabriel re-covered as part of the conservation programme of works completed in 2016 by World Monuments Fund and Studio Croci*

Figure 14 -*Front elevation of Biete Abba Libanos with modern shelter in the background Biete Betalehem with older "traditional" shelter construction*

Figure 15 -*View of shelter over Biete Libanos from the upper side; note the slope of the topography directing surface waters towards the cliff's edge*

Figure 16 - (a/b/c/d) - *View on the upper foundation of the shelter over Biete Abba Libanos from different angles; the roof is too short to properly drain into the (cement) lined channel and conduct of surface water is uncontrolled; some joints of the tuff stone cladding from the concrete foundation are loose, and there is an observable widening of 8mm of base steel-tube element. It is unclear if this widening has occurred during the last ten years or if it has been there from the beginning of the construction phase.*

Figure 17 -*Modern shelter over Biete Amanuel*

Figure 18 -*Detail of roof of Biete Amanuel showing dry, dusted, fragmented surface*

Figure 19 -*Unmaintained drainage system from the shelter over Biete Amanuel*

Figure 20 - *(a/b) - Water conduct of drainage system from Biete Amanuel and irregular topography of passage ways leading to artificial ponds that do not drain long after rainy season*

Figure 21 -*Weather station not in use and now posing a visitor risk due to rotten planks on which it is mounted*

Figure 22 - (a) - *Recent conservation work (ongoing) implemented in partnership between Ethiopian authorities and World Monuments Fund and financed by the US Ambassadors Fund – (b) Details of surface cleaning works being carried out as part of the current conservation programme at Biete Golgotha Mikael*

Figure 23 - *Example of conservation works on the parapet with newly designed waterspout. During the construction period, all ecclesiastical and decorative elements have to be removed, and the church temporarily deconsecrated to allow secular activities. This process requires considerable time and preparation.*

Figure 24 -*Carved effigy in Biete Golgotha with one of the Angelini gauges inserted in 1968 to monitor the discontinuity in the rock; all inspected gauges in this area showed deformations of less than 3mm.*

Figure 25 -*Rock discontinuities on the side elevation of Biete Abba Libanos; note the gauges installed by Angellini in 1968, most of these gauges require a ladder or some type of simple scaffolding for proper reading.*

Figure 26 -*Example of church interior - sacred areas veiled and general dark lightning conditions*

Figure 27 -*Elderly priests serve as guardians of a church – each church conserves many different ecclesiastical artefacts behind curtains*

Figure 28 -*Room at entrance building used as "Museum" of ecclesiastical objects*

Figure 29 – *Experts inspecting the original drainage ditches below Biete Ghiorgis. The function of this system is not fully investigated and understood. Its complete excavation has been suggested in previous reports, resulting in the creation of cavities that capture water in some areas instead of draining it. Excavations of these systems require topographical and archaeological study to evaluate the extent to which the "original" shape (considered to be the native rock bed) is suitable for drainage purposes.*

Figure 30 -*Example of decayed stone prone to detachment in Biete Mekerios*

Figure 31 -*Decorated plaster in the vault of Biete Mariam*

Figure 32 -*General view of Biete Ghiorgis most iconic of all eleven churches. Its state of conservation is remarkably good compared with the other churches*

Urban Development around the property - Situation <u>BEFORE resettlement</u>

Figure 33 -*View from top of hill towards west onto the property with nearby traditional "tukul" village as of 2010*

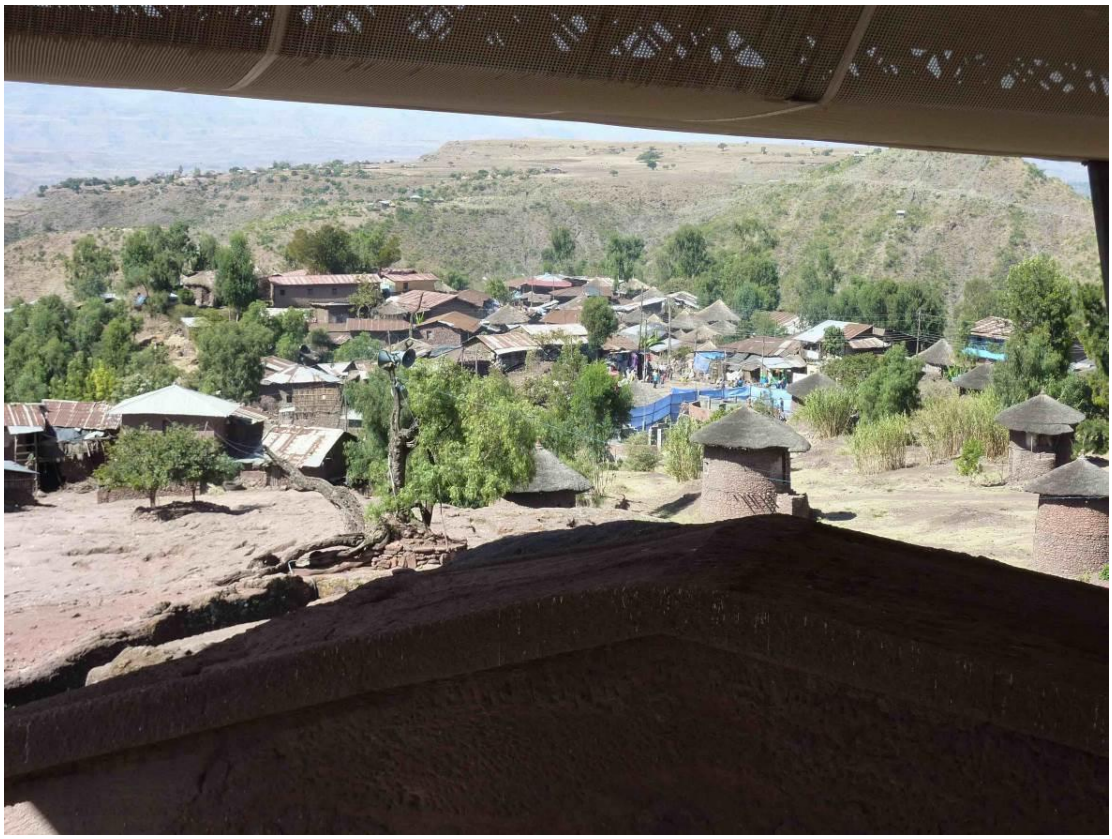


Figure 34 -*Traditional "tukul" settlement around the churches, view towards west from Biete Maryam in 2010*

Urban Development around the property – Situation AFTER resettlement

Figure 35 -*View towards east with shelter of Biete Maryam in the background. This shows the general view of the landscape around the churches with the remaining traditional 'tukul' houses, depopulated site and remaining modern settlement (to the left) under building moratorium in buffer zone*

Figure 36 -*The landscape beneath the churches in the buffer zone after the Government Resettlement Programme. This area was identified by the Church as the location for the proposed Theological School Project.*

Figure 37 -*Area of the previous 'village' directly west of the churches; this is not fenced and most of the traditional "tukul" houses are not maintained. There is great potential to use them as operation base for the needed conservation and maintenance team and as a clerical and artisanal workshop area for the use of the religious community.*

Figure 38 -*Dilapidating traditional "tukul" house construction; a comprehensive survey on the location and condition of the remaining houses is needed.*

Figure 39 -*Steps and pathway built as part of the World Bank project but no longer maintained in large areas*

Figure 40 -*Valley beyond Lalibela towards the north in 2013*

Figure 41 -*Valley beyond Lalibela in 2018 after resettlement programme; the area of plain behind the modern constructions is expected to be completely urbanized before 2024.*

Figure 42 -*Members of the UNESCO/ICOMOS/ICCROM mission and representatives from ARCCH during the meeting with H.E. Ms Fozia Amin, Minister of Culture and Tourism*

Figure 43 -*Members of the mission and representatives from ARCCH meeting with His Holiness Abune Mathias, Patriarch of the Ethiopian Orthodox Tewahedo Church*

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