



Fig. 1. New World's First Cathedral, Santo Domingo, Dominican Republic

NEW WORLD'S FIRST CATHEDRAL: FIGHTING FOR ITS CONSERVATION

Gabriela Fernández Flores

Architect, DOMINICAN REPUBLIC
gabriellafernandez88@gmail.com

“An architect must perform the dual role of designer of the future and defender of the past” (Richard England, Contemporary Architect)

Defender of the past, learner from the present and innovator for the future generations this is the function of a conservator. Conservators try to preserve history, use the present technologies and tools to create a better environment for the future generations, while at the same time interest them in the past and maintaining the building's essence forever.

For centuries, historic buildings have been a symbol of the city of Santo Domingo in Dominican Republic. In it lies an important building which has been more than an icon to the city but is has formed part of an extraordinary social history and sense of emotional attachment. The Cathedral of Santo Domingo, Dominican Republic has been modified and restored. A long, harsh process, which has left marks the Cathedral forming part of its history. Some information has been lost, other destroyed and several discovered. But the essence of the Cathedral still stands firm.

Conservators have fought to maintain that soul. They have fought for years to create a proper project in which the building and the users both have a win-win situation. However, the process has been long and complicated, filled with mistakes and successes which now both form part of the history of the building.

“When we build, let us think that we build forever.” (John Ruskin, 1819-1900)

Keywords:

Dominican Republic – cathedral – restoration – history – conservation

1. A BRIEF INTRODUCTION

During the sixteenth century, European explorations for new trade routes allowed various nations an era of colonization, in which many of their traditions were transferred to the New World. This heritage trade enriched American countries, with a combination of native and foreign traditions, raising many unique cultures. Now, around America, people can currently perceive the touch of those European cultures, in genetics, food, language, dialects, religious beliefs and architecture.

Over the years societies in America have been evolving, accommodating to their past traditions, searching for lost heritage, and adapting to the contemporary needs and styles. This change can also be seen with physical objects; for example historic buildings have evolved with time, people have modified their interior and the external facades, and have also allowed some buildings to deteriorate. Some buildings on the other hand have maintained their essence and have a vast amount of conserved symbolic, architectural and

engineering information, which is still preserved and experienced throughout the whole building.

The oldest Colonial city in America rests in Dominican Republic's Historic Center, The Colonial City, located in the eastern limits of Santo Domingo (the current capital of the country). Within this historic center, there is a great amount of historic buildings; some are a well conserved, providing architectural evidence of the ancestral heritage, some have been modified conserving the essential characteristics while meeting the needs of modern society, and others yet are in a complete state of decay.

One of the most important architectural treasures of Santo Domingo's Historic Center is the first Catholic cathedral to have ever been built in America. The formal name of the cathedral is “Santa Iglesia Basílica Catedral Metropolitana de Nuestra Señora” but most people know it plainly as the Cathedral. It is a temple whose walls, floors and façades possess a vast amount of symbolism and as well as hidden elements of history. Also it creates a relation between the population and



Fig. 2. Cathedral at Night by Gabriela Fernández.

the building itself formulating a sense of belonging between those two characters. For this reason the conservation and preservation of this monument are essential.

2. HISTORY OF THE BUILDING

The construction initiated as a small, simple and common island church with walls made of wood and thatch roof. However, once the Cathedral Chapter was installed, the Bishop Fray García Padilla decided to build it with more noble materials.

The Cathedral Chapter was confirmed in 1512 in the city of Burgos, Spain, while the Bishop was preparing his trip to the New World. Once the Chapter was installed, the small island church formally became the Cathedral.

The new construction did not start until 1521. It took 20 years for the completion of the Cathedral's Chapter house, and it was consecrated that same year. Due to historic events and economic complications, the

complete construction of the Cathedral was not finished at that time; the chapels, the ecclesiastical charter room and the bell tower were added throughout the years.

In order to understand the development of the Cathedral's construction, it has been divided in stages classified by dates. In 1527 the chancel and the first three sections of the two lateral aisles and the nave were built. By 1541 the aisles, naves, shrine, sacristy and three chapels were completed, finalizing the first phase of the Cathedral. Although the construction of the naves, the front chapels and the main facade were finalized by the 1541, the floor plan of the cathedral kept having alterations. A few years later, in 1554, the bell tower and five more chapels were added. The last phase concluded with the construction of additional chapels in 1895.

According the authors of the *Basílica Catedral de Santo Domingo*, the Cathedral suffered many modifications and damages throughout the years: "Drake's occupation of the East (Santo Domingo) in

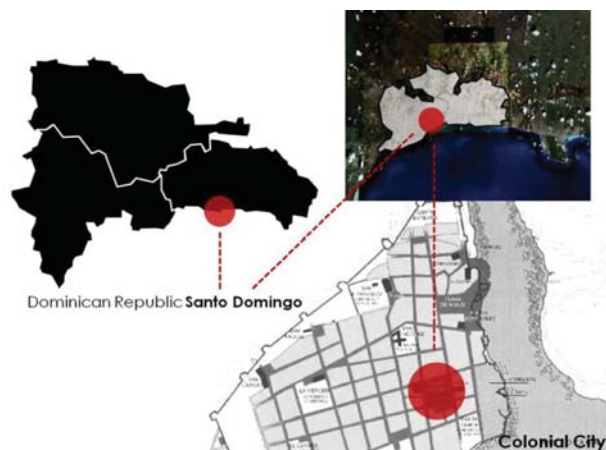


Fig. 3. Location by Gabriela Fernández.

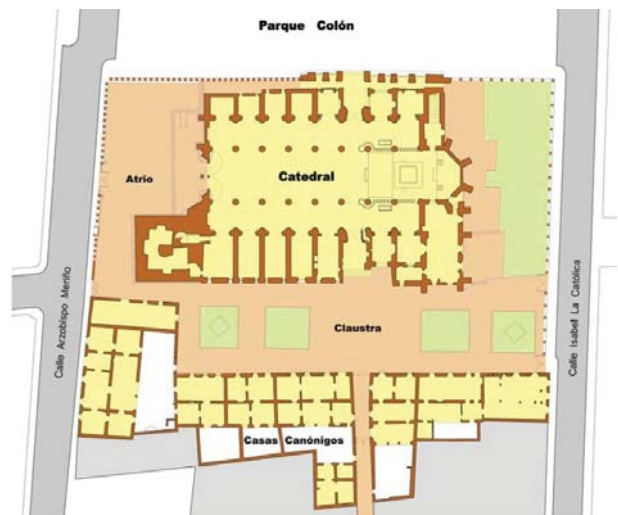


Fig. 4. Cathedral Complex (FLORES, PRIETO & PÉREZ, 2011).

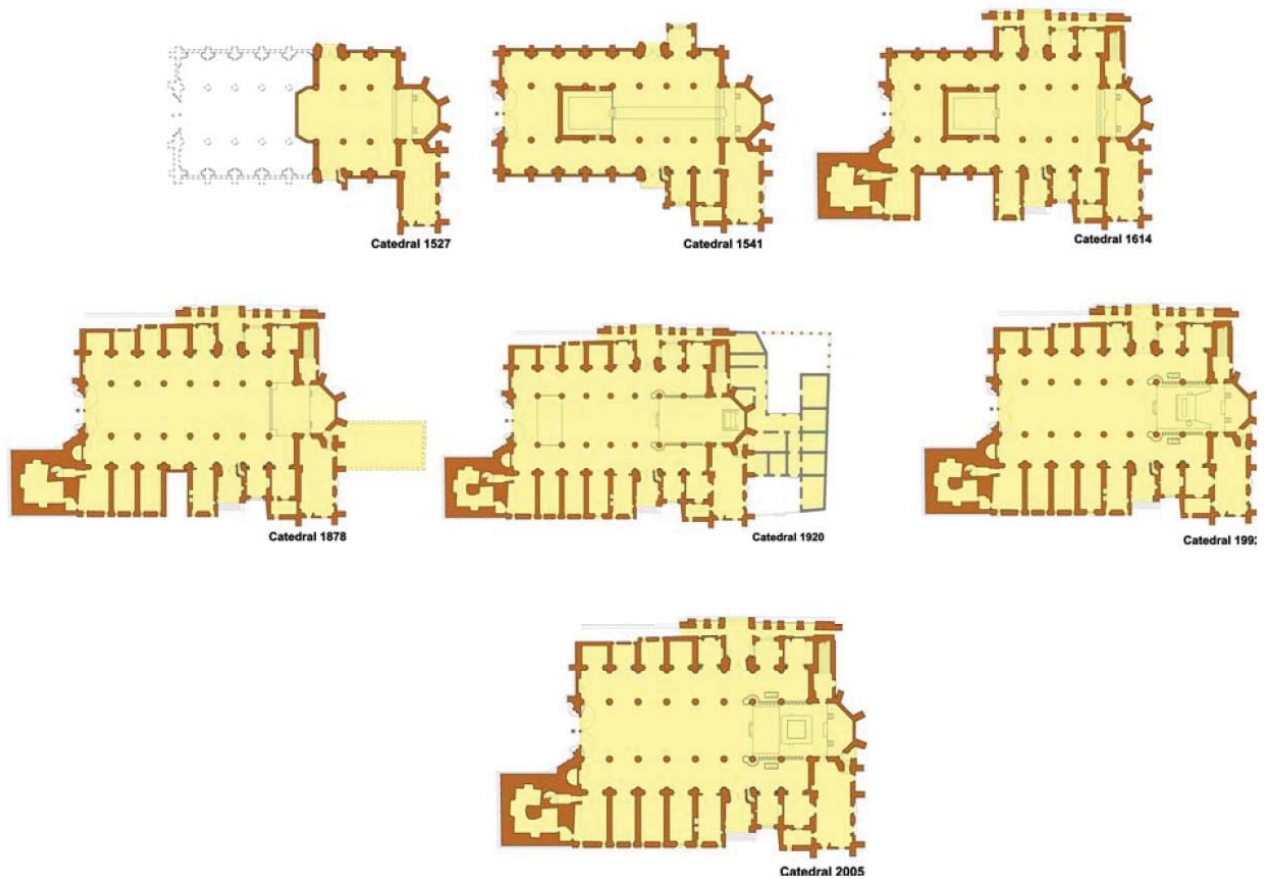


Fig. 5 Building Evolution (FLORES, PRIETO & PÉREZ, 2011).

1586 when he entered the cathedral robbing jewels, burning altarpieces, stealing the bells and creating other vandalism acts” (FLORES, PRIETO & PÉREZ MONTAS, 2011) caused more damage to the Cathedral.

During the beginning of the 17th Century an addition was made to the northern façade, which completely changed the image of the Cathedral. An earthquake in 1614 created damages in those additions, requiring



Fig. 6. Francis Drake Babylon walls (FLORES, PRIETO & PÉREZ, 2011).



Fig. 7. Postal Card, Clock - 1912 (FLORES, PRIETO & PÉREZ, 2011).



Fig. 8. Cathedral, 1920 (Courtesy of Esteban Prieto).



Fig. 9. Cathedral, 1958 (Courtesy of Esteban Prieto).

an immediate reinforcement to the damaged façade. In 1664 the Presbytery was also modified, in order to make the Cathedral look larger.

During the 18th century, other earthquakes caused damages to the structure of the Cathedral; there are notes and descriptions of crack repairs done during that period (1775-1778) done by the Ecclesiastical Charter.

In 1862 the city council decided to put a public clock on the north façade of the Cathedral, right on top of the Ecclesiastical Charter. This clock was specifically brought from Hamburg, Germany. In 1875, it was substituted by a new one, much more modern for that time. However in 1916 it was removed and placed in the City Hall. The removal of the clock caused water filtrations in the roof of the Ecclesiastical Chapter.

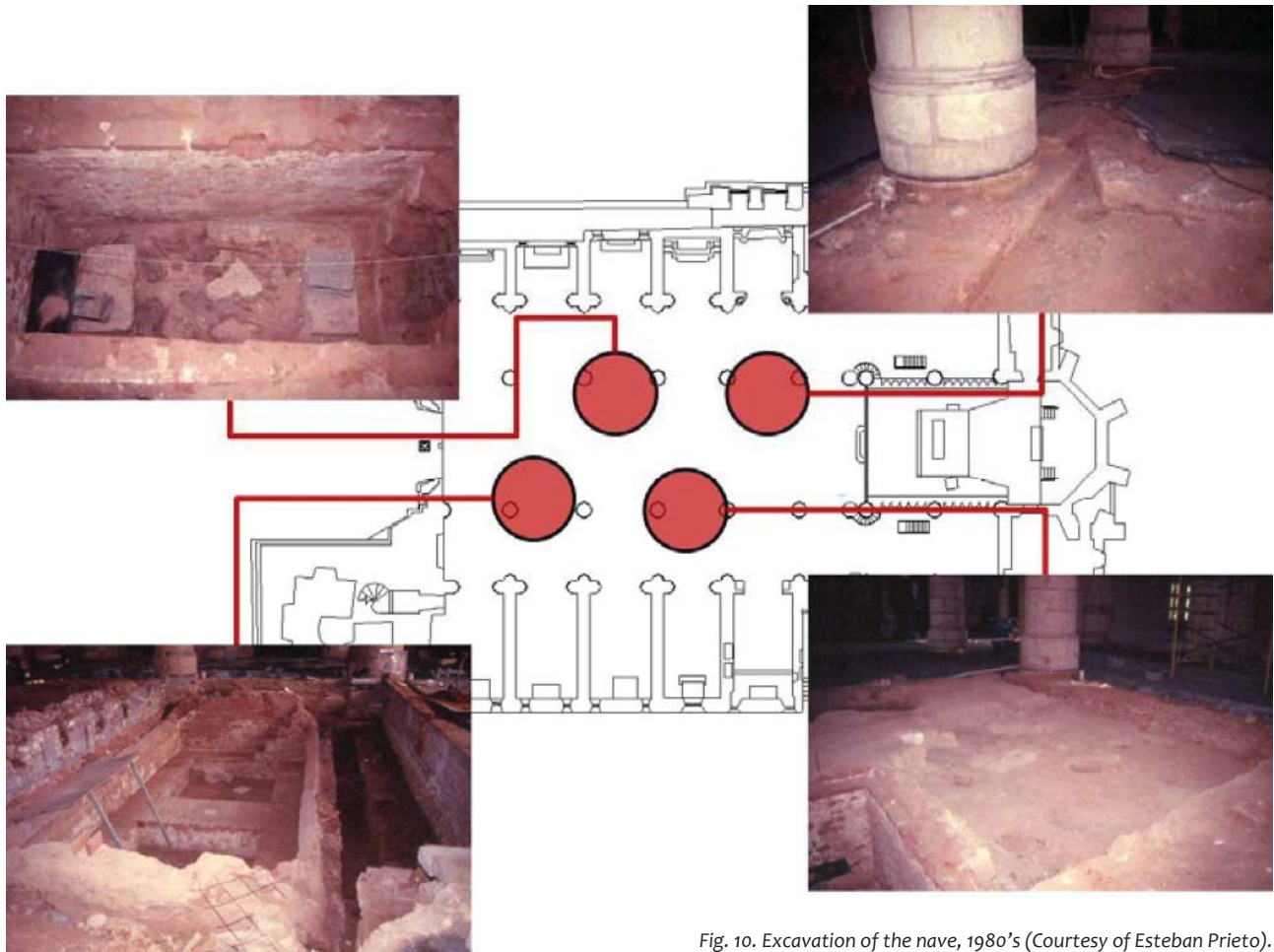


Fig. 10. Excavation of the nave, 1980's (Courtesy of Esteban Prieto).

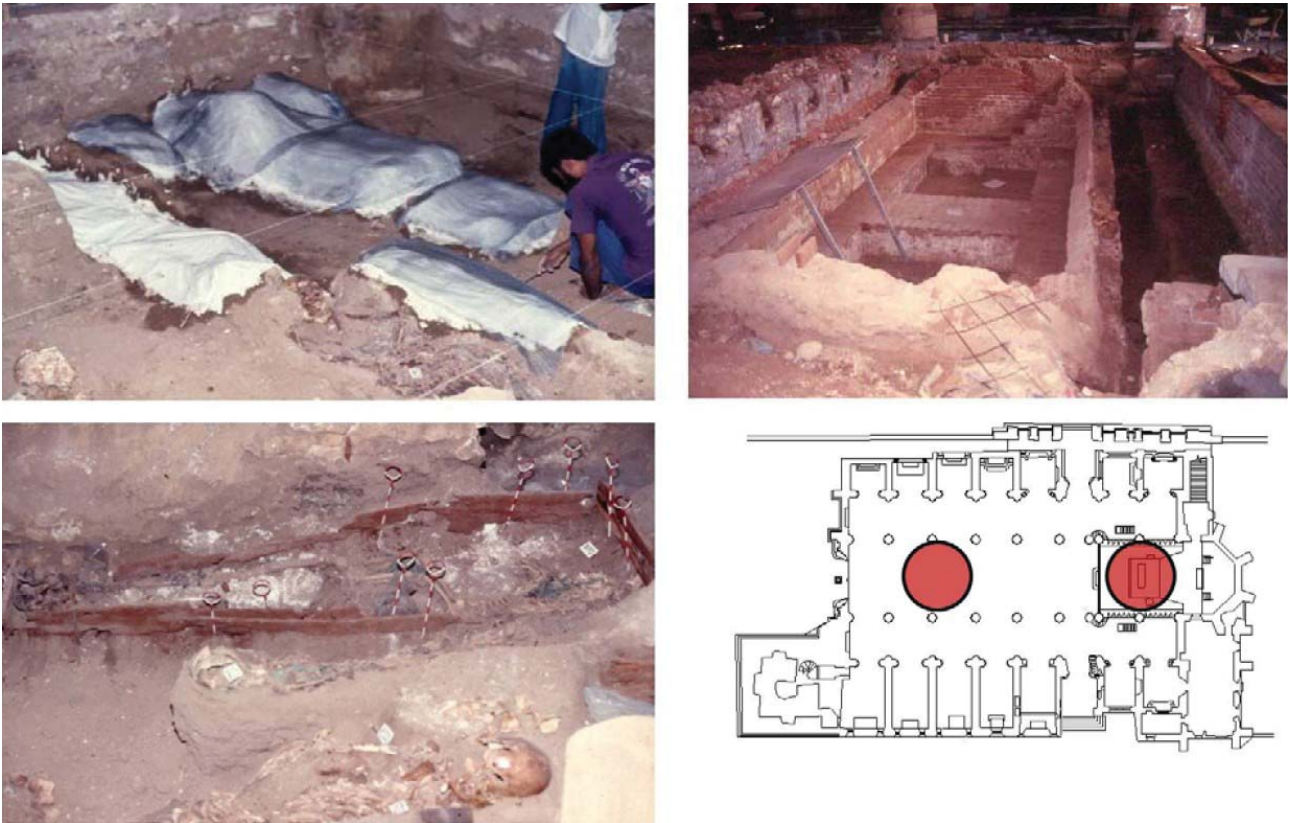


Fig. 11. Excavation of the nave, 1980's (Courtesy of Esteban Prieto).

3. THE CONSERVATION AND RESTORATION PROCESSES

The first conservation project initiated on April 7, 1877. It was considered the first formal conservation and restoration treatment because it initiated as a small project for fixing the presbytery, though it

extended, and was not a practical restoration. The book *Basílica Catedral de Santo Domingo*, clarifies that the conservation and restoration treatments were carried out by the Priest Francisco Xavier Billini. This project was influenced by intellectuals and other important characters of that the time, who thought that the remains of Christopher Columbus were

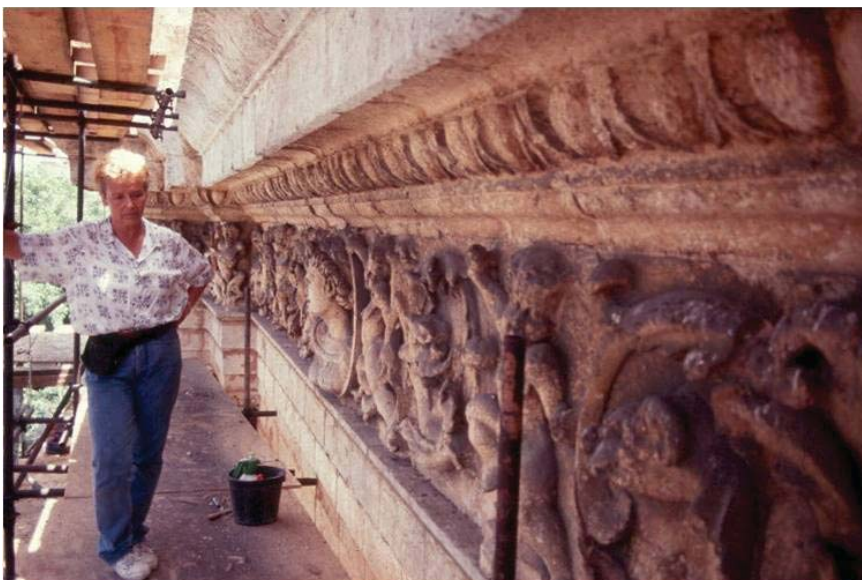


Fig. 12. Cleaning of the façade, 1980's (Courtesy of Esteban Prieto).

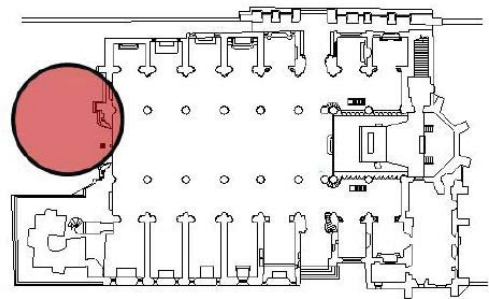


Fig. 13. Atrium Excavation, 1980's (Courtesy of Esteban Prieto).

in the Main Crypt, and they therefore also made some excavations (Prieto, 2011). Once the tomb of the Admiral was found, the original shape of the crypt and the Presbytery were modified. During this

conservation and restoration process, the priest also changed the choir's location, bricked some windows in the apse, and other "adjustments" were made to fix what the priest called "the decaying building". From

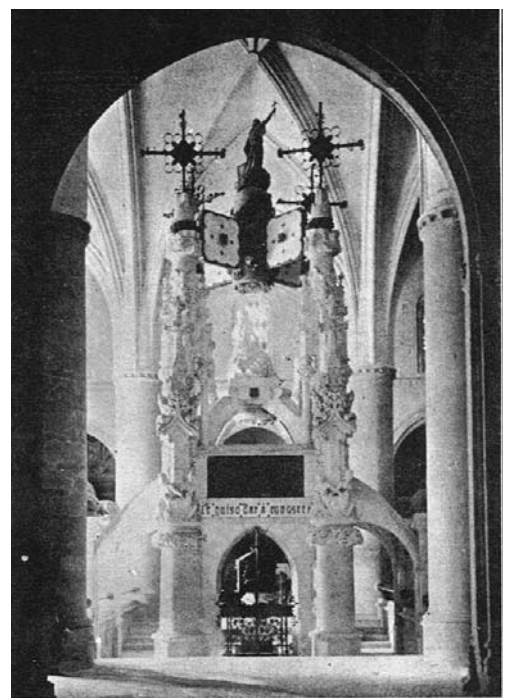


Fig. 15. Mausoleum (Courtesy of Esteban Prieto).



Fig. 16. Restoration Results. Façade and Interior, 2010 (Courtesy of Esteban Prieto).

1884 to 1895, other modifications were made in the Presbytery, which consisted of having a high and a low presbytery. After the excavations concluded the entrances to the crypts were once again closed, for they were only opened for burials.

During the beginning of the 1900s, one of the most extended repair plans was made. A new Baptistry was constructed and the original one was moved to the church of “Santa Barbara”, which is located just a few blocks North from the Cathedral. A marble funerary monument was designed and built for the Archbishop of that time. New metal railings and gates were placed in the baptistry chapel, as well as in other spaces where these were needed. There were also modifications and repairs made to the pavement of the spiral stair, which lead to the organ chapel and choir. The sacristy was completed at this time, and it was connected to the antique parochial office and a chapel.

In July 1911 the architect Anthonin Alexander decided to undertake a diagnosis of the Cathedral’s structure,

for its columns and walls were deteriorating and had cracks. The deterioration of the Cathedral’s structure had been caused mainly because of past earthquakes, (from the 1614 and from the 18th century). Alexander, presented a detailed report, including costs and a working plan to the government, in order to repair and conserve the Cathedral. This restoration process focused mainly on the consolidation of the structure by using concrete reinforcements. By 1919, a new concrete building was attached to the apse. Its purpose was to accommodate the Archbishop’s offices and residence.

Many historical and natural events passed through time. There was a dictatorial period, civil wars, hurricanes, and earthquakes, not all of which affected the Cathedral directly, but they did play a role in the Cathedral’s historic timeline. Time passed, and the Cathedral still stood untouched, as if it was forgotten. By 1964, the presbytery was once again modified, and all of the original plaster, which had covered the cathedral since the beginning, was removed.

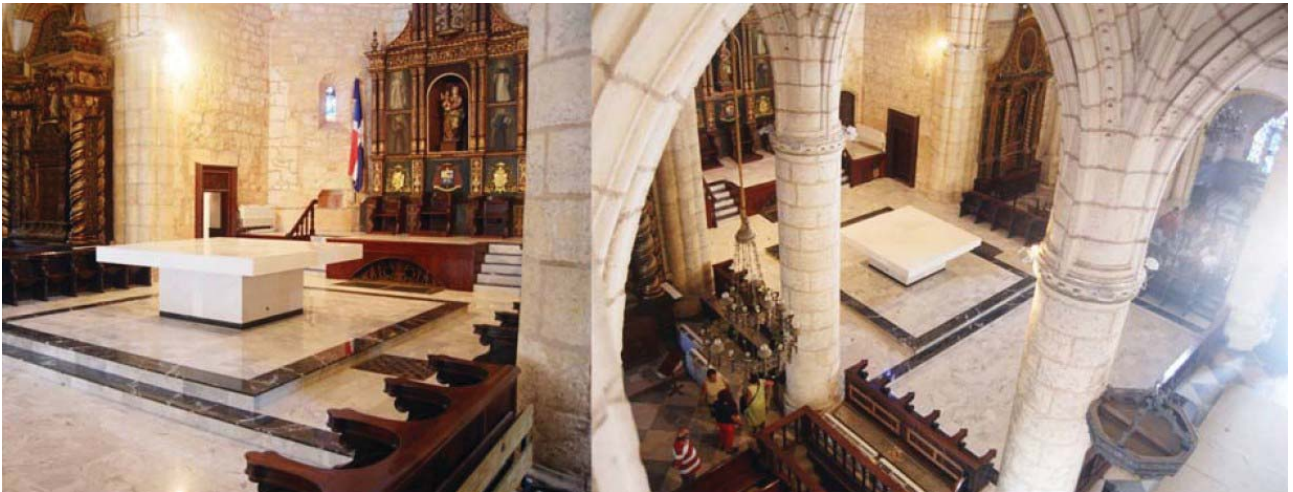


Fig. 17. Restoration Results. Presbytery, 2010 (Courtesy of Esteban Prieto).

In 1971 the apse was freed of the cement building, which had been erected in 1919. During 1971, an earthquake struck the city, affecting most of the largest monuments, including cracks on the walls of the Cathedral. Due to this event, an emergency conservation and restoration program was established. This natural phenomenon caused great cracks on the ecclesiastical charter room of the

Cathedral, as well as in the northern portal, specifically in its arch. The solution for the damage caused in the northern facade was the introduction of metal elastic tensors. This restored the stability of the facade. In the extremes of the exterior corners of the Cathedral, bronze plates were placed; other metal plates were placed in the interior, acting as buttresses.

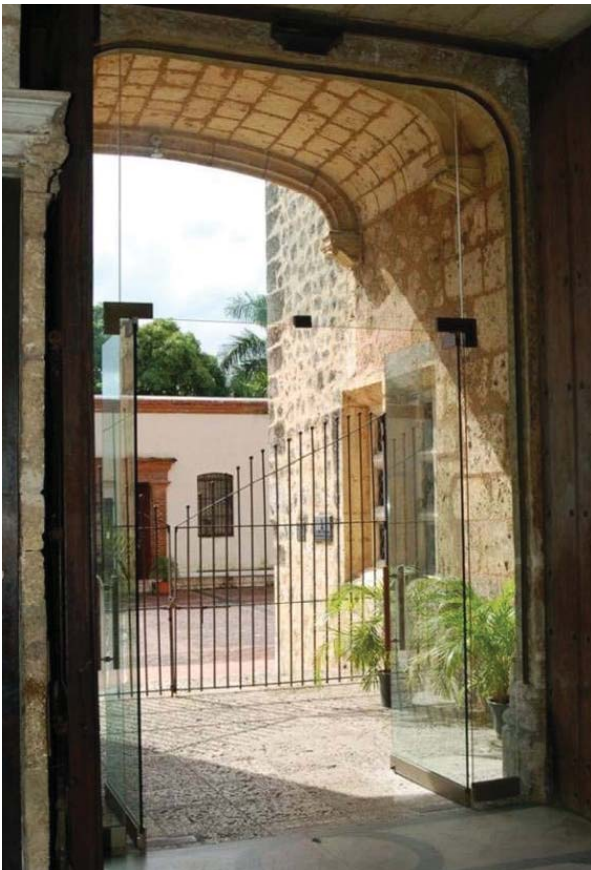


Fig. 18. Crystal Doors for Air Conditioning, 2010 (Courtesy of Virginia Flores).

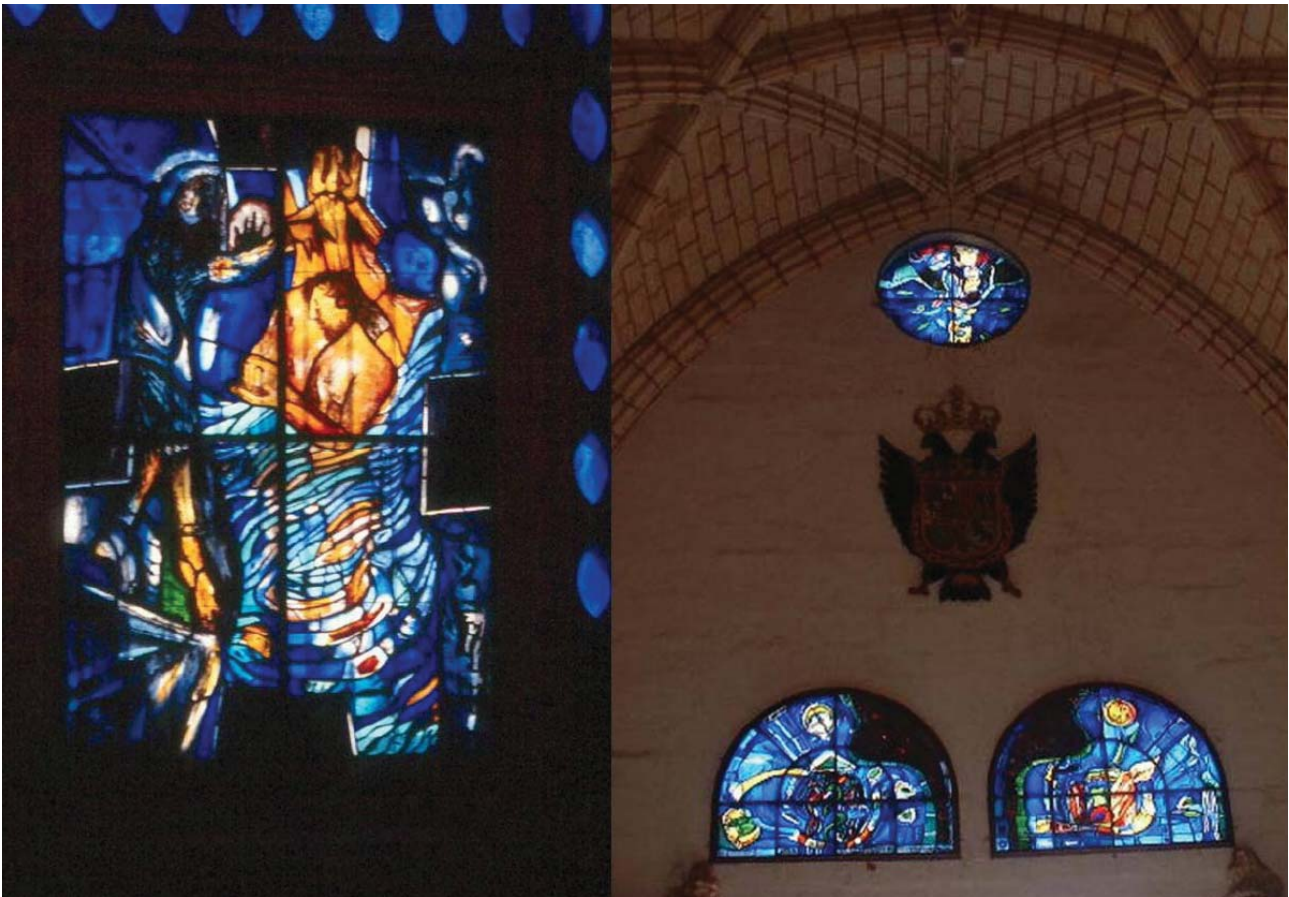


Fig. 19. *Winds from the inside*, 2009 by Gabriela Fernández.

4. THE MODERN ERA OF THE CATHEDRAL'S CONSERVATION AND RESTORATION PROJECTS

In 1981 a new program for the conservation and restoration of the Cathedral was initiated. A team of Dominican and Spanish professionals came together for the development of a proper conservation and restoration project. By 1983 this project started informally by dismantling the presbytery, with the aim of carrying out an archeological exploration. However it was after the completion of the structural overview of the general plan and the formation of the archaeological team that the project formally started at the beginning of 1984. During 1990, the central mausoleum was moved to “Faro a Colon” a symbolic museum in the outskirts of Santo Domingo.

The archaeological intervention was divided by stages starting in the presbytery and slowly moving towards the main façade, leaving the cathedral floorless. Once the floor was cleared, the team uncovered and cleaned both of the main crypts and found numerous remains of important historical characters, as well as much

useful anthropological information of the original inhabitants of Santo Domingo. The archaeological team found a series of human burials and pottery, and produced a detailed report on the archeological and anthropological investigations.

The presbytery and the crypts were then reconstructed, placing a pattern of black and white marble as a new floor. The crypts were closed to the public and the main one, which is underneath the altar, was lined up with green marble, leaving some of the original niches open to the public view and the rest was hidden so there would not be more deterioration.

A detailed study of the inner walls and the main façade was completed, including the condition of mortars, plasters and a structural analysis. Complete sets of plans were produced at this time. A drainage system was created, in order to prevent of stagnant water from reaching the walls. A diagnosis based on the electrical installations was also finished; in view of to applying a proper lighting system for the Cathedral's façade and it's interior.



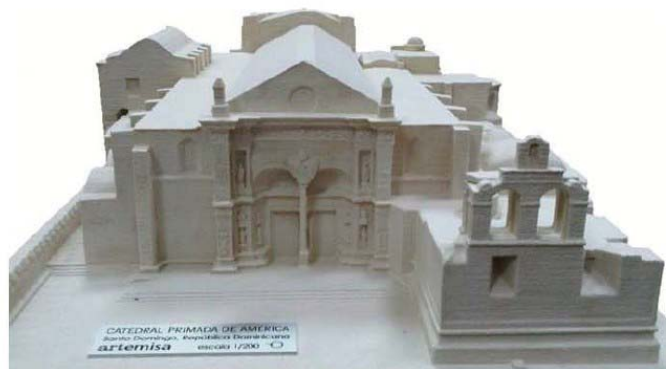
Fig. 20. *Windos from the inside*, 2009 by Gabriela Fernández.

The intervention of the Cathedral was completed in September 1989; after six years of limiting the

public access to, there was a gratifying result when permitting people to go again to mass, in a more



Fig. 21. *Laser Scan*, 2009 (Courtesy of Virginia Flores).



comfortable manner. Other small interventions have been made in the past years to improve human comfort. For example air conditioning was installed to create a comfortable temperature environment for users. The citizens are very gratified with the result, for the hot climate and humidity of the island nature created an uncomfortable environment and moment during the Catholic ceremonies. However, there was a need to take into account that the differences between external and internal temperature could cause deterioration to the structure; the solution was to place a humidity detector that records the level of humidity in the atmosphere. This humidity detector will be connected to the air conditioning so it can automatically stabilize the temperature in the interior, so the structure will not be damaged.

Last year new measurements were taken with laser technology, to have a full record of the damages and

as much details as possible in 3D models; to apply this new technology in other important temples and monuments, and record the full details of cracks on the structure and façade. This year a team of Spanish specialists will be working on other interventions in the Cathedral, using resonance technologies to reduce damages caused by pigeons and placing lightning rods to reduce the lightning impacts, among other factors. Finally a museum was created right in front of the Cathedral, in another historic building which was recently restored as well. Now the Cathedral's treasures, history and archaeological investigations are protected and exhibited for public view.

Received: 20 June 2012
Published: 15 August 2012

REFERENCES

- FLORES SASSO, V., PRIETO VICIOSO, E., and PÉREZ MONTAS, E. *Basílica Catedral de Santo Domingo*. 1st ed. Santo Domingo, República Dominicana: Comisión Arquidiócesana para la Celebración del Quinto Centenario, 2011. (In press)
- Bogaert, Harrold O., Esteban Prieto Vicioso, and Eugenio Pérez Montas. *Arqueología y Antropología Física en la Catedral de Santo Domingo*. 1st ed. Santo Domingo: Centro de Estudios Humanísticos, 1998. (In press)