

Use of GIS in an Archaeological Study of the Island of St. Kitts

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SUMMARY

The island of St Kitts is situated in the North East Caribbean Sea and covers an area of approximately 168 square kilometers. Throughout the last 6,000 years it has been the home of three Amerindian ethnicities, and then peoples of European and African descent. Changes in land use have been abrupt, as these groups have pressurized the previous occupants for space to live and survive under the natural threats of hurricanes and volcanic activity. Due to similarities in culture there is little to distinguish between artifacts of the Amerindian occupancies, and the sudden take over by the Europeans leaves little historical record of their activities. The European arrival marked a significant change in land use, and African labor was introduced to implement agricultural endeavors to full capacity. Later these people became the owners of the little remaining vacant land, using it in a different style.

This work aims to investigate the impact that the change in land use has had on the island. Ultimately this will involve the analysis of soil samples from various parts of the land to identify variations. Initially however, a complete study of archaeological and historical evidence is required to assess the use that has been made of the island. Information that is available has been critically examined with the aid of GIS applications. Data from a wide range of sources has been integrated with the aim of evaluating and cross-referencing sources. This paper presents the findings of the study, which combines information from records and archaeological work with that from site visits and surveys to compile a GIS that documents the entire history of human occupation of St Kitts. While previous work has focused on settlements of particular eras or locations, this research brings it together and adds further data to compile a record that is as complete as is currently possible. It is fully justified and presented through maps and records in a digital database in the form of a GIS.