GROUND PENETRATING RADAR SURVEY OF EDENTON GREEN FOR EARLY STRUCTURAL REMAINS

REU Ocean, Marine, & Polar Science Final Presentation
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INTRODUCTION

Edenton was established in 1712 as the *Towne on Queen Anne's Creek*. It was later known as *Ye Towne on Mattercommack Creek* and, yet later as the *Port of Roanoke*. It was renamed *Edenton* and incorporated in 1722 in honor of Governor Charles Eden who had died that year. From this era, a total of 7 original buildings still remain in standing from the colonial period including: St. Paul’s Church, Iredell House Homesite, Bennett’s Tavern, Charleton House, James Coffield House, Cupola House, and the 1767 Colonial Courthouse.
GEOGRAPHIC CONTEXT

- **Coordinates**
  36°3’43”N
  076°36’21”W

- **Area**
  - Total 5.2 sq mi (13.5 km²)
  - Land 5.0 sq mi (13.0 km²)
  - Water 0.2 sq mi (0.5 km²)

- Early Colonial Port
- Original State Capitol
EDENTON GREEN & SITE DESCRIPTION

- (36° 03’ 26” N, 076° 36’ 29” W): Directly across from the Colonial Courthouse
- Approximately a “24m x 109m” rectangle
- Accidental discovery of bricks lead to motivation of GPR survey.
METHODOLOGY

- Lab Work
  - Map Georeferencing
  - GPR Processing & Analysis
- Field Work
  - Grid Establishment
  - GPR Data Collection
PLAN of the Town & Port of EDENTON
in Chowan County
NORTH CAROLINA
REFERENCE

Survey'd & Drawn in June 1789. By C, J, Sauthier.
DATA PROCESSING

Zero Point Correction

Raw Data

Hyperbolas indicate there are features present.

Removal of dead-space
DATA PROCESSING

Background Noise Cancellation
DATA PROCESSING

Velocity Migration (Dielectric Constant)

Less hyperbolas: more visible features
DATA PROCESSING

Gain Normalization
2-D DEPTH DATA SLICES

Depth: 0.32m  Depth: 0.54m  Depth: 0.6m  Depth: 0.7m
2-D DEPTH DATA SLICES

Depth: 1.68m  Depth: 2.00m  Depth: 2.50m  Depth: 3.02m
3D COMPILATION DATA FIGURE
CONCLUSION & FUTURE WORK

Now that the data has been received and analyzed it has been concluded features suggest that there are a number of artifacts some appear to be anthropogenic buried beneath the green. The next step will come from the North Carolina State Archaeologist, with a determination on excavation of the surveyed field or a possible extended survey to determine in there may be more history buried beyond the bounds constructed.

Local citizens heard about the work being done on the green and brought attention to what may be another great site. Located on Mosley Street in Edenton a family has dug up what appears to be artifacts of the past. They too have expressed an interest in having a GPR survey to unveil what may be beneath.
ANY QUESTIONS?
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