Workshop on GIS and Direct Detection of Archaeological Sites in a Landscape Context Using Aerial and Satellite Imagery and Open Source Software

Direct detection modeling (DDM) of archaeological sites provides a gateway to a myriad of research, cultural and natural resource applications. Archaeological sites can be thought of special kinds of land cover, the data sets provided by aerial and satellite remote sensing platforms can be used to identify the chemical and structural characteristics that set them apart from other types of land cover. The direct detection of land cover that is a byproduct of human occupation sets direct detection modeling apart from the traditional archaeological predictive model. The success of the DDM approach depends upon the degree to which archaeological site land cover differs from the other types that surround it, and the availability of imagery that can detect these differences. At the same time, the DDM provides information about land cover and land use patterns that can be of great value in understanding the environmental context that influenced ancient settlement patterns, as well as identifying human activities and natural processes that threaten the integrity of archaeological sites today. Finally, this approach can be used at what are thought of as natural sites as well as cultural ones. Human settlement and land use patterns can be ancient in origin, or recently introduced in ways that threaten the viability of natural systems that are essential to the viability of natural protected areas such as World Heritage Sites and national or regional parks.

This workshop will be presented in two parts: The first will be a hands-on exercise that will introduce participants to the QGIS open source software that can be used for basic direct detection modeling of archaeological sites and other types of land cover and the production of maps that can be used when decisions must be made about how to arrest processes that threaten archaeological--and natural--sites. More advanced direct detection modeling will then be discussed. Participants should at a minimum learn to download QGIS software and employ the basic functionality that it provides, and become acquainted with online support that will enable them to employ the software in progressively more sophisticated ways.

Registrants will be emailed instructions for downloading QGIS software. This software should be installed on the laptop that each student must bring to the workshop prior to the workshop. With the instructions to the workshop, the registrant will also receive some QGIS instructional material that can be read prior to the class.

When:	During ICAHM's Annual Meeting, 2-5 October 2017
Where:	Stella Maris Hotel, Bagamoyo, Tanzania
Instructor:	Douglas C. Comer
Duration:	This will be a four-hour workshop.
Max. number of participants:	20
Required equipment:	The participants will need to bring their own laptop.
Fee:	Conference registration fee
Deadline:	1 July 2017

There is no additional fee for this workshop, but participation is contingent upon your completed conference registration. Please visit the conference website to register for this workshop: http://tanzania.icahm.icomos.org/workshop.html

Conference Secretariat: conference@icahm.icomos.org
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