



Department of Construction and Architecture Division of Architectural Conservation and Restoration

Swedish International Development Cooperation Agency

Conservation of Teferi House As A Museum

A Project Proposal for Rehabilitation of the Teferi House that will have new function after maintenance and modifications

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Abstract

The Teferi House is one of the most important landmark buildings in the Old Town of Harar, which is inscribed in the world hweritag list since 2006.

This important building, has been over utilized never maintained in its entire life. The decay of this building with its associated buildings, is endangering the importance of the whole of old town.

This paper analyze the present situation of the building, the causes and the necessary treatment and financial plans. It also come up with a suggestion of new use for the building after rehabilitation.

Chapter One: Background

Harar

The world heritage Site of Old Town Harar was one of those "ultimate destinations", like Timbuktu and Mecca, whose dangers and inaccessibility, both physical and cultural, fascinated European explorers, for many centuries. It had been at its most powerful in the sixteenth century when its ruler overran much of Ethiopia and was only defeated by a Portuguese intervention on behalf of the Christian king. The city is now is endowed with so many built heritage that become a magnate for tourism.

At the moment Harar seems to be getting the worst of both worlds – modern rubbish and intrusive developments together with historic decay. The many gems within the old town are decaying, as there is increasing degradation of monuments, which is endangering the importance of the whole of old town.

Chapter Two: Existing Situation

2.1 History of the Teferi Building

Teferi site which contains two story buildings and two raw houses is located almost 150 meters away to south-east from chelenko square. Its delineated area is around 1328 m2.



Fig 2.1 Location of Teferi House in the Old Town (shown in red dot)

The building has already been identified by Regional State Heritage Conservation Office for as a monument.



Fig 2.2 The Teferi House

The house is built at the turn of the 20th century. The wood work of this house has much resemblance with that of Rimbaud's House (the French poet who lived in Harar around 1900). It is probable both houses are built by same architect. An inscription written on the front door reads 1911, indicating the year of construction. Imran AbdAllah



Fig 2.3 The Rimbaud House, which has many resemblance with TH, is Maintained in 2000

The historic significance of the house is that the last emperor of Ethiopia has spent his juvenile time here. During the Italian occupation of Ethiopia, the house was used as branch office for BESS Export and Transport Company. After the 1974 socialist revolution, the house is nationalized and was rented for poor town dwellers, who couldn't afford to maintain it while using it for the last thirty (30) years.

2.2 The present situation of the Buildings

For the Last 100 years this historical building has never received any maintenance, whereby the word entails routine, cyclical, nondestructive actions necessary to slow the deterioration of a historic place. The building in its long years of service has never been handled with periodic inspection, non-destructive cleaning or minor repair, replacement of damaged or deteriorated materials that are impractical to save.

The current housing condition of this building is bad because of over utilization and lack of repair. My study show that restoration work of Teferi house needs rehabilitation work on foundation, wall, roofs, wood works, ceilings, glazing, site work, electrical installation and latrines

2.3 Guidelines for Teferi Houses Conservation Work

In order to achieve a success in the conservation project for Teferi House, I propose we follow the following five (5) steps

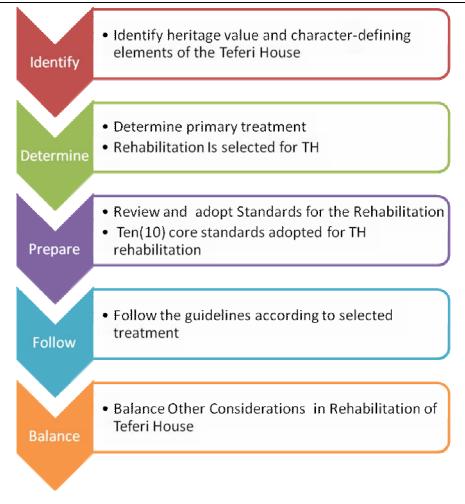


Fig. 2.4. The basic steps to be followed in the restoration of Teferi House

2.3.1: Identification of the Heritage Value & Character-defining

Elements of Teferi House

A concept that permeates this project proposal is a respect for heritage value and character-defining elements. The Teferi house's heritage value and character-defining elements are already identified when it is formally recognized by The Federal State of Ethiopia as the whole Old Town of Harar where the building located was registered as A World Heritage Site.

As the first and absolutely essential step in any project is to identify and describe the elements that are important in defining the overall heritage value of the historic place, I explain here why the building is significant

The materials, forms, location, spatial configurations, uses and cultural associations for meanings that contribute to the heritage value of the historic Teferi House which must be retained in order to preserve its heritage value is explained here.

2.3.2. Determining the Primary Treatment

While a conservation project may involve aspects of more than one of the three conservation treatments, it is truly beneficial to decide here during the planning stage whether the Teferi House Conservation Project is essentially Preservation, Rehabilitation or a Restoration project. A clear idea of the primary focus or objective of the project along with the heritage values of the historic place, from the outset, will contribute to the success of a consistent, coherent conservation project.

In preparing the project for Teferi house Rehabilitation is considered as the primary treatment because

- Repair or replacement of deteriorated features is necessary;
- Alterations or additions to the historic place are planned in order to accommodate a new function of museum
- There is no substantial physical and documentary or oral evidence to accurately carry out the work of restoration

The Teferi House Conservation Project involves the sensitive adaptation of the historic building for a compatible contemporary use (i.e. Museum), while protecting its heritage value. Thus we conclude the conservation will be that of Rehabilitation, which will be achieved through repairs, alterations and/or additions.

2.3.3. Review and adopt the Standards

The Standards, and the principles on which the standards are based, are central to the process of rehabilitating a historic place in a responsible and consistent manner. It is important, therefore, to review the Standards and the principles before getting into the Guidelines. Note that the Standards are interrelated; meaning that compliance with the Standards for each type of treatment means compliance with all of the Standards for that type of treatment, not just some of them.

The following 10 standards shall be adopted for the rehabilitation project of Teferi House.

- 1. Conserve the heritage value of the historic building. Do not remove, replace, or substantially alter its intact or repairable character-defining elements. Do not move a part of the historic building if its current location is a character-defining element.
- 2. Conserve heritage value by adopting an approach calling for minimal intervention.
- 3. Recognize the building as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties or by combining features of the same property that never coexisted. The building represents the so called Indianhouse style that is introduced to the country during the last two decades of 19th century. Just preserve that style.

- 4. Find a use for the historic building that requires minimal or no change to its character-defining elements. Various functions(i.e. hotel, school, office, accommodation and museum) has been considered and a museum is selected as it requires the least change.
- 5. Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.
- 6. Maintain character-defi ning elements on an ongoing basis. Repair character-defi ning elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of characterdefi ning elements, where there are surviving prototypes.
- 7. Make any intervention needed to preserve character-defi ning elements physically and visually compatible with the historic place, and identifiable upon close inspection. Document any intervention for future reference.
- 8. Repair rather than replace character-defi ning elements. Where character-defi ning elements are too severely deteriorated to repair, and where suffi cient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insuffi cient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.
- 9. Conserve the heritage value and character-defi ning elements when creating any new additions to a historic place or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
- 10. Create any new additions or related new construction so that the essential form and integrity o a historic place will not be impaired if the new work is removed in the future.

2.3.4. Follow the Guidelines for the Appropriate Resource Type

and Treatment

A thorough understanding of a historic building and its components is essential to good conservation practice. The better the understanding, the more likely heritage value will be respected. Thus, before any rehabilitation activity documenting, identifying, surveying and analyzing the form, materials and condition of the Teferi house shall be done. After an understanding of the historic place and its components has been developed and other applicable issues have been given consideration, the next step done is the following inspections.

2.3.5. Balance other Considerations

There also a need to balance other considerations like safety, heath and energy efficiency issues to be thought of with the rest of the conservation work.

Chapter Three: Situation Analysis and Proposed Treatments

3.1. External Wooden Features

Exterior wood features of the house such as siding, corner boards, brackets, columns, window and door surrounds or architraves, cornices, pediments and balustrades; and their paints, finishes and colors — that are important in defining the overall heritage value of the building are still many. The missing elements of these features are little.



Fig.3.1. The Exterior Wooden Features of the Teferi ouse House

These external wood features will be retained and persevered using standard preservation techniques and guidelines.



Fig.3.2. Painting done recently which is inappropriate

In an effort to document the form, type and color of coatings such as paint; and the condition of exterior wood features prior to beginning project work were done and it is found the coatings of the buildings are entirely lost. The present colors are recent inappropriate additions to the building by poor inhabitants that occupied the building for the last 40 years.

Regarding the paint it will be necessary to repaint the wood -if possible lacquer if not varnish. And the same white and blue paint on the internal and external walls as these are colors that are appropriate to the building and the old town.





Fig 3.3. The main front door is in a good condition.

Almost all part of the exterior wood surface is damaged. The parts that need cleaning rather than repainting are almost nil except that of the front door at the ground floor, which is in a good condition. Decorative wood elements especially are completely stripped of their paintings. Some are even cracked physically damaged. Conservation work in these wooden elements should be done by Removing damaged or deteriorated paint to the next sound layer using the gentlest method possible (scraping and sanding by hand), then repainting in kind. If hot-air guns are used it shall be used carefully. Destructive paint removal methods such as propane or butane torches, sandblasting or water-blasting shall be avoided.



Fig.3.4. Decorative Elements are missing or damaged in lots of places especially the first floor front features.

The first floor is the most damaged part. Insect infestations on some parts of the wood are seen on the first floor rooms and also on the outside part of the whole building.

The causes of infestations shall be treated immediately; vents needs to be opened, treating active infestations of insects by first identifying the type of insect and then implementing a program of elimination appropriate to that insect.



Fig.3.5. Insect infestation on the ceiling of the first floor

The water drainage structures are badly damaged. The gutters are leaking here and there. There are cracks and holes in sidings, piled up earth resting against the building and vents are closed. All these has created a problem in weathering.

What to be done, in this case is prevent water penetration and maintain proper drainage and re-moving piled up earth resting against the building and applying a chemical preservative treatments, to arrest dampness.



Fig.3.6. Piled up earthing against the building, and inappropriate water reservoir building works in the compound.

The first floor front feature where there are wooden features of cornice and balustrade are missing or highly damaged.

Columns, both on the ground and first floor are deteriorated. Cracks and structural weaknesses are witnessed. Nevertheless more scientific study beyond mere observation is needed to talk about the stability of the building. The capitals in the first floor are also in bad shape as shown in fig.

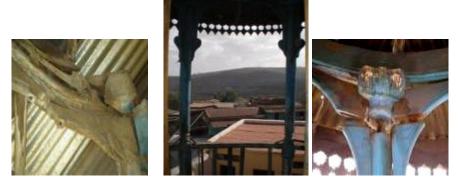


Fig.3.7. Columns and associated decorative elements are deteriorated

Some of the original doors are missing and already replaced by totally unacceptable iron doors.





Fig.3.8. In appropriate metal doors, which shall be removed

Extensively deteriorated or missing parts of all exterior wood elements shall be replaced in kind where there are surviving prototypes. The new work should match the old in form and detailing. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered. The metal doors which are alien to the house architectural style need to be removed and replaced by wooden doors. The new doors can be a new design that is compatible with the style, era and character of the historic place; or a replica based on physical and documentary evidence.

3.2. Masonry

The conditions of the masonry walls, door surrounds, pediments, and details of jointing, tooling, bonding patterns, coatings, color, and conditions of these elements are assessed and the summary is put here. The masonry wall is basically done with old techniques of using limestone and related earthen materials. The ground floor masonry is somewhat better than the first floor where the masonry is very dirty and soled caused by soot, graffiti and other factors. On some places it is even in pretty bad shape of crumbling away. Deteriorated Mortar joints, loose stones, damp walls or damaged plaster work are all over the building which is seen in many areas. Water I also penetrating the

building masonry in the back of the building, where it is creating a serious problem of dampness.



Fig 3.9. damages to the masonry from 1rst floor and ground floor accordingly.

What needs to be done regarding these problems with the masonry is cleaning it using recognized preservation methods and only when necessary to halt deterioration or remove heavy soiling and graffiti. Cleaning masonry surfaces shall be done using the gentlest method possible, such as low-pressure water and detergents, using natural bristle brushes.

The masonry walls and other masonry elements shall be repaired by re-pointing the mortar joints where there is evidence of deterioration such as disintegrating mortar, cracks in mortar joints, loose bricks, and damp walls or damaged plaster work. Mortar should be compatible in strength, porosity, absorption and vapor permeability with the existing masonry units. With regard to water percolation in the back of the house, we need to apply new or non-historic surface treatments such as proven water-repellent coatings to masonry after repointing repairs, Paint in many part of the building is deteriorated badly.



Fig.3.10. Deteriorated paint on different part of the house

Treatment of the paints on the wall will mainly include removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g., hand scraping) prior to repainting, repainting with colors that are historically appropriate to the building and the old town of Harar.

3.3. Architectural metal element

One of the first architectural metal elements that attract an attention is the claddings on the first floor which are deteriorated due to corrosion and extreme weathering where some are missing, but still beautiful enough to catch an eye.

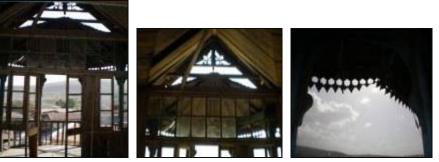


Fig 3.11. Iron claddings corroded and deteriorate To Protect and maintain the architectural metals of the cladding from corrosion, apply method that will prevent water penetration and by maintaining proper drainage so that water or organic matter does not stand on flat, horizontal surfaces or accumulate in curved, decorative features. Clean the metals, to remove corrosion prior to repainting or applying other appropriate protective coatings.

3.4. Roofing

The roof top is fully covered with corrugated iron sheets, which are still there but deteriorated lot. Some needs replacement as there is leakage, while others need just cleaning.



Fig.3.12. Roof top iron sheets are corroded Remedies will include cleaning and maintaining the gutters and downspouts and replacing deteriorated flashing in kind. Roof sheathing should also be checked for proper venting to prevent moisture condensation and water penetration; and to ensure that materials are free from insect infestation, There I also a need for provision of adequate anchorage for roofing material to guard against wind damage and moisture penetration.

3.5. Windows

The windows are all made of woods. The ones at the ground floor are in good shape, except in two windows there are small missing elements and dentures. But on the 1st floor the windows are damaged a lot. Woods damaged, glasses broken. Some windows are completely stripped of their glasses.



Fig.3.13. Windows are damaged, which needs a lot glazing work

To Protect and maintain the windows, the wood and architectural metals that comprise the window frames, sashes, and surrounds use appropriate treatments such as cleaning, rust removal, limited paint removal and re-application. Sound windows and window elements or deteriorated windows and window elements that can be repaired, shall be retained

Deteriorated windows and window elements shall be repaired and stabilized by structural reinforcement, weather protection, or correcting unsafe conditions, as required, until any additional work is undertaken. Repairs should be physically and visually compatible. window frames and sashes, will be repaired by patching, splicing, consolidating and reinforcing.

Extensively deteriorated or missing parts of windows will be replaced in kind, where there are surviving prototypes. The new work should match the old in form and detailing.

3.6. Entrances

Some of the entrances of Teferi House- the doors and stairs-which are important in defining the overall heritage value of the building are damaged, while the main entrance and associated decorations are in good conditions.

The stairs to the first floor, in the back of the main façade are in bad condition. (see the following fig.)

Conservation of Teferi House



Fig 3.14. Dilapidated stairs to the first floor

The front gate needs minimal intervention and will be retained, as the wood is in good condition.

Nevertheless the stairs in the back and the doors in the first floor are damaged and needs to be repaired thoroughly.

The deteriorated backdoor stairs elements need to be repaired by structural reinforcement, and correcting unsafe conditions, as required, until any additional work is undertaken.

3.7. Interior Spaces

When we look at the interior space in the ground floor and the first floor, there are damages. The first floor interior spaces, has dirty and broken elements which needs cleaning and maintenance.



Fig 3.15. Decaying interior space

Accommodating service function of a bathroom will be introduced in the external associated building. There will be additions as the room was not a bathroom previously.

3.8. Structural Systems

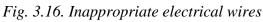
The structural systems of the house as a whole is in weakened condition. Thus there is a need for repairing the structural system by augmenting or upgrading individual parts or features. For example, weakened structural members such as floor framing can be paired with a new member, braced or otherwise supplemented and reinforced.

One column is in bad condition and may be needed to be replaced, if so, substitute wood column shall convey the same form, design and overall appearance and at least be equal to its load-bearing capabilities.

3.9. Mechanical Systems

The electrical systems in the building are outdated, done in a hazardous way, and damaged in so many places. The one in the first floor is especially completely damaged.





There is a need to dismantle the whole electrical system and add a new line and systems that will be compatible with the visual feature of the building. The cables shall be installed in non-character-defining areas.

If there is a need for installation of an air conditioning unit, it shall be done such a manner that features are not damaged or obscured and excessive moisture, which will accelerate the deterioration of historic materials, is not generated.

3.10. Accessibility Considerations

Apart from cleaning and maintenance of the interior, there is a need for adaptation and additions that will enhance sound circulation pattern, accessibility. Thus a stairs in the internal hall of the ground floor that will connect it to the first floor will be built. The addition for the new use shall be executed in a manner that preserves characterdefining interior spaces, features and finishes.

As the building is expected to host new function of public building, there is a need for new additions that will enhance accessibility. Thus, a new structure for handicapped people, who cannot use the stairs to access the main exhibition room on ground floor, will be built. When providing accessibility that promotes independence for the disabled person to the highest degree possible, it is done while conserving the heritage value and character defining elements.

3.11. Health and Safety Features and considerations

To protect the building from future dangers related with fire and related menace, an installation of fire-suppression systems such as foam and sprinklers will be installed in an a way character-defining elements are respected.

Chapter Four: Proposed Function

The Teferi house after rehabilitation will host a new function of Museum. The Harar City Museum- a project funded by UNESCO has effectively reorganized the amazing private collection of Mr. Sheriff with a detailed inventory so that the collection will be loaned to the Harar City Museum which is just under formation.

In light of this, It is in the best interest of the heritage conservation in the old town, if the Teferi house after rehabilitation will become the Museum building for Sherif's marvellous private collection, which boasts to be the largest private collection nationally.

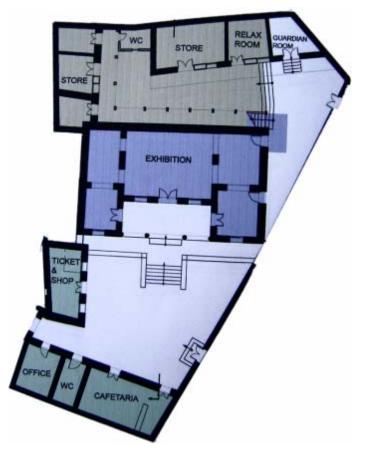


Fig. 4.2 Ground Floor Plan for the Exhibition

The Ground floor of te main Building is allotted to accommodate the main Exhibition room. The attached additional houses will have a function of Ticket and souvenir shop,Office, Cafeteria, Storage room and WC.

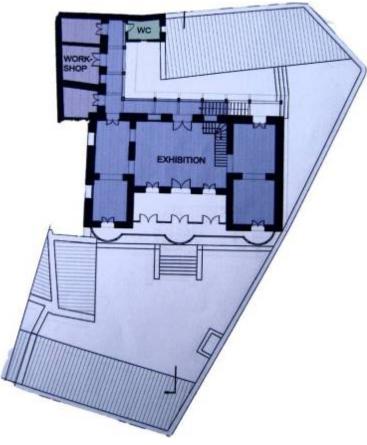


Fig.4.2 1rst floor plan for Exhibition

The First floor of the Main building will accommodate the Exhibition hall for various artefacts. While the attached building in the back of the house will a purpose of workshop.

Chapter Five: Action Plan and Financial Plan

4.1 ACTION PLAN OF THE PROPOSAL

Based on the analysis of the survey observation of the existing and forecasted function; the following activities are suggested according the action plan.

Table.4.1 Action plan							
Phases	Implementer	Stakeholders	Time	Estimated Cost			
<u>Task</u> – Conservation Work <u>Objective</u> – Conservation of Teferi building up to Good level			8- 11 month	1,570,587.90			
<u>Activities</u>							
Preparation of TOR	Municipality	HHCDA					
Contracted out design and bill of quantities	T.I.U.D.B	UNESCO					
	Private contractor	Private sector					
Conservation/		Public					
Construction work		institutions					

Table.4.1 Action plan

4.2 Implementation, Monitoring and Evauation

4.2.1 Implementation tools

This proposal contains various activities which require the following implementation tools.

- Identifying concerned stakeholder and discussing about the projects ideas
- Involving the private sectors
- Providing urban planning standards, building codes, design standards, cultural heritage construction material standards and enforcement mechanism
- Allaying the project implementation with urban renewal policies, rules, and regulation
- Integrating the project with industry, urban development and IDP programs and the municipal budget
- Assessing the project proposal in accordance to the UNESCO criteria
- Using public media to raise understanding of the public for importance of conservation projects

4.2.2 Monitoring tools

- The number of involved stakeholders
- The number of available rule and regulation of renewal programs
- Scheduled inspections of plans and specification
- The presence of contact administration rules and regulations
- Regular comparison of executed work with respective plans and specified objective
- The number of corrective measure taken for deviation of each tasks
- The number of preventive measures for preservation of heritage resources.

4.2.3 Evaluation tools

- Out sourcing evaluation of projects to local consultant
- Quarterly meeting of all stakeholders to evaluate reports of in execution of the project
- Publicizing plans, executions and budgets of the project

4.2 Financial Plan

Table 4.2 Financial cost for		v	v	
Description	Unit	Qty	Rate	Amount
1. Plastering Apply two coats of lime and sand mortar to -external wall -Internal wall	M ²	1,795.12 1,111.03	50 50	89,756.00 55,551.50
2. Painting Apply 2c0qts of white lime painting to internal, external wall and abide ceilings	M^2	3,81.02	60	184,861.20
3. Flooring Make flooring with hard care, mass concrete, cement Screed	M ²	554.27	210	116,396.70
4. Clearing Clean all wooden structural frames, ceiling, hand rail with special cleaning agent and treatment with wood preservatives	M ²	220.67	190	41,927.30
5. Wood work Replacement of wooden windows Replacement of decoration elements	M ² LS	22	840	18,480.00 310,000.00
6. Glazing 4mm thick colored glass 4mm thick clear glass	${f M}^2 {f M}^2$	37.75 18.22	440 320	16,610.00 5,830.40
7. Site work Semi-dressed pavement Masonry Stone(fence)	${f M}^2 {f M}^2$	223.3 30	260 900	58,058.00 27,000.00
8. Metal work Replacement of Archit. Decorative Metals	LS			90,000
9. Latrine Construction of latrine				82,000
10. Electrical Installation Supply and install electrical cables and Equipments	Ls			160,000
Total Contingency 25%				1,256,470.40 314,117.50
Grand Total				1,570,587.90

Table 4.2 Financial cost for conservation of Teferi House

Conclusion

The present study shows that the conservation of heritage buildings like that of Teferi house are very crucial to the preservation of the character defining gems of the old town and the town itself as a whole.

Nevertheless, the conservation of a single building alone can not bring change to the town and thus there is a need to work on the rehabilitation of the surrounding environment to the building, the old town and buffer zone.

Policy commitment by the regional goverbment and at community levels should be seen as a pre-condition to such sustainable conservation of cultural heritage.

Socially, environmentally and economically beneficial responsible old town heritage building conservation requires achieving a balance between commercial success, the maintenance of cultural integrity and social cohesion, and the maintenance of the physical environment.

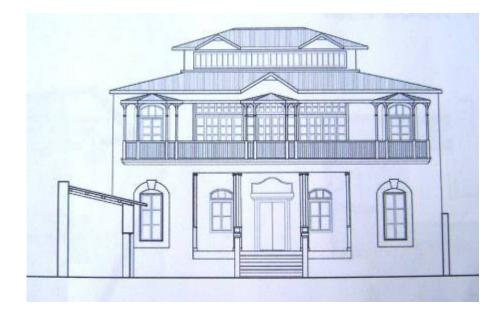
Conservation of heritage buildings holds promise to bring socioeconomic benefit to Harar. If such conservation is approached with sound conservation management and extensive community involvement, reinforcing positive experiences, the narrow winding mazes, Rustic house and Old walls of Harar may soon re-emerge as Beautiful, productive elements of the local life.

References

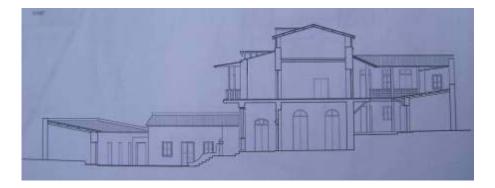
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Annex

Ann.1 Front Elevation of Teferi House



Ann.2 Side Elevation Of Teferi House



Ann3. Measured drawings of Teferi House (Ground Floor and First Floor)

