

Conservation Educational Facility

Academic Program and Building Conservation of a Historic House in Bogota, Colombia

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Introduction

The project presented in this document is twofold: one aspect of it relates to the renovation of a historic building in Bogota, Colombia and the other to the development of a study program in conservation and restoration. The idea is to develop an institution both physically and academically that teaches conservation of buildings at the undergraduate level thus giving sustainability to a restoration/conservation initiative of a historic house.

Abstract

The first part of this assignment relates to the restoration of a large colonial house in Bogota, Colombia and its renovation to become a study center for conservation, restoration and renovation.

The second part deals with the development of an academic program that will teach young talented students the art of historic preservation.

The Object

Before describing the general aspects of the working object, it is important to show that an assessment of three buildings in three different areas in the city center were studied in order to identify the ideal location for the planned educational facility. The following aerial picture taken from google maps shows the city center of Bogota and the location of the three studied structures. These three buildings originally selected are around the old colonial district of La Candelaria which is the neighbourhood where the city was founded. Number one is an old factory from the 1930s to the south of La Candelaria, the second is a residential/commercial building from the republican period and the third is a two floor family home from the 1850s.



Figure 1: Aerial View of La Candelaria, downtown Bogotá.

Building 1: Old factory	Building 2: Residential/comercial	Building 3: Residential

Table 2: Three initial options to develop the educational facility

During the assessment phase of this project it was concluded that the best location to carry on the project was building number three given its adjacency to other universities and a more consolidated sector for students. Also the symbolic value of being in La Candelaria was an important factor to start an educational facility that could grow with time.

Unfortunately during the time of the project it was impossible to be in contact with the owners of the building and get relevant information for the conservation project, thus another house with similar characteristics was selected four blocks away in the same neighbourhood. Below the description of the new building selected to be the new educational facility.

HISTORY, LOCATION AND SURROUNDINGS

The building in question is located in the City Center of Bogotá, Colombia. More specifically, this colonial family house is in the neighbourhood that gave birth to the city in 1536. This central district still boasts old colonial houses as well as the original urban plan

containing a central plaza designed by the Spaniards and other monuments and landmarks. The house is located in the corner of Calle 12 with Carrera 3 close to universities, government agencies, museums and other colonial buildings. See figure 1.

Today the house is in very poor conditions and needs major renovation. It sits abandoned and there is an intervention project to subdivide its interior in various apartments and commercial units. The city has the project under review and has not issued a statement regarding approval for the remodeling plan. The idea with this initiative is to keep as much of the house as possible and turn it in to an higher education facility.

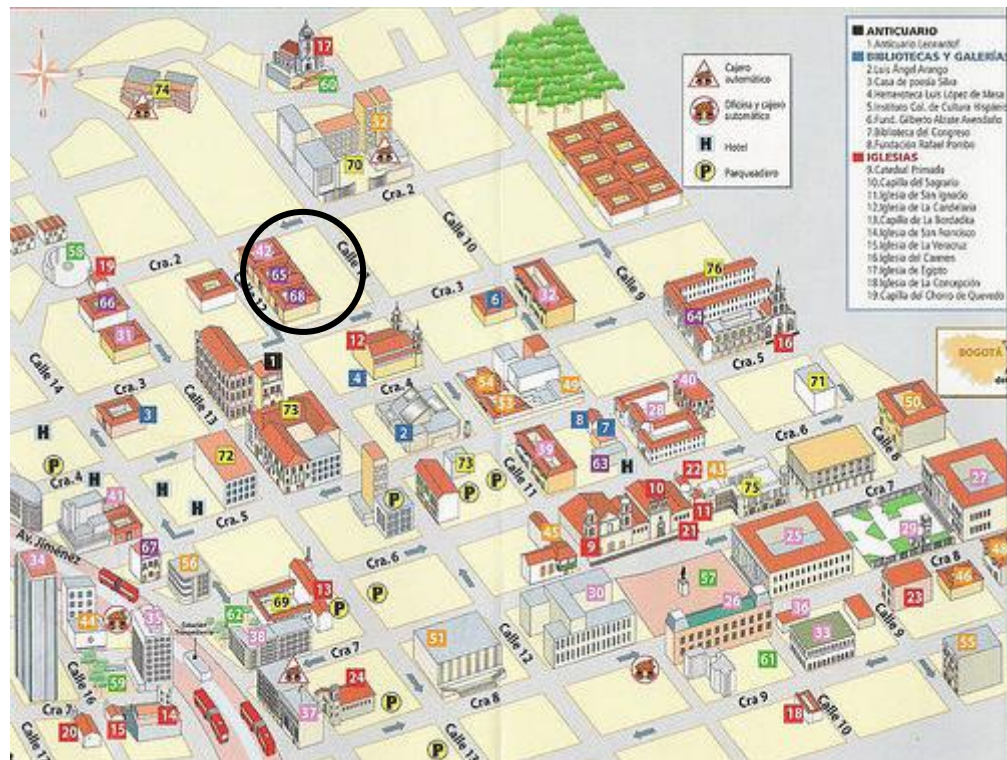


Figure 2: House is located at a corner of block of old Candelaria neighbourhood in Bogota where there are many universities, government buildings and museums.

FUNCTION, SIZE, MATERIALS AND STATUS

This two storie house is approximately 400square meters and originally had 12 rooms and an interior courtyard. It served as a family hose for many years but has changed its use since the last century.

The methods used to build this house back in the 1600s were the typical colonial techniques that mixed mud with wood and stone to make thick walls resembling adobe. The original house has been modified over the years; from a merchant's family home it has been used partially as apartments and store units. Today it remains basically ruined in its interior waiting to be renovated.

Outside it has been painted with pink and blue paint which was not typical of such structures during colonial times. The wooden frames of doors and windows have also been painted in a manner that does not respond to the original design and customs of the time. See figure 2.

The expected needs of repair range from structural aspects as parts of the roof are falling to more superficial aspects like paint recovery and wooden details repair. It would be ideal to have an interdisciplinary team of masons, carpenters, architects and engineers to evaluate the current state of the house and come up with a comprehensive solution.



Figure 2: Current aspect of the house today

Although the house is in a state of considerable decay, (more evident when you see the interior) its thick walls and sturdy foundation are preventing the house from falling. The plan of the house shows a rectangular design with a small alcove attached used for storage. See figure 3.

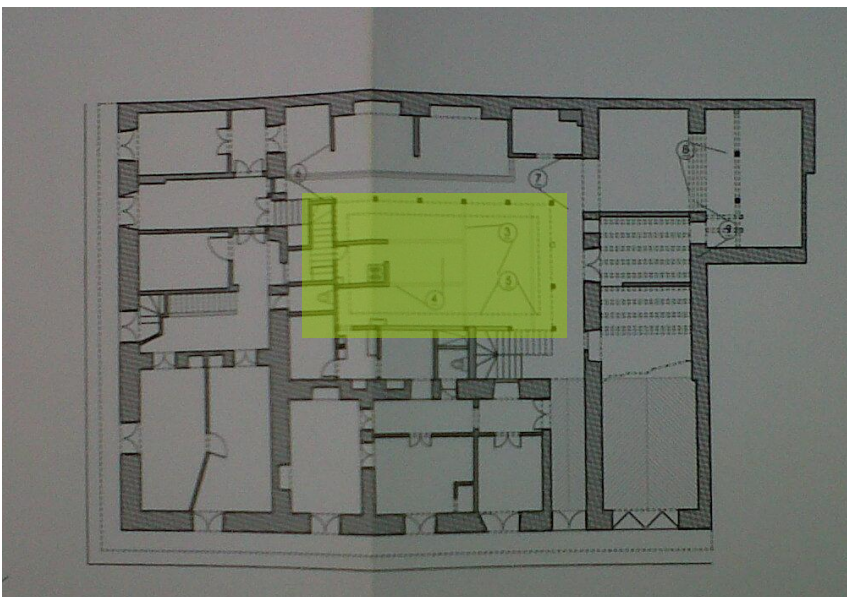


Figure 3: Main floor plan depicting open area in the center of the building

Aesthetically speaking, the house represents the typical Spanish colonial house build in various cities founded during the Spanish conquest. It is reminiscent of Colombia's colonial history and of the blend of imported building techniques with local features. Figure 4 shows the two floor structure and its interior courtyard, as well as the thickness of the walls. There is also an important feature to highlight: on the second floor there is a wrap-around balcony, open to the interior courtyard that served for circulation.

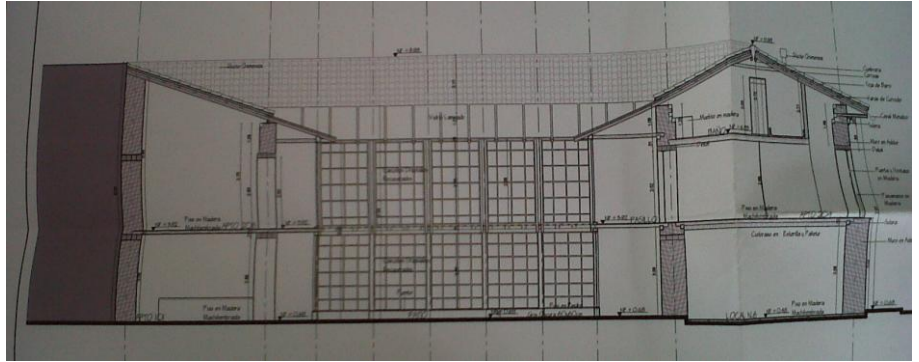


Figure 4: Section showing thick walls, wrap-around interior balcony and interior courtyard.

Upon a superficial view of the interior of the house, it is estimated that the structure needs more than just a paint job, there are repair, maintenance, conservation and restoration activities to be implemented.

Analysis

This family residence is important in its context. The Candelaria Neighbourhood is a historic district that tells the story of Bogota's colonial period. As such it is important to conserve its buildings and surroundings. Apart from its historic value there is also a cultural value; being the place for various universities, government buildings and theatres, it is a central location for the development of cultural life in the city..

It is worth noting that this document is a report and not a specification. It lists defects found but does not give detailed instructions for remedying them.

After carrying out a visual inspection there are various issues that are worth mentioning regarding the analysis of this building, I have subdivided this section in three main themes: materials, structure and superficial work.

MATERIALS

The main materials utilized for this residence are wood, adobe and stone. Some adobe walls are cracking and need intervention, also ceiling structures as seen on figure 5 are in great danger of collapsing. Wooden columns also need to be treated and some of their bases

replaced. Wood relief work on windows and door frames is covered with many layers of paint making their profile indistinguishable.



Figure 5: First floor ceiling.

Other materials include the roof tiles, although in good condition, some of the tiles are missing and need to be replaced. The tiles are made of typical Spanish clay.

STRUCTURE

There are parts of the building such as the vestibule shown in figure 6, that need a major intervention, some of the wooden beams are corroded or missing, and some columns are under stress.



Figure 6: Framework of building

Similarly to columns, the beams and roof rafters are in poor conditions. Some beams might be reused but others will have to be

replaced. There are also some cracks on walls, adobe structure should be inspected.

Another issue worth pointing out is that the electrical circuit and water supply system are not properly installed throughout the premises of the building, therefore an update of these services has to be carried out.

SUPERFICIAL WORK

There seems to be problems with humidity, missing moldings and damaged woodwork. The current state of decay is a result of human and environmental agents. Many of the wood frames have been replaced and many are deteriorated, others have been coated with many layers of paint.



Figure 7: leaks seen on first floor ceiling deteriorating structure.

All these problems should be approached from a multidisciplinary perspective, structural engineering plus a pool of conservation architects would be optimal for this project.

Proposal

After the visual inspection and following the international example on conservation and management planning, this proposal stems from five main concepts: respecting the authenticity of the building, providing integrity in the intervention, guaranteeing its reversibility, applying objectivity and aiming at sustainability.

This section is divided in two parts, the first one talks about the technical proposal and the second one talks about the academic proposal. The development of a study program will enable the project to be financially sustainable in the long term.

TECHNICAL PROPOSAL

Both traditional craftsmanship and new technology is needed to recover this house in order to be of use for a large amount of students. Given the current state of the building, the conservation proposal presented here has six degrees of intervention: 1) prevention of deterioration, 2) preservation of the existing state, 3) consolidation of the fabric, 4) restoration, 5) rehabilitation, 6) reproduction,

In terms of prevention of deterioration, there needs to be an assessment of the source of humidity to stop decay on walls and wooden elements. Also an integral reformulation of the electrical and water systems needs to be developed in order to prevent fires or floods. Water spouts and water drainage should be revised too.

Preserving the original aesthetic of the building is also an important part of this proposal. Deterioration caused by the elements, human agents, pests and others must be stopped to preserve the structure.

In order to ensure its continued durability or structural integrity some additional materials will have to be added. This pertains mostly to structural elements that would be needed to sustain the wrap-around interior balcony and the the missing columns and rafters. It is important to note that the utilization of traditional skills will be preferred, and when this approach is inadequate given the structural problems, new technology would be used while guaranteeing reversibility.

The restoration phase of the building is based on respect for the original form and materials of the building. Therefore some parts of the original construction should be left as they are providing evidence of the building's age. Only parts that are critical and that need to be replaced will be changed.

The rehabilitation process is clear, the new use of the building will ensure its sustainability, as rooms in this old residence are turned into class rooms and faculty offices for the new Latin American University for the arts, the house will gain an influx of people that will guarantee its preservation and financial sustainability. It is expected that this initiative will have a Rippler effect in turning other historic buildings in the district into facilities that can accommodate students.



Figure 8: Interior open space, wooden columns have to be replaced or treated to guaranty stability of upper balcony.

Reproduction will also be necessary for the intervention works, cornices and wooden frames are missing and need to be reproduce in the manner they were built originally. For the most part decorative items are missing and need to be reinstalled in ordet to maintain the aesthetic of the house.

THE SCHEMATIC DESIGN

The initial schematic design proposes the following: offices and services on the first floor and classrooms and studios on the second floor. Below is the preliminary schematic design for the house:



- Open Area
- Offices and Service
- Classrooms and studios
- Circulation

ACADEMIC PROPOSAL

In order to give sustainability to the restoration and conservation project as well as to promote conservation among the younger generations, my project developed a course of study for those students wanting to enroll in an academic program that teaches conservation theory and techniques.

Knowing that in Colombia there are no undergraduate degrees that teach conservation, the idea is to offer a program that will enable a young talented student pursue a career in this field. The program has been designed in four sections that complement each other and aim at giving the student an integral education: History, Foundation Studies, Theory and Methods and Techniques.

The history module would include national and international history classes giving the student a background and wealth of knowledge to understand historic buildings and architecture.

The foundation module includes, drawing, drafting and design courses providing basic technical skills to the student. This foundation courses are important as they represent the basis for all university programs being offered in the future.

The various theories and approaches of conservation are also an integral part of the study program. The student is here given the tools to decide the best option for an intervention project.

The technical module includes a series of studio projects and hands on experience that will give the student the skills to undertake a conservation project.

All these modules are composed of various classes that increase in their complexity and that are taught simultaneously by experts in the matter.

Method

The method used for this project was to develop an initial report of the current state of the building. Some pictures were taken and some research on history, materials and techniques was carried out. The following are the steps that need to be taken to carry out the project.

The second step after writing this report would be to study the legal aspects of the intervention. There are permits that need to be granted not only for the conservation activities but for operating as a University.

After having a clear concept of the legal issues needed to proceed with the intervention an updated budget needs to be developed. Preliminary estimates will give some idea on how much money needs to be invested in order to intervene the building. After having the budget updated and including the costs of permits and legal costs,

one needs to develop a fundraising plan to have investors interested in the project. The idea that the project will be self-sustained and that there will be a continuous flow of funds coming from students should be a hook to people willing to invest in a promising project.

Another alternative for investment is working with an existing university that will be interested in opening such a study program. Also to look for international partners that would be interesting in adopting this project and promoting student exchange is a viable alternative.

Parallel to this it is viable to start documenting and revise existing plans with a group of students interested in conservation. This initiative could be the seed for the educational facility: by training young students the art of conservation and implementing their own facility where conservation activities can be multiplied.

Results/Current Status of the Work

The project is still in its initial status. As mentioned in the above section the steps to follow will be to study the legal issues and to develop a budget. Once this is done, the fundraising efforts or strategy will have to be developed in order to commence work.

Discussion & Conclusions

As stated by various authors and publications, the creative re-use of historic buildings located in an urban ensemble of importance, can be a trigger for economic activity and revitalization. Apart from generating jobs related to the conservation activity, the Latin American University project aims at bringing more people to the city center and giving a new use to an abandoned building. In a way this project while promoting higher education, mitigates the possible marginalization of old districts.

One of the critical aspects of this project is guaranteeing the funds to develop it. There is little awareness on the importance of historic preservation and the need for alternate courses of study, therefore the challenge of the project is to get people interested and involved in this project.

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