

CONSERVATION & MANAGEMENT OF HISTORIC BUILDINGS

Lund University



CONVENTION CENTER *CAXA REAL*

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FOREWORD

The following project of conservation and restoration of the façade of the Caxa Real is divided in two concerning sets to the main portal of stony material by one side and masonry by the other. The restoration work will be guided in respect to the monument in its double instant: historic and artistic.

The information obtained by interviews with historians provided historic data taken from the archives in Guatemala, which was a Virreynato during the colonial period. The rehabilitation of the building will respond to the actual needs of urban equipment of the city and also, criteria of fundamental restoration. The frontal façade will deal with techniques of restoration and structural consolidation to place value on the ruin as such, and do a rehabilitation of the rest of the building.

SUMMARY

Honduras, during the period of the colony belonged to the General Capitanía of Guatemala; which was part of Mexican Viceroyalty. Each province had a governor assigned by the king of Spain.

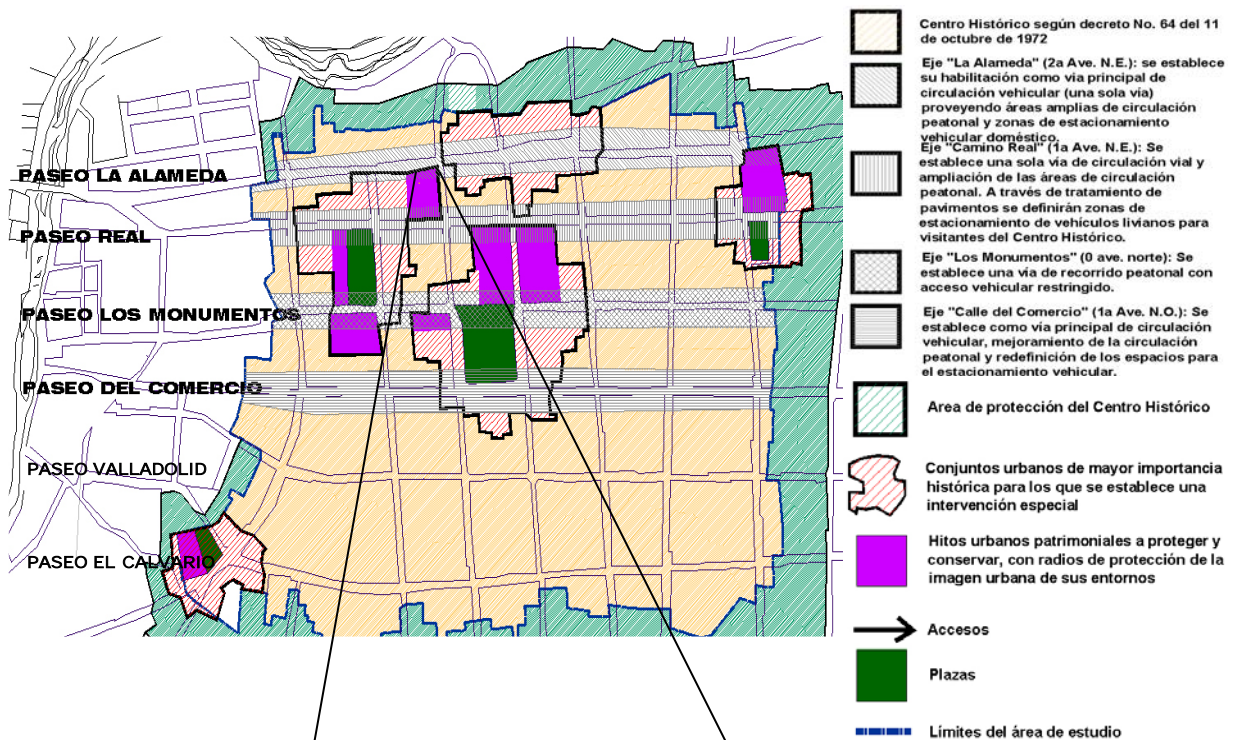
Caxa Real or Royal Box was the name given to the building used to function as the bank of the time and also to house the governor. Two very important objectives were the main tasks done by the governor. First, to control and benefit the gross material extracted from all of the approximately ten mines around the area, secondly, to process through a method consisting on cleaning the gold from other metals with mercury. There was also, the making of the coins used at the time, called *macacos* or *coins of the cross*.

The main architectural characteristics of this building belong to the typical Spanish construction techniques used by the Spanish during the colony. Roofs made of wood and clay roof tiles, walls of stone and adobe, a central patio paved with small rounded stones, provided with a central fountain; corridors of wide proportions lined by fine carved wooden columns and carved stone bases. The tribune and accounting room, the treasury room, the store room and the room for *azogue* were part of the area of the house that had to do with the financial activities. In the other part of the building we find the service area, bedrooms, the kitchen, storage rooms, service corridors, a patio for the kitchen, a garden, an area for chickens and horses, a room for testing and a *zaguán*, a typical access for a Spanish house.

The building was remade after the first earthquake in the late 17th century and the second earthquake that hit it in the early 18th century. The second reconstruction was finished in 1741. The building was indeed, a place to store, to process and to house the governor.

DATA ABOUT PROPERTY

The owner of the building is the State of Honduras, and the building as located in the historic center of Comayagua was declared national heritage, therefore, protected under law. The institution in charge to develop the *Caxa Real* project of restoration and reconstruction is the office of the Historic Center of Comayagua, which is formed and supported by the municipality, the National Institute of Anthropology and History and, the Spanish Agency of International Cooperation.



Location



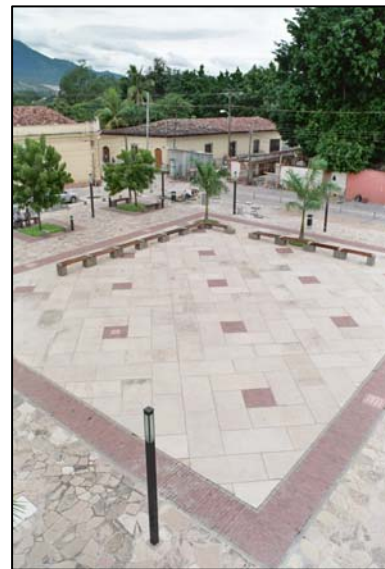
According to the regulations that apply to this building it is classified under category “A” which states: “These buildings must be intervened with the appropriate methods of restoration that would guarantee the conservation and consolidation of the original existing evidences and elements such as floor tiles, doors and windows, murals on walls, wooden columns, ceilings, resting windows, balconies and roof structures.

Substitution will be permitted as long as it’s done by elements identical to the original, including the constructive material and a modern technique. It is clear that is not allowed to use contemporary materials that try to imitate the original. In case of having buildings without an actual use or, a different one from its original use, the redefinition of the use will be allowed as long as the typological and architectural spatial characteristics will remain.

The electrical and sanitary installations will not in any case harm the structure nor original elements of the building. Contemporary designs will be allowed on interior gardens and patios unless original historical information or original sketches are found. An obligatory condition will be that a patio will be kept in the interior of the house. In these types of interventions an archeological study will be necessary and it will have to be paid by the owner of the property and will be supervised by the National Institute of Anthropology and History”. Urbanizing, the Rehabilitation Project of the Caxa Real responds to the strategy of tourist development and equipping, taking advantage the cultural richness and patrimonial of the city.

VALUES

In the year of 1996 a master plan began in the historic center of Comayagua as a general strategy to preserve the architectural legacy left by the colony and the republican era. Its main objective is to develop an urban model that will motivate and contribute to the social and economical growth of the community by improving the urban space, presently under regulation, directly affecting the quality of life of the population, and the development of local business and also tourist development.



The enhancement of public plazas, pedestrian walkways with planted trees, benches, new street designs, regulations, gradually accepted more and more by the community, and underground electrical systems are part of the project taking over the city of Comayagua. In this context, the rehabilitation and preservation of the Caxa Real building represents an important case of to preserve and recuperate the cultural identity and to professionally preserve the architectural richness of Honduras.

The Caxa Real of Comayagua has a high historic significance and the ruins of the frontal façade has been converted into an architectural icon from the city; that's why it is considered as the ideal site for rehabilitation with the contemporary use given. Through the permanence of some "archeological witnesses" left for people to appreciate such as floor clay tiles and the carved stone pile for "azogue", and of course, the most important witness, the stone wall with the magnificent portal carved in stone. All of these witnesses will keep their actual appearance in order to differentiate past and present.

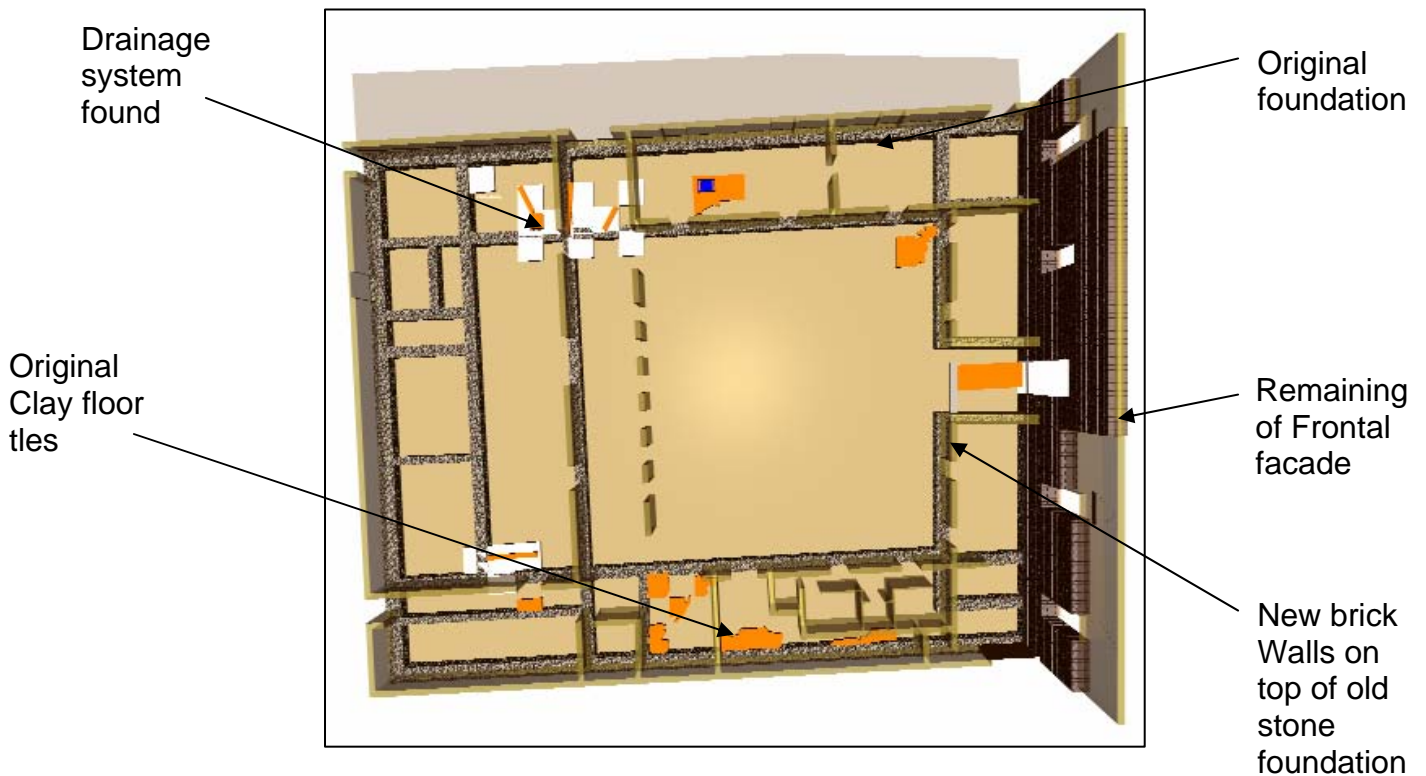
In the present time the Master Plan of the Historic Center constitutes one of the most important lines of intervention of the Program of Municipal government, in the strategic line "Comayagua" a city to live in, to visit or to invest"; the accomplishments reached to date, are considered a model case at national level of local development through management of cultural resources, prevailing among these accomplishments, the appropriation of the project on behalf of the inhabitants.

One of the incentives is the implantation of a strategy of tourist development of the Historic Center, for which it pretends to dote the city of equipment anchor that assures the permanence of visitors and generates the private investment in equipping the tourist service that will provide new job posts and will contribute to socioeconomic development of the inhabitant. Parting from the strategy of "Generating demand to motivate the offer" the project proposed "Center of Reunions Comayagua" which will be accompanied

by a plan of management of cultural events, of continues capacity, seminars and congresses that will motivate the Honduran Institute of Anthropology and History, the Secretary of Government and Justice, The Municipality of Comayagua and will try to get the participation of the Honduran Institute of Tourism and the AECI.

AIMS

For the formulation of the project it parted from the conceptual criteria that the Convention Center *Caxa Real* must be identified with its value history and architectural of the building and the city, to succeed it is considered important the rescue of the original architectural party of the property: The patio house with interior corridors”.



Present condition and criteria of intervention

The rehabilitation of the building will respond to the actual needs of urban equipment of the city and also, criteria of fundamental restoration. The frontal façade will deal with techniques of restoration and structural consolidation to place value on the ruin as such, and do a rehabilitation of the rest of the building. The archeological investigation, the typological architecture, the existing historic document and the new use are fundamental elements to support the design process. As a constructive principal, as witnesses were left all the relative elements that are found during the excavation of all the archeologist remains, besides, the view of the new structure will be done with special care as not to alter the archeologist remains of the site.



The level of the area of the floor of the new rooms will raise up about 20 cm from the level of the original floor, with the ending of not intervening with the archeologist remains, same that will be referenced through documentation and protected by itself if in the future it pretends to realize a rescue of the project.

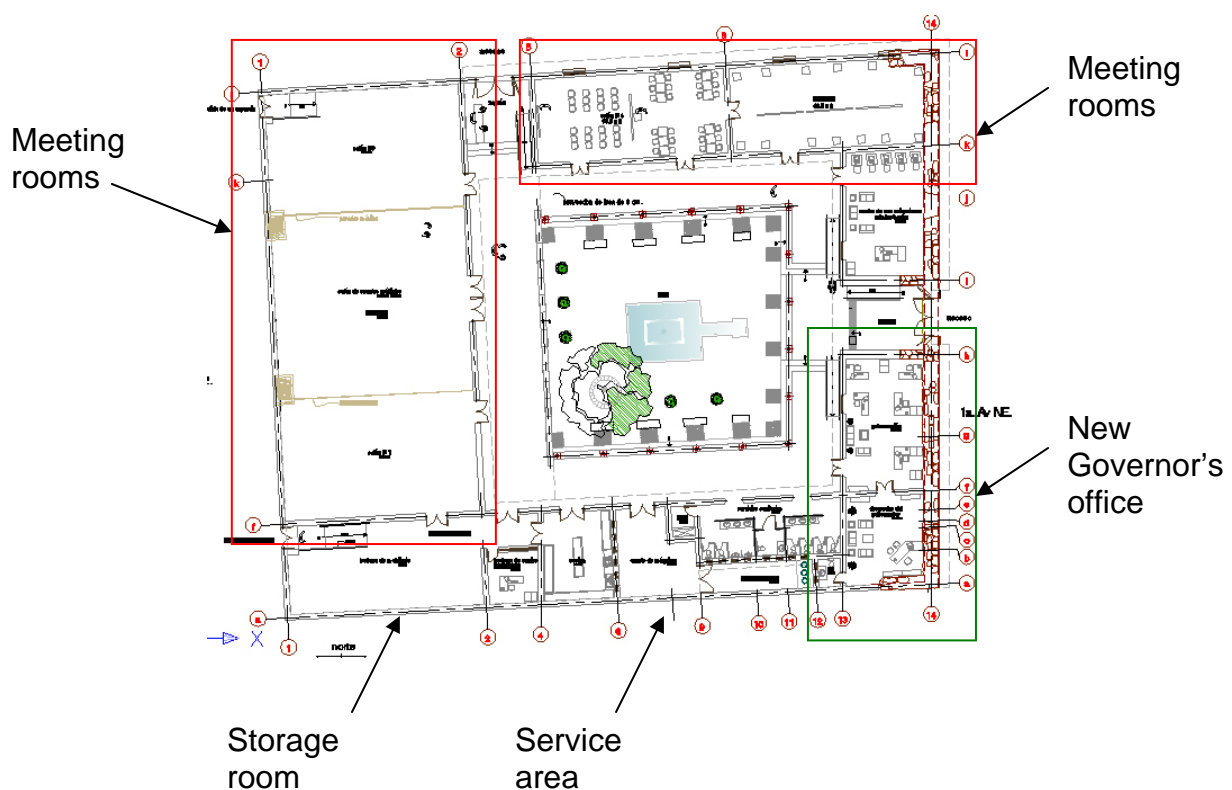
“The reconstruction of the same style of building” must be avoided of whole parts of the building. The reconstruction of very limited parts with an architectonic significance can be exceptionally accepted on the condition that this is based on precise and undeniable documentation. If needed, for the

adequate use of the building the incorporation of special ad functional parts more extended, it must reflect on them the language of the actual architecture.

The reconstruction of a building in its totality, destroyed by an armed conflict or by natural disasters, is only acceptable if there are social motives or exceptional cultures that are related with the identity of the whole community”.

From the antique Caxa Real only approximately 60% of the frontal façade is still conserved, same that is found in a ruined state with a pathological problem reflected on the collapse toward the exterior of approximately 30 cm in the most critical sections of said façade. We also must mention that due to the abandonment of these ruins, there has generated an erosion process of the stone wall, due to the inexistence of fixing and the lack of treatment of seals of the base of land and lime. Adding to these problems, it also stands out the vegetation contamination of the ruins and the pronounciation of the collapse caused by the roots of these trees that grew next to this wall.

Other important restoration criteria is the new layout for the convention center which will be very similar to the original one, since the new double brick walls will be place on top of the old foundation already structurally analyzed and able to support the new brick walls. Reinforced concrete structure and the wooden roof structure will complete the whole.



A relevant precept of design is accessibility to all the users, providing ramps, surfaces and proper lighting. The intended use given to the building will guarantee access to the whole community, national and foreign users.

The new project is expected to be self sustainable through the leasing of the three rooms available for meetings, workshops, executive presentations, weddings and other activities. Each room is equipped with specialized electronic technical systems that were designed to provide the user with the appropriate conditions; a fire alarm, proper lighting, outlets for modern equipment were considered; air conditioning, TV-cable, an internal computer network, its own emergency electric generator and internet connections are also part of the new features.

There are two independent and interconnected rooms with an approximate capacity of 100 people each which have natural and artificial light and also, appropriate ways to access with emergency signals to help when needed. The other one is the big room, with a capacity of approximately 400 people equipped with two emergency exits, besides the main entrances. This space will be flexible, in the sense that sliding thermo acoustic wall could divide such space into three different spaces. There is one more room designated for the administration of the building where will find an area for the administrator and most of the rest will be a communication center, equipped with computers with internet, fax services and others. Considering the role of the governor in the past and the lack of a proper office for the current governor it was considered that an office for him and his staff would be designed. The service area includes, the set of restrooms properly designed for easy accessibility, an area equipped to store, to heat, and to serve drinks and food. And, finally a large enough storage room to store all the special equipment in a secluded area and the rest to store all the chairs and tables needed.

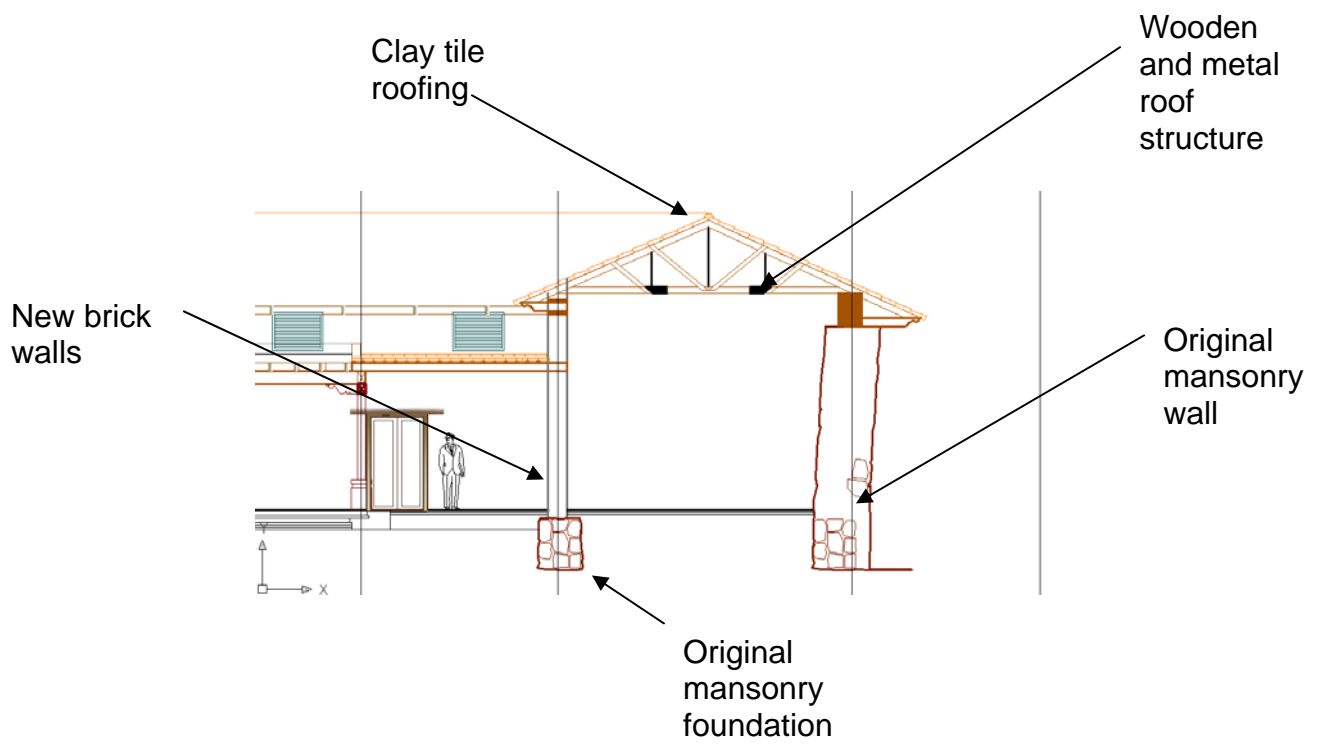
The corridor lined with carved wooden pillars and carved stone bases are also kept with the central patio, adorned with a medium tree, paved with the same flat small rounded stones and with a fountain, at floor level, in the middle of the patio.

Special construction interventions

The new building will be resting over its original foundation, doing work of consolidations and rescuing those parts more relevant that were left in view as architectural witness.

The whole process of excavation will be done with the due care since it pretends to continue the archeological exploration for the historic documentation of the building

- Wall of the new building
- Architectural elements relevant to conserve
- Archeological remains of the foundation to conserve
- drain
- original plant
- drain channels
- tile of original clay
- pile of azogue
- tile of original clay
- tile of original clay
- closing of stone carving
- New wall
- old wall



CONSERVATION AND RESTORATION OF THE FRONTAL FAÇADE



STATE OF CONSERVATION

The state of conservation of the wall of stone is bad due in great part to the accused loss of the mortar of layers that at the beginning they exercised certain protection action, besides its aesthetic function. Great part of the deterioration of the diverse material constituted of the wall derives from having been outdoors during a long time exposed to the external diverse agent.

The main factor of alteration in the stone wall of the façade is water (physical cause) existing a correlation and interaction between all the other factors such as: temperature, chemical agents, biological causes, mechanical alterations and human action.

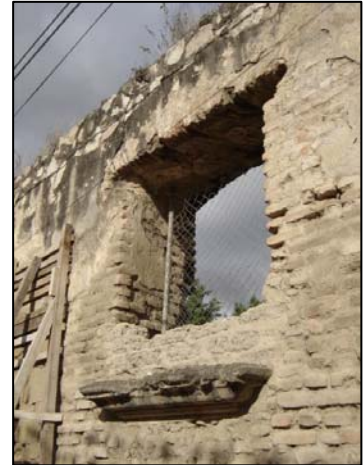
Humidity appears in an uncontrolled way and a superior percentage of the one desired on the materials or constructive elements of the portal and the cover.

Water that constitutes the focus of humidity is the rain (that is charged with novice gases) and the absorbed waters by capillarity that drags numerous substances in dissolution of organic or mineral origin and with them numerous salts that produce deterioration.

STONE WALL

Constructive characteristics

Constituted in great measure by a sediment type of rock of brown-yellow color, which comes from the same zone and cut in similar ways more or less regular on the corner and of different dimensions and forms totally irregular compare to the rest of the wall.



CAUSES OF ALTERATION

Mortars relaying:

In the most part the wall has been lost, remaining only a fine film in determined zone next to the cover.



Base mortars:

The mortars of lime of the stone wall are encountered in a bad shape in cause of a combination of atmosphere agents, contamination, dust that has favored the retention of humidity and transmission that follows towards the internal part of the wall.



Rocks and bricks:

The stony material has been degraded equally showing different types of alteration physical, chemical, biological and human. It is difficult to define the causes of the origin, since they generally act all the same time that started one or ended in the other.



Proposal of treatment

1. elimination of mortars of relaying
2. superficial cleaning of dirt
3. pre consolidation
4. in clean depth
5. consolidation
6. reintegration and re growth
7. final protection

MAIN FAÇADE

Constructive characteristics:

The cover is lifted at point of the rock of cantor and of major quality as far as mechanical properties that are conformed by stonewalls. In both cases it is about a type of sedimentary rock, of the caliz group, composed mainly by calcic carbon.



Causes of alteration

A temperature increase on any material generally produces a volume increase; however, it is after the following cooling, in the process of volume contraction, when micro fractures are developed.

In this case, some circumstances especially aggressive increased the speed of deterioration due to fast cooling of the hot surface of the stone when raining.

Chemical alterations

In this case these chemical alterations are related to mechanical factors as micro fractures that produces an increase of porous ness.

Humidity is the second cause of secondary lesions, now that is the agent that sets in motion the pathological process initiating the degradation of the constructive materials that ends in loss of its aspect.

Proposal of treatment

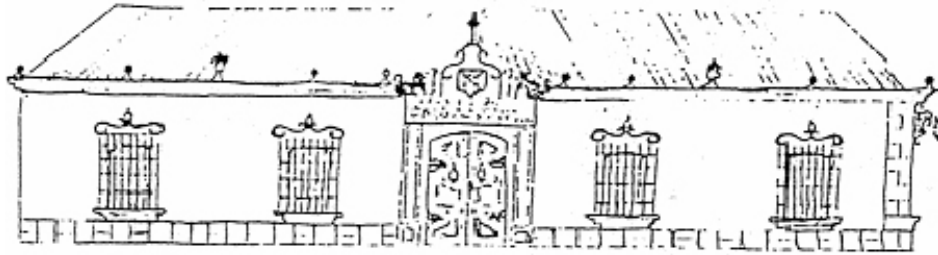
1. superficial cleanness
2. pre consolidation
3. in depth cleaning
4. proof of presence of hydro soluble salts and elimination of the same
5. proof and elimination of insoluble and salts
6. clean and touched by reunions
7. sealed of fissure
8. re integration of the lines
9. tore of the façade
10. consolidation
11. hydro fugation
12. treatment of humidity

SPECIAL MAINTENANCE REQUIREMENTS

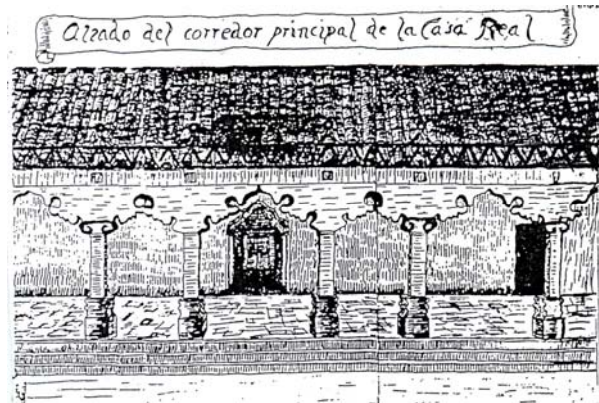
After the restoration work is done, continuous care is necessary to maintain the stone wall and carved stone portal in good conditions. There will be needed a maintenance plan that should be applied **once every year** or whenever deterioration is easily seen to the naked eye. It's important to be aware of the end of the rainy season to apply these measures. A clean depth is the first step, followed by a consolidator for the stone and the mortar of the joint and, also protection against humidity best if applied before the rainy season to avoid greater damage. It is relevant to mention that a French drainage should be built right to next to the wall at floor level to prevent the accumulation of water, humidity by capillarity and to allow a quick drainage.

Every two months a depth clean will be necessary on the walls to remove fungi. This is done with a plastic soft brush and water with chlorine and then, another cleaning session with water. A chemical agent (vorax) should be used to neutralize chlorine used and at the same time it consolidates.

Every three to six months a maintenance procedure should be done to the rest of the new parts of the building to avoid accumulation of dust, restoration of paintings, cleaning of walls, apply a water resistant component to the flat roofs cover with clay tiles. The cleaning of drainage conducts and roof channels should be permanently clean to avoid accumulation of leaves and other stuff.



Original handmade drawings of the frontal facade



Original handmade drawings of the interior corridors

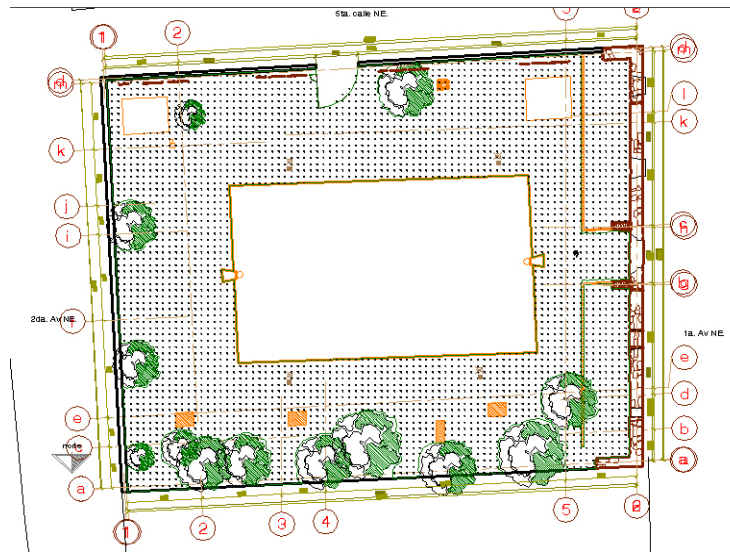
According to historic descriptions the building turned out to be one of the nicest buildings of the area, not only by its size and spatial proportions but of a series of architectural features. The style of the elaborated façade done by the master Maradiaga is characterized by the breaking of the exterior eaves of the building by way of the multi linear high and low tympanos, similar to those ones employed in the Arequipeña architecture.

The historic documents describe the use of glazed ceramic for the floors, also for the use of “zulaque” for revisiting the floor, lime, oil and grouted glass. However the archeological excavations did not discovered any of these finishes, finding only clay tiles that belong to the bedroom floors and living rooms set in a diagonal form.

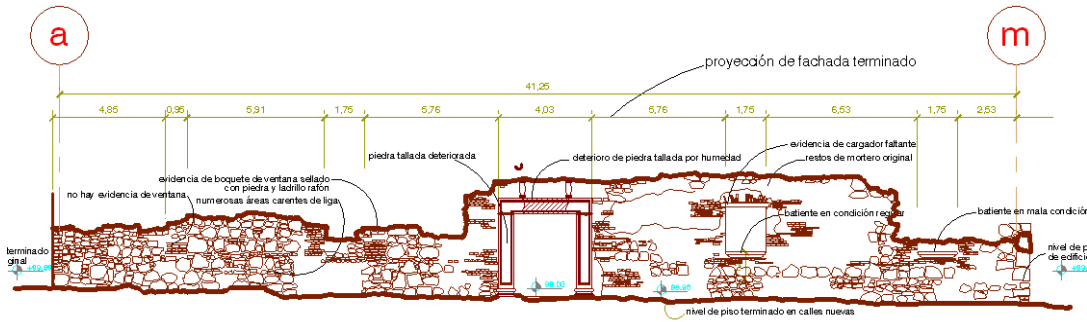


Historical references

DESCRIPTION OF THE ACTUAL STATE OF THE PROPERTY



Present condition



Present condition of frontal facade

Several natural events have seriously damaged the building and during a long period of time the property has remained abandoned, reaching an advanced state of destruction and acquiring the denomination of ruin. After two earthquakes the building had suffered some reconstruction work according original registration of the activities done but, it was after the fire and the moving of the capital to Tegucigalpa in the second half of the 19th century that the building became completely forgotten and abandoned.

Of the old antique Caxa Real or *Royal Box* only approximately 60% of the frontal façade is conserved, same that are encountered in a ruined state with a pathological problem reflected in the full towards the exterior of approximately 30 cm in the sections more critical of said façade. Given the state of abandonment of these ruins, a process of erosion, fungi and humidity has been generated on the stone wall due to the inexistence of repairs and the lack of treatment of seal of the unions in a base of soil and lime. Added to these problems, also the vegetation contamination stands out in the ruins and the pronounciation of the crumbling caused by the roots of the trees that grew next to this wall.

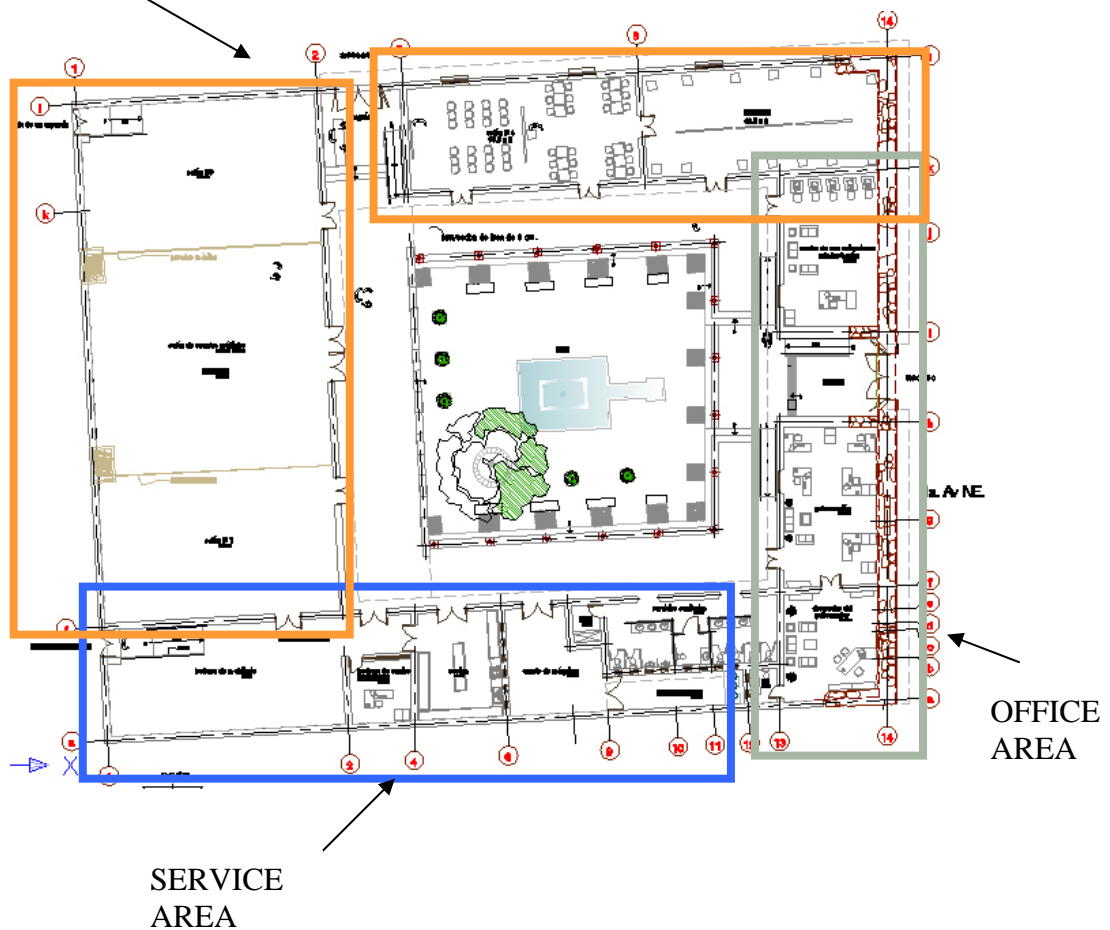
The rest of the building was completely destroyed. The stone walls of about a meter wide and four meters high, all disappeared; glazed clay tiles, the bases of the pillars in carved stone and the magnificent central patio were all destroyed in the 1960`s due to the construction of a basketball court that altered irreversibly the ruins of the patio and walls of the magnificent building and destroy for the most part the evidence required to determine the veracity of the full description.

The original layout of the house -foundation- was rediscovered during the archeological excavations and, so was found the original location and dimensions of all the spaces in the building, which compared to the original document drawn by the architect differed very little. Most of the spaces mentioned in the historical description were found. Other things found were, the system of drainage that belonged to kitchen and service patio and some

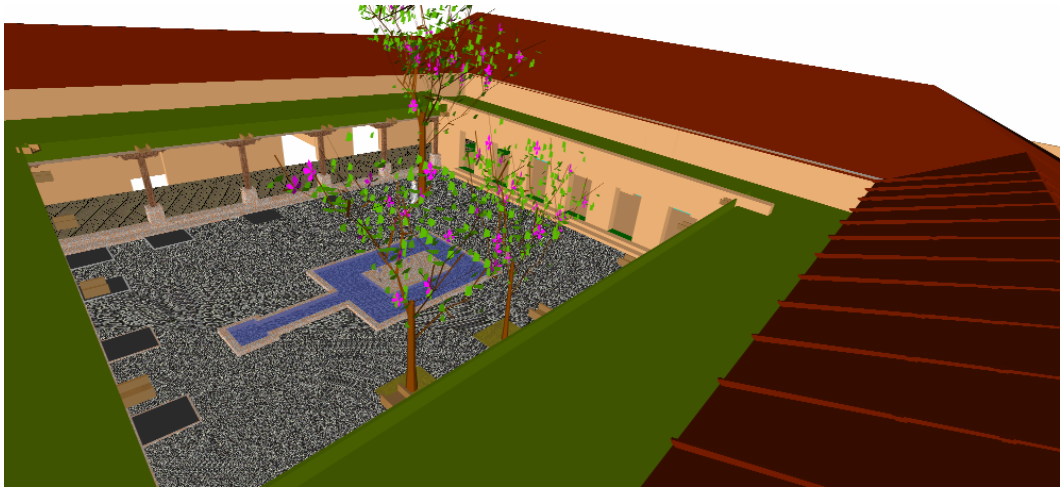
bathrooms, part of the zaguan`s floor conformed of small flat rounded stones found in the river near by, a few squared meters of clay tiles set in a diagonal form in the living room and bedrooms and, the carved stone pile used to store mercury and found at floor level.

DESCRIPTION OF BUILDING

MEETING
AREAS



Interior view



SOURCES AND LITERATURE

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Documento localizado en el IHAH

Tegucigalpa M.D.C.

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Diciembre 2004.

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