Framing the Lowcountry: The Evolution of the Region's Vernacular Tradition

Brent Fortenberry

Research Questions

1. How did vernacular framing practices change over time in the Lowcountry?

2. What are the different framing solutions among public and domestic; higher and lower status buildings?

Methodology: Recording

- Hand-measurements
- Drawings and Sketches
- Photographs
- Photogrammetry
- 3D Laser Scanning

Sacred Dwellings

- Major rebuilding of Anglican structures in the middle of the 18th century
- Truss systems immediately used to allow for wider spans and vaulted and coved interiors
- Primarily derived from typical English designs
- Roof form however, varies widely. Was this a form of experimentation?
- Huguenot influence not clear as argued in the text
- A few earlier buildings need to be added to this dataset

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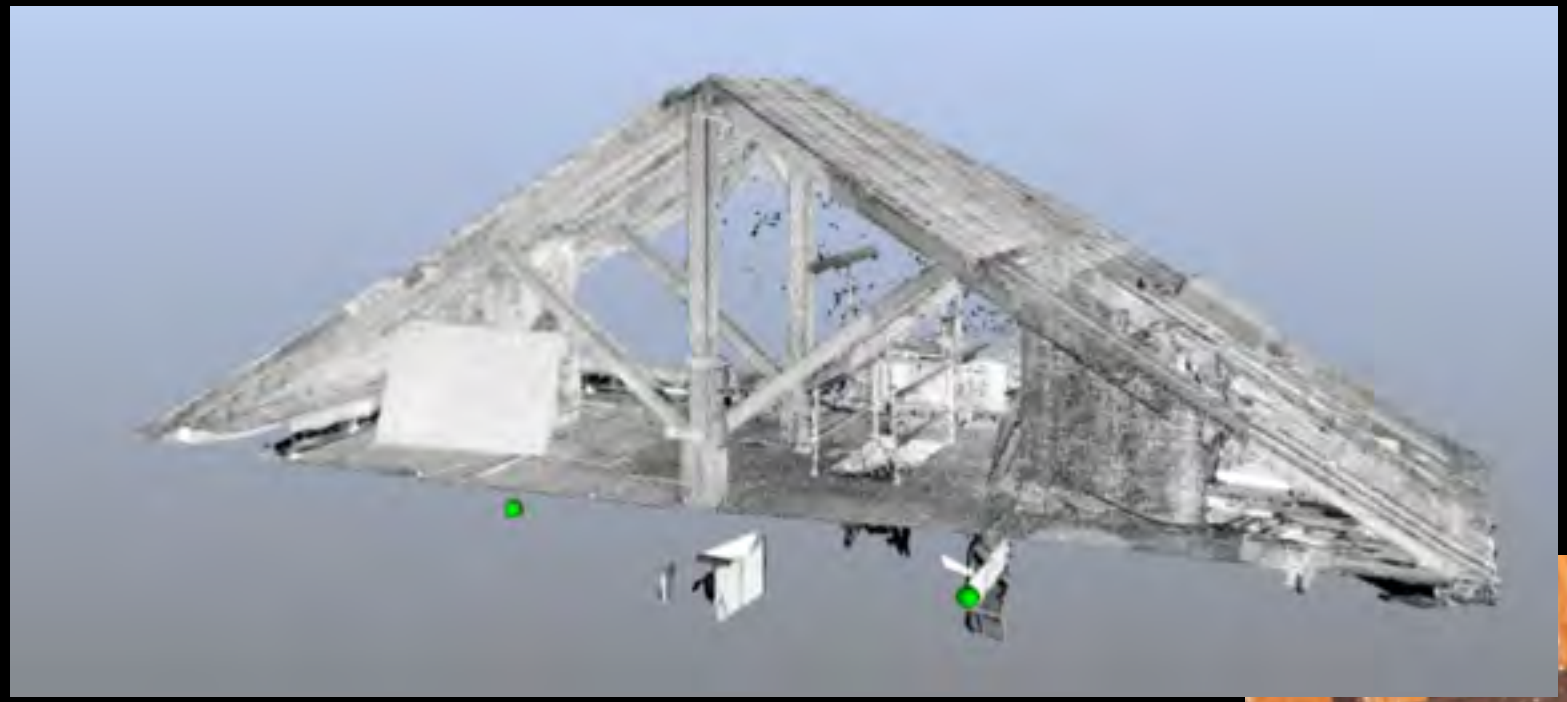
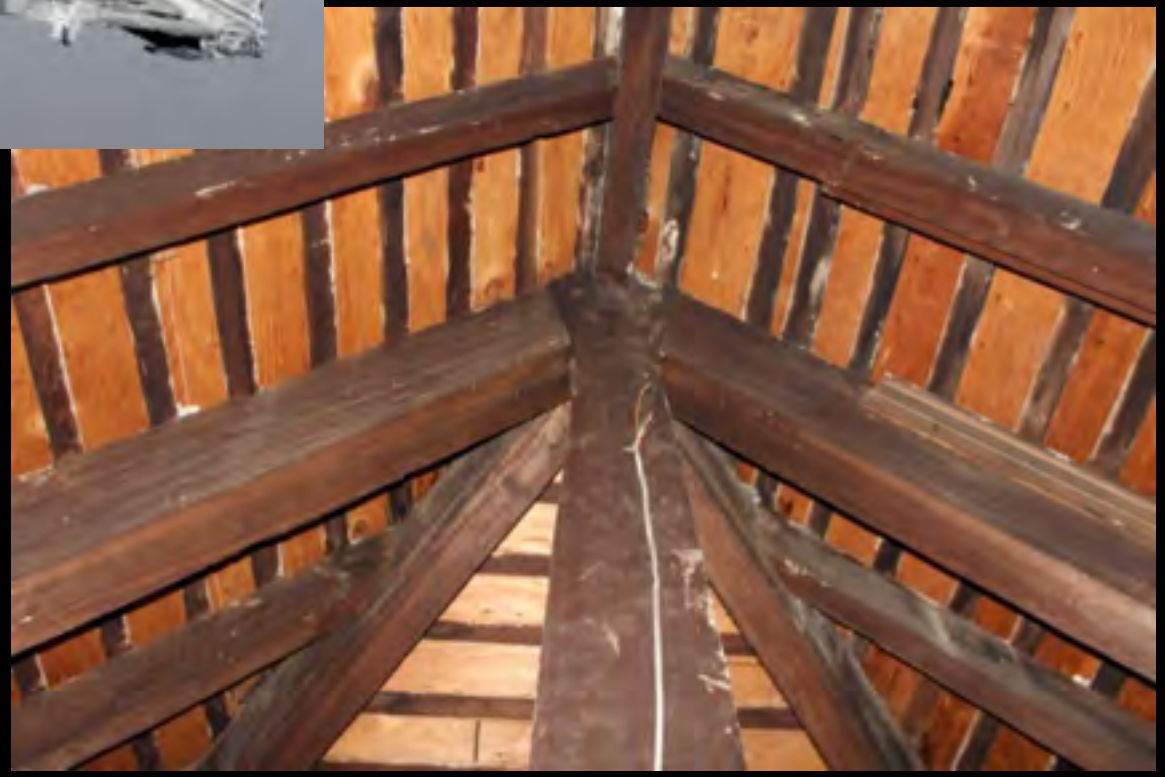
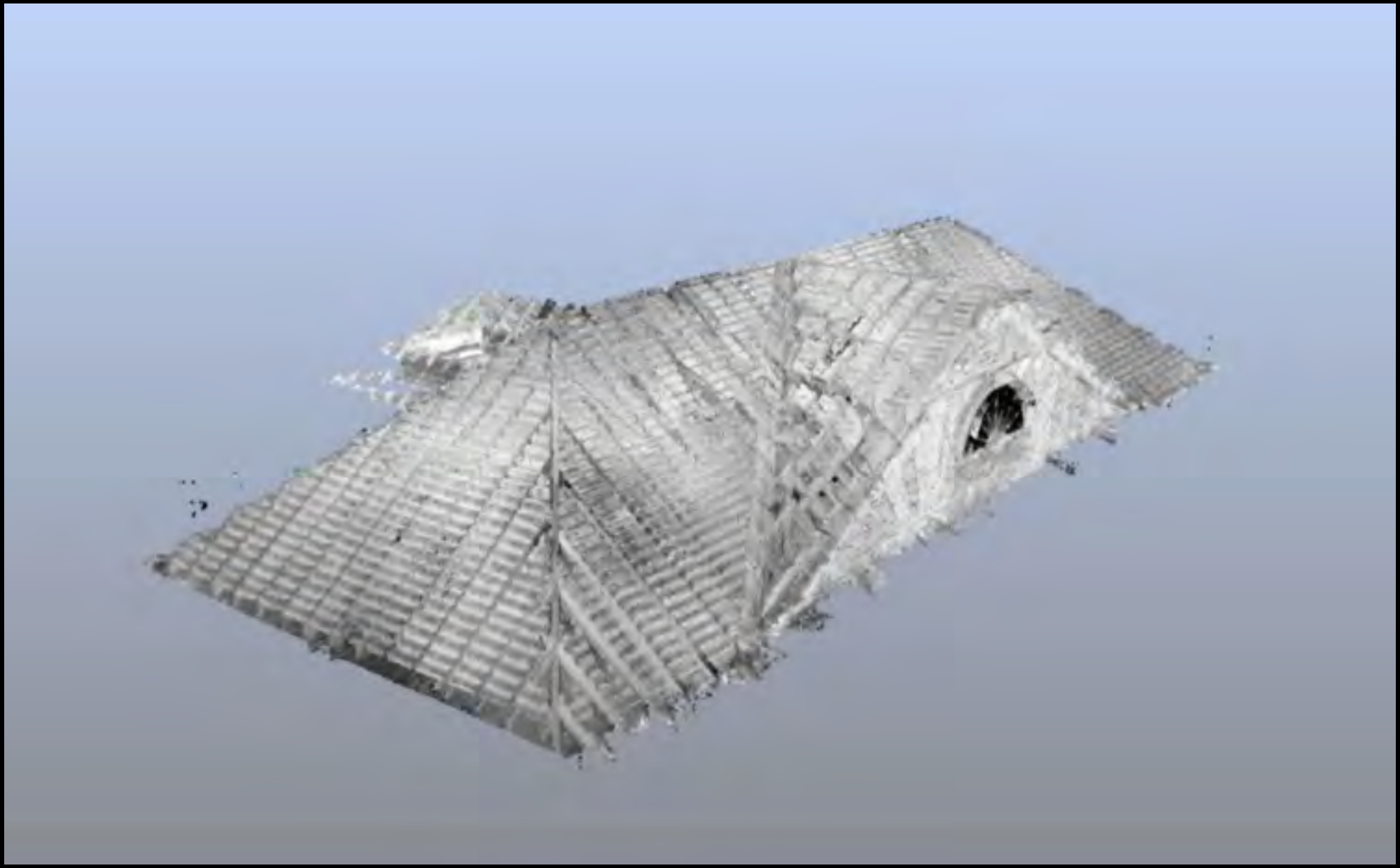
Domestic Dwellings

- Early Georgian Structures employed principal rafter systems.
  - (Exclusive of the surviving examples in both town and country)
- Late Georgian and Federal Buildings begin to shift toward to at first king post and then king and queen post trusses
- First quarter of the 19th century, short towards greater amounts of industrialized framing
- Wider question–is this a product or contributing factor, in the emergence of the single house form?







Enslaved Dwellings

- Shrinking dataset of buildings
- Wide variation in plan:
  - earlier examples appear to be duplexes (Hopeswee) later appear to be single units.
- Exposed studs that are tenoned and pegged to the sills and plates a common feature that is retained even into the 19th century
- Common framing pattern appears to be on 21″ centers
- Sills, Plates, and Ties appear to be tenoned into corner post members

Wider Views

- Framing tradition here appears to be more closely linked to that of Virginia than in the Caribbean.
  - Is this a false positive relative to how much we know about island-based framing systems?
  - Use of slim false plates, common rafters with principals, and use of relatively standard sized members.
- Why? Climate relatively similar. VA system was mature, tried and true systems. Artisans and builders had begun to migrate south by the mid-18th century

Significance

- Further develop our understanding of the Lowcountry's vernacular tradition and how it changed overtime.

- Positions the region for a broader comparative study of timber-framing and building traditions within the British Atlantic World (e.g., Virginia, New England, Bermuda, Jamaica, Barbados).

- Provide a quantitative database where other scholars can add data as more timber-framing is recorded.

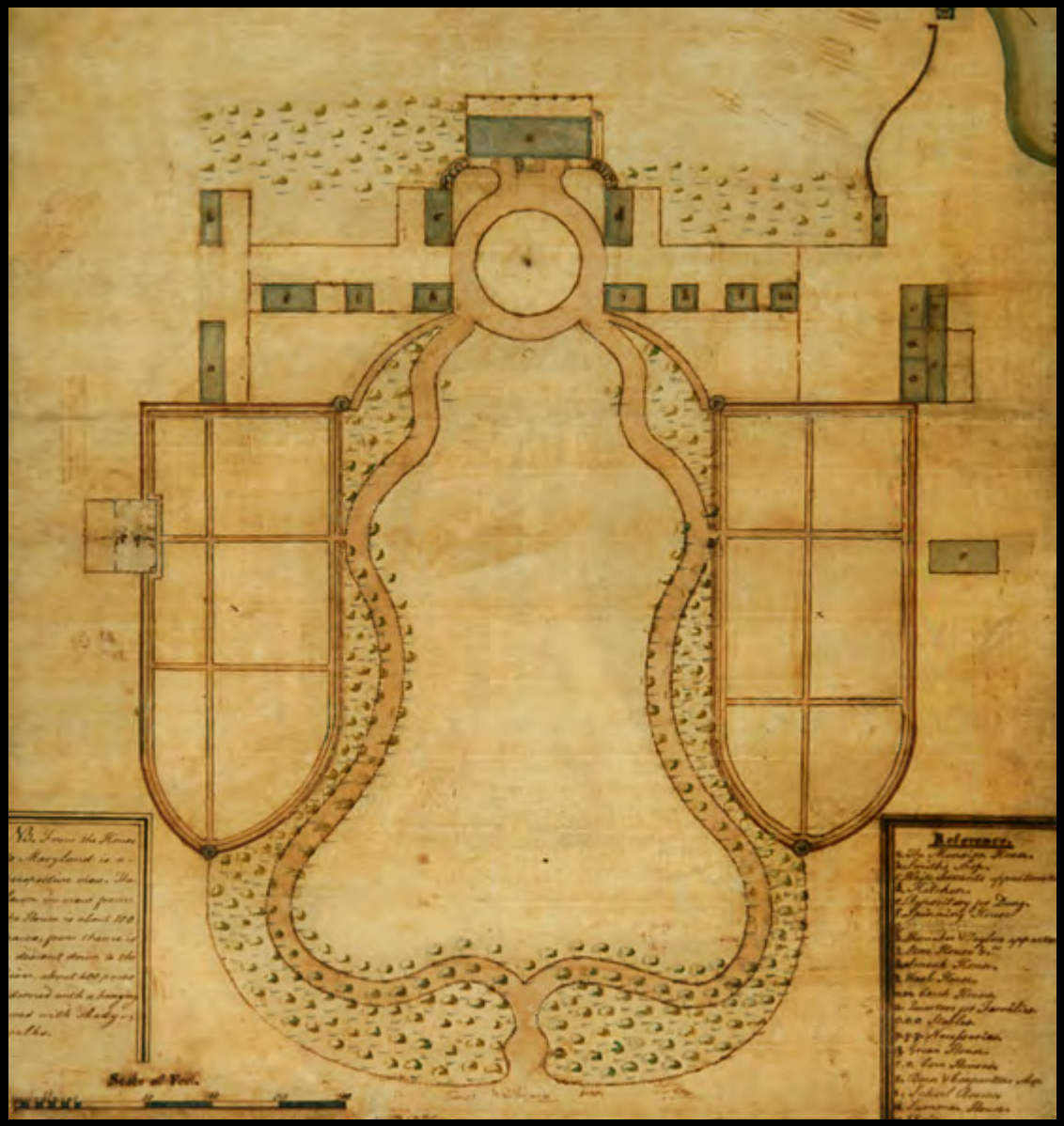
George Washington's Mount Vernon Stable in Context: A Comparative Analysis of Early American Stables

Meghan Paige White

Clemson University & The College of Charleston
Graduate Program in Historic Preservation

Topic

- Early American horse stables concentrated in Virginia, Maryland, South Carolina, and Pennsylvania
  - Architectural
  - Contextual
  - Application—trends


Reference.
Scale of Feet.

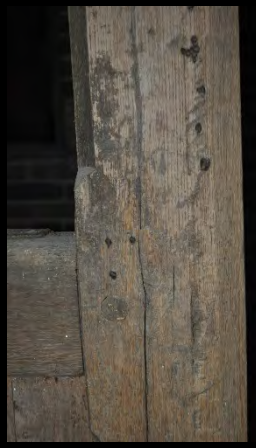
Significance

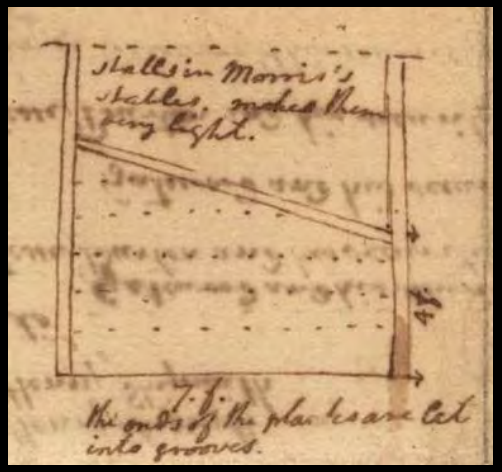
The architectural and contextual trends of stables in early America detail the importance of architecture as a tangible rendering of the gentry and their individual reputations among peers.

Results

Stable patterns were similar not only regionally but nationally and extended through time.

- Aesthetic
- Cultural
- Spatial
- The most likely joinery, material, and style of Washington's stalls





Conclusions

- Stables were a necessary and important structure on early American plantations that served both functional and symbolic purposes.
- Stall evolution depended on the growing importance of a horse's comfort.
- The building process and style of Washington's Mount Vernon stable reinforced his social position and personal priorities.

Rub Some Dirt in In It: Reconstructing Authentic Great Plain's Nineteenth-Century Sod Structures

Jessica Fortney

- explores the available methods of reconstructing nineteenth-century sod structures from the Great Plains Region of the USA, to identify a best practice balancing authenticity and practicality when building and interpreting sod structure replicas.

Sod Houses and Dugouts

Historic Image Analysis

- Methodology
  - Inventory forms and chart
- Results-A Generic Sod Structure Type
  - Glass windows
  - Length average-fourteen to forty feet
  - Roofing Materials- sod bricks laid over lumber
  - Roof Type-Gable
  - Interior-wooden floors and a variety of finishes
  - Stovepipes most common

Image	Location	Year	Size	Description
	West Union, Nebraska	1886	~24' L	Breeding family's sod house

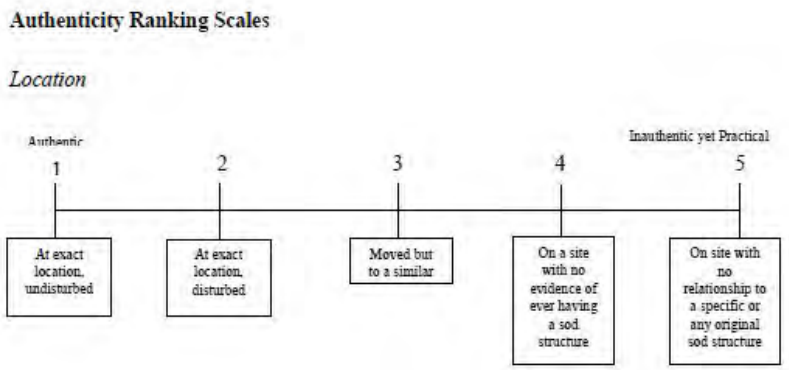
Architectural Features:

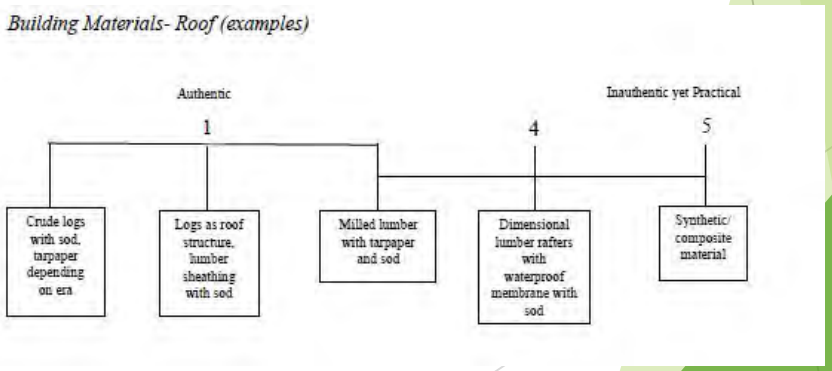
Window Glazing Materials	Floorings	Roof Materials	Roof Type	Roof Penetrations	Wall Materials
Glass (in window frames, with muttons as part of a multi-pane sash)	Not Visible	Sod Bricks	Hip	Possibly a chimney	Sod bricks

Nebraska Historical Society [Digital ID nbhips 10187]

Case Study Analysis

- Methodology
  - Four sites
  - Evaluation criteria (location, setting, building materials-sod and roof, sod cutting, construction methods, flooring, interior finishes)





- Results
  - Compromises with authenticity
    - Life safety
    - Location and audience
    - It is possible to produce high authenticity ranking

Significance

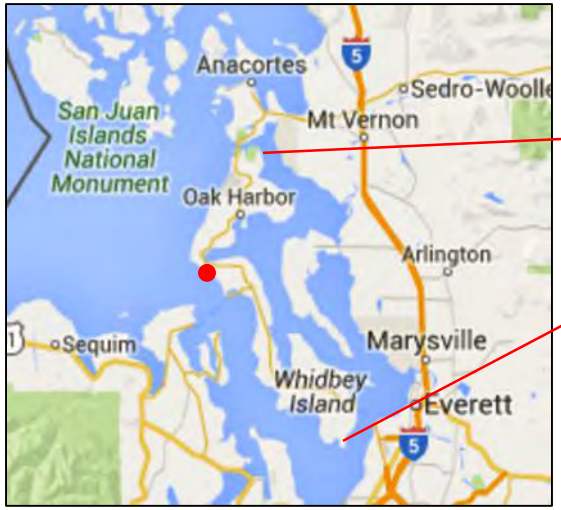
- Few left standing
  - Once about a million now under 20
- More understanding to why and how
  - Large part of Great Plains and Westward Expansion history
- Understand what is authentic

- Thanks!

Mothballing Vacant Buildings in the Pacific Northwest: The Engle Farm, Coupeville, Washington

Anna Simpkins | 2016

Whidbey Island



Research Question

Given our contemporary understanding of ideal environmental conditions for slowing deterioration in historic buildings, what are the best methods for mothballing vacant buildings in the Pacific Northwest as examined at the Engle Farm on Whidbey Island?

Methodology

- On-site investigation
- Personal interviews
- Existing surveys and studies
- Analysis of historic climate data
- Tracking and interpretation of temperature and relative humidity

Limitations

- No material testing
- Inability to complete structural investigations
- Conditions only noted at one time of the year
- Buildings not observed during rainiest months

Samples: 614

TEMPERATURE	RELATIVE HUMIDITY	DEW POINT
Maximum: 73°F	Maximum: 90%	Maximum: 59°F
Minimum: 33°F	Minimum: 52%	Minimum: 29°F
Average: 52°F	Average: 77%	Average: 44°F

Analysis

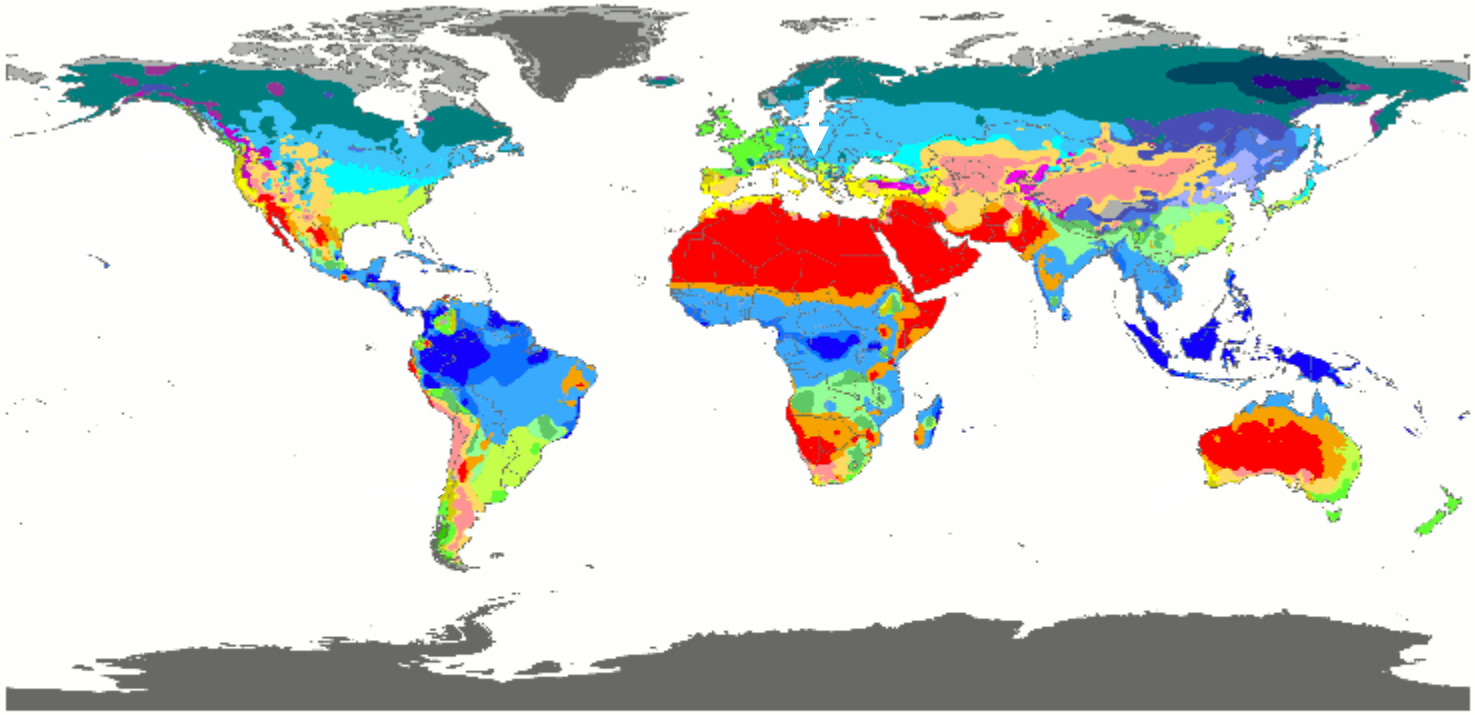
Observations

- Relative humidity is high inside the house through the fall and winter
- RH stayed above 85% over 5 days
  [December 7-12]

Conclusions

- Climate is mild throughout the year so intervention is minimal
- Interventions aimed at directing water away
- Property still requires regular maintenance
- Findings can be transferred to regions with similar climate classification
- Climate specific needs unique with mechanisms of decay and building materials

World map of Köppen-Geiger climate classification



THE UNIVERSITY OF MELBOURNE

Af	BWh	Csa	Cwa	Cfa	Dsa	Dwa	Dfa	ET
Am	BWk	Csb	Cwb	Cfb	Dsb	Dwb	Dfb	EF
Aw	BSh		Cwc	Cfc	Dsc	Dwc	Dfc	
	BSk				Dsd	Dwd	Dfd	

Contact : Murray C. Peel (mpeel@unimelb.edu.au) for further information

DATA SOURCE : GHCN v2.0 station data
Temperature (N = 4,844) and
Precipitation (N = 12,396)

PERIOD OF RECORD : All available

MIN LENGTH : ≥30 for each month.

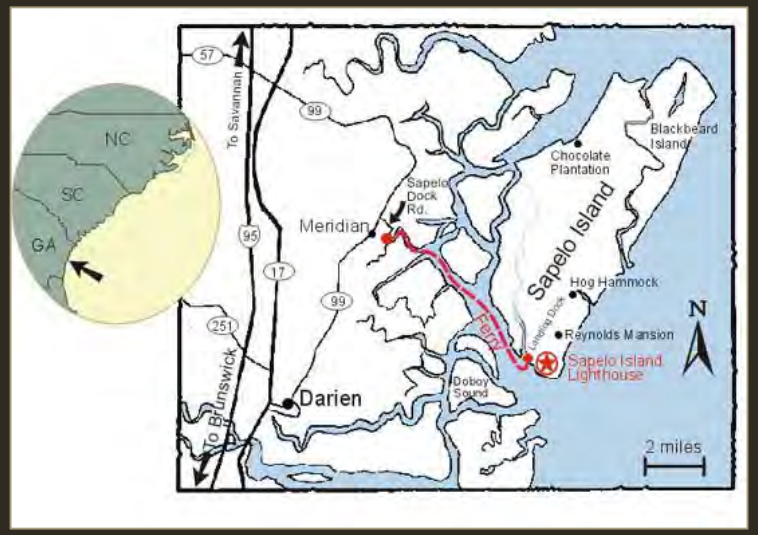
RESOLUTION : 0.1 degree lat/long

The Preservation of Tabby Ruins: Suggestions for the Future of Chocolate Plantation

Rachel Walling

Topic

- Sapelo Island, Georgia
- Chocolate Plantation
- Tabby Sites



Significance

- Vernacular building material
- Gaps in available literature

Parameters and Data Collection

- Spalding Tabby (1790s – 1870)
- Ruins
- Florida, Georgia, and South Carolina
- Site Visits
- Correspondence
- Published and online resources

Results

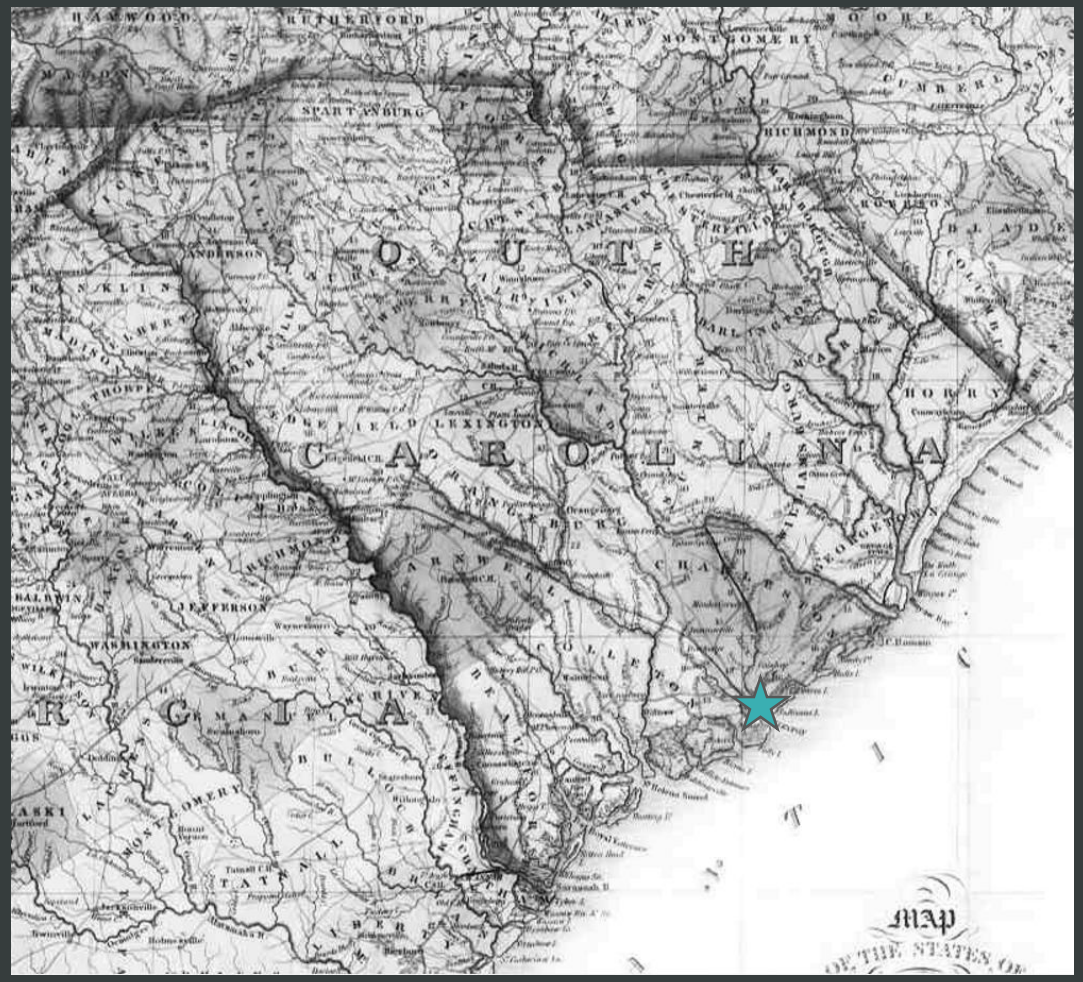
- State by State
- Specific Sites
- Recommendations

Conclusions

- Careful Planning
- Partnerships

Well Lit: Exploring Light's Transformative Potential Through a Study of the Exterior Illumination of Charleston, South Carolina Movie Theaters

JEAN STOLL
MASTERS OF SCIENCE CANDIDATE
APRIL 22, 2016



Mitchell, "Map of the States of North Carolina, South Carolina and Georgia," 1835, University of Georgia.

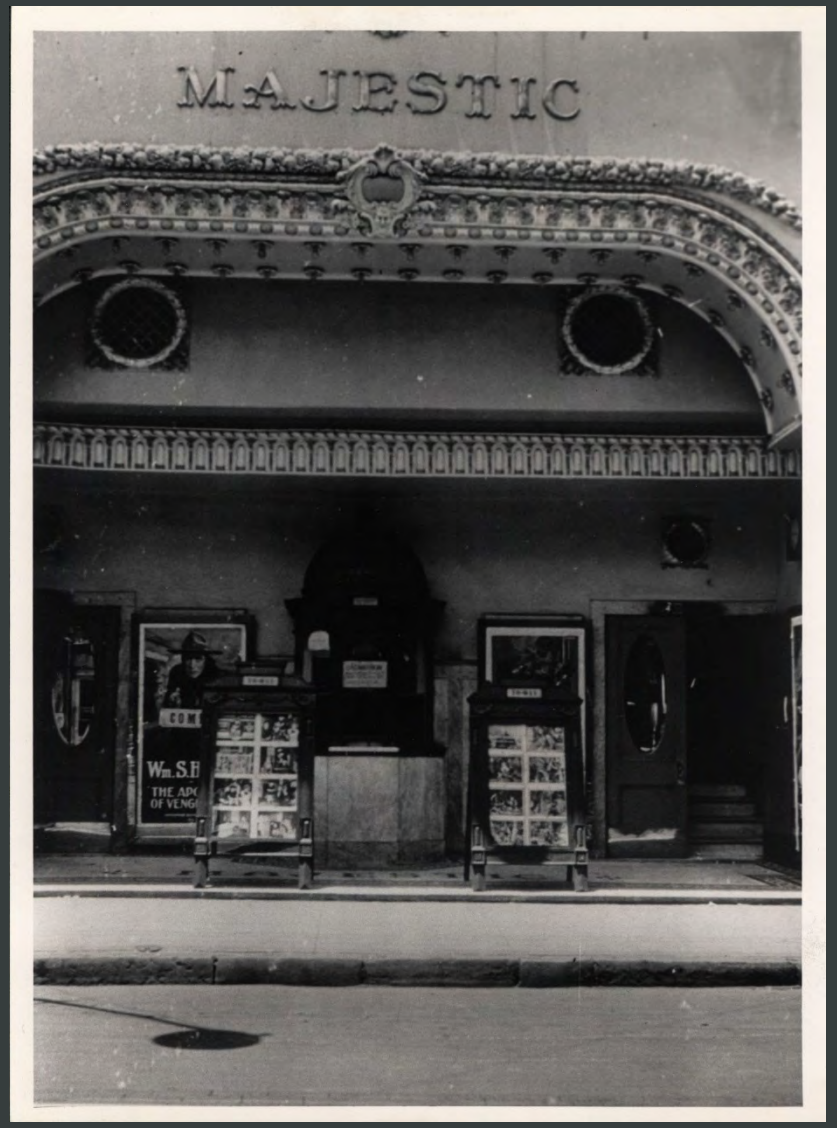
George Otis Smith, "Topography," War Department Corps of Engineers, U.S. Army (Melgrove), 1918, Scale 1/21120.

Focus

- Identification of Charleston movie theaters
- Historic precedent for using light to redefine those buildings

Result

- Current potential for the use of exterior lighting to define character



Light as a Character-Defining Feature

Exterior lighting was consistently used to

- Draw attention to the structure
- Reprogram an existing building
- Enhance building materials

Conclusions

- A depressed economy in Charleston resulted in:
  - Late adoption
  - Adaptive-reuse

Conclusions

- 32 Movie Theaters in 25 Buildings
- 72%: located in <u>adaptively-reused structures</u>

Conclusions

- Historic lighting levels produced 15x more light

Application for Preservation

- Historic Precedent in Charleston
- Effective and Non-Destructive
- Low Cost
- Endless Variety
- Reversible

Thank you