

## Upcoming Events

<http://nia.ecsu.edu/>

### NCAR/UCAR GEO REU Workshop 2014

Wednesday, 19 March, 2014 5:00 pm  
<http://spark.ucar.edu/events/2014-geo-reu>

### ADMI 2014 - Surfing Through a Sea of Data

Thursday, 3 April, 2014  
<http://www.admusa.org/>

### UNH Undergraduate Research Conference

Friday, 11 April, 2014  
<http://www.unh.edu/urc/>

### USA Science & Engineering Festival

Friday, 26 April, 2014  
<http://www.usasciencefestival.org/>

### REU/URE in Ocean, Marine, and Polar Science

Tuesday, 2 June, 2014  
<http://nia.ecsu.edu/ure.pdf>

### 2014 IGARSS

Sunday, 13 July, 2014  
<http://www.igarss14.org>



## CERSER

<http://cerser.ecsu.edu>

The goal of the ECSU Center of Excellence in Remote Sensing Education and Research (CERSER) is to develop and implement innovative and relevant research collaborations focused on ice sheet, coastal, ocean, and marine research. CERSER is also the home of the IEEE-Geoscience and Remote Sensing Society Eastern North Carolina Chapter #03181 and IEEE-GRSS Student Chapter Branch #66221.

### CENTER FOR EXCELLENCE IN REMOTE SENSING EDUCATION AND RESEARCH

Dixon Hall Room 229/232 Elizabeth City State University Box 672 Elizabeth City, NC 27909  
Phone: (252) 335-3992 Fax: (252) 335-3790

Dr. Linda B. Hayden, Principal Investigator

ONR/NSF Grants: #N00014-11-0529 & #N00014-01-1070 // NSF CRISIS FY2005-108CMI

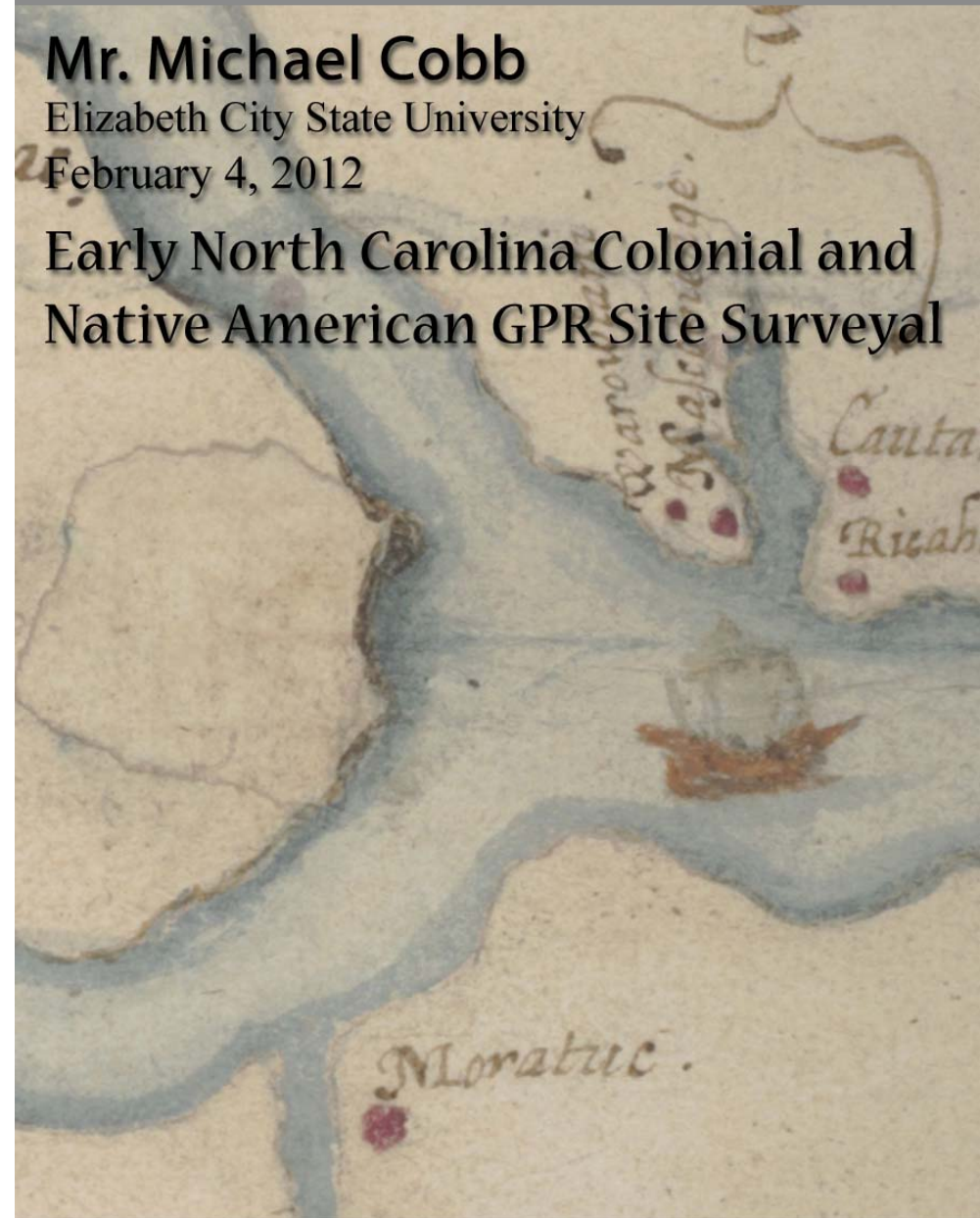
GEOSCIENCE AND REMOTE SENSING SOCIETY

# Mr. Michael Cobb

Elizabeth City State University

February 4, 2012

## Early North Carolina Colonial and Native American GPR Site Surveyal



Meeting of the Eastern North Carolina IEEE-GRSS Chapter #03181

**ECSU**  
ELIZABETH CITY STATE UNIVERSITY  
*Elevate Higher. Emerge Stronger.*



# Mr. Michael Cobb

Elizabeth City State University, Chemistry/Pre-Pharmacy

### ABSTRACT

The earliest English colonial populations in the new world spread rapidly through southeastern Virginia and northeastern North Carolina in the late 16th and early 17th centuries. These peoples had to overcome insufficient food sources, threat of attack by hostile indigenous peoples, and even hostile European powers. Early, mutually beneficial, contact and relations with non-hostile Native Americans were often sought by European colonists as a survival strategy. Sites characterized by close proximity between colonists and natives are well known in northeast North Carolina. Opportunities for participating in the archaeological investigations of early historic colonial sites became possible with a collaborative research effort undertaken with the



Museum of the Albemarle (MOA) and the Elizabeth City State University's Center of Excellence in Remote Sensing Education and Research (CERSER) in June 2012. Students in a summer research program for undergraduates engaged in a Ground Penetrating Radar (GPR) survey of a site related to the Culpeper rebellion of 1677. In collaboration with MOA, a high-resolution GPR survey was performed of a known Native American settlement site that existed in close proximity to early colonial habitations near Edenton, NC, on the Chowan River. The survey was designed to reveal the presence of any buried remnant structures that might indicate adoption by Native Americans of cultural features of colonial life such as defensive fortifications, or structures that may have served either religious or commercial purposes such as a church or trading post. Evidence for the presence of dwellings might indicate a closer affiliation between struggling colonists and the indigenous population. The early colonial and Native American contact site survey team learned to use the Geophysical Survey Systems SIR-3000 Utility Scan Ground Penetrating Radar (GPR) and the associated RADAN 6.6 data processing software. It performed a Ground Penetrating Radar survey at 0.5-meter spatial resolution of the most promising areas for colonist and Native American interaction as defined by prior MOA archaeological studies in collaboration with the museum's archaeologist. Data collected was processed and examined for any evidence of buried structural features.

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Tuesday, February 4, 2014 :: Room 229 :: Dixon-Patterson Hall :: ECSU

### 4:00pm IEEE-GRSS Meeting and Presentation

Call to Order ..... **Dr. Linda Hayden**  
GRSS Chapter President

Minutes..... **Mr. Jeff Wood**  
GRSS Chapter Secretary

Recognition of New Members

Introduction of Guest

Speaker Introduction.....**Dr. Malcolm LeCompte**  
Research Associate, CERSER

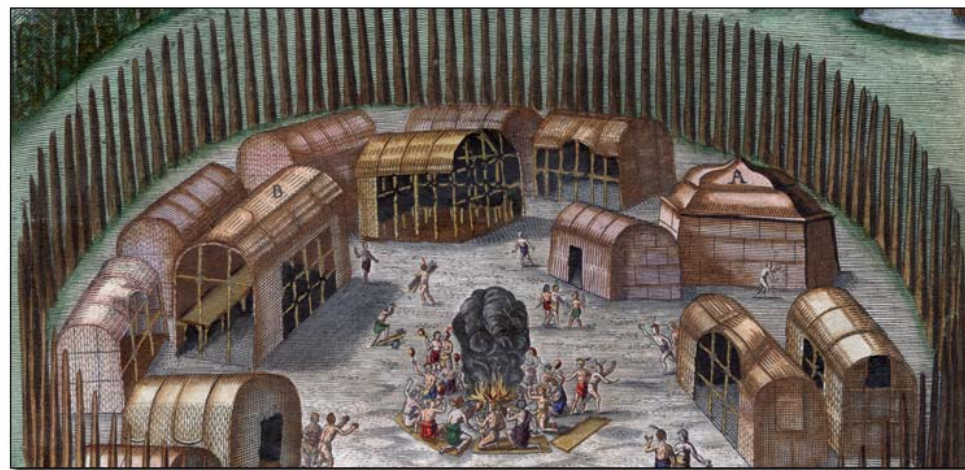
## Mr. Michael Cobb Elizabeth City State University

### *Early North Carolina Colonial and Native American Ground Penetrating Radar Site Surveyal*

IEEE IGARSS 2014 Update..... **Dr. Linda Hayden**

Election of Vice President

Closing Remarks ..... **Dr. Linda Hayden**



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