



Università
Ca' Foscari
Venezia

Port Louis – Mauritius: Archaeological History of a Tropical City

MAECI, ARC-542, Year 2019

Scientific Report

**Dipartimento di Studi
Umanistici**

Abstract

The archaeological-topographic research project in Port Louis (Mauritius) aimed to reconstruct the city's construction phases using historical and archaeological GIS (Geographical Information System) tools. The goal was to analyze material forms and construction techniques—through stratigraphic analysis of standing structures and 3D reconstructions—to trace the urban development of the tropical city.

Despite recent extensive urban transformations, Port Louis preserves a vast historical architectural heritage, dated from the 18th to the early 20th century. This heritage comprises a complex system of public and private buildings, many of which are still in use, with significant architectural and archaeological stratifications that have yet to undergo adequate conservation or valorization.

The urban fabric holds immense historical and cultural importance, not only for Mauritius but also for the broader colonial geography of the Indian Ocean. Over three centuries, social, political, and military groups from Europe, Africa, and Southeast Asia inhabited and shaped the urban center, negotiating distinct material forms and constructions. This evolution provides critical insights into major historical and social phenomena, such as slavery, the indentured labor system, migrations, and colonial adaptation.

Approximately 1,000 structures, including residential, public, and productive buildings, revealed untapped potential for understanding reciprocal cultural influences within this globally interconnected region. Port Louis' study is essential for analyzing migration dynamics and urban transformations in modern globalized contexts. The archaeological approach facilitates an unbiased exploration of historical phenomena, avoiding distortions introduced by contemporary political agendas. The contributions of laborers (both enslaved and indentured), migrants, and colonizing elites reveal a complex palimpsest where Port Louis serves as a case study for analyzing contemporary multicultural societies.

2019 Mission Timeline, Data, and Technical Specifications

In 2019, two archaeological-topographic missions were carried out in Mauritius. The first, conducted from May 8 to May 22, focused on organizational tasks, including establishing necessary agreements and technical protocols for the research and scheduling dissemination activities on-site. The second mission, held from December 8 to December 22, involved all project participants.

The initial mission aimed to establish partnerships and prepare the groundwork, while the second mission engaged a team of eight researchers (both Italian and Mauritian) to implement the research plan. During the archaeological survey, approximately 600 historical buildings (out of an estimated 800–900 structures) in Port Louis' urban center were pre-catalogued, forming the basis for future research. Historical and modern cartographic data were collected, and activities were rationalized for efficiency.

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A sample of 150 buildings, distributed across various city neighborhoods, underwent detailed archaeological documentation. One-fourth of these buildings were subjected to photogrammetric surveys and 3D reconstructions. A special focus was placed on the Old Military Hospital complex, the city's oldest structure, with intensive photogrammetric surveys, stratigraphic architectural analysis, and sampling of binders and plasters, as well as the study of buried archaeological deposits.

All collected data are being integrated into a GIS platform (Geographical Information System), an open-source data archiving system (ResourceSpace), and the project's official website www.porlwi.org.

Institutional Agreements and Local Staff Training

During the missions, bilateral agreements were formalized with the following institutions.

- 1) National Heritage Fund (NHF) – Ministry of Art and Culture, Mauritius: The partnership focused on defining protocols for data exchange, creating shared repositories, and organizing workshops for architectural and archaeological surveying. These workshops aim to support heritage conservation and urban preservation efforts.
- 2) Aapravasi Ghat Trust Fund (AGTF), World Heritage Site: This collaboration focused on studying the monumental complexes around the Immigration Depot and providing joint training for staff from Ca' Foscari University and the local research team on historical GIS methodologies.

In December 2019, some joint training sessions were conducted in Port Louis. Additionally, 3 meetings with the staff of the Ministry of Art and Culture, Mauritius were held to share project ideas and outline dissemination strategies.

The project team also held several discussions with the Italian Consulate in Mauritius, led by Consul Zinno, to integrate project activities into the consulate's cultural programs and promote awareness within Mauritius' international communities. A detailed interview with the leading local newspaper, *L'Express*, provided initial public outreach and highlighted the project's activities.

Urban Survey

Given the large number of historical buildings requiring study, the urban survey was organized as a pilot project to collect significant data on various building typologies across different city areas. The primary objective was to test the time and resources needed for a comprehensive data collection process. The survey employed various data collection and storage methods to determine the most efficient approach for the city's unique conditions, including its urban dynamics and traffic patterns. Many buildings could only be studied for limited hours due to accessibility challenges. Key accomplishments include:

- Designing the building inventory system and database structure using FileMaker. This tailored building inventory includes a complete, yet concise dataset designed for GIS integration and online publication.
- Compiling 150 detailed building records spanning diverse typologies.
- Conducting topographic surveys (photogrammetric) using low-cost, high-efficiency technologies, such as Agisoft Metashape and Reality Capture for 3D modeling.
- Structuring the urban GIS to record both precise point data (coordinates) and area data (boundaries of preserved historical buildings).



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Archaeological Analysis of Structures and Building Typologies

Stratigraphic analyses were conducted on a representative sample of the following building types:

- Public/military buildings constructed with large, squared stones and coral lime, dating to the French colonial period,
- Public/military buildings built with small, roughly dressed stones, coral lime, and plaster, from the British colonial period,
- Commercial buildings (“shop or storage units”) made of stone, located in the port area and dating to the 18th century,
- Mixed-use commercial/industrial buildings from the 18th and 19th centuries, incorporating Creole architectural elements in wood,
- Residential buildings with corrugated iron roofs, located in the former Camp de Lascars and Camp de Noirs,
- Colonial churches,
- Military structures.

The preliminary analysis demonstrated the feasibility of using archaeological methods to establish chronologies and construction typologies, even for buildings with undocumented origins. It also revealed the existence of a unique local architectural technique rooted in island-specific adaptations, influenced by the commercial practices of the French and British East India Companies, rather than directly importing European styles, as previously assumed

Old Military Hospital Complex

Special attention was given to the monumental Old Military Hospital, one of the earliest public buildings of the French colony (1740). Despite subsequent transformations, much of the original structure remains intact. Stratigraphic architectural analysis and photogrammetric surveys revealed evolutionary phases, distinguishing original components and identifying previously unknown construction techniques.

The original sections of the building were entirely constructed from coral stone, extracted from the lithified coral reefs of Port Louis harbor. This rare construction technique represents a significant technological adaptation and is unique worldwide.

Historical GIS, Ancient Cartography, and Archival Documents

Approximately **70 historical maps** were collected and used as the foundation for a historical GIS of Port Louis’ urban development. These maps were georeferenced and digitized. The topographic data of various historical buildings will be integrated into this geographic database.

Preliminary Historical-Archaeological Synthesis: Port Louis as a Colonial Hub

The urban center of Port Louis, analyzed through the complex stratigraphy of its historical buildings, provides a framework for understanding its material adaptations and unique technical and urbanistic developments. The city emerges as a colonial hub characterized by “local cosmopolitanism,” where diverse cultural groups with differing construction and habitation traditions interacted in a constrained, island-like environment.



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The city's urban fabric reflects a creolization process, where segregated colonial spaces (e.g., military zones, enslaved peoples' quarters, ethnically defined areas) were challenged by the fluid realities of an open and dynamic port city. Port Louis reveals a process of métissage, or blending, evident in architectural forms shaped by competing colonial and local agendas.

Even the poorest structures, such as corrugated iron houses in the former Camp de Noirs, display decorative elements influenced by French colonial elites, which in turn incorporated British-Indian styles. The port's architecture mirrors the cultural and material dynamics of the Indian Ocean in the 18th century, with spaces negotiated by sailors, travelers, and migrants who shared and redefined a confined urban environment.

Diego CALAON,
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