

Heritage, Tourism, and Urbanization: Understanding the Landscape and Development of Lalibela, Ethiopia

Preliminary Report

July 2016



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INTRODUCTION

The eleven Rock Hewn Churches of Lalibela have stood for more than eight hundred years. They are part of a sacred landscape that still welcomes tens of thousands of religious pilgrims during the holidays of the Ethiopian Orthodox Tewahedo Church. One of the first sites to be designated as UNESCO World Heritage, Lalibela has also long attracted visitors from abroad and is now one of the top tourism destinations in Ethiopia.

In 2007, a multi-year endeavor initiated by the World Bank and the Ethiopian Government sought to make tourism the “No.1 export earner in the Ethiopian economy through investing in improved product and market development that encourages more tourists to spend more and stay longer” (World Bank PID, no. AB358). As part of this multi-site program, which was completed in 2015, investment was made in the heritage site and community of Lalibela.

The World Bank program defined the following intermediate outcomes for tourism investment:

- (i) “a high level of satisfaction among cultural tourists visiting participating destinations and sites,
- (ii) protection and enhanced management of the cultural and historic assets, and,
- (iii) increased participation of communities and micro, small and medium enterprises in the tourism economy of the participating destinations” (World Bank PID, no. AB358).

Work to conserve the churches themselves has been accompanied by significant urban growth. As outlined in the *2013 Management Plan for the Rock-hewn Churches of Lalibela, Ethiopia*, the Lalibela Town Administration includes five *kebeles*: two urban *kebeles* and three rural *kebeles*. According to the 2007 census, the overall population of Lalibela was 34,029, with 15,506 in the urban *kebeles* and 18,523 in the outlying rural *kebeles*. Per projections by the Central Statistical Authority, population is expected to increase to 41,897 (18,175 urban and 23,722 rural) by the next census in 2017.

The landscape surrounding the churches is rugged, and level land suitable for building is in scarce supply. Most of the recent growth of Lalibela has occurred alongside the displacement of farmers from fields in the outer perimeter of the town. A major factor in this growth has been the increase in tourism in Lalibela. People living in outlying areas have moved to town in order to be closer to the stronger economic opportunities in Lalibela. Concurrently, residents from the core and buffer zones of the World Heritage site have been resettled to new development areas in the outer perimeters of town. This has begun a pattern of urbanization that, if left unchecked, could dramatically change the landscape around Lalibela.

More visitors are coming to Lalibela from abroad, but the majority of visitors to Lalibela are religious pilgrims. Per the Lalibela Bureau of Culture and Tourism, in 2007, there were 18,510 foreign tourists visiting Lalibela and 2027 domestic tourists. In the period from 2011 to 2015, the number of foreign tourists averaged 35,203 per year, and domestic tourists averaged 15,369 per year. These figures do not include religious pilgrims who visit the site regularly; they are more difficult to count because they do not buy a ticket or present their national ID cards at the ticket office. At the 2015 Christmas or *Genna* celebration, there were an estimated 192,000 pilgrims staying in Lalibela and worshipping at the churches.

To explore the effects of this rapid growth and tourism development, faculty from Columbia University’s Graduate School of Architecture, Planning, and Preservation (GSAPP) and from Addis Ababa University’s Chair of Conservation of Urban and Architectural Heritage, Ethiopian Institute of Architecture, Building

Construction, and City Development (AAU-EiABC) collaborated with World Monuments Fund to undertake a student workshop at Lalibela. The immediate goal of the workshop was to collect and analyze field data to better understand the site and the town of Lalibela as it exists today, and to identify key issues and questions that can inform future research and planning. The long-term aim is to support the sustainable development of Lalibela -- while also preserving its tangible and intangible values -- by providing a more robust, data-driven foundation for decision-making.

The workshop involved rapid field data collection and assessment over the course of one week, conducted by eight AAU-EiABC students and eight GSAPP students (working in mixed teams of four). Data collection included the following components:

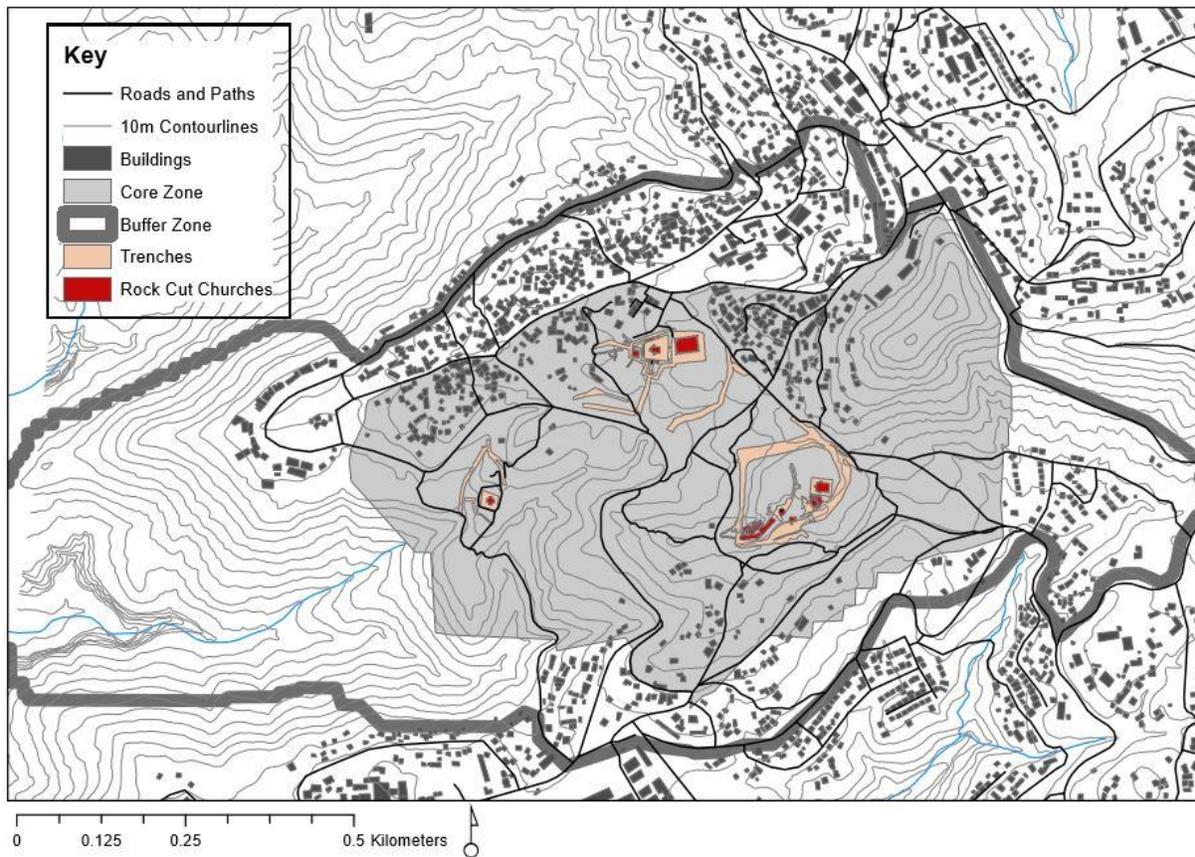
1. Identification of Urban Growth Areas
In advance of the workshop, faculty drew upon GIS data from 2009 and satellite imagery from 1994 to 2014 to create a preliminary base map of Lalibela. This allowed students to readily visualize the increase of the urban footprint of Lalibela. Students used observations, comparative photography, and analysis of related maps and plans to roughly understand the growth of the town and the resettlement of residents from the heritage site core.
2. Values Mapping
Using the values outlined in the *2013 Management Plan* as a point of departure, students used observations, photography, maps, and plans to assess how those tangible and intangible values are spatialized or represented within the physical geography of the site and in its surrounding landscape. Students also examined how physical interventions and community changes (such as the shelters over the churches, the resettlement of residents in the buffer zone of the site, and tourism development) are positively or negatively impacting those values and their associated physical features.
3. Visitor/User Survey (local and non-local)
Students conducted a visitor/user survey and interviewed 100 foreign visitors, domestic visitors, and local users at the site to collect data about their experiences and impressions. The survey was deployed using an app called KoBoCollect and its KoBoToolbox web interface. This enabled students to customize the survey questions, capture data on tablets in the field, and readily upload compiled data, thereby allowing for rapid quantitative and qualitative analyses.
4. Visitor Infrastructure Survey
Using another survey developed with KoBoCollect and KoBoToolbox, students used tablets and hand-held GPS devices to photograph, geo-locate, and describe visitor infrastructure (including hotels and guesthouses, restaurants, visitor-oriented shops, signage, etc.) throughout Lalibela (core, buffer zone, and town). They then analyzed this information statistically and mapped the infrastructure in GIS.
5. Exploration of Management Structure
Students and faculty reviewed existing documents and met with local officials from the Church, the Bureau of Tourism and Culture, and the local land administration office, to get a basic understanding of how land use and buildings are regulated, how cultural heritage and tourism are managed, and how community development is approached.

The workshop produced this illustrated report of preliminary findings and compiled the collected data to share with local authorities and stakeholders. Together, these results will provide a point of departure for continued research by both GSAPP and AAU-EiABC in Fall 2016.

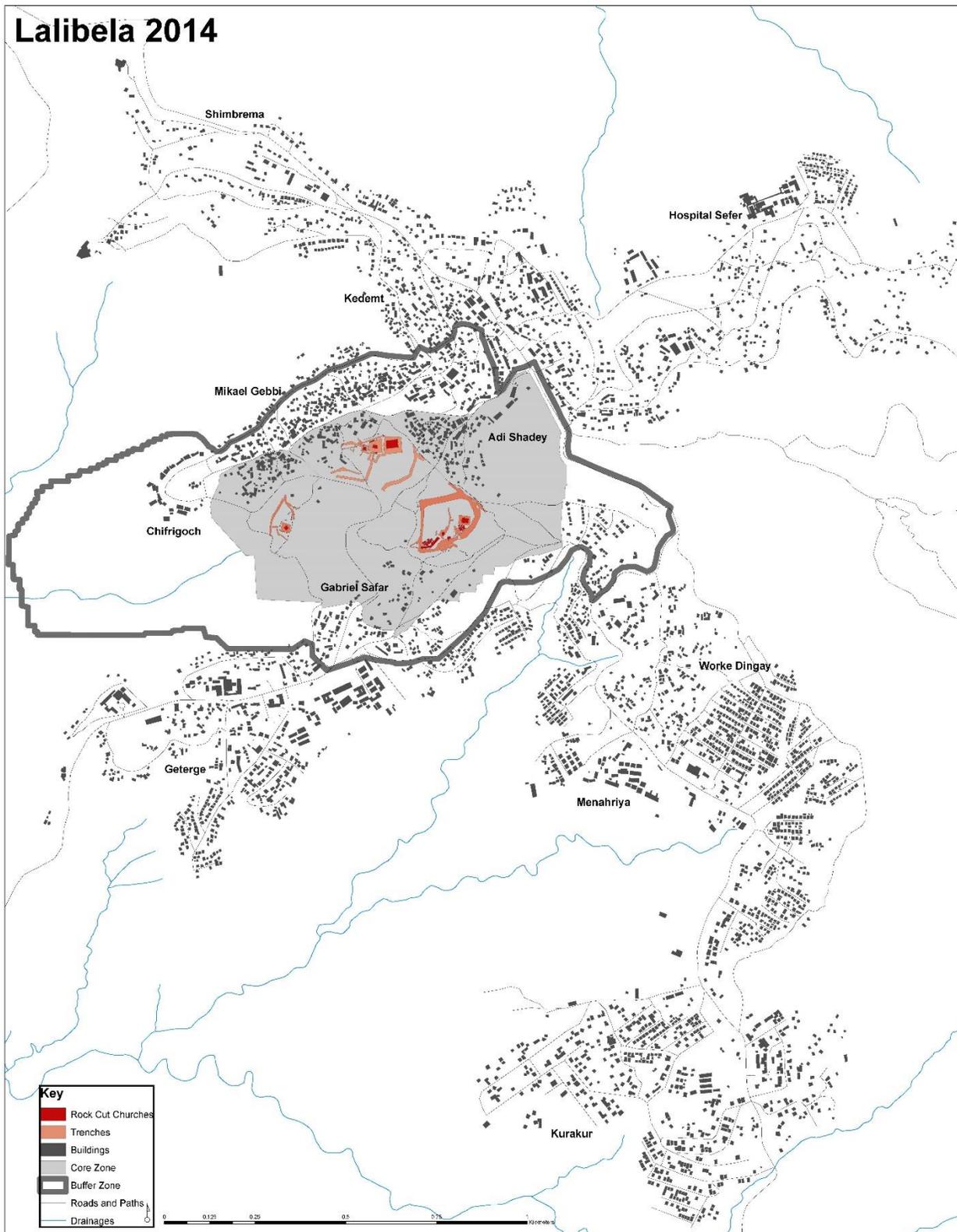
BASIC ORIENTATION

The following two maps were created using data compiled by the University of Capetown, Zamani Project for World Monuments Fund in 2009, and augmented with additional data drawn from 2014 Google Earth imagery. They provide an overview of the site and town as they were in 2014. When they follow the same conventions, subsequent maps in this report do not always provide labels for all of the features enumerated in the legend of the two maps below.

Core Site and Buffer Zone of Lalibela, 2014

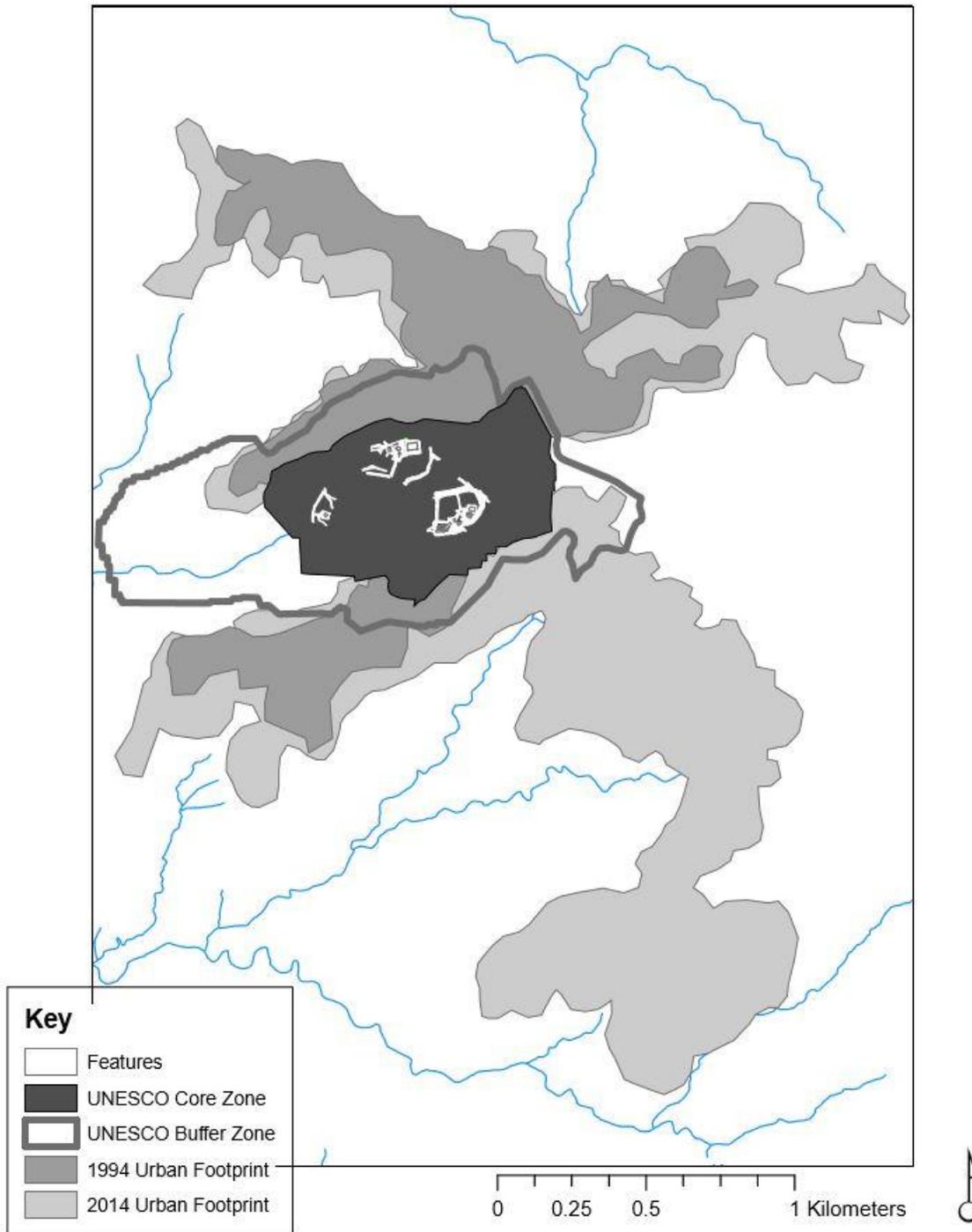


Lalibela 2014

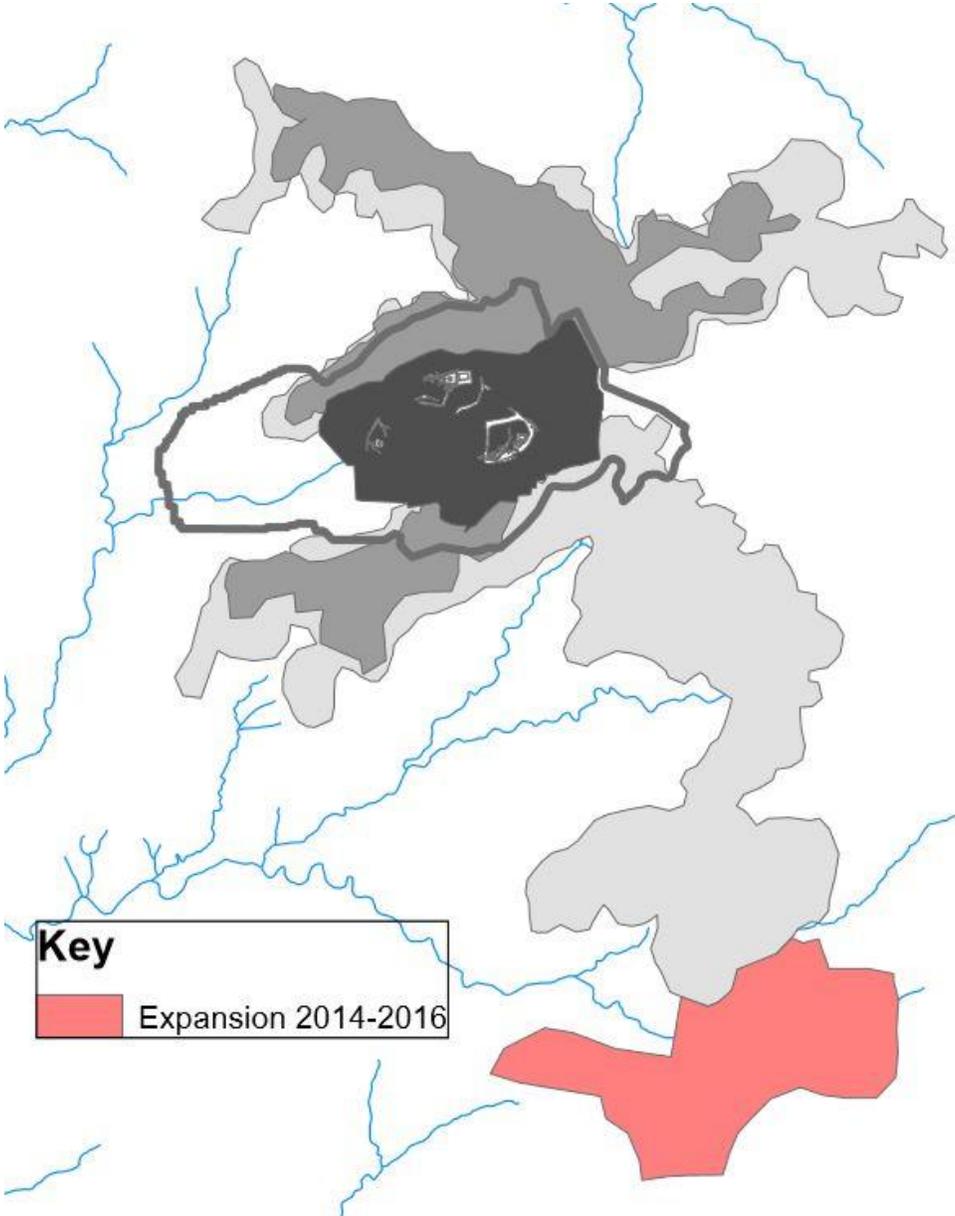


URBAN GROWTH

The Rock-hewn Churches are the spiritual and physical hub of the town of Lalibela. As designated World Heritage, the site consists of a core (which includes the church compound) and a buffer area. The following maps provide a rough spatial orientation and chronology of growth. The latest available aerial for Lalibela is from 2014, and growth from 1994 until that time is reflected in the following map.



The team confirmed in the field that there has been significant development in areas around the perimeter of Lalibela in the period from 2014 to 2016. It will be necessary to update the base map in order to better delineate the areas of recent growth and urbanization, fostering understanding of those changes in relationship to the heritage site and its values.



VALUES MAPPING

The *2013 Management Plan for the Rock-hewn Churches of Lalibela, Ethiopia*, identified many of the values of the heritage site in a general way. Through this exercise, the team sought to identify, map, and analyze the churches and landscape of Lalibela in an effort to better understand these values and character-defining features that represent them. By geo-locating these features, this research attempts to find where values are playing out physically and thus influencing spiritual, cultural and touristic experience. This spatial analysis help to elucidate the relationship of values and features to the broader landscape context, and also to identify key issues and themes. Six primary issues were identified for further analysis because of their importance in how the values of the site are experienced, including the tukuls (gojos in Amharic), the temporary shelters, the significant viewsheds, the vegetation including trees, plants and landscape, circulation routes and entries, signage, and the spiritual landscape, which includes the cyclic spiritual processional and gathering sites.

Circulation Routes and Entries

One's experience of Lalibela is intrinsically linked to movement throughout its spiritual landscape. More specifically, this movement is achieved through a variety of circulation and processional routes (which are described in more depth under the subsequent section on the *Spiritual Landscape*) that are woven into the natural geography of surroundings and lead to a high number of entry points to the core site, varying in usage by both tourists and locals.

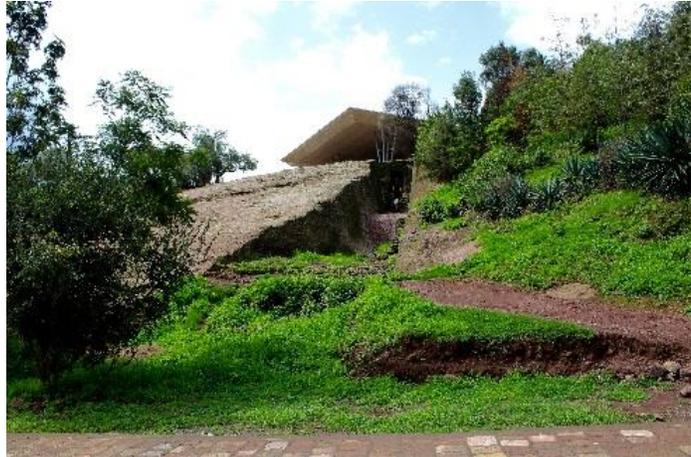
Visitors to the site will most likely use a variety of circulation routes in their experience of the church, beginning with automobile roads that lead from Lalibela's surroundings to the site's core zone, where the two groups of churches, including St. Giorgis Church, are found. In certain areas around the core site, barriers have been installed to restrict access to all vehicular traffic with the exception of small, three-wheeled tuk-tuks. There are a number of secondary and tertiary routes that break off from these principal automobile routes in the form of footpaths and trails. One may access a number of churches from these routes, and a tourist may feasibly experience a significant amount of the church exteriors without paying an entrance fee.



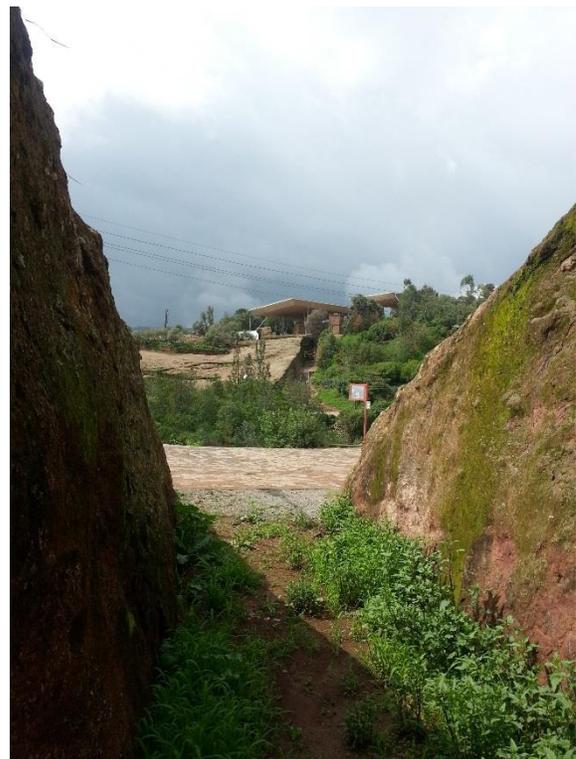
Most commonly, tourists enter the site at the Meskel Square museum and administration building, completed in 2007 as part of the European Union shelters projects. Here, foreign visitors may pay an entrance fee of US\$50 to experience the complex of churches, including their interiors. While this entrance is highly visible and well demarcated by directional signage throughout the town, the order in which the visitor consequently experiences the groupings of churches is in opposition to the intended, traditional order, which should begin with the Tomb of Adam at Sabat Woyira. The experience of a tourist thus differs notably from that of a dedicated religious pilgrim.



An important cultural value of the site is the informal nature of the passageway network amongst individual churches and church groupings. These routes, in the form of foot paths and trenches, run throughout the hand-cut trenches, and are used by both local users and guides. The routes often follow the natural incline of the ground above, and are punctuated by carved sets of stairs and rock bridges.



It is important to note that these trench routes also serve as drainage for the church complex, and have been graded accordingly to guide water from the churches down to the rivers below. While this has resulted in a largely effective system of water drainage, it also creates quite hazardous conditions for visitors, particularly during the rainy season. The worn surfaces of rocks, combined with a prevalence of biological growth, results in dangerous, slippery surfaces that can be detrimental to the safety of all visitors. It is likely, however, that efforts to upgrade and modernize these routes could have a negative impact on the informal, natural character of such features. In the future, it may be necessary to study solutions to provide additional safety measures to visitors in a minimally invasive fashion.



Views and Viewsheds

The views and viewsheds in Lalibela, of both the ancient churches and their surrounding landscapes, are exceptional, and constitute important qualities in defining the area's sense of place. It is understood that, historically, the rock-cut churches were obscured by vegetation, consisting mostly of indigenous juniper and olive trees. Palm trees were also planted along the Jordan River, to resemble to banks of the river in Israel. This coverage may have served as camouflage, reinforcing the notion of the subterranean complex's defensive purposes; it is also common for Ethiopian Orthodox churches to be shrouded in what are known as "Spiritual Forests"

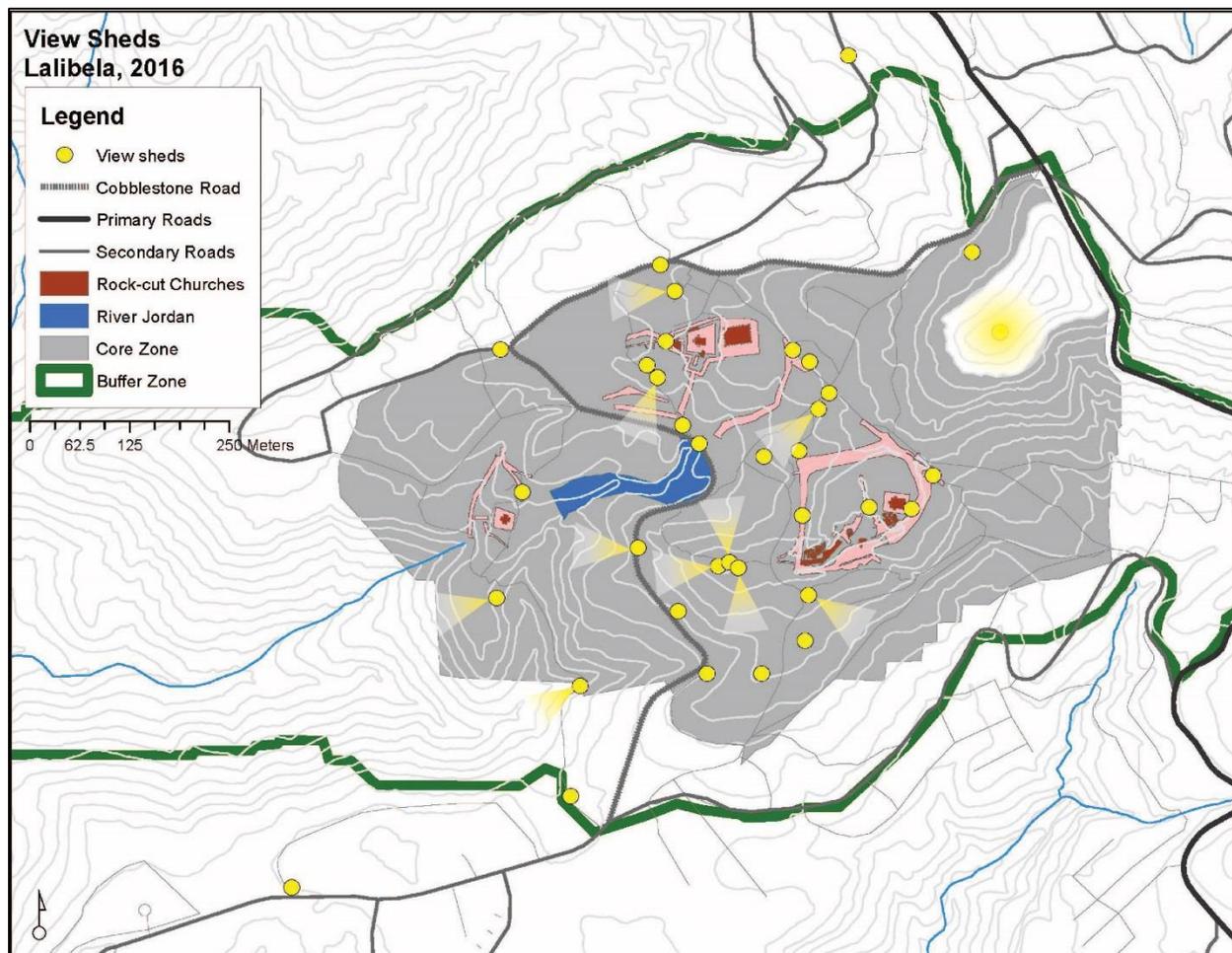


Today, views of the rock-cut churches have changed drastically with the encroachment of the surrounding townscape. Following the establishment of a buffer zone and core zone according to the ARCCCH 2013 Management Plan for the World Heritage site (detailed in the *Land Use Planning & Regulation* and *Building Regulation* section of this report), new zoning ordinances and resettlement programs were put into effect, in attempts to protect both the physical integrity and views of the churches and surrounding historic town (2013 ARCCCH). According to Town Planning officials, these measures have included a total restriction on building within the core zone, the institution of G+2 zoning in the site's buffer zone, and G+4 elsewhere in Lalibela. While these regulations have certainly reduced the amount of modern buildings around the churches and within important viewsheds, they are also problematic in many regards, including population management, land use, site interpretation, and authenticity. The resettlement initiatives that have been carried out in the areas of Adi Shadey, Sabat Woyira, and Gabriel Safar have resulted in a landscape cleared of all modern construction and sparsely populated with unused tukuls, an important vernacular housing typology of the region. The landscape thus functions almost solely visually, with the exception of some tukuls that are used by traditional religious schools.



It is indisputable that numerous protective steel and fabric structures installed in 2007 have had a negative effect on views of the church compound. Disregarding other issues of temporariness and the shelters' possible detrimental effects on certain architectural features of the church compound, the protective structures have fundamentally altered, perhaps negatively, one's perception of the rock-cut churches. The tubular steel column supports, space truss roofs, and white fabric coverings all contrast greatly with the existing character of the architecture of Lalibela,

and are especially dominant when approaching the compound from below, and as seen from the town market. These structures are often described as temporary; they were intended to protect the churches until alternate conservation interventions could be developed. They will continue to affect usage and interpretation of the site until then.



Another category of view around Lalibela is that which looks outward, away from the city and to the landscape. The town’s natural topography results in a high number of views of the encircling mountains and valleys and flatlands below. Perhaps the most panoramic view within the city is that from the top of Debre Zait, which offers a 360 degree view of the region. Other notable views are from multiple areas within Lalibela toward Mekane Lealit, where King Lalibela once lived. This pristine plateau is kept intentionally empty as a pilgrimage area. Rumors have been expressed by locals that developments have been considered for the Simeno flatlands area near Lalibela, which is currently untouched. Plans for development in this direction have yet to be verified. This is certainly a question to be answered with further research, and will affect greatly the issue of natural views around the town. Development on the road towards the airport, including a new PBF division and a Chinese workers camp, must also be studied for their impact on natural views in the area.





Trees, Plants, and Landscapes



Insufficient research has been undertaken to understand the importance of vegetation in defining the character of the rock-cut church sites. As previously described in this report, the rock-cut churches were historically obscured by vegetation, consisting mostly of indigenous juniper and olive trees. Palm trees were also planted along the Jordan River, to resemble the banks of the river in Israel. Today, many of the old trees surrounding structures have been cut down, and only stumps remain, serving as vestiges of a site more in line with the traditional Ethiopian Orthodox “Spiritual

Forest” image. It is evident that the few remaining trees are at risk, as their bases have been surrounded with piles of rocks to reduce erosive effects.

The landscape immediately surrounding the churches is defined principally by tufts of barren red scoria rock, periodically interrupted by massive, hand-cut trenches serving as circulation and drainage routes throughout the church complex. Today, the large, white protective shelter structures are also defining features of the landscape, especially when seen at ground level or from the town or circulation routes below.

In the resettlement areas, such as in Adi Shadey, Sabat Woyira, and Gabriel Safar, the character of the landscape is quite different— the red scoria rock fades into a lush (at least in the rainy season),

overgrown landscape punctuated by a few indigenous trees, a number of new plantings, and unoccupied tukuls. It has yet to be determined who is responsible for the maintenance of these planted landscapes, which are becoming somewhat problematic as they restrict access around the tukuls. The new plantings were originally intended to mask the barren patches and remnants of demolished residences following the execution of the neighborhood resettlement plans. Separating these areas from the rest of Lalibela are walls that restrict further development around the core zone, built in the 1980's.

The wider landscape around Lalibela also contributes to the town's architectural and topographical significance. According to the Lalibela Town Administration Information Office, the topography of Lalibela consists of 33.3% mountains, 53% plains, and the remaining percentage river valleys. Continuous settlement, deforestation for firewood, and agricultural activities have resulted in significant environmental degradation over time (2013 ARCCH).

Shelters

The shelters that were installed over the churches in the core site of Lalibela are a contentious and important topic when it comes to assessing the site values. After UNESCO assessment missions determined the need to protect the churches from rainfall and erosion, a shelter design competition was sponsored by the Ethiopian government and the International Union of Architects in 1999. After modifications of the winning design to minimize damage to the site and facilitate reversibility, the European Union supported the construction of temporary shelters for five of the Rock-Hewn Churches (UNESCO 2012). In 2007 these temporary shelters were completed, including four large steel structures over Biete Amanuel, Biete Mercoreus, Biete Abba Libanos, Biete Mariam, and Biete Medhani Alem, and a wood structure over Bethlehem. According to the 2016 World Monument Fund's report the structures were only a partial and temporary solution to the issues impacting the churches. They help take care of the erosion issues that plague these churches, but do not begin to respond to the structural issues that surround the churches (WMF, 2016).



Although the structures protect the churches from rain reasonably well, there is wide concern on the part of local and non-local users that these structures are a very poor choice for many reasons. One reason is that although the structures protect most of the church from rain, church leaders and users have noticed that the shelter over Biete Abba Libanos is allowing rainwater to fall on the church and cause damage. Around the churches there it is also common to see plastic sheets draped over pieces of vulnerable, unprotected elements of the church. It is also worth noting that around the churches, especially Biete Amanuel, there are pipes that surround the outer drainage trench. Though it is nice that the pipes are a red color, matching the stone cliffs, their anachronistic presence is still visually distracting from the organic and organic drainage trenches and entrances.



Aside from erosion issues due to rainfall, there is also concern from priests that the shelters are causing structural damage to the churches. The weight of the churches is their biggest worry. Their fear is that the legs of the shelters are sinking in to the ground around the stone churches. In particular, they mentioned that below one of the legs of the Biete Meskel shelter is an underground tunnel and chapel. They believe that the three dimensional nature of this tunnel and chapter was not adequately known by the shelter constructors and they are worried that this leg will puncture through to this underground area at any time, destroying this space as well as damaging Biete Meskel above from the falling shelter. The church leaders are also very concerned that tremors could cause the shelter to fall on the churches. Another worry that was stated again and again by surveyed local visitors and also repeated by the priests is that the annual windstorms, which bring constant gusts from May through June, are going to damage the chords and fabric covers on the shelters and cause damage to the churches.



It also is evident that there is significant miscommunication about the intended duration of the shelters. The priests claim that they were told that the structures would only be around from 5-7 years. They worry that since they are well past this supposed deadline that the temporary shelters are not structural and thus their churches not safe. Other sources assert that the temporary shelters were actually intended to last 10 - 15 years, and possibly longer. This miscommunication is unexplained since there is no documentation on the subject that has yet been found.

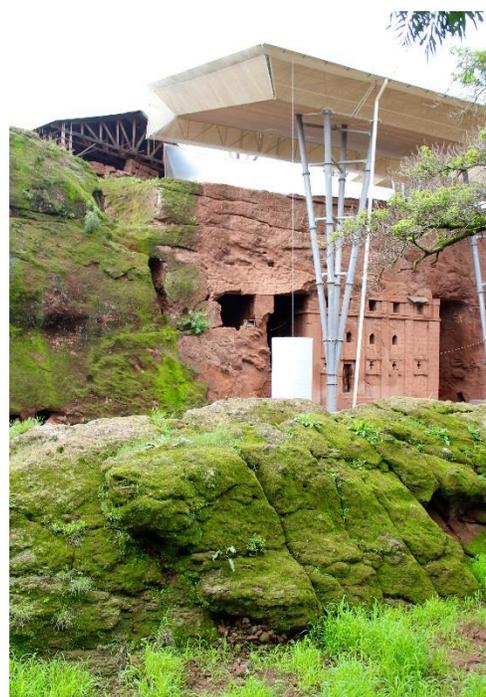
Aside from the shelters' relationship to the stone churches physical condition, the shelters greatly interrupt the site experience for local and non-local users. They stick out in the landscape, interrupting the cohesion of the winding, natural landscape with their large white platform-like roofs which are aesthetically comparable to gas station roofs. Also, these shelters' domineering relationship with the landscape goes against the hidden nature that is believed by locals that King Lalibela intended for the churches.

The large steel supports of the structure, as mentioned, sit within the church trenches, visible constantly to users of the church, again interrupting the aesthetic, spiritual and historical cohesion and integrity that users seek when visiting. They also limit the amount of light that can reach the trenches and interior of the church, affecting the atmosphere at all times.

The World Monuments Fund, working with The Authority for Research and Conservation of Cultural Heritage (ARCCH) and UNESCO, launched their 2009 program to introduce alternative, less visually intrusive conservation methods to the preservation of Biete Gabriel Raphael. The project sought to carry out comprehensive conservation at the church, test solutions that are appropriate but not visually intrusive, develop techniques that could be replicated across the site, and train a Core Group of craftspeople who could undertake further conservation work." (WMF 2009) The project was completed in December, 2015. As revealed by field surveys the removal of the shelter and restoration of the church has so far been met with much approval and satisfaction by local users of the church. This project hoped to set a precedent for how the other churches in the complex could be conserved and shelters replaced. If this project continues to prove successful it could be a promising method to be used on churches covered by the temporary shelters and the churches without shelters, but are in great need of attention.

Tukuls (Gojos)

The tukul/gojo has become a kind of symbol for Lalibela and Ethiopia as they are an early traditional form of housing, particularly in Lalibela. "Gojo" is the Amharic word for these structures, but "tukul" is commonly used by tour guides when speaking with tourists and is used in past reports and regarding the area.



Lalibela traditionally has one- and two-story round tukuls. These generally have external staircases with their walls constructed of stone laid in mud mortar, and the interior wall surfaces plastered in a mix of earth, straw, and differing proportions of cow dung (UNESCO 2010 Mission Report, p. 10). The walls sometimes are built with wooden splints which are then plastered with mud and the roofs are traditionally of thatch, but have in the past been covered by corrugated iron sheets. There is also a second vernacular form called a "chika," which consist of a circular earth building with a eucalyptus wood frame and an external staircase. This form is much cheaper and easier to construct since it uses mostly earth instead of stone and mortar. In addition, in 1970, Angelini speculated that the rectangular buildings of the same construction had emerged from "new economic rules."

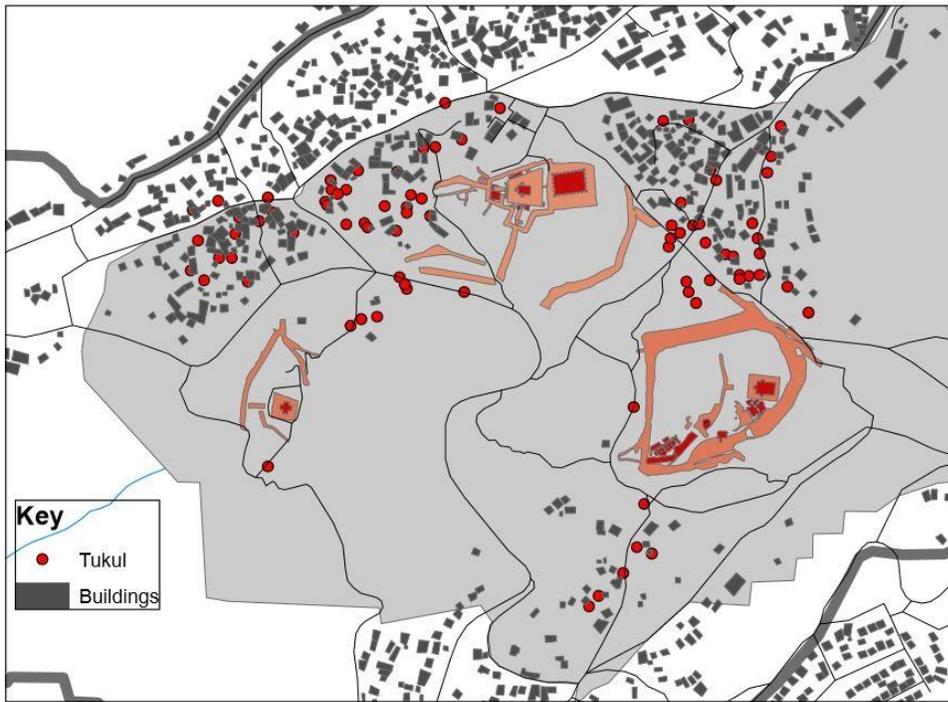


Although the team's survey work did not differentiate between the three forms of earthen construction, it was clear that the round stone tukuls are the most prevalent vernacular form in the core. The chikas do not seem prevalent in the core, which could be because they are less durable than the stone forms. There are also more round, stone tukuls than square stone buildings.

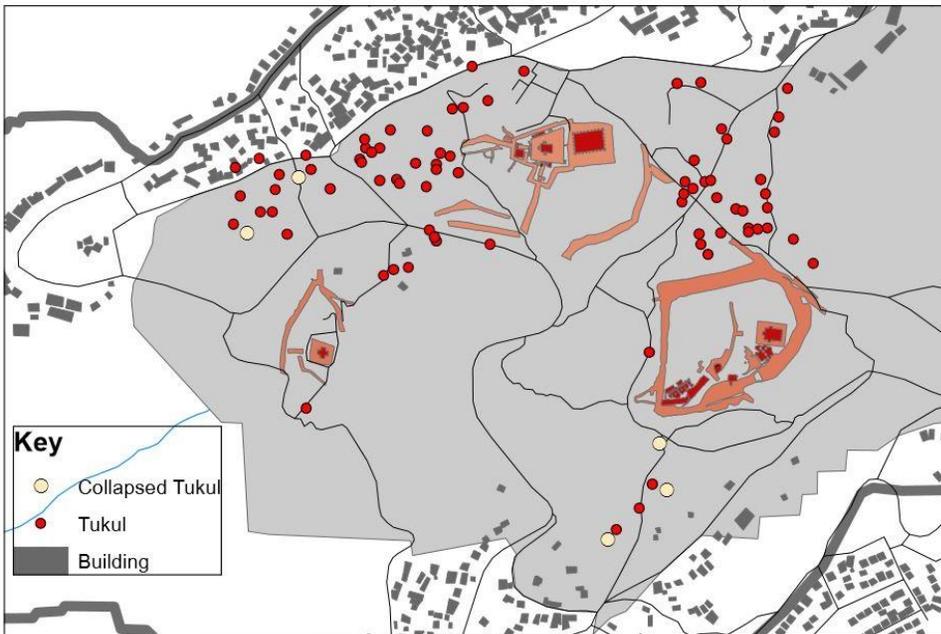
According to UNESCO's 2010 report, this vernacular earthen architecture formed an "integral part of its nomination to The List" and is believed to be integral to the integrity of the site. Many of these tukuls were formerly nestled in the middle of much larger settlements in the core of the site. In its most prominent intervention at Lalibela, the World Bank project removed a number of houses that had stood around the tukuls and facilitated the relocation of the former residents in Gabriel Safar, Adi Shadey, and Sabat Woyira. It was asserted that over-crowding, especially in Adi Shadey, made it difficult to appreciate the beauty of the tukuls (UNESCO 2010 p. 13). The intention behind resettlement was "to enhance the conservation of the site and to provide additional protective measures for the property" (ARCCH 2013 Management plan p. 23). The relocation has been met with criticism and praise. The lasting effects of the relocation on the tukuls is an important and major concern.

Once the resettlement was well underway, most of the abandoned houses were torn down in a relatively narrow window of 2014-15. The tukuls were preserved so that they could continue to add to visitor appreciation of the site, though several of them have since collapsed. The maps below summarize this change.

Tukul (Gojo) Distribution, 2014



Tukul (Gojo) Distribution, 2016



The clearing of former houses and the relocation of residents has profoundly changed the way in which the visitors and local community experience and use the site. The following photo pair gives a sense for the magnitude of the change.



2010 view from the top of Debre Sina



2016 view from the same vantage point

In the aftermath of this intervention, local authorities including the Ethiopian Orthodox Church, ARCCH, and the tourism board have struggled to repurpose the abandoned tukuls. Some are in use by Church schools and serve as temporary residences or classroom spaces and workshop areas for Church activities. Largely speaking, however, they have been abandoned.

Since they are no longer inhabited, the issue of tukul maintenance has become more pressing. The priests that were interviewed expressed concern for the tukuls, yet felt powerless to maintain them since they believe that they are not allowed by UNESCO to interfere with the buildings in the core zone. It is clear that the maintenance of the tukuls is falling between the cracks because no one knows who has the responsibility of maintaining them.

Meanwhile, outside of the core zone, in the buffer and beyond, there is no protection of tukuls. There is nothing preventing these historic vernacular structures from being demolished and replaced by a hotel or new infrastructure.



Another key issue is that of landscaping within the core site. The priests and some locals have commented that the forest in the cores site is diminishing because of erosion. This is spiritually significant because the forest is where spirits reside. This diminishing forest are directly related to the core. Too much forest around the tukuls can hinder interpretation of the tukuls for visitors, yet this landscaping and the tukuls' relationship to the landscape is evidently integral to the spiritual use and initial intention of the site.

It is interesting to note that the circular tukul's vernacular form is starting to be used for tourism infrastructure in Lalibela. Most notable are newly constructed toilet facilities in the core and the under construction tourist resort, both which mimic the single story round form with a thatched roof.



Also, the absence of toilet facilities in 2010 caused people to use the open areas of Adi Shadey as toilets, which detracts from the appeal of the tukuls. (UNESCO 2010 P13) This is still prevalent in the western Sabat Woyira area of the core site, close to the market, but not only are its open spaces being used for a toilet, but the abandoned tukul's in the area as well. Perhaps in order to keep this area and the tukuls in the area clean, there need to be more toilets available to local and non-local users.

Another key topic is the use of the tukuls in the core and their possible future use. It is noted in the 2009 World Bank report that in modern times (pre-relocation), the earthen tukuls were no longer used for residences because of their space limitations (World Bank 2009, p19). Some of the tukuls close to Biete Golgotha Mikael are currently used as church schools for children, teaching them traditional chanting, painting, book reading, and singing. It is hoped by church leaders that this will continue into the future and possibly expand. There is also a nunnery within the core that uses traditional tukul building methods. Outside of these current uses, most of the tukuls are unused and deteriorating quickly.



Spiritual Landscape and Gathering Places

Within the landscape of Lalibela, particular spaces serve as gathering point for different social events and services. The locations of these gathering places are selected strategically in order to allow people who come to attend the Sundays' church ceremony to congregate easily. These gathering places are also used by the community as locales for conversation and information exchange, and as a seating area for traditional church education activities.



Particular church compounds are used as gathering point for attendance to the church ceremonies every week on Sunday and for the special church days, as follow:

- Biete Mariam and Biete Medhani Alem – on October 1, November 30, January 7, January 19, January 29, July 6, November 6, April 5
- Biete Gabriel at the Mount of Tabor – on December 28, July 26
- Biete Giorghis – on January 15, July 14, January 26, November 21, June 19



The baptism spots in the church compound of Biete Giorghis, Biete Mariam, Biete Medhani Alem are also highly valued, since believers use the holy water for ritual purposes and to remedy a variety of ailments.



Processionals are an integral part of the religious practices of Lalibela, and extend to areas well beyond the core of the World Heritage site. Most of the religious processional points are blended with the topography of the site and town, thus creating an important views and contexts for worshippers while the priests chant in celebration.

Ashendeye is a cultural celebration of the local community that is related to the celebration of *Ashenda* in the Tegray area of northern Ethiopia. The celebration takes place all around the town and is mainly celebrated by girls. For this reason, it is considered to be a girls' holy festival extending from August 10 to September 30.

There are several sacred sites on the outskirts of Lalibela, but are important relational locales for both spiritual and touristic purposes. They, too, have important dates of celebration, as follow:

- Asheten Mariam –October 1, November 30, January 7, January 19, January 29, July 6
- Neakuto- leab – on December 13
- Yemerhane Kerestos – on December 28, July 26
- Belebala Giorgis and Belebala Qirqose - January 26
- Arbaetu Ensesa- on January 2, July 31
- Meseqeke Kerestos- on September 27
- Qenqenit Michael- on November 21, June 19
- Emekina Medhanialem- on November 6, April 4
- Mesqel Kebra- on August 3

The market place follows traditional patterns and is adjacent to the core area in the direction of Bieta Giorghis. The major commercial activity takes place on Saturdays and a minor market is on Tuesdays. The buying and selling continues the whole day except during the rainy season, as the market may be cut short due to weather.



USER/VISITOR SURVEY

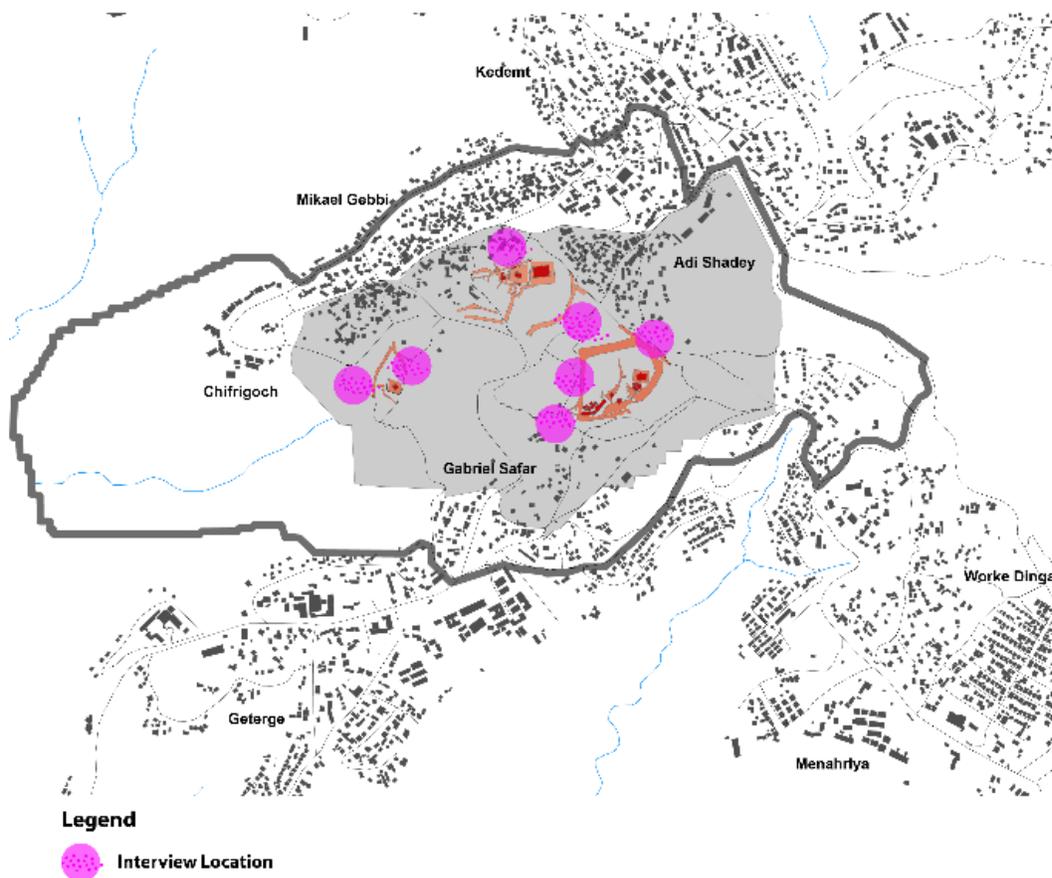
To gain perspective from local and non-local users, the studio conducted a rapid visitor survey to identify key issues and themes on-site. The survey was completed on July 26, 2016, on the annual religious holiday of St. Gabriel. This brought a larger selection of local and non-local Ethiopian Orthodox visitors to the site, specifically since July is rainy season in Lalibela.

Four groups of four students, distributed as two students from Addis Ababa University and two students from Columbia University, were stationed at key exit points around the site. This was useful in order to be able to communicate with site visitors in both English and Amharic, and therefore reach a diverse group of local visitors, visitors from different regions of Ethiopia, and international tourists.

The studio interviewed a varied group of stakeholders (see the Management section later in this report). A sample list included church officials, worshippers, priests, church compound guards, international tourists, nearby residents, resettled residents, etc.

Interviews conducted totaled 99.

Visitor Survey Interview location Plan



Definitions

Local user: residents currently living in Lalibela including church officials and priests, church compound guards, and resettled residents

Non-local user/visitor: anyone with a residence outside of Lalibela, from other Ethiopian cities/regions to international destinations

Survey Questions

The team employed KoboToolbox to develop a digital survey that allowed for the collection of responses on tables (offline) in the field. The survey included different/conditional questions for the local and non-local users.

Sample Bias

It was difficult to interview groups of foreign tourists, and therefore tourist responses tend to be from single travelers or smaller group travelers. Since most international visitors are only in Lalibela for a day or two, it was difficult to get them to stop to take a survey since they were pressed for time.

Respondent Profile and Distribution

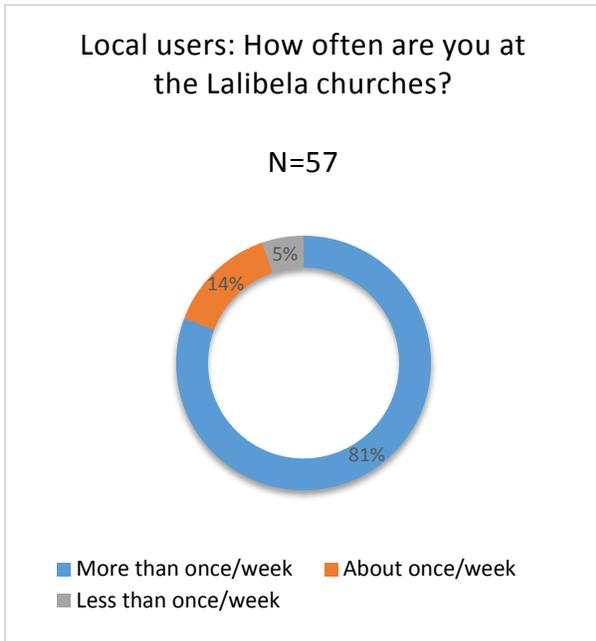
Of total survey respondents, 57 were local and 42 were non-local users. Of local users, 36 (63%) were male and 21 (37%) were female. Age distribution skewed towards middle-aged visitors, as 25 local respondents (44%) were between the ages of 30-49. Twenty respondents (35%) were between 18-29, and 12 (21%) were 50 years of age or older.

Of the non-local users, 28 (67%) were male and 14 (33%) were female. Age distribution skewed similarly to the local users with 21 between the ages of 30-49. Sixteen respondents were between 18-29, and only 5 were 50 years of age or older. Of the 42 non-local users, 13 were Ethiopian.

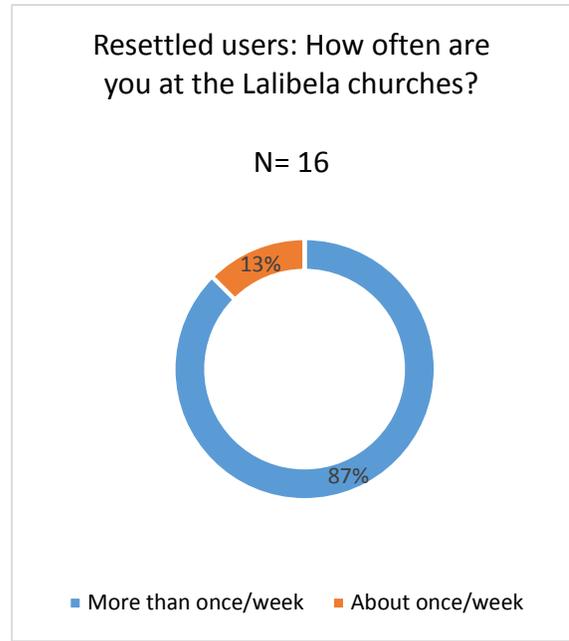
Frequency on Site

Local

Of all surveyed local users, 81% responded that they were at the Lalibela churches more than once per week, 14% were at the churches approximately once per week, and 5% were at the churches less than once per week (Graph 1). Of resettled respondents, however, 87% were on site more than once per week, and none replied that they were there less than once per week (Graph 2).



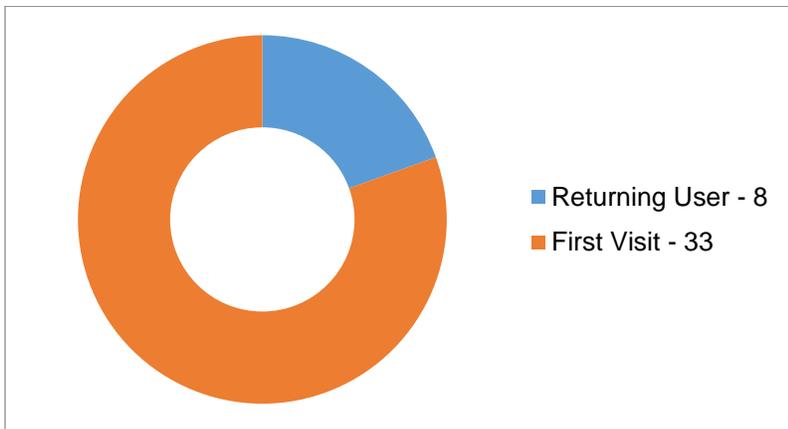
Graph 1



Graph 2

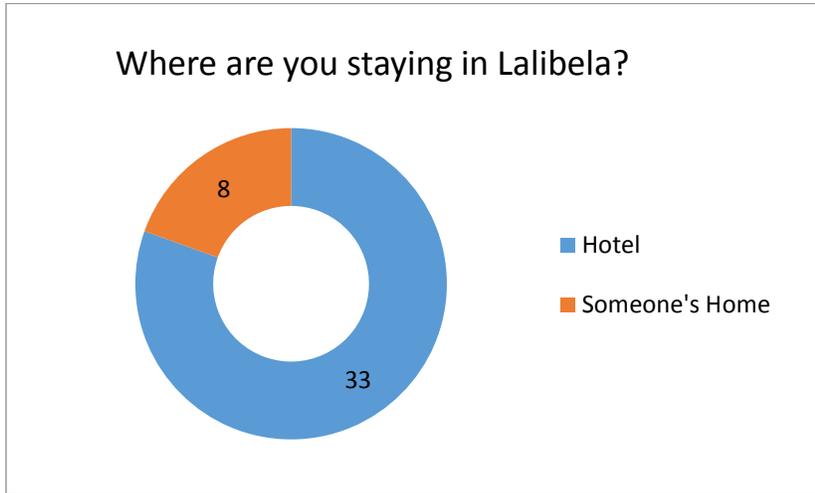
Non-local

Of the non-local users, 8 of the 41 responses were returning visitors, with 6 of those 8 from other parts of Ethiopia (Graph 3). The other seven of the Ethiopian visitors were visiting for the first time.



Graph 3

The same trend continued regarding where the non-local visitors were staying, with 8 of the 41 responses staying at home, and 33 in hotels (graph 4). Accordingly, the six of the eight staying in someone’s home were the same six returning users from other parts of Ethiopia.

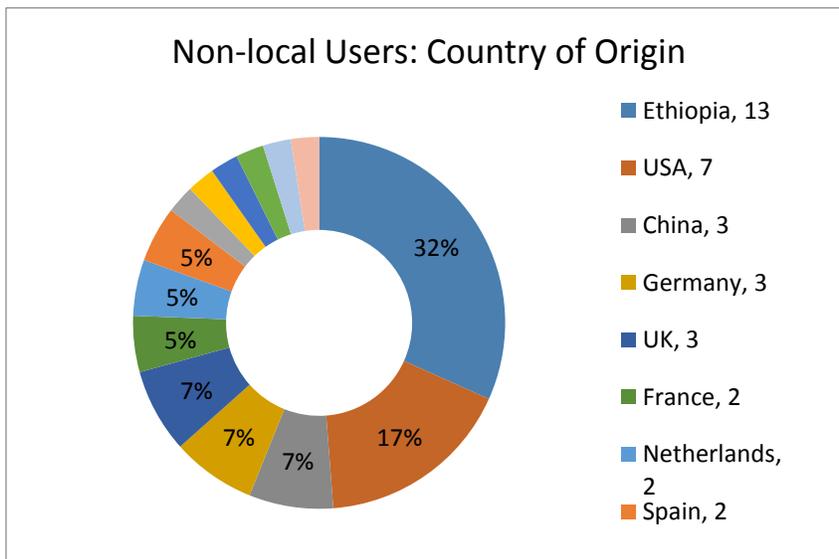


Graph 4

The median and mode of the length of stay were both 2 days, while the mean was skewed up to 4.529 due to six outliers with an extended stay over four days.

How many nights are you staying in Lalibela?			
Mean	Median	Mode	Standard deviation
4.529	2.0	2	7.739

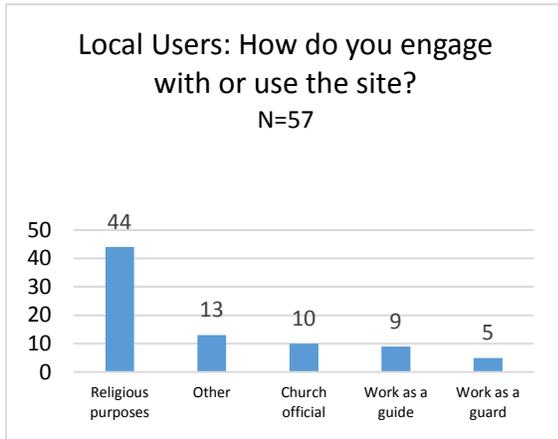
The most common country of origin besides Ethiopia (13) was the United States of America (7) as well as China, Germany, and the UK (3 each) (Graph 5).



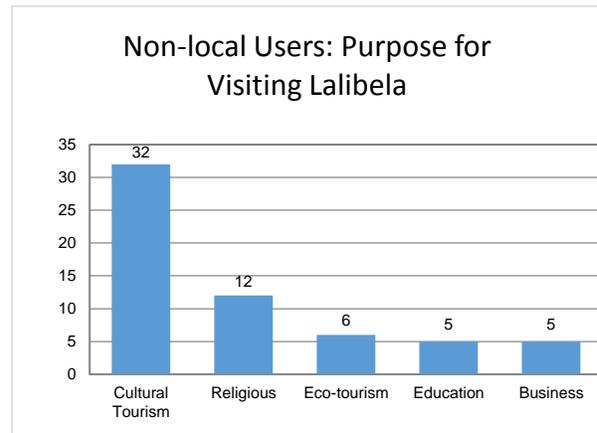
Graph 5

Purpose on Site

Local respondents identified various ways in which they engaged with the church compound, though most (44, or 77%) reported engaging with the site for religious purposes (Graph 6). Non-local residents primarily reported visiting the site for cultural tourism (Graph 7). Respondents were allowed to select up to five reasons for visiting, with 32 responses for cultural tourism.

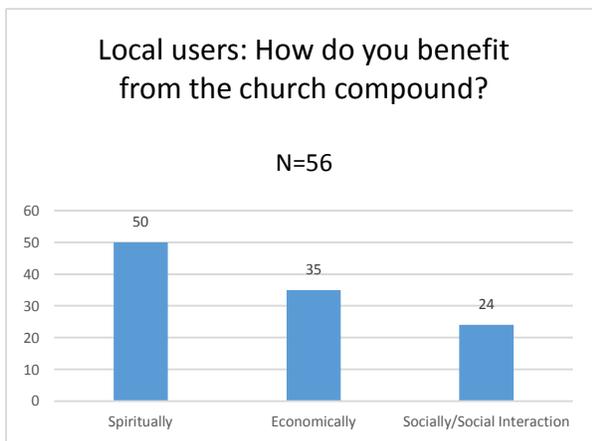


Graph 6

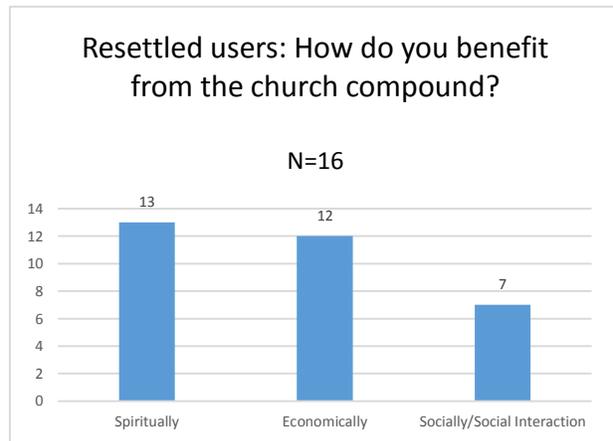


Graph 7

When asked how they benefit from the church compound, 35(61%) of all locals reported benefitting economically (Graph 8). Of resettled respondents, 12 (75%) reported benefitting economically from the compound (Graph 9).



Graph 8

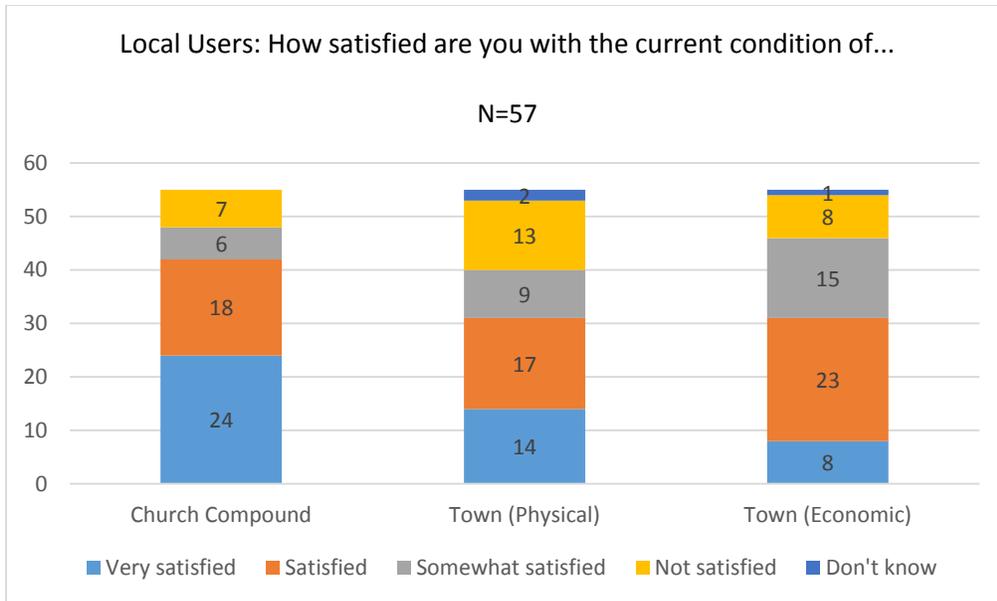


Graph 9

User Satisfaction

Local Users

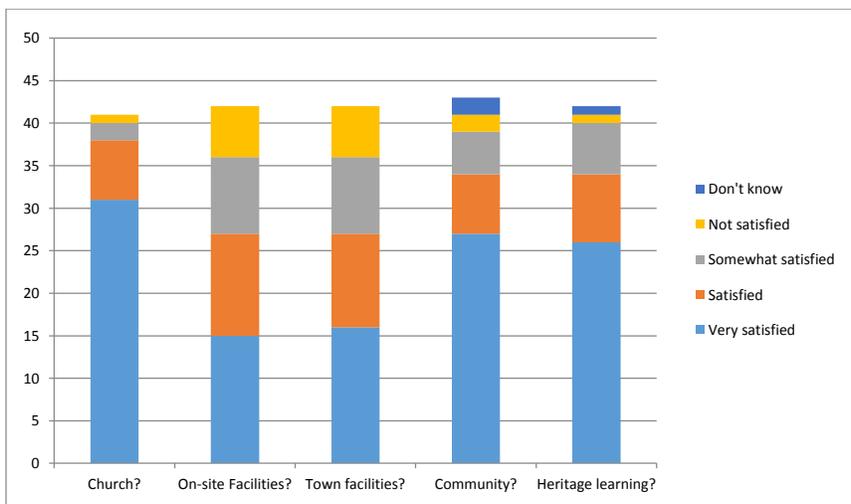
Responding local users had broadly distributed satisfaction levels with the current physical condition of the church compound, the physical condition of the town, and the socio-economic condition of the town (Graph 10). However, among the surveyed church officials, 90% report being very satisfied or satisfied with the physical condition of the church compound.



Graph 10

Nonlocal Users

The majority of visitors to Lalibela who we surveyed reported being either satisfied or very satisfied with the Church compound, on-site facilities for tourists, town facilities for tourists, their engagement with the community, and overall learning experience (Graph 11, n=42). The most ‘not satisfied’ responses were regarding the on-site and town tourist facilities.



Graph 11: Non-local Users

Impact of Recent Changes

When asked whether any changes had affected their use of the church compound in recent years, 68% of all local users responded yes, whereas 75% of all resettled users responded yes. Of surveyed church officials, 90% responded yes. Respondents who answered yes to this question were followed up with a qualitative question on changes, which resulted in the following responses:

Local Users

Positive

- The newly paved roads are a positive improvement
- Resettlement of communities from the areas directly surrounding the site has created a safer and greener space around the churches
- Tourism development has had a positive economic impact
- Restoration work on the churches has improved the ability to practice religion at the churches

Negative

- The design and aesthetics of shelters negatively impact use of the site
- The shelters are perceived to be unsafe and create a sense of fear that they may damage the churches
- Conservation work on the churches interrupts religious services
- Holiness of the churches and their surroundings are seen as decreasing with more tourism
- Resettlement has separated previous residents from the churches, market, and social circle
- Resettlement has decreased safety within the churches, as relocated people were guardians of religious objects

Qualitative Responses

Additional qualitative questions were asked of users/visitors, with questions and responses outlined below:

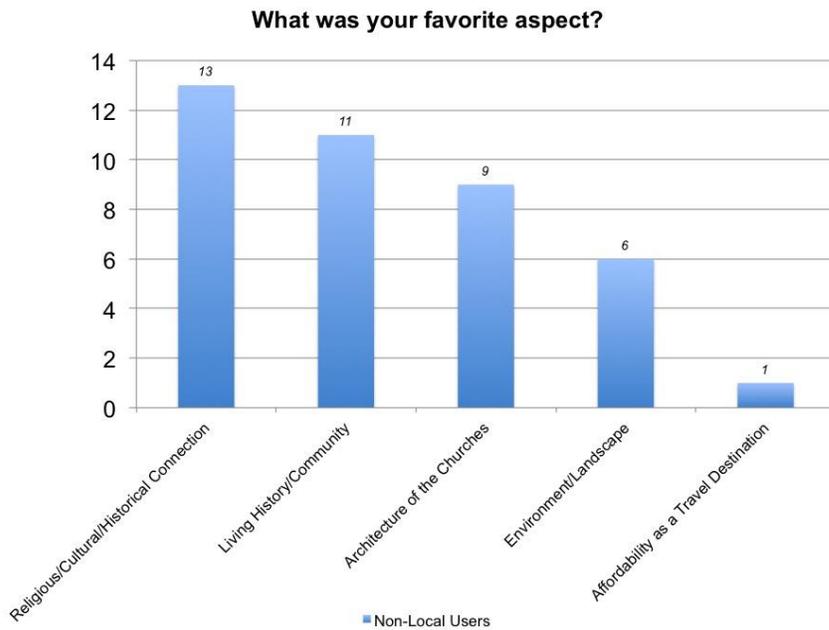
What are the most positive aspects of Lalibela?

Local Users

- Churches and religious activities
- A landscape rich in historical value
- Close-knit local community
- Tourism and economic development
- Living heritage
- Holiness of the site
- Resettlement has improved quality of site and ability to practice religion

Nonlocal Users

- Religious/Cultural/Historical Connection: 13
- Living History/Community: 11
- Architecture of the Churches: 9
- Environment/Landscape: 6
- Affordability as a travel destination: 1



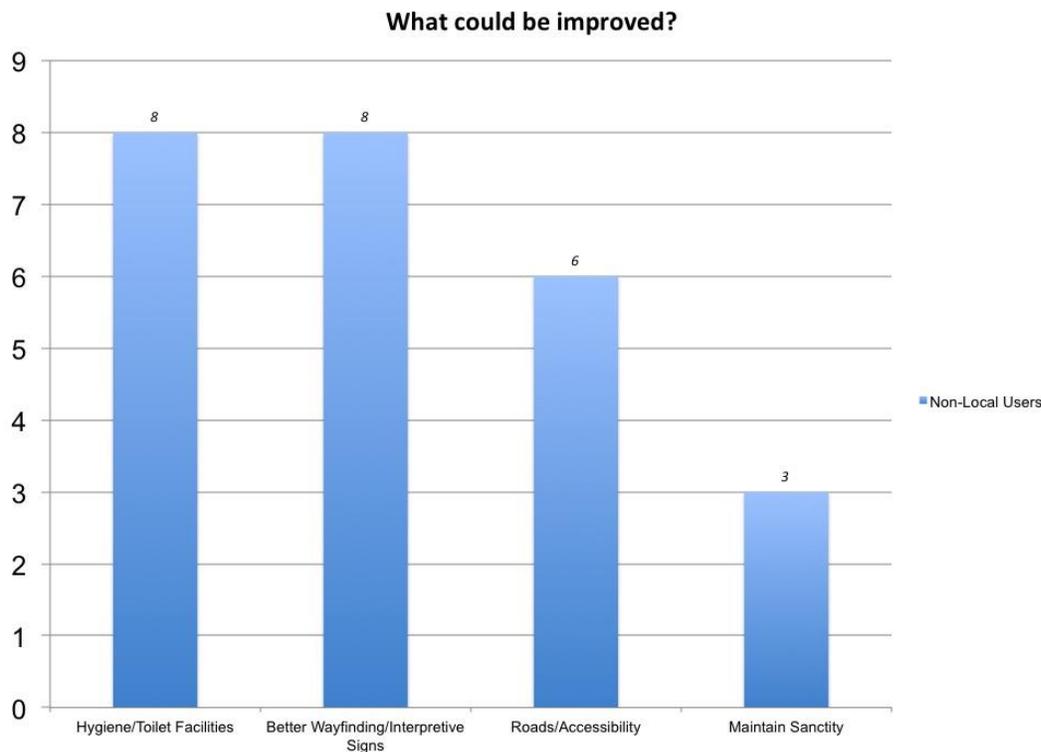
What can be improved at the Churches?

Local Users

- The tukuls that were abandoned as a result of resettlement need to be re-used
- Maintenance of the shelters
- Enhanced safety by securing perimeter and points of access
- Easier access for elderly worshippers and visitors
- More plantings of indigenous trees and vegetation
- Foreign visitors need to better respect religious sanctity
- Facilities (sleeping/camping areas) for non-local religious pilgrims
- Restrooms and better sanitation
- More transparency about how the Church allocates site revenues for local benefit

Non-local Users

- Provide more hygiene/toilet Facilities: 8
- Improve Wayfinding/Interpretive Signs: 8
- Improve roads/accessibility: 6
- Remove shelters to respect the sanctity of the churches: 3
- Other notes: some felt the entrance fee is too expensive, some visitors saw the children following them as distracting, the need for more comfortable seating areas was noted, and given the high admission price to the churches, the economic benefit for the community was not evident



What can be improved in the town?

Local Users

- Upgrade road infrastructure; new construction should follow historical architectural styles
- Improve waste management and sanitation infrastructure
- Better medical services
- As population increases, better manage government funds for public benefits
- Enhance the diversity of economic opportunities
- Better protect the churches
- Maintain religious integrity, especially among younger generations
- Integrate local education with historical and religious teachings
- Address the fact that the town is becoming more expensive for locals as tourism increases
- Improve transparency about how the Church distributes site revenues for public benefit
- Better coordinate development in the town
- Tourists should be more respectful of the religious holiness of the site
- Everything!

Non-local users

- Keep it authentic
- Entrance fee is too expensive
- Airport should be improved
- Overall roads and infrastructure need to be improved
- More marketing should be done to raise awareness, maybe a documentary

Key Issues

The following key issues were derived from the visitor survey analysis.

Values identified by local and nonlocal users

- Churches and religious activities
- Landscape rich in historical value
- Tourism and economic development
- Living heritage, Living History/Community
- Religious/Cultural/Historical Connection
- Architecture of the Churches
- Environment/Landscape
- Affordability as a travel destination

Shelters, Churches, and Landscape

- The shelters are seen as having a negative impact on the aesthetics of the site (local and nonlocal)
- The shelters are perceived to be “unsafe” by the community and poorly maintained (local)
- Conservation is viewed as a better form of protection for the churches than the shelters, one that is also more “authentic”
- The restoration work of the Biete Gabriel Church makes the community feel more safe and secure. The intervention has had a positive impact on their spiritual practices, stopped rain infiltration, and created more comfortable conditions.
- While conservation work has improved the ability to practice religion at churches, it has interrupted religious services during periods of construction work
- Local users notes issues with the shelters of specific churches:
 - Shelter over Bête Mariam and Bête Meskel has an impact on the Selasae church (Trinity chapel), which is located underneath one of the post foundations.
 - Shelter over Bête Amanuel also assumed to put bête Libanos endanger because the structures are seen as unsafe
 - Shelter over bête Debre-Libanos wegolegota does not provide adequate coverage and thus rain gets in the church, damaging the very old and precious paints on the interior wall.
- The landscape around the churches is highly values but seen as under-maintained. Some indigenous trees has been introduced and it would be good if more could be introduced (local).

Tourism Development and Impacts

- Holiness of the site and spiritual activities of the churches
 - Holiness of place seen as decreasing with more tourism (local)
 - Visitors need to respect religious aspects more (local)
- Economic
 - Tourism development has had a positive impact on the town’s economy and created a diversity of economic opportunities (local)
 - The community is not fully aware of the local benefits supported by the entrance fees to the site collected by the Church. As population and visitation increase, there is a need for better communication and transparency regarding those funds (local)
 - Entrance fees for foreign visitors are high (nonlocal)
 - Tourists spend about two days at Lalibela on average. For the long term sustainable development of the site, it will be important to understand more about why they structure their stay this way and how they might be encouraged to spend even more time on site.
- Social

- Tourists help to develop better language communication skills amongst the local population (local)

Capacity building

- Integrate local education with historical and religious teachings (local)

Resettlement

- The majority of community members who were resettled from the core zone (including church officials and other residents) see the distance to travel to the site as a negative impact. Resettlement has separated previous residents from the churches, market, and social circles (local)
- Non-resettled local communities (especially church officials) favored the resettlement as it allows for safer and greener space around churches and also frees the church compound from commercial and related unwanted activities. Resettlement has improved quality of site and ability to practice religion
- Other community members fear that resettlement has made the churches less safe, as relocated people were guardians of the objects in the churches
- Tukuls /Gojos are deteriorating rapidly and the surrounding landscape become overgrown. There are conflicting reports as to who the tukuls will be used (possibly as religious schools, possibly as residences for unmarried priests).

Infrastructure Improvements

- Restroom facilities for church community and non-local users
 - Toilet facilities for the priests and nuns are needed because they are serving spiritually and, according to the rules of the church, the nuns in the monastery are cloistered and not allowed to interact with local/regular society.
- Waste management and improved sanitation
- Roads and accessibility to the site
 - Signage needs improvement (nonlocal)
 - Entry points and guard points are under-manned and underutilized (local)
 - Road construction has been beneficial and allowed greater accessibility for elders, but is already deteriorating
 - More security by securing perimeter and points of access – for the protection of the churches and its heritage
- New construction in the town
 - As more new construction is taking place in areas around the town, infrastructure development will need to keep pace
 - New construction is seen as a positive indicator for the town (local)
 - New construction and development needs to be well coordinated by town authorities (local)
- Camping areas are needed for pilgrims/ guests – especially from country sides and from rural areas
- Better medical services are needed
- Visitor information at Lalibela Airport, such as information center, maps, etc. needs improvement (nonlocal)

VISITOR INFRASTRUCTURE

One of the central challenges for current and future administrators of Lalibela is providing adequate infrastructure to meet the needs of visitors, while at the same time providing sufficient measures of protection both to ensure the safety of visitors during their stay while preventing damage to the site itself. Some of these needs are common to all visitors. Everyone visiting Lalibela requires adequate means to get there; the ability to safely navigate to a desired part of the site; and facilities to accommodate waste and meet other basic needs. Some visitors require additional amenities such as lodging, meals, and souvenir shops. However, it is also clear that infrastructural for foreign tourists may not always meet the needs of religious pilgrims and vice versa. For instance, many pilgrims prefer to camp on site during holidays such as Christmas and Epiphany, whereas almost all foreign tourists stay in hotels. To ensure the sustainable development of the site and town, administrators in Lalibela must find creative solutions to meet the disparate needs of both groups.

Data supporting this visitor infrastructure survey was collected over the course of two days, with four field teams recording aspects of the infrastructure using a digital survey developed in Kobotoolbox in a manner similar to the surveys described in the previous section. In addition to descriptive data, the survey team registered GPS coordinates for each feature using handheld GPS devices and took photographs of each feature using the camera on the tablet.

In total, 573 features were recorded, presenting a snapshot of the visitor infrastructure currently in place. Some of the facilities, such as the tukuls, have been a part of the site for decades but have been subjected to recent change. Others, including the signage and waste bins, are fresh additions to the site, part of the World Bank project for tourism development. Still others, such as the nearby hotels, are the result of private enterprise and are evolving rapidly.

Transportation

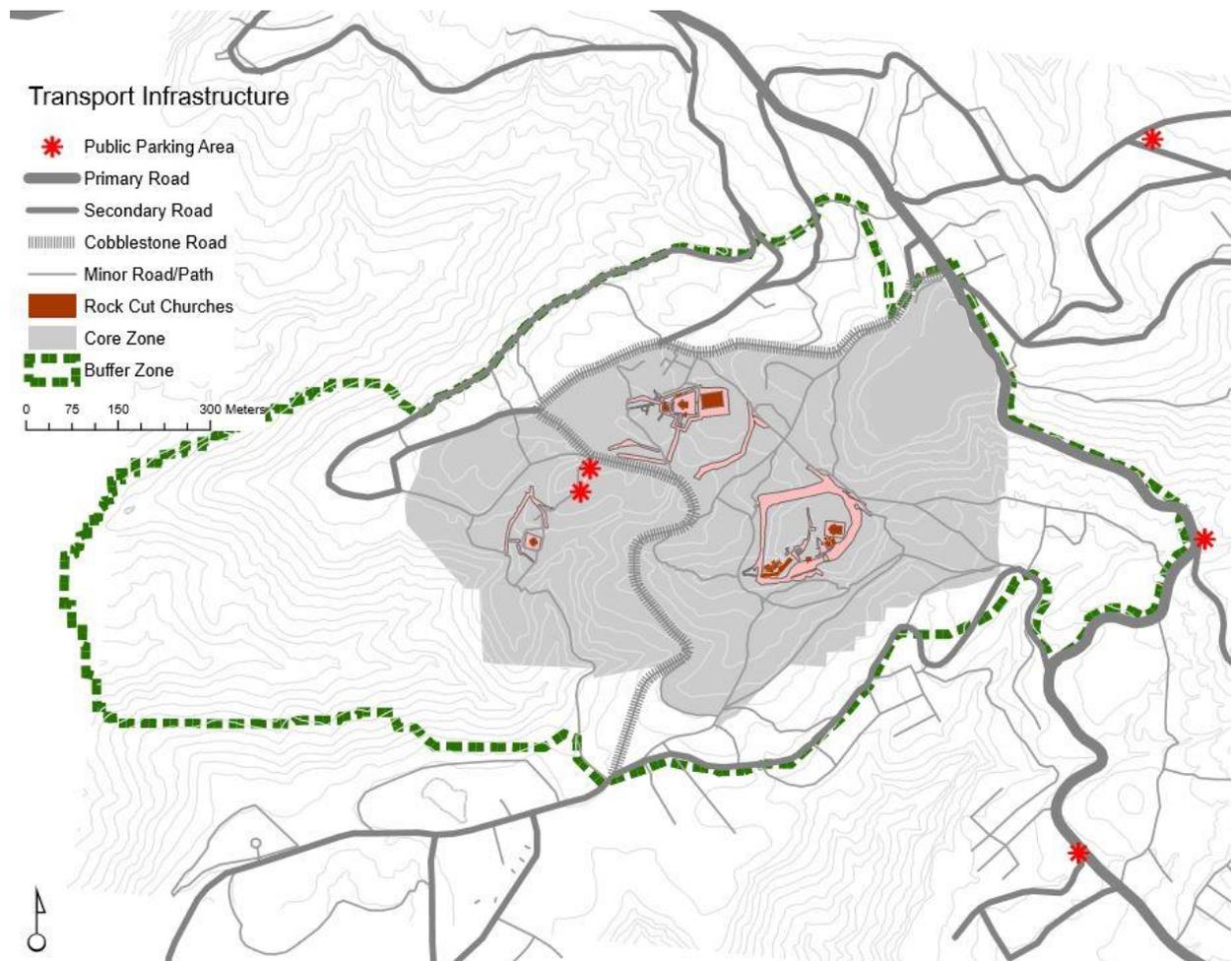
Given the nearly 700km that separate Lalibela from Addis Ababa, many visitors arrive through the airport in Lalibela. This is located about 20 km south of town, and at the time of the field survey, the road was being upgraded by the Chinese.

A bus station in town provides regular service to nearby cities such as Dese and Bahir Dar. At times of religious holidays, particularly Christmas and Epiphany, the local football fields are converted into parking lots for the many busses carrying pilgrims.

Once in Lalibela, three-wheel bajaj (tuk-tuk) motor carriages are available for hire and offer a convenient alternative to walking. Recollection of locals suggest that the bajaj are relatively new additions to the site, having arrived as recently as two years ago. They are privately owned and operated, have the capacity for three or four passengers, and their fares are subject to negotiation. Despite their relatively recent arrival, there are many of them in use, suggesting that they have quickly become an indispensable feature of the town.

More generally, choices have been made about the type of traffic permitted on certain roads adjacent to the site. The primary road serves through traffic, including large trucks. The cobblestone roads, part of the World Bank improvement project, are intended for pedestrians and smaller vehicles. Portion of the cobble stone road has been closed to any vehicle larger than a bajaj.

There are no public or mass transit options for local service. For those wishing to travel from the southern extent of town to its center (approx. 3km), there is no choice but to hire a bajaj or walk. Based on the significant quantity of pedestrians seen walking along the primary road, many carrying loads, it may be that the typical 30 birr fare for a bajaj is too expensive for frequent use. Many religious pilgrims prefer to walk to the site, even if this journey takes them weeks or months to complete.



Site Access and Security

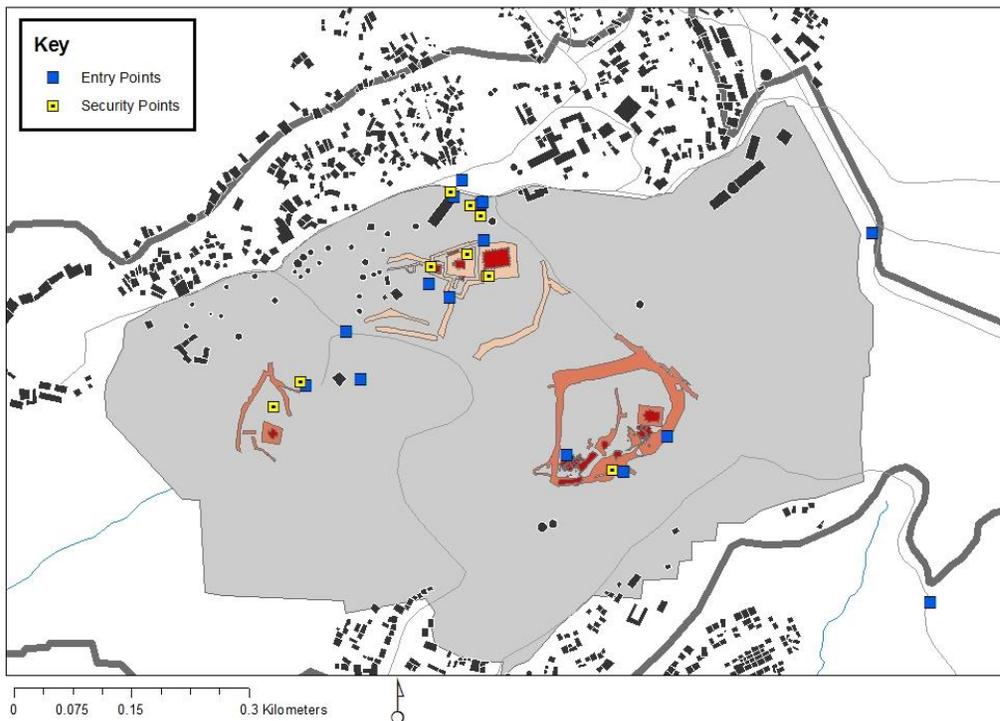
While the primary entrance and ticket office are located in Meskel Square, there are a number of additional entrances to the site that see frequent use. Members of the community and pilgrims pass freely into the site. Ethiopian visitors who come at times and for reasons other than religious pilgrimage are required to take a ticket at the ticket office but do not pay for admission. The admission tickets that foreigners buy for \$50 is valid for up to four days on site.

The site is open to visitors every day for six hours, from 9am-12pm and from 2pm-5pm. Church officials open and close the churches themselves, and guards also help enforce these time limits and sound a bell on the top of a hill located centrally on site, notifying every one of the site's closing. Outside of these official visiting hours, the churches are frequently open for religious services and the site is in nearly continuous use by the local community.

A series of low walls and steep hills prevent casual access to many parts of the site. Nevertheless, since Lalibela recently had a large community living within the core site, there are many path ways and points of entry that provide access and that remain in constant use. People living in Lalibela pass through the site, sometimes multiple times a day, to get to the other side of town. Guards are posted at a number of prominent locations throughout the site, keeping a watchful eye on the monuments while at the same time verifying that foreign visitors have a purchased a ticket at the main entrance.

Lapses in security have occurred previously. In at least one instance, a church relic in the form of a cross was stolen from inside of a church and was rediscovered on the art market in Belgium. This object was recently repatriated to Lalibela, and is again in use.

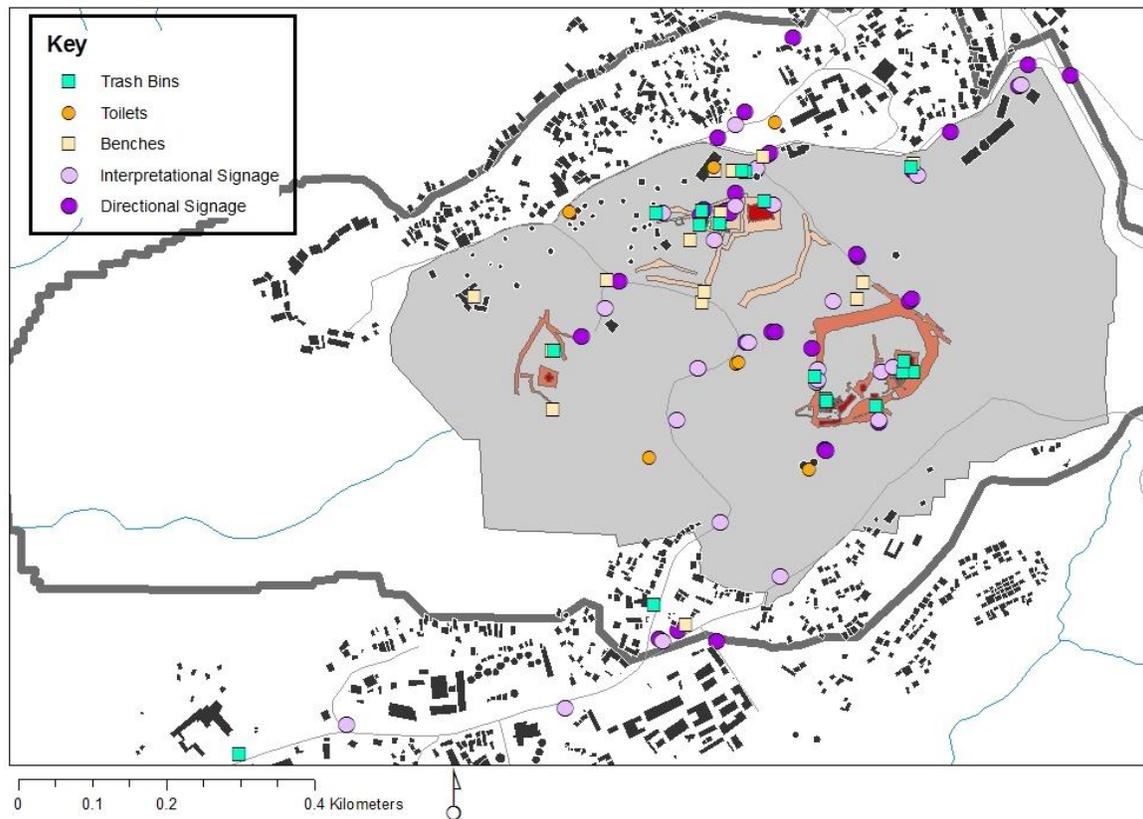
Points of Entry and Security



Basic Infrastructure on Site

During the course of the recent World Bank sponsored campaign to assist Lalibela in tourism development, many facilities were installed in the core site to meet the basic needs of visitors. Toilet facilities are evenly spread throughout the site. Trash bins are clustered prominently around the churches themselves. Signage is found along the main corridors throughout the site. Benches are often associated with prominent vantage points or prior to entry points for the churches, logical places to pause and rest.

Facilities for Visitors



Relatively little time has elapsed since the end of the project financed by the World Bank, which came to a close in 2015. However, much of the basic infrastructure installed during the course of this project has not been maintained and is already in a state of disrepair. Past a certain threshold, the degraded aspects of the infrastructure actively detract from the site rather than simply failing to fulfill their intended purpose. On the basis of the responses to the preliminary user survey, it is worth noting that the toilet facilities and signage were mentioned most frequently as the aspects of the site needing improvement. Nevertheless, more than half of both the local and non-local users interviewed during this survey self-identified as “very satisfied” or “satisfied” with the state of visitor facilities on site.



Additional Amenities

Providing goods and services to visitors is one of the primary ways in which residents of Lalibela benefit from the site. Over one hundred stores on or near the site have been built for visitors, suggesting the vital role that the churches play in the economy of the town. Approximately 60% of the non-local respondents to the visitor survey had already or intended to do some shopping in town.

The shops intended for visitors are clustered in two primary areas, one along the road that leads to Meskel Square and the primary entrance to the site, and the other along Honey Street leading to a number of hotels and the Cultural Center. A third cluster that is less well developed is found near the Cliff Edge Hotel in the northern part of town. Broadly speaking, the cluster near the entrance of the site is the most diverse, meeting the needs of both residents and visitors alike because of its position on a prime commercial corridor. The shops in the other two clusters tend to be more oriented towards selling goods only to visitors.

In general, there are relatively few tour operators providing options for those wishing to explore sites beyond Lalibela itself, though those that do exist lead trekking expeditions in the surrounding mountains, as well as guided tours of other nearby sites such as Yimrehana Kristos Church. Dedicated internet cafes are also relatively uncommon, and the internet provided at restaurants and hotels is relatively slow and unreliable.

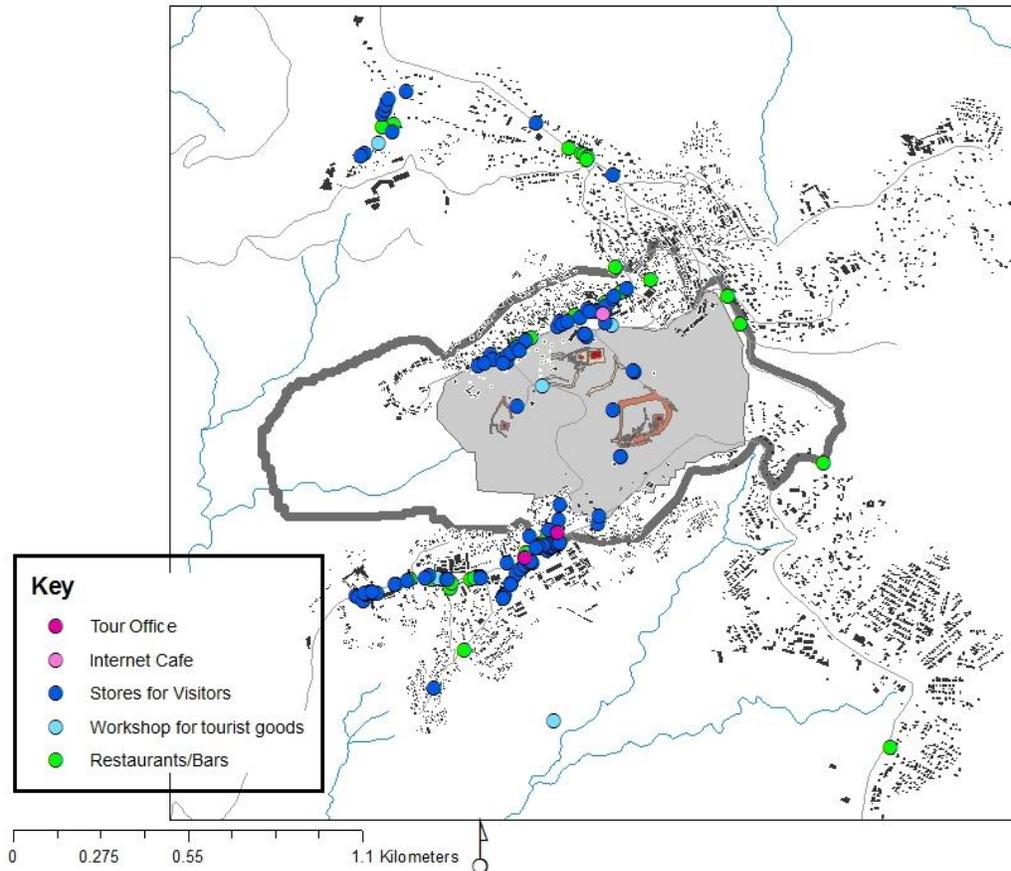
Nearly half of the stores (45) are within the buffer zone of the site as defined by ARCCH, and a further 13 are inside of the core site. The “Church schools” within the site often seem to have commercial activity attached, like painting small leather vignettes for sale to visitors. The process by which vendors apply for or receive concessions to operate within the site remains to be explored. Aside for these “workshops” at the Church schools, relatively few locales actually producing the goods for sale were in evidence. The supply chain, particularly for tourist goods, also remains to be explored.



At the time of our visit, many of the pavilions inside of the core site intended to accommodate tourist-oriented shops were closed, as were a number of shops near the Bete Abraham Hotel. This may be attributed to the fact that the rainy season is known for relatively low tourist numbers, and the shops remained closed as their owners and staff worked other jobs. Data collection at a different time of year may reveal substantively different economic activity on site.

Independent restaurants and bars exist in large number (46), fueled by strong demand. More than half (63%) of non-local visitors interviewed said that they had or intended to eat or drink at an establishment other than a hotel. They are distributed relatively evenly in the same zones as the stores described above, with one notable exception: there are a number of restaurants/bars scattered along the main road that passes through town and heads south towards the airport.

Nearby Vendors



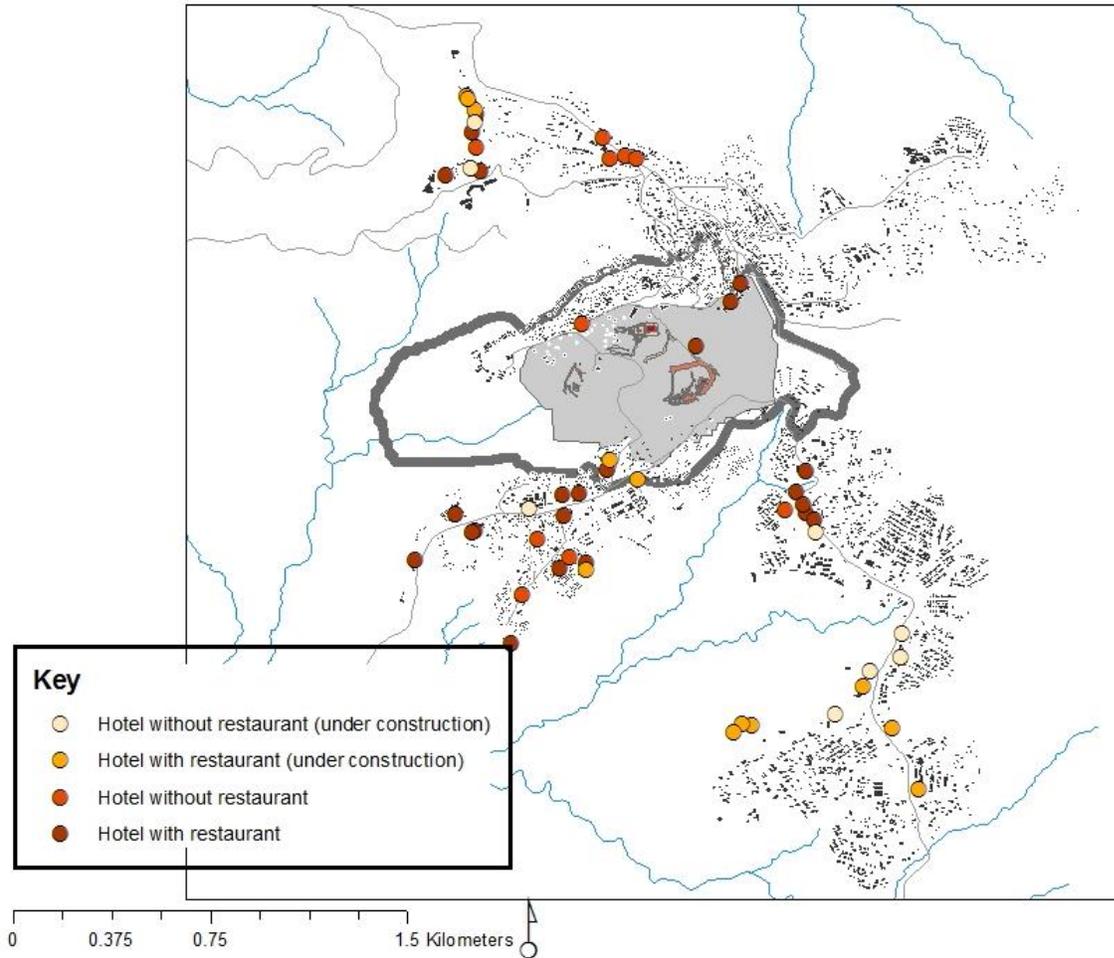
The most evident change in existing visitor infrastructure relates to lodging. Hotels are currently being built at a rapid pace in Lalibela. Out of the 51 hotels recorded in town, 20 were under construction at the time of this survey. An estimate by the local tourism board about the total number of lodging was notably low; it seems that even local officials struggle to stay abreast of these swift developments.

There are three prominent clusters of hotels already in existence: one in the north (including the Cliff Edge, the Lalibela Lodge, and the Mountain View), one in the southwest (including the Roha Hotel, the Bete Abraham, and Tukul Village), and one in the southeast (including the Sissay Hotel, and Abay Hotel). The first two clusters cater primarily to international travelers, whereas the third group benefits from its close proximity to the bus station. There are new hotels under construction in all three of these clusters.

The new hotel development will lead to the creation of a fourth cluster of lodging, further to the south along the airport road. Currently, there are relatively few existing services in this part of town, and since this zone lies more than 2km away from the core site, it is probably beyond the distance that the typical visitor will wish to walk. Ensuring that there are adequate visitor services available in this new hotel cluster will be vital to its success.

Out of all of the hotels, both those already in existence and those under construction, more than 75% of them have or will have a restaurant attached. Hotel owners seem to strive to create inclusive experiences for their guests.

Hotels in Lalibela



Infrastructural Challenges

Several long term infrastructural challenges confront current and future administrators of Lalibela:

1. They will need to marshal existing resources and secure new ones in order to maintain existing infrastructure on site, otherwise much of the World Bank's investment will have been in vain.
2. They will need to plan for growth, since the population of the town continues to increase and the urban footprint has been expanding rapidly, and city services must be maintained and in some cases, new services instituted as the city limit expands beyond the range of easy walking distance. According to officials in the Lalibela planning office, the last master plan for the town was created in 2009, and did not include any special consideration for the heritage resources of the town. Now that these resources have been singled out as the basis for sustainable development for the town in the course of the World Bank project, plans for growth must provide special accommodation for the churches and surrounding landscape.
3. Tourism, like any industry, is subject to macroeconomic cycles and also particularly prone to the effects of regional political change. While foreign tourist numbers have been steadily growing at

Lalibela, these numbers will potentially vary widely in the future. Unfettered speculative development, particularly developments that are predicated on foreign visitors, may result in a town that suddenly crashes with a downturn in the tourist market. The most dependable visitors will always be the domestic religious pilgrims, a group that also continues to grow as more Ethiopians enjoy the disposable time and income allowing them to undertake such a pilgrimage. In conjunction with building new hotels and restaurants catering to foreigners, the administration of the site and town must continue to prioritize the needs of pilgrims.

MANAGEMENT CONTEXT

The management of Lalibela presents significant challenges as both an active site for religious activities and a tourism destination. The following analysis seeks to provide insight into the management context of Lalibela so as to identify opportunities and challenges. It is based on the user/visitor surveys, observations on site and around the town of Lalibela, meetings with local authorities and church officials, and available plans and literature.

Cultural Heritage Management

Churches and Shelters

- The visual effect of the site is significantly altered due to the introduction of the shelters, which obstruct views and religious experiences.
- Church officials, local authorities, and local users all expressed safety concerns regarding the shelters. There is a pervasive idea that the shelters were only meant to be in place for a few years and have outlasted their projected longevity.
- Observations and discussions with users suggest that there are physical concerns with the shelters and their impact on the churches. For example, the shelter over Biete Abba Libanos is not covering the Rock cut church fully and the shelter is leaking. Earlier conservation interventions cause some damage to the rock cut churches. The shelter fabric over the church of St Mary, at the northern corner is detached from the steel structure at the north corner. There is concern that the shelter structures may damage underground passageways at Biete Amanuel and Biete Mariam (Selasie Chapel).



Landscape

- The landscape is an important element of Lalibela that is not effectively managed or interpreted. 3D topographic models should be made to provide a more effective management/interpretation tool.
- Plants and grasses are grown irregularly and without clear design or purpose. Some grow close to the churches and the expansion of their root systems may eventually threaten the churches themselves.
- Trees inside the river Jordan are planted with little attention to landscape design and selection of indigenous species.
- Insufficient garbage collection and management in the core area is creating negative impacts on the landscape.



Processional Stops

- During the epiphany celebrations yearly on January 19, arcs of the covenant from all the rock cut churches, accompanied by local Orthodox Christians and pilgrims, are moved to epiphany square for the night. The next day, these arcs are taken back to their specific churches. On their return, there is a special celebration and chanting by the priests and the locals. There are also seven known stops where chanting and prayers are undertaken while upon return. Among these seven stops, site interpretation (specifically signage) is presented at the 2nd, 5th, 6th and 7th stops,



Pathways, Circulation, and Trenches

- Circulation within and around the core area is largely achieved through pathways and the original trenches created during the excavation of the churches.
- Pavements are of varying types and materials, including dressed red stone, cobble stone, combinations of red stone and earth (developed by the World Bank ESTDP project, some of which is already deteriorating), as well as natural paths forged by the local community. Some interventions seem well integrated with the landscape and churches, while others are more prevalent.



Tukuls (Gojo) Houses

- After the resettlement of residents and businesses from the core area, the traditional tukul houses in the core are were abandoned without any clear plans for conservation or adaptive reuse.
- A few tukuls are adaptively reused *ad hoc* as a traditional church school, teacher's residence, students' dormitory, and traditional icon painting studios around Biete Giorghis church.
- Some tukuls are damaged and some are in a critically poor condition.



Signage

Two types of signage are in use in the core area and buffer zone: interpretive and directional. Interpretive signage provides information about the history and use of Lalibela, while directional signage assists visitors with navigation around the site.

- Most signs are written only in English. Local users expressed their preference to have signage in the local language (Amharic) and additional foreign languages, so as to help both local and nonlocal users.
- Some signage is not properly fixed, points to the wrong direction, or directs to non-existent facilities (such as toilets).



Toilet Facilities

Toilet facilities for both local and foreign users have been constructed in the core area, as modern adaptations of the traditional tukuls. However, most were locked during the team's fieldwork. As per discussion with the Lalibela Culture and Tourism officials, Management of these facilities are arranged are supposed to be given to youth cooperatives as part of a job creation system. Nuns who are living inside the core area expressed their difficulties in accessing toilet facilities, as they are cloistered.



Building Regulation

While meetings with municipal officials confirmed that there are regulations regarding building height and character, current development practice suggests that resources for implementation may be insufficient. Per discussions with municipal officials, regulations are as follow:

- Within the World heritage site core and buffer zones, construction is restricted to a maximum height of maximum of G+1.
- Outside the core and buffer zone, maximum height is G+ 4.



New housing cooperatives on the outskirts of town have followed plot and construction guidelines outlined by the 2009 Structural Plan (see below), utilizing standardized designs and materials.



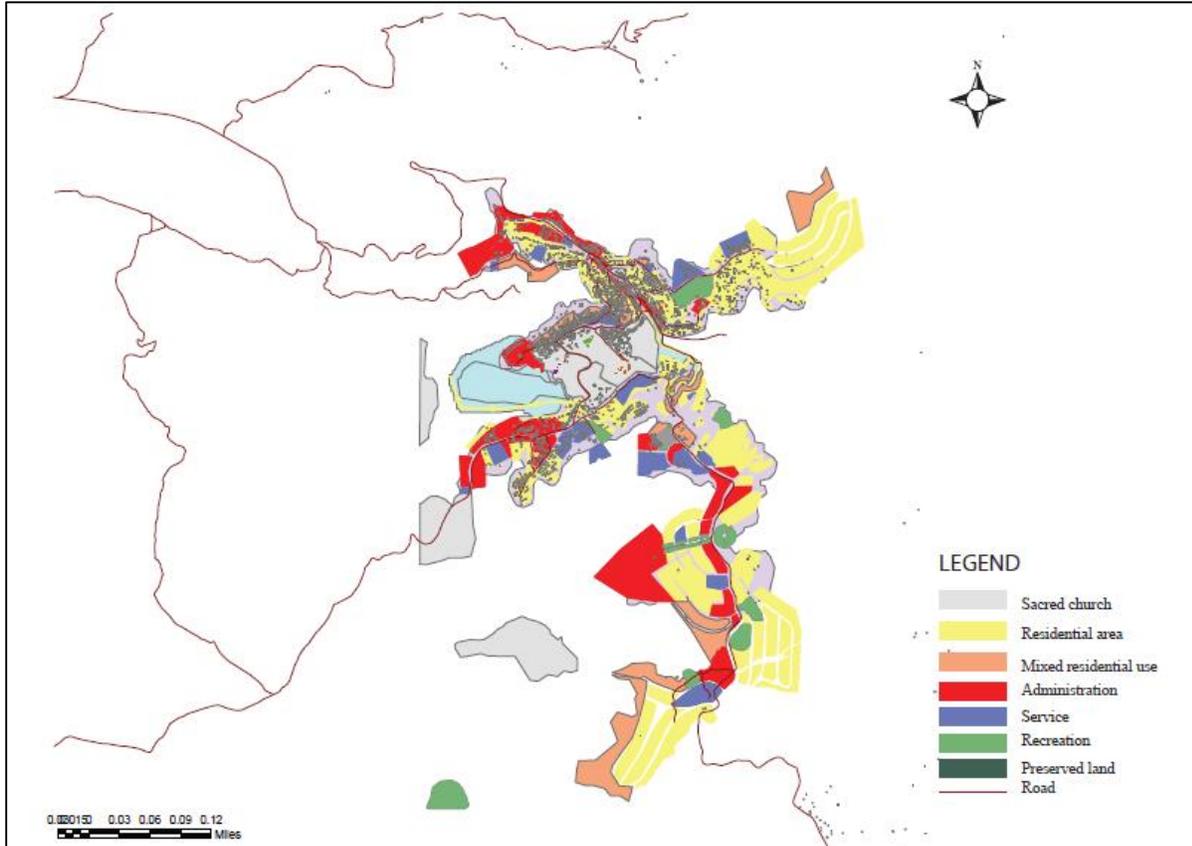
Every structure is required to have its own septic tank in order to obtain a construction permit, as there is no centralized sewage management in Lalibela.

Land Use Planning and Regulation

In the time of King Lalibela, all of the landscape known as Debre Roha was restricted for religious purposes only. Even King Lalibela himself lived at Mekane Le'ilt within a tent (on the western part of holy city). Gradually the church compound and the two-storied Lasta houses (tukuls/gojos) developed and were occupied by priests and clergy employed by the Church, and later by other residents. However, the

families previously living within the core area of the World Heritage site have subsequently been resettled to a southern area of the town.

In 2009 a Structural Plan for Lalibela was developed by WuB consulting, under the authority of the Amhara National Regional State Planning Institute. The plan is due for revision in 2019. A simplified version of the plan appears below:



While the plan suggest some primary uses in various areas, most of Lalibela demonstrates highly mixed land use and limited regulation.

Commercial activities within Lalibela are centered in the open markets, but there are small shops scattered along most of the major thoroughfares.



Traditional, modern, and informal housing can be found throughout Lalibela.



Open spaces in Lalibela are fairly limited. The most prominent open space is in front of the main gate of the world heritage site and is dedicated for the Meskel celebration. It is named Meskel Adbabay (Meskel square). Some of the more informal open spaces within the urban fabric are used for street side markets.



Community Development and Services

A primary aim of the 2013 Management Plan was “community partnership in the tourism activities and in a wider stakeholder network alongside a streamlined revenue sharing program focused on community projects and development; benefit distribution, capacity building, as well as implementation strategies and fundraising programs.” In terms of community facilities and infrastructure, Lalibela confronts a number of challenges:

Roads and Transportation

The World Bank-supported project provided paved roadways, with project completion in 2015. They are viewed as a positive change by the community, though maintenance is already problematic.



A bus facility exists in town for the arrival and departure of buses to other parts of Ethiopia, but it is not well connected to or supported by related businesses and services. There are no local buses, and walking is the primary mode of transportation in Lalibela. The paving of roads brought the introduction of tuk-tuks (bijaj), small three-wheeled motorized vehicles that serve as shared taxis.



Health and Sanitation

Health and sanitation remain a priority in Lalibela. There are both public and private healthcare facilities, but these and other services are stretched during pilgrimage seasons, despite public awareness efforts by the health center in preparation for Christmas and the Epiphany.

Around the core area, water is provided via a municipal supply line for the community and clergy. Additional water tanks supply water during pilgrimage times.



As discussed previously, waste management is an issue and facilities for disposal are too few within and around the core.

Capacity Building

The Church generates income from charging entrance fees of US\$50 to foreign visitors, and also through the church-owned hotels. Accordingly the churches contribute to community development in a variety of ways, including loans of ETB 7,000,000.00 to micro and small enterprises for community business development, the establishment of care facilities for the elderly and the needy, the construction of school facilities, etc. The three church-owned hotels also provide jobs and related business opportunities for the local community. However, these community contributions by the Church are not well communicated.

The Office of Culture and Tourism and the World Bank-supported Ethiopian Sustainable Tourism Development Project (ESTDP) are organizing youth in cooperatives, especially those who were resettled from the core, and providing training in job skills, such as tour guides, bakers, mule renters, retailers, etc. (64) and created job opportunity. In addition to training and public awareness creation, they are also providing facilities to support business growth, including kiosks constructed by ESTDP for the local community craft marketplace, which is not yet operational.

Tourism Management

As noted previously, the number of both domestic and international tourists has grown significantly in recent years, along with the number of local users of the churches. In tandem, these factors have created new needs and opportunities for both the church and the community, as well as for nonlocal visitors. These include physical improvement of facilities on site, improved site maintenance and presentation, potential development of additional cultural activities to enhance Lalibela as a destination, and the capacity building of professions.

Facilities within the Core

The recently constructed toilets are distributed in the core area and are intended to be used by both the local residents and tourists (for a fee), but were not operational during the team’s fieldwork.



Resting places and open spaces are evenly distributed in the church compound, it has been seen that they are in need of proper maintenance.



A ticket office for the church compound, constructed as a part of the ESTDP project, is located at the main entrance at Meskel Square. The location of this office together with the main entrance confuses the narrative of the site’s history and creates a confusing route of circulation. The ticket office itself is not clearly visible.

A series of shaded kiosks are located in and out of the church compound constructed by ARCCH. They are not in service at the time this survey is being conducted.



Facilities outside the Core

The merchant community seems to be very vibrant in and outside of the core area. A variety of shops with distinct characters populate Lalibela. They vary from formal shops and micro-business establishments, to informal vending and home-based business.



As the number of the tourists traveling domestically and internationally has increased, the construction of new accommodations has likewise increased in Lalibela, including hotels, hostels, and guesthouses. The demand for restaurants has grown in parallel. Suggestions of community-based tourism in the buffer area has been raised as an opportunity for the repurposing of the tukuls (gojos). However, there is no clear sense of the number of beds available or in development, whether there are critical locales for developing accommodations within Lalibela, or whether there is a long-term target for capacity to optimize opportunity without degrading the touristic experience and community well-being.



During Christmas and Epiphany, open spaces in the town become camping fields. Tens of thousands of pilgrims will occupy any free space and become a part of the landscape itself.

Other services have been introduced in Lalibela, including ATMs (limited) and phone booths (not in service).

Alternate Tourist Attractions

Per discussions with local officials, more opportunities for other tourism businesses are encouraged, so as to lengthen the stay of visitors and expand their experience beyond the churches. They include arts and crafts establishments, outdoor activities, traditional dining and drinking, build-up of institutional facilities such as museums and religious-cultural centers, etc. A new project commissioned by the national authorities – a honey museum – aims to have a positive impact on the dynamics of the local tourism economy and community development.



Education and Employment

The need for tourism-related professionals and institutions to provide education and certification has increased with the rise in visitors. Tour guides, especially, have become popular in the community, most of whom have been trained and certificated by the Office of Culture and Tourism in collaboration with ESTDP. A school for technical and vocational studies dedicated in tourism and hotel management was established in Lalibela, but more opportunities are needed, especially to ensure gender equality in the access to tourism-related economic development.

Stakeholders

As outlined in the *2013 Management Plan*, there is a wide range of stakeholders involved in the management and use of the Rock-hewn churches, the surrounding landscape, and the entire town of Lalibela. They have varying degrees of power and responsibility, but all have a direct interest in the long-term stewardship and sustainable development of Lalibela.

- International development organizations, Including the World Bank
- International conservation organizations, including UNESCO and World Monuments Fund
- Ethiopian National and Regional government, including the Authority for Research and Conservation of Cultural Heritage (ARCCH), the Amhara National Regional State Planning Institute, the Amhara National Regional State Bureau of Culture and Tourism
- Ethiopian Orthodox Tewahido Church and Lalibela Church Administration
- Lalibela Municipal government, including the Lalibela City Mayor's Office, Culture and Tourism Office, Lalibela Town Administration Office
- Local communities
- Investors
- Pilgrims
- Nonlocal visitors
- Scholars, researchers, and students

The above have complex and often unclear relationships related to the planning and management of Lalibela. While the *Management Plan* provides an important basis for shared responsibility, creating an operational system of communication and management is critical for Lalibela's future.

KEY FINDINGS

The Rock-hewn Churches of Lalibela are first and foremost a place of religious activity and pilgrimage. Its spiritual and community values, represented through its physical structures and landscape, are what fundamentally make Lalibela an important heritage resource and tourism destination. Balancing the interests of different users, from local community members to foreign tourists, presents significant challenges, but at the same time affords opportunities to maximize the benefits that Lalibela can provide to a range of stakeholders. These challenges and opportunities in mind, the team identified the following key findings as areas ripe for further investigation and development:

Visualization/Spatialization of Values

The diverse values of Lalibela are not easily understood within the core area and surrounding landscape. Additional mapping and possible 3D visualizations are needed to better represent significant view sheds and vantage points, processional and circulation routes, character-defining features, and the relationship of the World Heritage site to surrounding/regional historic sites and religious landscapes. Such mapping or visualization can facilitate protection of the sites values and character-defining features, and can allow for better integration of these features and their protection in town and regional planning.

Site and Landscape Management

The core of World Heritage Site represents the most sensitive area of Lalibela, one that has changed dramatically since the resettlement of residents and businesses in recent years. That resettlement has removed commercial and other non-religious activities from the areas adjacent to the churches, but has also changed the way in which both church servants and religious observers use and care for the site. It has also altered the overall physical context of the churches within their landscape given the removal of buildings and the opening of new corridors and views. All of these changes prompt consideration of the following:

- conservation, adaptive reuse, and ongoing maintenance of the tukuls;
- enhanced interpretation of the overall site, through signage, maps and brochures, museum access, etc.;
- enhanced interpretation and management of the natural landscape surrounding the churches, to restore historic vegetation and renew the role of the spiritual forest/landscape in relation to the churches;
- enhanced navigational planning and directional signage, to better develop entry points and circulation throughout the compound; and
- the social, religious, physical, and aesthetic effects of the shelters, which are viewed negatively by local users and visitors alike.

Land Use Planning and Sustainable Development

Several factors have altered the landscape of Lalibela significantly in recent years, including population growth, increased tourism, and the resettlement of residents and businesses from the core area of the World Heritage site. The existing land use plan for Lalibela was developed in 1999 and is due for revision in 2019. This presents an important opportunity for:

- better incorporating heritage values into land use decision-making;
- expanding the use of zoning and building regulations to manage new development, to preserve/adapt traditional building techniques and materials, and to protect landscapes (including heritage areas and farmland), while also allowing for growth;
- addressing transportation and access issues (especially for those residents who were resettled, to ensure their continued connection to the churches); and

- strategically planning the location and development of tourism infrastructure and related businesses (especially near the bus station and axis toward town).

Visitor/User Management and Infrastructure

While generally there is satisfaction with the spiritual, cultural, and educational aspects of site on the part of local users and nonlocal visitors, there is a need to improve the management of and infrastructure for visitors – both on site and within the town -- so as to accommodate pilgrimage and tourism, as well as daily religious use. The following are seen as priorities:

- better data collection and analysis regarding visitation and tourism infrastructure, such statistics on hotels/beds, pilgrim numbers, etc.;
- improved planning for tourism development (see Land Use above);
- improved facilities for and coordination of pilgrims during high holy days (especially Christmas);
- improved facilities for those working and living in the core area of the site, so as to provide basic services/quality of life while also protecting sacredness; and
- enhanced coordination among national, regional and local authorities, church officials, and private owners/developers in developing the visitor infrastructure of Lalibela.

Communication and Coordination

There are gaps in communication among stakeholders regarding the maintenance of the churches and the surrounding heritage resources/landscape. While the *2013 Management Plan* provides a very good basis for integrated management, further coordination, allocation of responsibilities, and collective visioning are needed to ensure integrated destination management that serves the local community and nonlocal visitors alike.

BIBLIOGRAPHY

The Authority for Research and Conservation of Cultural Heritage (ARCCH). *A Management Plan for the Rock-hewn Churches of Lalibela World Heritage Site*, 2013.

Bridonneau, Marie. Déplacer au nom de la sauvegarde patrimoniale et du développement économique? Analyse multiscalaire du programme de resettlement à Lalibela (Éthiopie), *L'Espace Politique*, 22, 2014.

Bridonneau, Marie, Duroyaume Perrine, and Bosredon Pauline. On the way to a new urban Ethiopia? Analysis of a radical construction of Ethiopian cities. *Annales d'Ethiopie*. Volume 27, 2012. pp. 327-330.

International Fund for Monuments (IFM). *Lalibela – Phase I* (1967 project report).

Mercier, Jacques, and Claude Lepage. 2012. *Lalibela: Christian Art of Ethiopia, The Monolithic Churches and Their Treasures*. London: Paul Holberton Publishing.

Negussie, Elene and Getu Assefa Wondimu. Managing World Heritage sites as a tool for development in Ethiopia: the need for sustainable tourism in Lalibela, in *Community Development through World Heritage* (eds. M.-T. Albert, M. Richon, M. J. Viñals and A. Witcomb). Paris: UNESCO, 2012, pp. 93 – 99.

UNESCO 2010 Mission Report, Earthen Architecture on the Lalibela World Heritage Site.

World Bank. *Ethiopia - In Makeda's Footsteps: Towards a Strategy for Pro-Poor Tourism Development*. Washington, DC: World Bank, 2006.

World Bank Project Information Document (PID) Concept Stage, Report no. AB358 (2008).

World Bank Ethiopian Sustainable Tourism Development Project (ESTDP), Resettlement Policy Framework & RFP (2009).

World Bank Resettlement Project Reports, Volumes 1, 4, and 5.

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