

SUMMARY

**OF THE STATE OF CONSERVATION REPORT FOR
PROPERTY C135: FORTIFICATIONS OF THE CARIBBEAN
SIDE OF PANAMA,
PORTOBELO-SAN LORENZO**

JANUARY 2014

INTRODUCTION

The Fortifications of the Caribbean side of Panama are a serial property comprised of two components: Portobelo and San Lorenzo, in the Province of Colón.

In Portobelo, the structures inscribed on the World Heritage List are: 1.- San Fernando Fortifications: Lower Battery, Upper Battery, and Hilltop Stronghold; 2.- San Jerónimo Battery Fort; 3.- Santiago Fortifications: Santiago de la Gloria Castle, Battery, and Hilltop Stronghold; 4.- the Old Santiago Fortress; 5.- Ruins of Fort Farnese; 6.- the La Trinchera site; 7.- the San Cristóbal site.

Forty-three kilometres away, at the mouth the Chagres River stands the San Lorenzo Castle (originally “San Lorenzo el Real del Chagre”) with its Upper Battery as a separate structure.

SUMMARY OF THE STATE OF CONSERVATION

The elements that have negatively affected the conservation of Property C-135 are:

- A truly adverse weather with patterns of high temperatures and large quantities of rain that erode the material used in construction, which, once the roofs and wall plastering were lost, lose stability by the erosion of lime mortar and rubble infill.
- The instability of the slopes surrounding Portobelo. Already a source of complaint in colonial times, this instability is due to steep inclinations and a low degree of adherence resulting from the site’s geological composition. At the Santiago Battery, landslides in 2010 affected the south end and the remains of the munitions magazine and the soldiers' barracks.
- Changes to the profile of the slopes at the southern end of Portobelo Bay, created as a result of the construction of the access road to the town in the 1970s, which is almost tangent to the Santiago Battery and even crosses the remains of Santiago de La Gloria Castle. This has changed the natural drainage of the ravines, producing the containment of large amounts of water.
- The evident rise in sea water levels and the severe subsidence caused by building on mud and clay silt soil with a very low carrying capacity. Referring to historical map levels, a rise of almost five feet at the base of San Jerónimo Battery-Fort has been detected, which represents a significant difference in level compared even to current low-tide minimums; major parts of the bay have been flooded, eliminating beaches and perimeter areas. Fortress walls

initially built above water now remain under it; this makes the elimination of rainwater extremely difficult. Sea level at high tide is almost at the same height or even above the base of the ground level of the lowest battery, directly filtering seawater by the embrasures under the gun barrels of San Jerónimo Battery-Fort.

- Uncontrolled urban growth in Portobelo, with illegal construction over the ruins or their immediate borders.

It became clear that the most pressing risk variables are related to the climate (rainfall, high temperatures, erosion, etc.). Anthropogenic factors (uncontrolled urban expansion, water contamination, illegal construction and incipient conservation management) compound natural risks.

PROPOSED MITIGATION MEASURES

Taking the objectives of the existing Emergency Plan into consideration, guidelines for a viable intervention strategy were established. Major mitigating measures to be taken are:

1. Reinforce maintenance work carried out by the Patronato Portobelo San Lorenzo, adapting its budget to the scale of the necessary interventions.
2. Control urban pressure on the Portobelo fortresses by redefining the buffer zones and authorized land uses (residential, commercial, parking, etc.) in the immediate vicinity of the structures.
3. Solve the pollution of the built environment, as well as the pollution of water bodies by solid waste with an integrated sewage system. At the urban scale, the construction of public sanitary facilities within existing buildings is required, all connected to the sewage system.
4. Weed control and extermination and root extraction of all invasive vegetation.
5. Removal of all modern additions made in concrete, and replacement with traditional materials.
6. Waterproofing work on all roofs, parapet walls, and any other architectural elements to prevent the penetration of rainwater and further deterioration of buildings and ruins.
7. Protection of waterproofed surfaces to allow pedestrian use.

8. Repair and maintenance of water drainage channels inside and outside the fortresses, to allow the free flow of rainwater towards the sea.
9. Repair the rainwater cisterns in the interior of the fortresses and install submersible pumps for discharging water directly to the sea or to existing water channels, thus avoiding unnecessary water pressure on the external walls and foundations.
10. Complete the selective restoration of a limited number of fortresses in order to determine real restoration costs and establish final standards for finishes and structural treatment to be followed in all future preservation work in Portobelo and San Lorenzo. Lime, timber, stone, bricks, etc., should be obtained locally as far as possible. Salvaged material should also be reused whenever feasible.
11. The Second Phase of conservation work will concentrate on rehabilitation for the purposes of tourism, cultural studies, educational workshops, etc., in view of sustainable management and maintenance.

MONITORING

The main action undertaken by the State Party during 2013 was a slope stabilization project in the hill adjacent to the Santiago Fortifications, which were affected by the landslides of December, 2010. This project was monitored by the Technical Unit of the Casco Antiguo Office, in charge of the follow up of the Management Plan for World Heritage Sites in Panamá. The Management Plan was adopted by Resolution No. 186 DNPH of the National Heritage Directorate of the National Institute of Culture, and published in the *Gaceta Oficial* (Number 27387 / 3 October, 2013).

The following Monitoring File is hereby presented in the format established by the Management Plan.