

Notes from the field; Port-au-Prince, Haiti, February 9-12, 2010

“... We believe that the Caribbean’s unique blend of geography, culture and architecture is a non-renewable resource that when improperly developed or exploited constitutes a permanent loss for residents, visitors and developers alike. Partners seeks to work in concert with groups in the Caribbean and in North America to discover how technical assistance, advice and counsel can be better transferred from one country or one society to another. This transfer must serve the self-interest of all parties and must be undertaken as a partnership of equals.”

*From the Forward to: A Collaborative Caribbean Preservation Study
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1982*

Like any people, the identity of the Haitian people is strongly tied to the visible symbols of their history. Such symbols give them roots, regardless of the ups and downs of their past. Their desire to retain and restore these symbols was very strongly articulated to us on our recent trip to Port-au-Prince. This trip came together through the efforts of DRC Haiti, S.A., a consortium of The DRC Group (www.drcusa.com) of Mobile, Alabama and V&F Construction, a Haitian civil engineering and construction firm. Their role in Haiti is to assist with recovery efforts working under contract to the U.S. Navy, the French government and others. After assessing the situation in Haiti The DRC Group determined that survey work on historic buildings required preservation specialists. So the CEO of The DRC Group called a colleague in Mobile, Jerry Lathan, whose company has a large portfolio of historic preservation work (www.lathancompany.com) to put together a team of experts in the fields of historic preservation and seismic engineering. *

After three days in Port-au-Prince and two visits to the site of the Palais National, this team of experts has determined that at least 75% of this important historic structure can be saved and repaired; and the remaining approximately 25% can be rebuilt. About twelve inches thick in cross section, the three concrete domes are exceedingly heavy. Supported on very slender columns, it may have been the collapse of the domes which largely caused the damage to the rest of the building. At present the collapsed portions of the building are in danger of causing additional damage to the remainder of the structure, if their weight is not soon removed from atop the floors below. Inside the Palace many beautiful, original chandeliers are still in place as are other beautiful architectural elements and finishes, all of which are also in grave danger of destruction should the building shift during an aftershock or the now open areas in the roof, doors and windows allow rain to cause already weakened plaster finishes to collapse. The fine bas relief ornamental plaster cornice and coffers are still in place around the ceiling of the grand ballroom; but will also be lost if the building is not soon made weather tight.

Our assessment conclusion is that regardless of what the final decision for the re-use of this most visible Government building might be; it is absolutely essential that an emergency documentation and stabilization effort is begun immediately, before the impending rainy season or additional after-shocks cause additional and eventually irreparable damage.

Not only does preservation yield a cultural benefit, but a practical, humanitarian and economic benefit accrues from the repair of existing buildings. The Haitian government is in desperate need of work space and

the people in need of their worship spaces. By rescuing existing structures and returning them to service a tremendous benefit to the Haitian people would be realized. Many of the challenges facing the government of Haiti are based on the fact that the Ministers and their staffs have nowhere to work. Instead of leveling these buildings and starting over, the repair effort would yield millions of dollars in cost savings and more rapidly put these facilities back into service.

While in Port-au Prince this team was very fortunate to meet with many of the Haitian community who have tremendous personal, emotional stake in the preservation of their national patronage. We talked with representatives of the *Institut de Sauvegarde du Patrimoine National* (ISPAN) of the Republic of Haiti, Frederick Mangones and Herald Perard; and with Patrick Delatour, Minister of Tourism; Lionel Delatour, consultant to the *Commission Presidentielle Tripartite de Mise en Oeuvre de la Loi HOPE*; Leslie Voltaire, special envoy for the United Nation's Stabilization Mission in Haiti (MINUSTAH) and head of the government's reconstruction commission; Henry Jolibois, technical consultant to the Prime Minister of Haiti; and several other local architects including Jean Jacques Coicon, grandson of architect Georges H. Baussan who in 1912 designed the Palais National. On their request we also made a cursory visual assessment of several other historic government buildings (the *Palais des Ministeres*, the *Palais de Justice*, the *Casernes Desalines*, etc.) and the Catholic Cathedral. Some of these, notably the *Palais des Ministeres* and the Cathedral, though damaged, do not appear to be a total loss.

Consequently we join with all of these representatives of the Haitian people and are sending out this urgent appeal to the United States and the international community at large to join in supporting the people of Haiti in their desire to protect and preserve their cultural heritage; by earmarking emergency funds as soon as possible to be used for the documentation and stabilization of those damaged resources deemed by engineers and architects familiar with the rehabilitation of historic structures to be repairable. If this is not done right away, the Haitian people will not have the option to restore them as, unprotected, they will soon deteriorate to the point where restoration is not economically feasible.

“A ce peuple qu’on voulut a genoux, il fallait un monument qui le mit debout”

(For a people brought to its knees, a monument was needed to make it stand up)

“These words ... are a perfect illustration of the place that the Citadel occupies in the collective memory of the Haitian people. It is the symbol of the will of the people not only to free themselves from the chains of slavery but to keep, at any price, that painfully earned liberty.”

From a paper presented by Haitian architect Frederick Mangones at a conference on “History and Memory in Afro-American Culture” in 1990.

These words could just as well have been spoken today about the *Palais National* and other significant Haitian buildings damaged by the recent earthquake.

*THE TEAM WHICH WENT TO HAITI TO ASSESS THE PALACE INCLUDED:

The Lathan Company, Inc. (www.lathancompany.com): Jerry Lathan, CEO

John Milner Associates, Inc. (www.johnmilnerassociates.com): Annie Sauser LEED AP and Alfonso Narvaez

Risha Engineering Group, Inc. (www.risha.com): Janah Risha, SE

With Mel Green of **Melvyn Green and Associates, Inc.** (www.mgreenassoc.com) as a consultant



Le Palais National – Historical Information

Haiti's National Palace was designed in 1912 by Georges H. Baussan (1874–1958), a leading Haitian architect who graduated from the Ecole d'Architecture in Paris and whose commissions included the City Hall of Port-au-Prince and Haiti's Supreme Court Building. He was a son of a former Haitian senator and the father of Robert Baussan, an architect who studied under Le Corbusier and later became the country's Undersecretary of State for Tourism. Baussan's classical design was chosen from a range of plans submitted by Haitian and French architects in a national competition in 1912. The construction budget for the new palace was set at \$350,000 and work began in May 1914. By 1915, however, the under-construction palace was set ablaze by a mob that ousted and assassinated President Vilbrun Guillaume Sam. A contemporary news report stated the palace "has been partially destroyed after an early-morning attack which lasted several hours". After President Sam's death the country was occupied by the United States, with American forces taking possession of the palace and U. S. Navy engineers overseeing its completion. The building was completed in 1920.

Like other public buildings in Haiti, Baussan's National Palace drew on the tradition of French Renaissance architecture and greatly resembled structures erected in France and its colonial territories during the late 19th century, such as Norodom Palace, the residence of the French governor general of Cochinchina. Made of white-painted reinforced concrete, the two-story National Palace had a central section featuring a domed entrance pavilion whose four Ionic columns supported a pedimented portico; at either end of the main façade are matching domed pavilions. It is more than twice the size of our White House and is shaped like the letter E in plan, with the three wings running back from the front. In the main hall huge columns rise to the ceiling and at each side a staircase winds up to the second floor. The presidents and their families lived in the south wing of the building.



On January 12, 2010, the Palace was severely damaged by a magnitude 7.0 earthquake centered about 16 kilometers (10 mi) away from Port-au-Prince.

Structural Evaluation after the earthquake:

The Palais National is a three-story structure, E-shaped in plan. The structural system consists of minimally reinforced concrete beams and columns, with unreinforced brick masonry and stone rubble infill. The three domes which were 12 inches thick, were supported by slender columns and wall piers, which provided little resistance to the seismic loads. It is probable that their collapse triggered the collapse of the second floor along the north side of the structure.

The second story of the east wing, south of the north east tower, is severely damaged, but did not collapse. The damage consists of severe cracking and out-of-plane displacement in the infill panels. The second story of the center wing has collapsed onto the second floor. That floor consisted of receiving salons with long clear spans, which appear to have had very little cross walls to help resist the earthquake forces. The second story of the west wing has sustained moderate damage, consisting mostly of diagonal cracking in the wall piers.

The main (first floor) level, has sustained some minor to moderate damage. The basement level appears to have sustained the ground motion with little damage. This is probably because it is partially subterranean and was not subjected to an amplification of the ground motion and to the presence of multiple cross-walls.

It is urgent that the collapsed portions be removed immediately to prevent further deformations and overloading of the second floor framing and to reduce the overall mass of the structure at collapse locations. This will alleviate the potential damage caused by aftershocks.

The process of documentation, stabilization, and weatherization should include intermediate shoring and bracing, which is temporary in nature. Such shoring and bracing will provide for vertical and lateral support to ensure the overall stability of the structure, pending the completion of the repair work.

The permanent rehabilitation, restoration, and reconstruction work might include a full seismic strengthening to an acceptable level of performance. This strengthening can be achieved by the addition of pneumatically applied concrete (shotcrete, gunnite), with properly sized steel reinforcing. The location of these elements should be coordinated by historic preservation specialists, and be consistent with the restoration plans.

Janah Risha, SE
February 2010

Photo Essay



The area below the central dome suffered the worst damage, pictured from the front above and from the rear, below





Though badly damaged in places, other portions of the Palace show very little damage



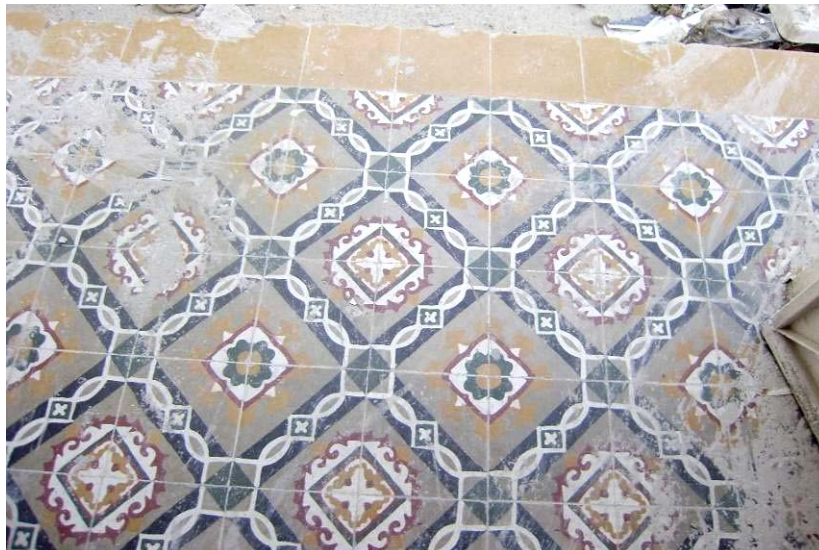


Fine chandeliers and ornamental plaster work are still in place inside the main Palace ballroom

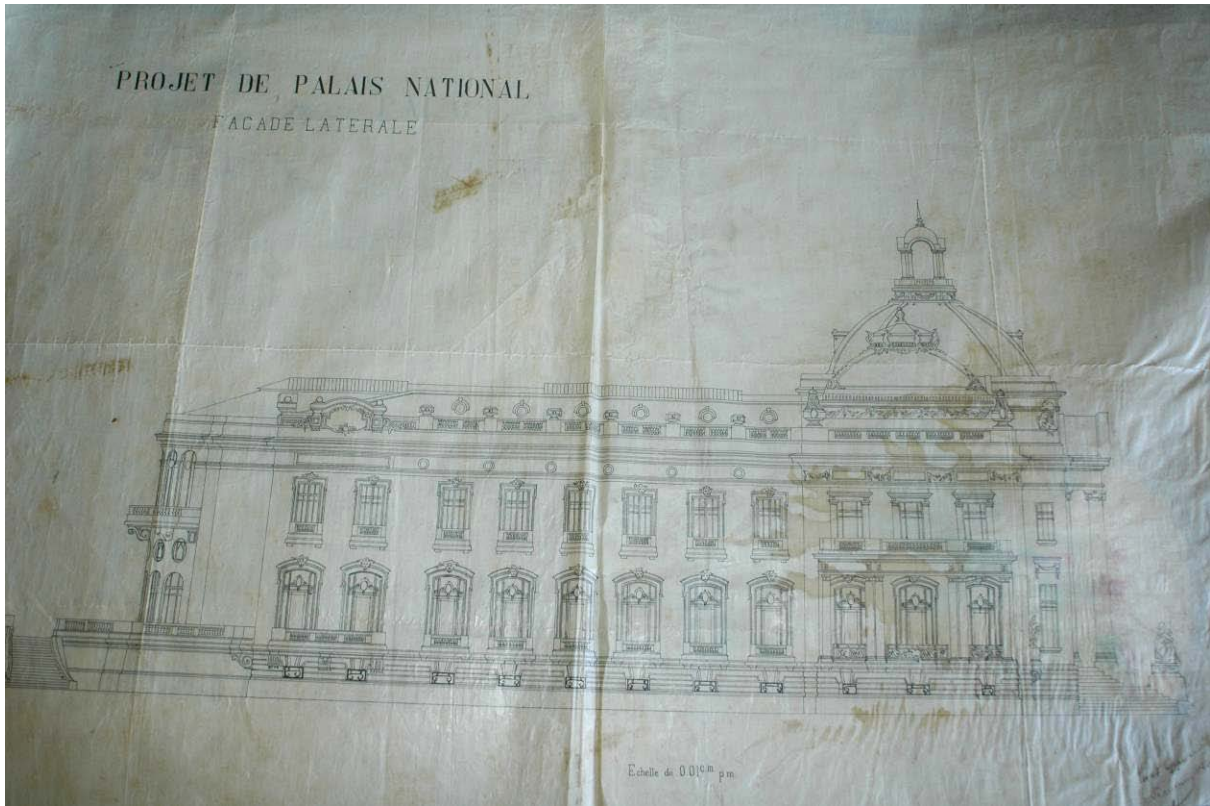




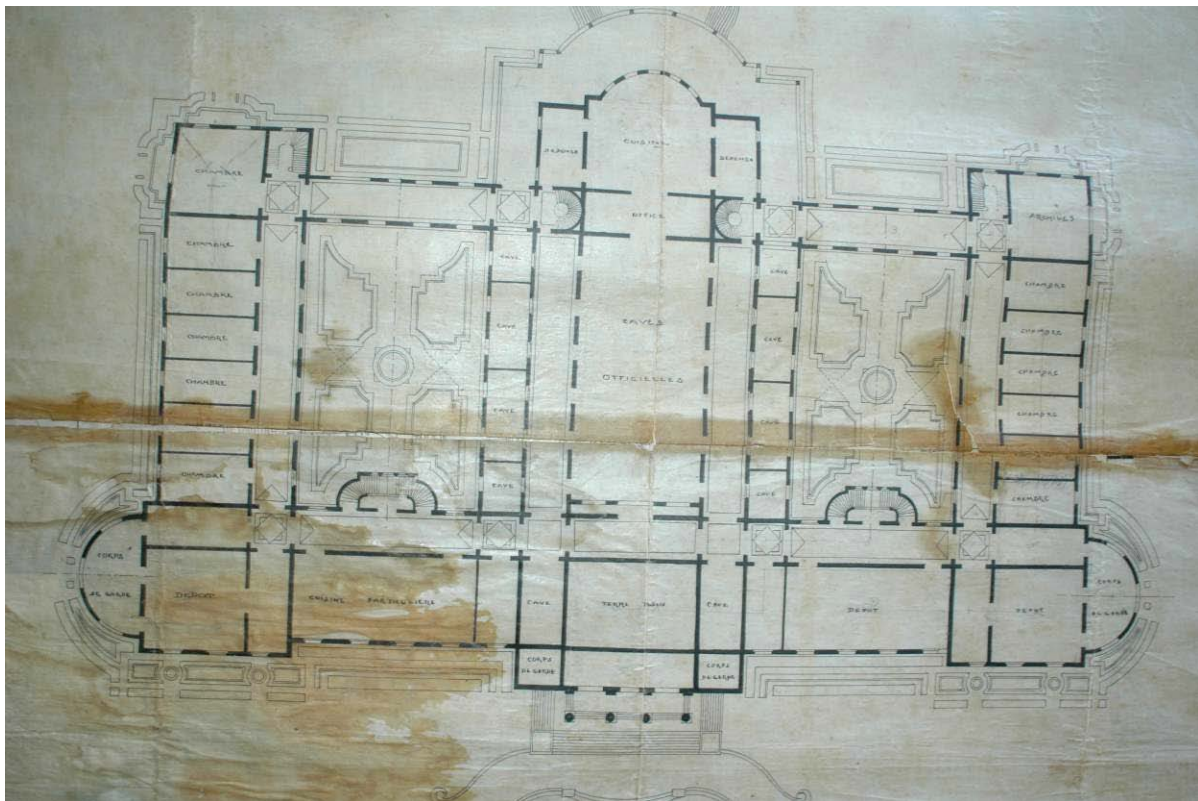
Little or no damage is evident at the Basement Level



The concrete tile floor at the Basement Level is remarkably intact



While we were there several of the original architectural drawings of the Palace were resurrected





The Palace sits in a handsome, park-like formal landscape, elements of which also require documentation and repair



Other Historic Buildings



The Casernes, which sits just to the rear (south) of the Palace was severely damaged





The Palace of Ministers (across the street and to the west of the Palace)
is only partly damaged and appears to be repairable





The Cathedral lost the tops of its twin towers and its roof, but most of the interior columns and arches still stand and appear to be repairable



Remarkably, some of the stained glass windows remain intact