

## Gregory - Anthropology Abstract for Whalen Symposium

The project I created is based upon a set of data collected by the PACUNAM LiDAR Initiative (PLI) in 2016. PLI is a Guatemalan organization dedicated to cultural heritage management of archaeological sites in the region and environmental protection. This project collected data with LiDAR (light detection and ranging), a remote sensing system that is newer to the field of archaeology. For over a year I have been analyzing this data in an effort to locate instances of looting on archaeological structures over several regions of Guatemala. The objective of my project is to mark where looting has occurred and through this, to understand how pervasive the issue of looting is in an effort to gauge the damage that has occurred to archaeological sites. From this point I am able to study the flux of looting practices and how they are directly related to socio-cultural problems plaguing the region.

This work is grounded in the field of anthropology with specific focuses on archaeology and the issues of conservation and public engagement between archaeologists as they perform their work and local populations. Upon learning about the PLI data collection and being offered the opportunity to analyze these data by an anthropology professor I was interested in understanding not just where looting was occurring, but what motivates individuals to do it. Looting is not simply an act that individuals choose to do, it is often done out of sheer economic necessity as a direct result of issues in the local area. It is difficult to conduct it and also involves other parties and the antiquities trade (a “black market” trade in artifacts that were acquired through illicit means). Throughout data collection I noted that there are areas of heavy looting which indicate certain circumstances of the site that differ from other archaeological sites. This is significant for it can be measured widely throughout the archaeological field if it is possible to note what makes some sites more of a target to looting activity than others.

In creating my work I was heavily involved in analyzing LiDAR data. I had to learn the intricacies of LiDAR as a remote sensing system as well as ArcGIS which is a system utilized broadly in the field of archaeology, especially recently for the analysis of LiDAR data. I worked with these data and formed two separate looting catalogs in an effort to organize my findings and provide a way for further analyses to be conducted. Ten maps were generated in an effort to understand how looting was spread on archaeological sites throughout the region.

Once data collection ended the findings were compiled to make maps that each displayed different effects at archaeological sites within the region. The looting catalogs that I have created, the maps that were generated, and the resulting thesis that I have written will continue to be used by PLI in the future. The overall goal is to corroborate my findings that I have marked on the data with ground-truthing fieldwork (physical, on-the-ground studies).

My project is much more than simply marking looting on LiDAR data and preparing catalogs to organize these data. It contributes heavily to the field of archaeology for it not only begins an important discussion regarding the prevalence of looting, but it asks what causes it. In the field of archaeology we are well-aware that looting damages sites, damages the artifacts the

come from them, and affects the historical record. What is often not focused on is the cause of these damaging practices. Individuals who loot are often in poor socio-economic situations caused by broader socio-cultural problems in the area. When it is difficult to provide for your family financially, the archaeological site that is in close proximity becomes a way to supplement income. This research does not simply reiterate that looting is bad for archaeology, but it reminds the field that there are serious and valid reasons it is occurring. By working to understand the intricacies between looting, the antiquities trade, and the motivations for looting it becomes possible to create effective forms of cultural heritage preservation in areas that need it most. This not only protects the historical record, but it allows individuals to be privy to their personal history and break out of the dangerous social states plaguing their region.