

## ABSTRACT

This thesis project consists of the development of a contributory web application to display and gather information on French Colonial era Art Deco architecture in Hanoi, Vietnam. The goal of this application is to create the foundation for a web-based spatial inventory of existing French Colonial era buildings. The inventory is meant to advise policymakers and heritage organizations on priority resources to protect the existing base of resources as well as to create a historic record of the historic urban landscape. This is important because the push to modernize infrastructure in emerging nations often leads to the destruction of the colonial heritage fabric in urban areas. An inventory of what currently exists, and possibly what existed in the past, will help to digitally record these sites, despite what occurred or may eventually occur in the physical places. Also as part of its purpose, the application seeks to engage the general public, including interested heritage professionals and scholars, by incorporating the ability to contribute information through the correction and enhancement of current entries. The web application will incorporate the minimum data standards for inventory of cultural heritage as specified in the Core Data Index to Historic Buildings and Monuments (Thornes and Bold 1998). The initial dataset for the application is based upon data collected during fieldwork in June 2012 and covers a self-defined area of the French Quarter district of Hanoi. As a secondary purpose, the web application was developed to be replicable by others who might choose to take and adapt the web application model for their own heritage conservation-related purposes. As such, the web application employs easy-to-use, relatively inexpensive, cloud-based tools and services, such as CartoDB, MapBox, Persona, Heroku, Bitbucket, and various Google products. In order to use many of these services together, the web application was purpose-built using the well-documented and flexible Python web development framework, Pyramid, in conjunction with the templating system, Jinja2, along with the standard HTML, CSS, and JavaScript programming languages. After instructional documentation is written and further development occurs as specified in the application's roadmap, the code, which is currently stored in a private repository on Bitbucket will be opened for download and collaboration by others wanting to use and improve the application model.