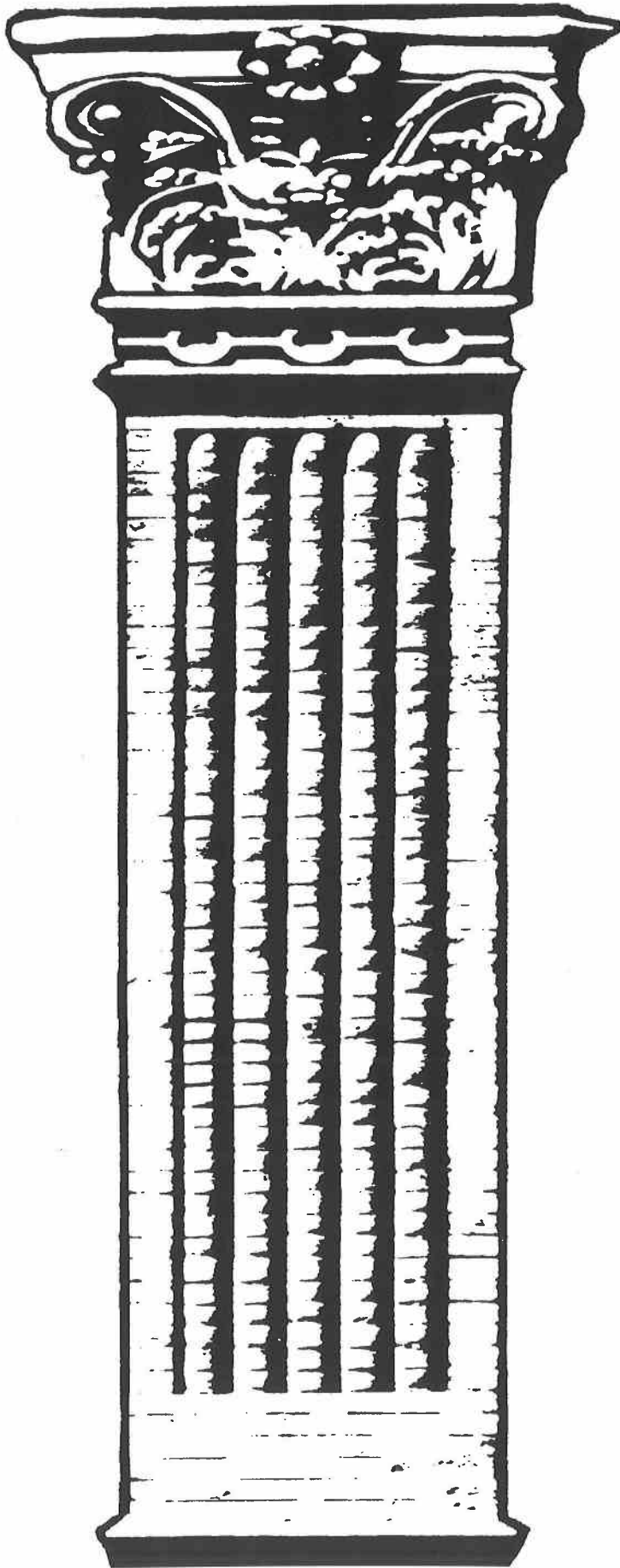


# **EXHIBIT F**

Seminar Materials

Emerging Technologies for Cultural Resources Seminar



# National Preservation Institute

## Emerging Technologies for Cultural Resources

**Instructor:**

**Luke J. Pecoraro, Ph.D.**

**Materials prepared for NPI  
by Luke J. Pecoraro, Ph.D.**

**April 2018**

The National Preservation Institute is a nonprofit organization that educates those involved in the management, preservation, and stewardship of cultural heritage.

National Preservation Institute  
P.O. Box 1702, Alexandria, Virginia 22313  
703.765.0100 [info@npi.org](mailto:info@npi.org) [www.npi.org](http://www.npi.org)

**ORIGINAL**

### About the Instructor:

**Luke J. Pecoraro, Ph.D.** is Director of Archaeology at George Washington's Mount Vernon. Trained as a historical archaeologist, he has worked in cultural resource management archaeology in the mid-Atlantic, the Chesapeake, and New England on a variety of prehistoric and historic sites, and for several years as a staff archaeologist on the Jamestown Rediscovery project. Research interests include intercolonial migration and trade in the 17th-century Chesapeake, relationships between English plantations in Ireland and Virginia, and the settlement of the English Caribbean. Luke is also a research archaeologist for the First Colony Foundation, searching for the 16th-century "Lost Colony" on Roanoke Island, and a team member of the Survey and Landscape Archaeology on Montserrat (SLAM) project in the British West Indies.

George Washington's Mount Vernon  
P.O. Box 110  
Mount Vernon, VA 22121

703.799.6303  
lpecoraro@mountvernon.org

---

## National Preservation Institute

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703.765.0100 info@npi.org www.npi.org

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# Emerging Technologies for Cultural Resources

## Topics for Today's Seminar:

Instructor introduction and objectives

Digital Documentation of Buildings and Sites – Introduction to the HBIM

LiDAR – Acquisition and Use for Cultural Resources

UAVs for Cultural Heritage – Best-practices for UAV Integration

Digital Storytelling – Using StoryMaps for Cultural Resource Deployment

Augmented Reality and Virtual Reality – Creating Digital Heritage

# Emerging Technologies for Cultural Resources

**Course Instructor: Luke J. Pecoraro, Phd – Director of Archaeology,  
George Washington’s Mount Vernon**  
**lpecoraro@mountvernon.org - <http://www.mountvernon.org/preservation/>**

## **Four Considerations for Implementing New Technology into Workflow:**

- **Manage Expectations**
- **Start Low-tech**
- **Use Open-source and Open-standards When Possible**
- **Invest in People First, Technology Second**

# Emerging Technologies for Cultural Resources

## **The Historic Building Information Model: HBIM**

**An approach for modelling historic buildings which develops full Building Information Models (BIMS) from remotely sensed data and consists of:**

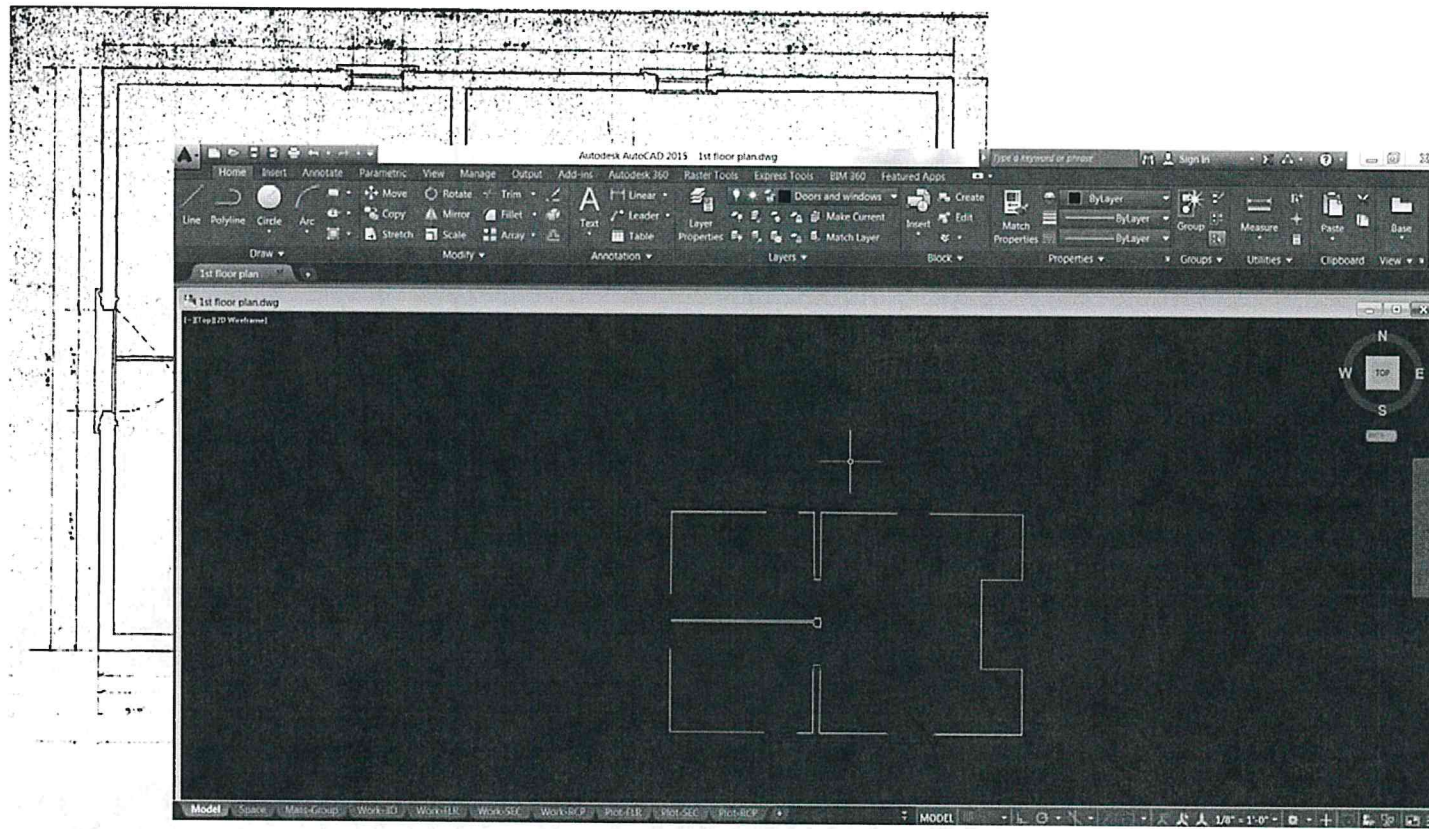
- 1) A library of reusable parametric objects based on historical architectural data**
- 2) A system for plotting these library objects onto laser scan survey data**
- 3) Conservation documentation and analysis**

# MOUNT VERNON'S HISTORIC BUILDING INFORMATION MODEL

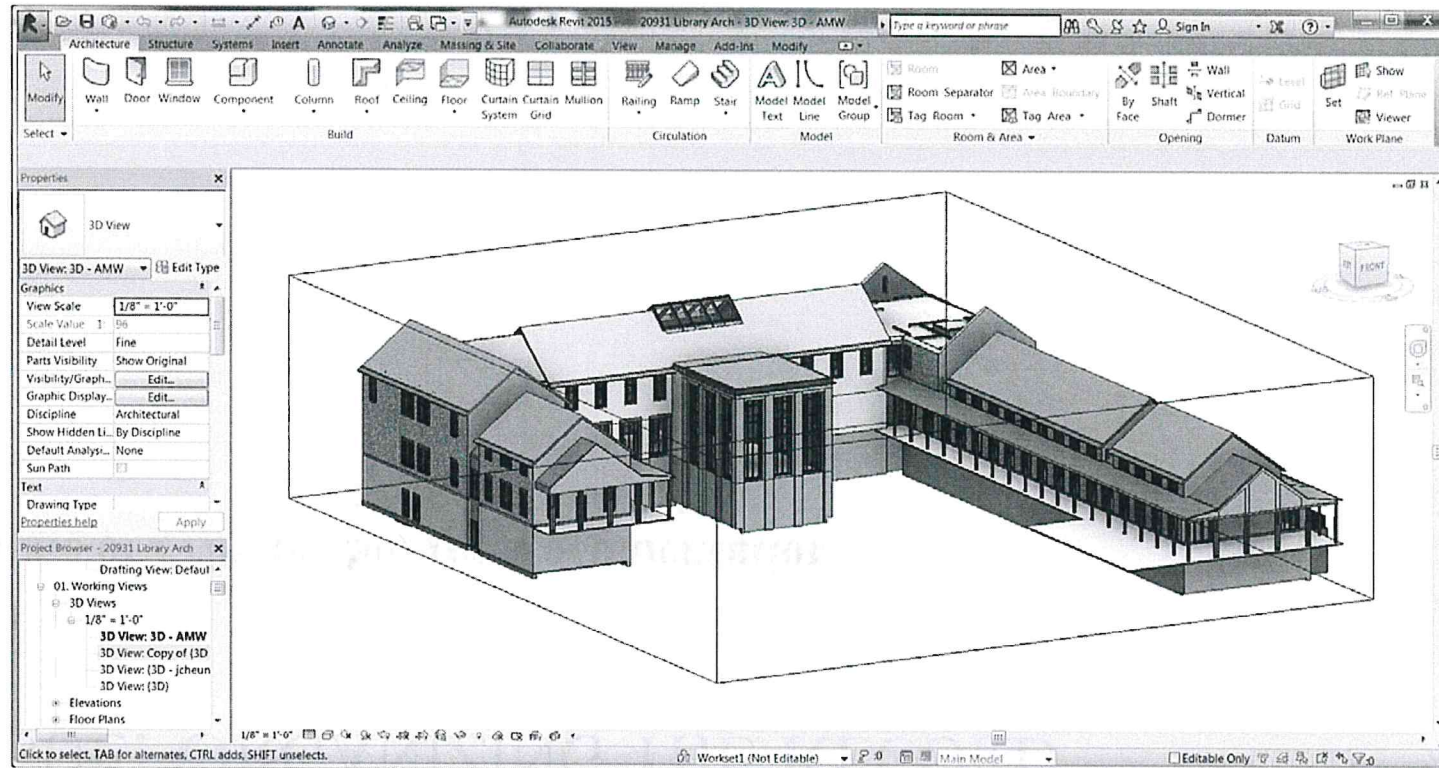




# THE BACKGROUND: A DIGITAL REVOLUTION



# THE BACKGROUND: A DIGITAL REVOLUTION



# THE ISSUE: ORGANIZING THE RECORD

- **Large Volume of Primary Source Documentation**

# THE ISSUE: ORGANIZING THE RECORD

- **Large Volume of Primary Source Documentation**
  - Letters
  - Work Reports
  - Financial Records

# THE ISSUE: ORGANIZING THE RECORD

- **Large Volume of Primary Source Documentation**
  - Letters
  - Work Reports
  - Financial Records
- **160-Year Archive of Preservation Records**

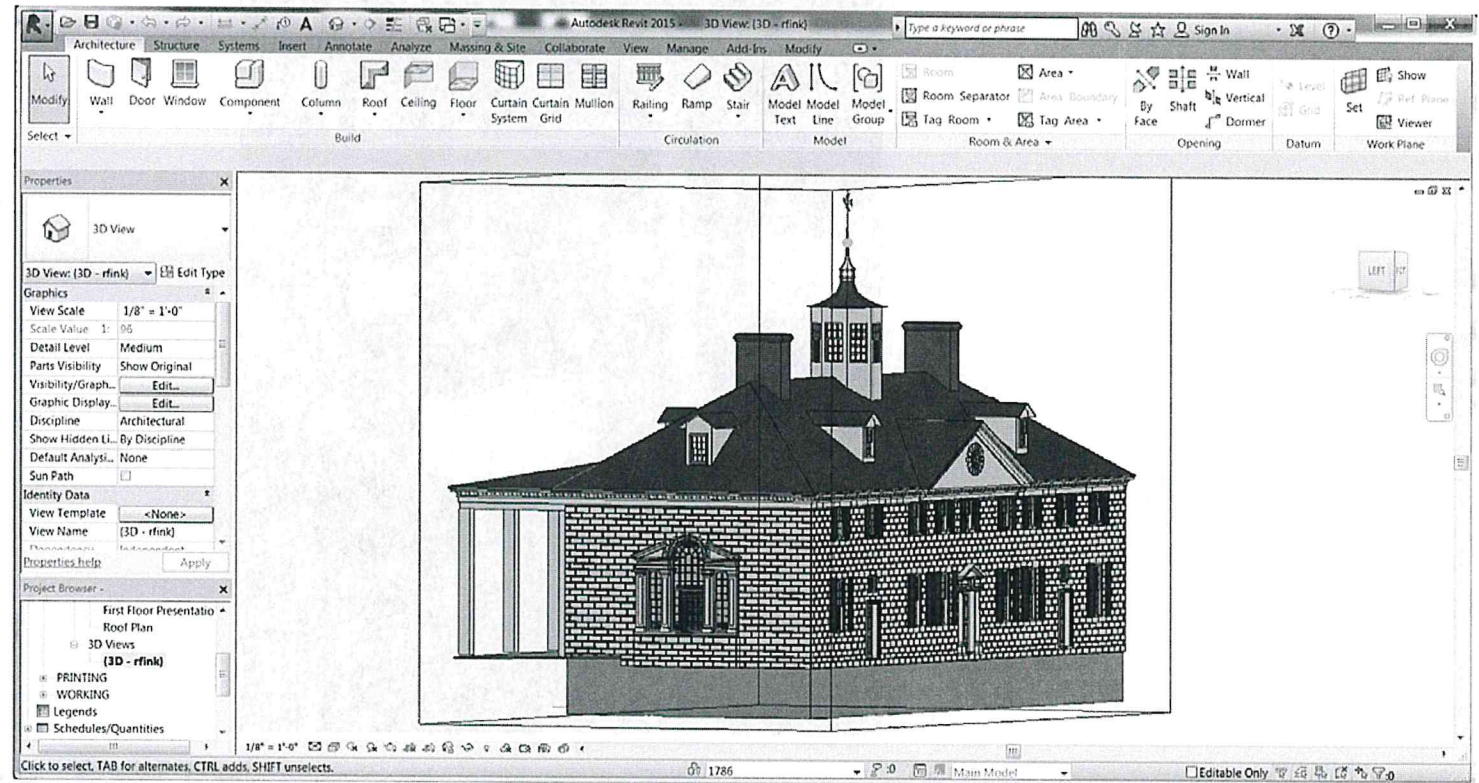
# THE ISSUE: ORGANIZING THE RECORD

- **Large Volume of Primary Source Documentation**
  - Letters
  - Work Reports
  - Financial Records
- **160 Archive of Preservation Records**
  - Letters
  - Minutes of the MVLA
  - Superintendant's Diary
  - Restoration Files
  - Architectural Drawings
  - Photographs
  - Historic Structure Report

# THE ISSUE: ORGANIZING THE RECORD

- **Large Volume of Primary Source Documentation**
  - Letters
  - Work Reports
  - Financial Records
- **160 Archive of Preservation Records**
  - Letters
  - Minutes of the MVLA
  - Superintendent's Diary
  - Restoration Files
  - Architectural Drawings
  - Photographs
  - HSR
- **Physical Fabric of the Building**

# MOUNT VERNON'S HISTORIC BUILDING INFORMATION MODEL



# COLLECTION OF DATA

- Point Cloud



# COLLECTION OF DATA

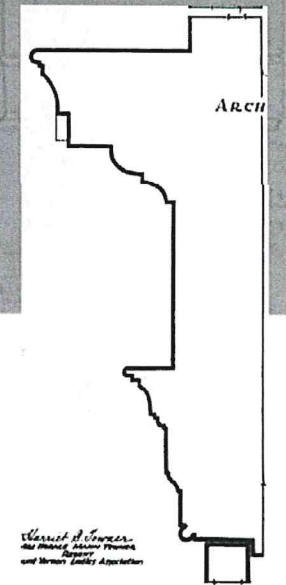
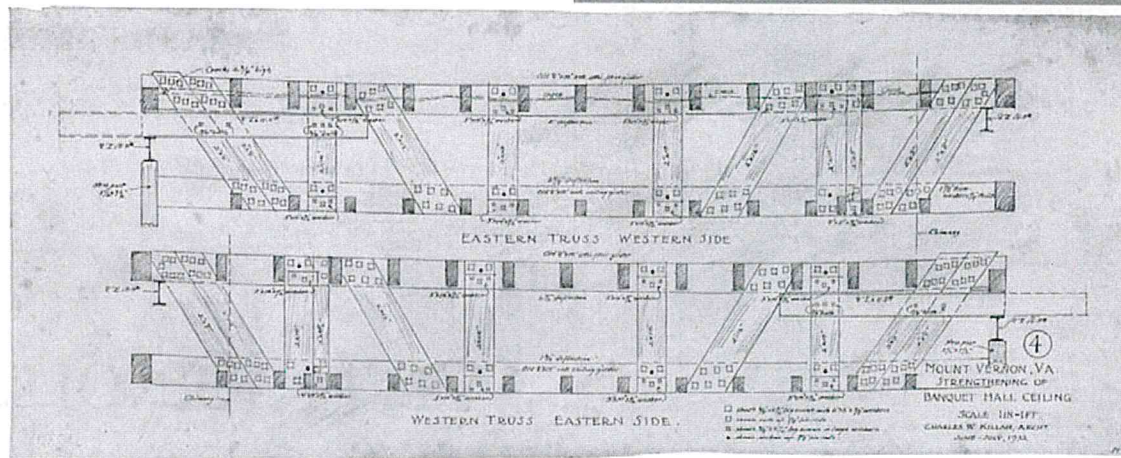
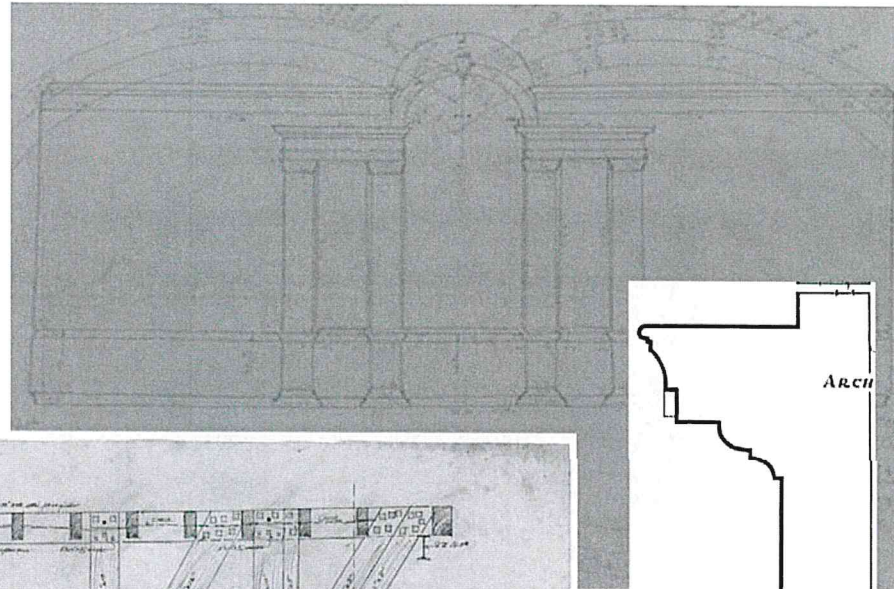
- Point Cloud





# COLLECTION OF DATA

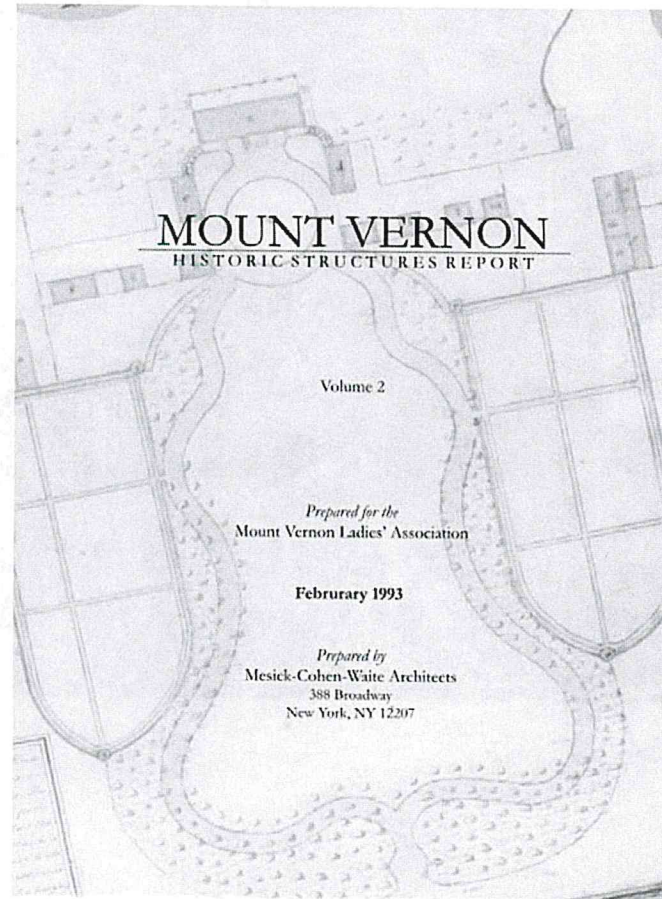
- Point Cloud
- Photographs
- Detailed historic survey drawings



*Charles H. Cowen*  
The Historic Mount Vernon  
and Henry Landry Association

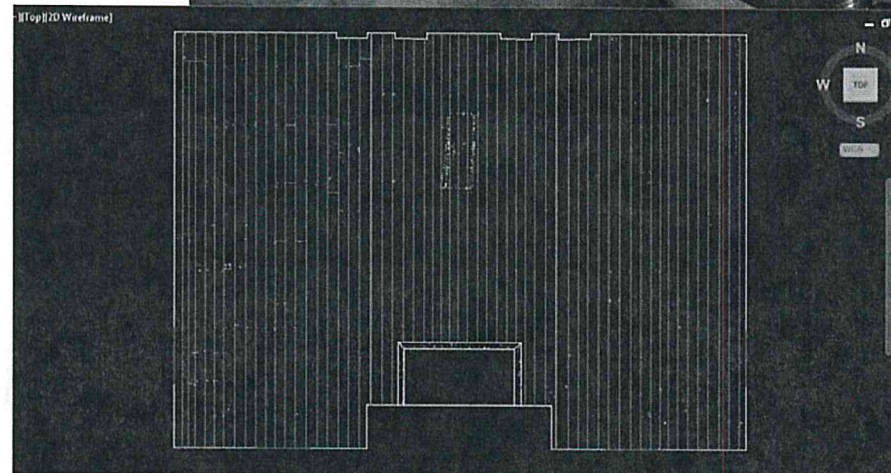
# COLLECTION OF DATA

- **Point Cloud**
- **Photographs**
- **Detailed historic survey drawings**
- **Historic Structure Report & Cultural Landscape Study**



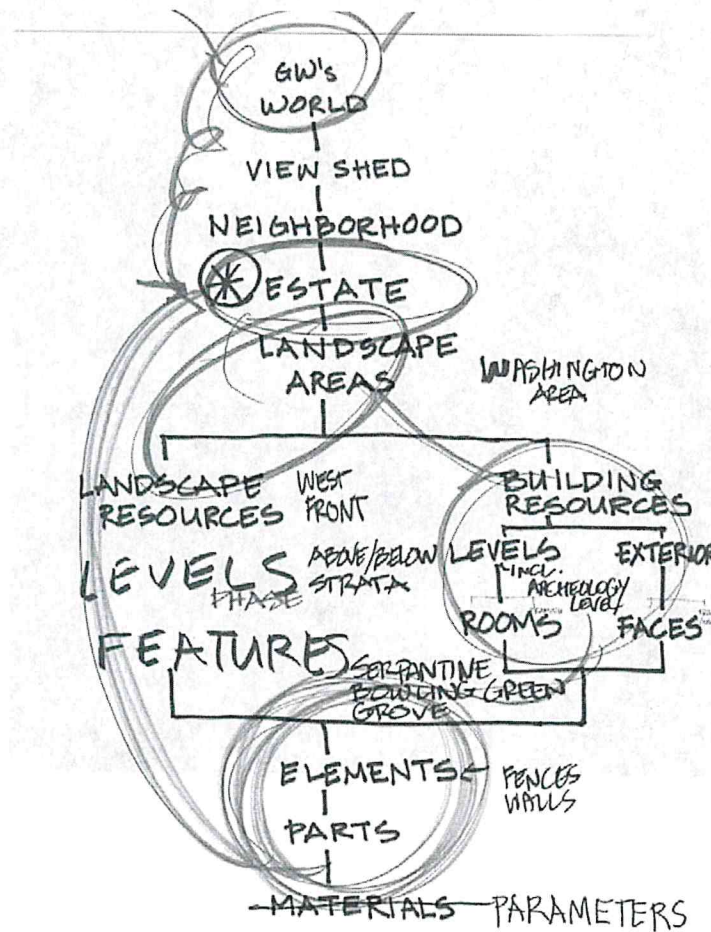
# COLLECTION OF DATA

- Point Cloud
  - Photographs
  - Detailed historic survey drawings
  - HSR & CLR
  - Ongoing
  - documentation
- producing CAD files



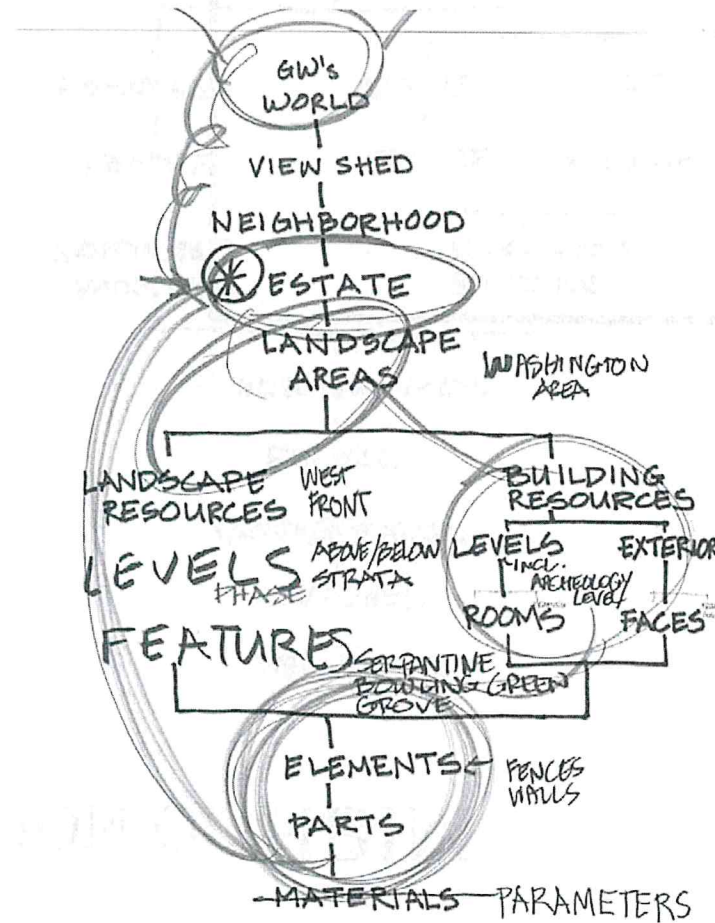
### 3. CREATION AND ORGANIZATION OF HBIM

- How do we organize the data in a way that makes sense?



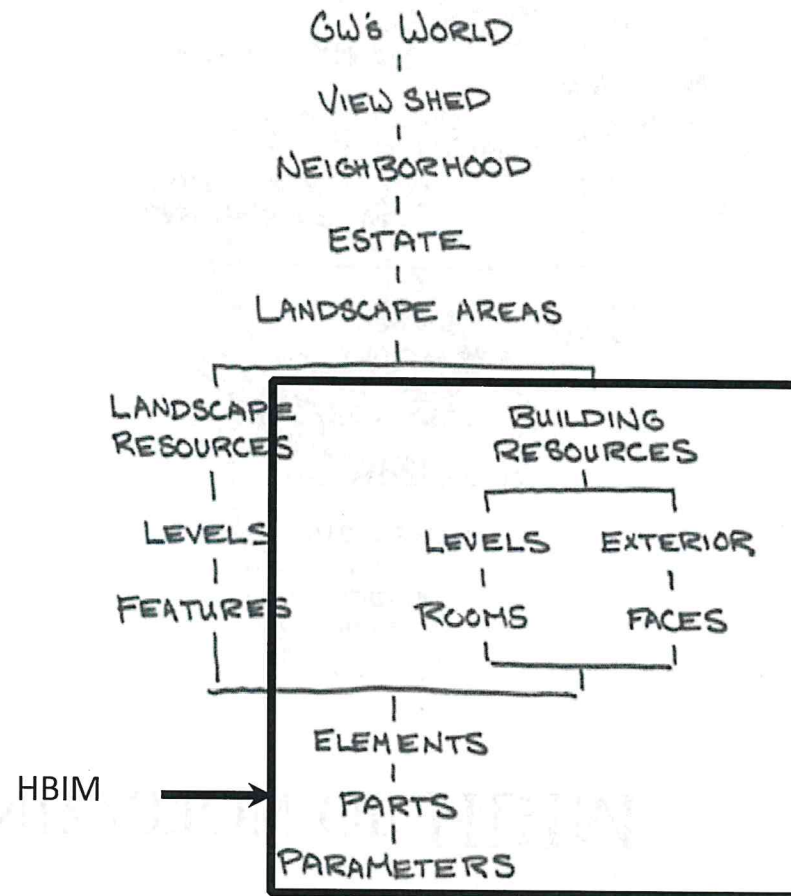
### 3. CREATION AND ORGANIZATION OF HBIM

- How do we organize the data in a way that makes sense?
- Hierarchy of information

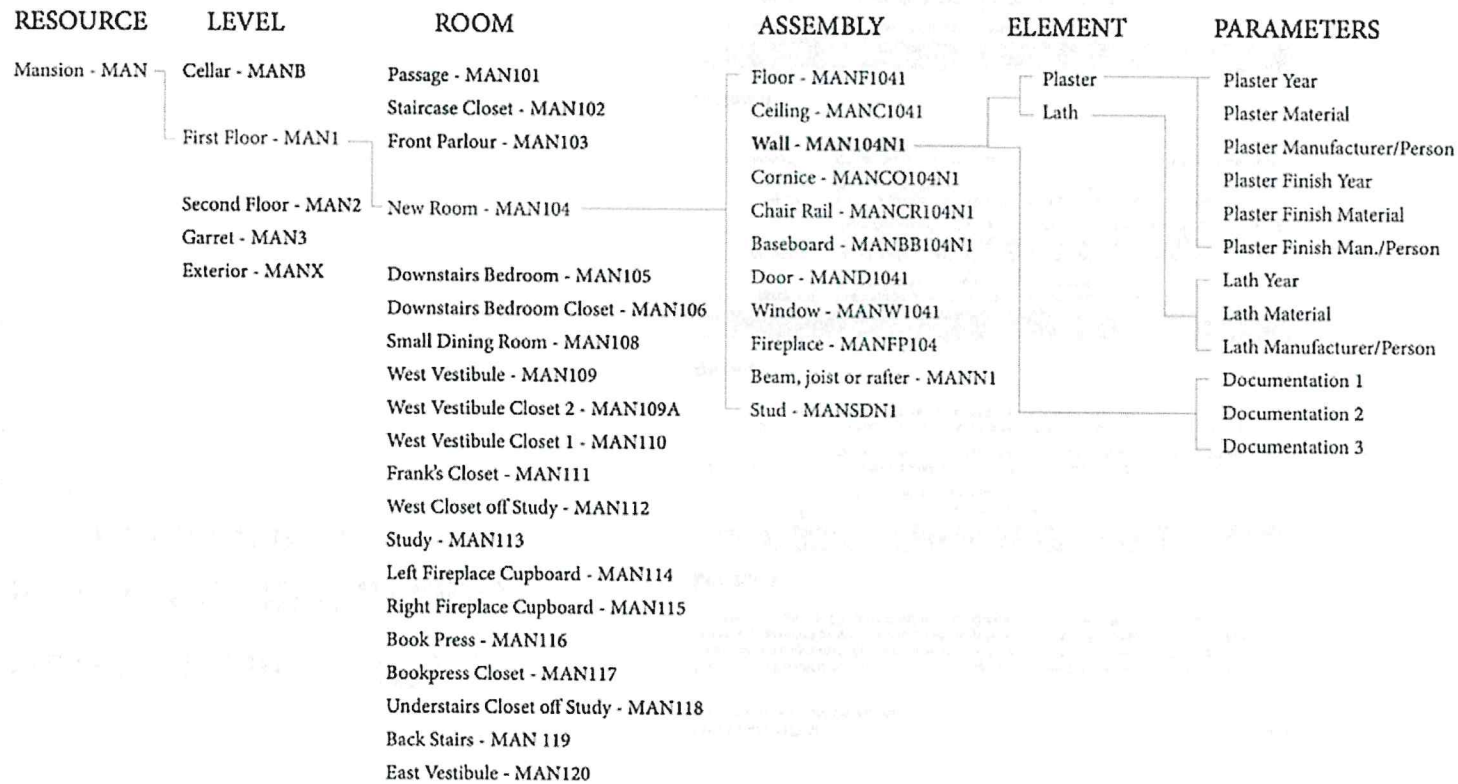


# CREATION AND ORGANIZATION OF HBIM

- How do we organize the data in a way that makes sense?
- Hierarchy of information



# CREATION AND ORGANIZATION OF HBIM



Red Text Indicates Inclusion Within the Area of Focus Boundary

Quinn Evans Architects #31401000 Mount Vernon HBIM - 05/13/14

# 3. CREATION AND ORGANIZATION OF HBIM

- **Level of Development (LOD)**
- **A three-digit metric that assigns accuracy of an element's representation of**
  - **Location**
  - **Shape**
  - **Material**

Mount Vernon HBIM  
Level of Development Definitions

13 May 2014

The Level of Development (LOD) is a metric assigned to each Revit element that indicates how accurately an element is represented in the model as compared to the as-built condition. The LOD is represented by three numbers which correspond to three characteristics, Material, Location, and Shape. For definitions of each characteristic, refer to the tables below.

## Location

Value	Definition
1XX	Approximate Location is approximated by sight, or scaled from non-scaled drawings, or interpreted from written description.
2XX	2D Location is correct in two dimensions, typically in plan, and is based on a reliable source: i.e. measured drawings, point cloud, field verification, etc.
3XX	3D Location is correct in three dimensions and is based on a reliable source: i.e. measured drawings, point cloud, field verification, etc.

## Shape

Value	Definition
X1X	Approximate Exact shape is unknown and is approximated by sight or scaled from non-scaled drawings, or interpreted from written description.
X2X	Assumed Object shape is modeled based on an assumption, or typical size. As-built size information is included in the metadata associated with the object. Object shape does not reflect variations in shape due to bowing, warping, notches, etc.
X3X	Accurate Overall object shape is correct, but the object shape does not reflect variations in shape due to bowing, warping, notches, etc.
X4X	As-built Object shape is correct, matching the as-built condition, including variations in shape due to bowing, warping, notches, etc.

## Material

Value	Definition
XX1	Generic Unknown material with no defining characteristics.
XX2	General General material is known: wood, plaster, paint, etc.
XX3	Specific Specific material properties are known, i.e. wood species, type of stone, type of plaster, etc.
XX4	Very Specific The majority or all physical properties of the material are known.

### 3. CREATION AND ORGANIZATION OF HBIM

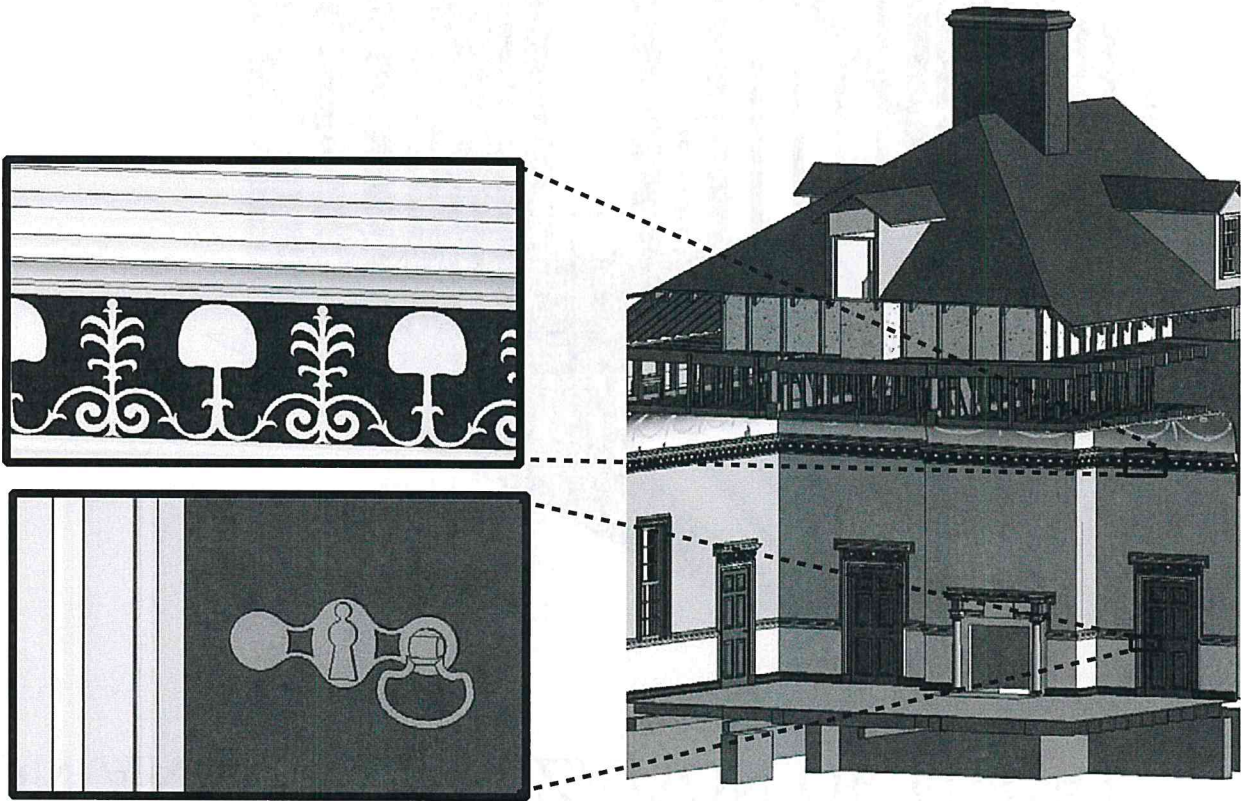
- Degree of Reliability (DOR)
- A one-digit metric that assigns accuracy of the documentation associated with an element's representation.

Degrees of Reliability
5. <b>Very Reliable:</b> The documentation comes from a source known to be accurate, and the data has been field checked in the process of incorporation into the database.
4. <b>Reliable:</b> The documentation comes from a source known to be accurate, but has not been field checked in the process of incorporation into the database; or there is no established record for the reliability of the source, but the data has been field checked in the process of incorporation into the database and proven to be accurate.
3. <b>Uncertain:</b> There is no established record for the reliability of the source, or the source has an inconsistent record of accuracy, and the data has not been field checked in the process of incorporation into the database.
2. <b>Unreliable:</b> : The documentation comes from a source known to be inaccurate but has not been field checked in the process of incorporation into the database; (or there is no established record for the reliability of the source, but the data has been field checked in the process of incorporation into the database and proven inaccurate.)
1. <b>Very Unreliable:</b> The source is known to be inaccurate on multiple occasions and the data has been field checked in the process of incorporation into the database and has proven to be incorrect.

### 3. CREATION AND ORGANIZATION OF HBIM



# CREATION AND ORGANIZATION OF HBIM



# CREATION AND ORGANIZATION OF HBIM



# 4. USER INTERFACE

**MANDI043 - DOOR** Return to Room

**Current Condition**

**Documentation (Use Specific):**

DOR	Element	Title w/ hyperlink	Date
X	XX	drop down list	XX

Door Opening Size:

**Trim**

material:  date | type | characteristics ▼

construction & conservation timeline:  date | name | manufacturer | effort ▼

document alerts:  resource name | description ▼

**Hardware**

material:  date | type | characteristics ▼

construction & conservation timeline:  date | name | manufacturer | effort ▼

document alerts:  resource name | description ▼

**Panel**

material:  date | type | characteristics ▼

construction & conservation timeline:  date | name | manufacturer | effort ▼

document alerts:  resource name | description ▼

**Finish**

material:  date | type | characteristics ▼

construction & conservation timeline:  date | name | manufacturer | effort ▼

document alerts:  resource name | description ▼

Search

**Development Notes:**

- any extant original material will be highlighted
- reverse chronological order
- default field is TBD, UNK for specifically unknown data

Quinn Evans Architects #31401000 Mount Vernon HBIM - 04/23/14

Page 2 of 4

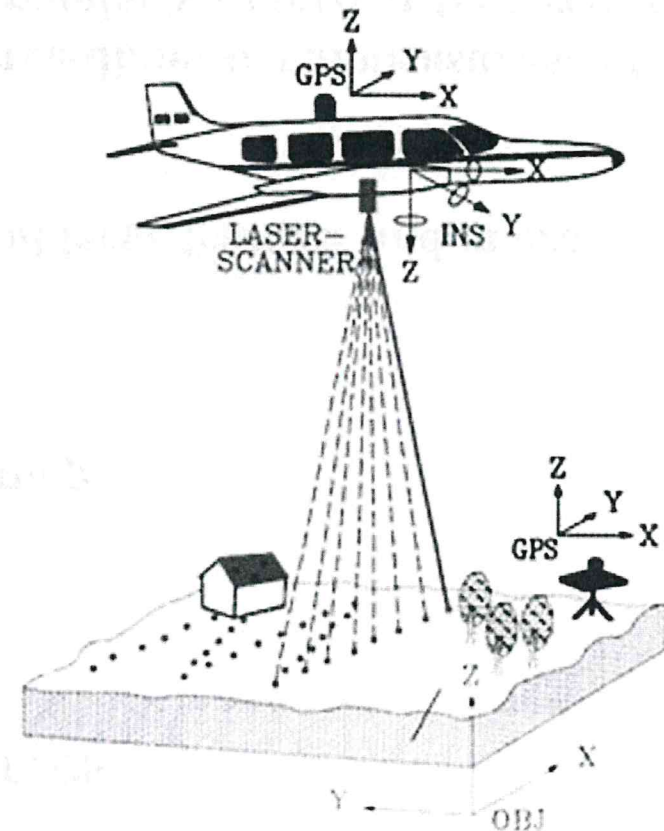
# 4. USER INTERFACE



# Emerging Technologies for Cultural Resources

**LIDAR, stands for Light Detection and Ranging, and is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. A LIDAR instrument principally consists of a laser, a scanner, and a specialized GPS receiver.**

LASER-SCANNING



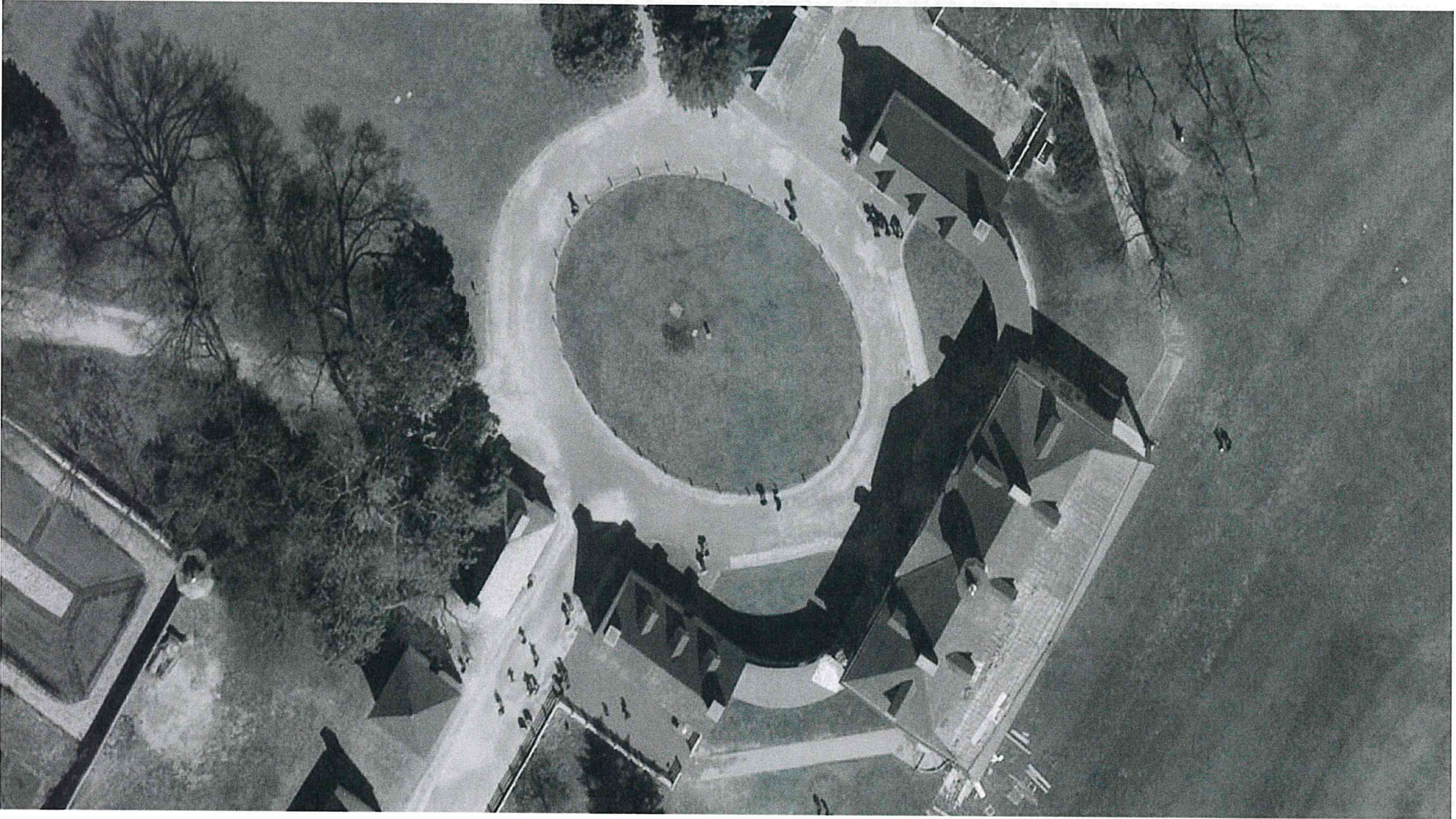
# Emerging Technologies for Cultural Resources

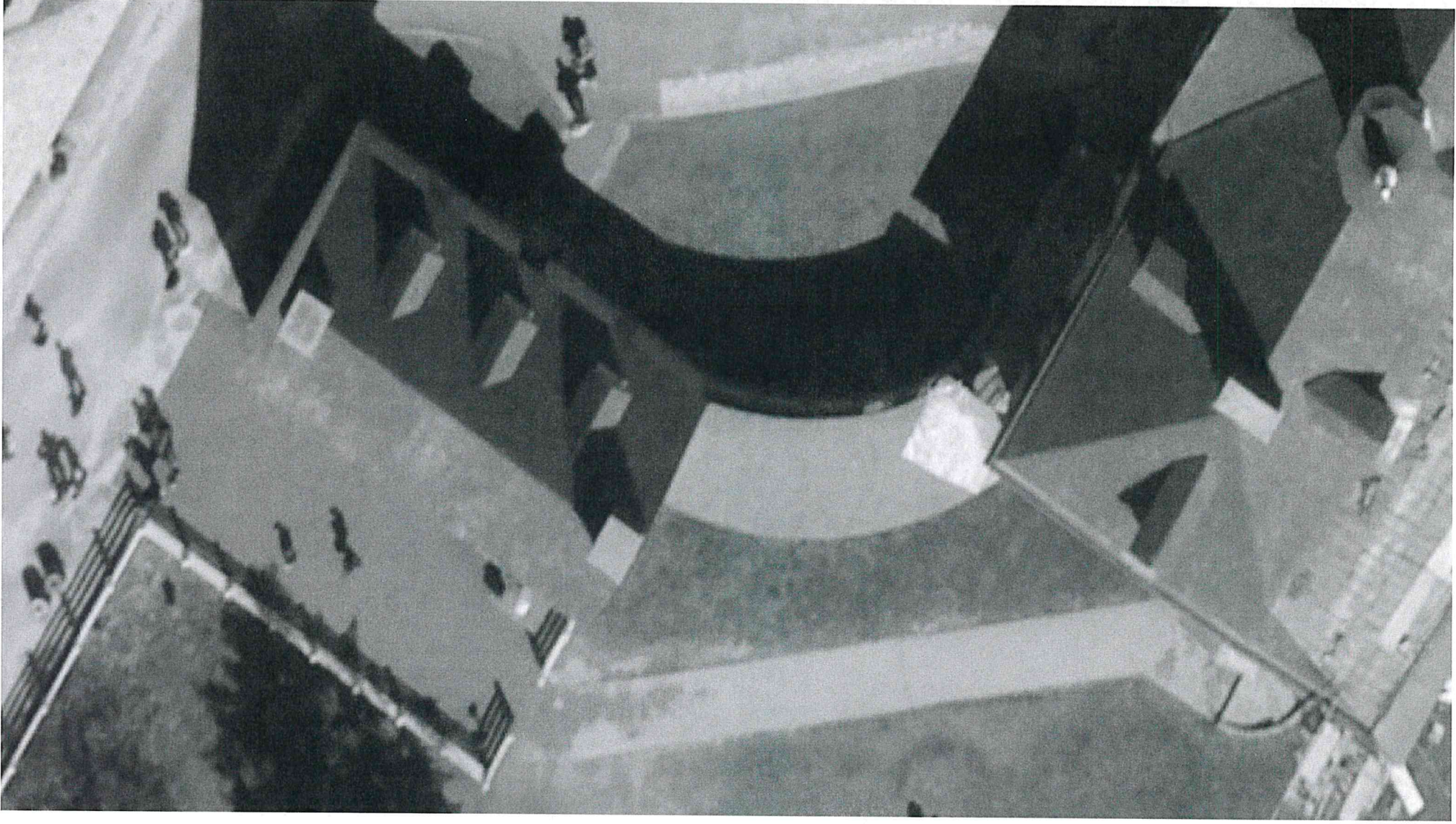
## **Why invest in LiDAR?**

- 1) Management – effective way to update a site’s basemap**
- 2) Easy integration with GIS and other systems**
- 3) Allows for visualization of the spatial arrangement of large features and micro topography**
- 4) Captures data necessary for detailed and precise three-dimensional measurement of objects; particularly useful when documenting irregularly shaped or textured surfaces.**

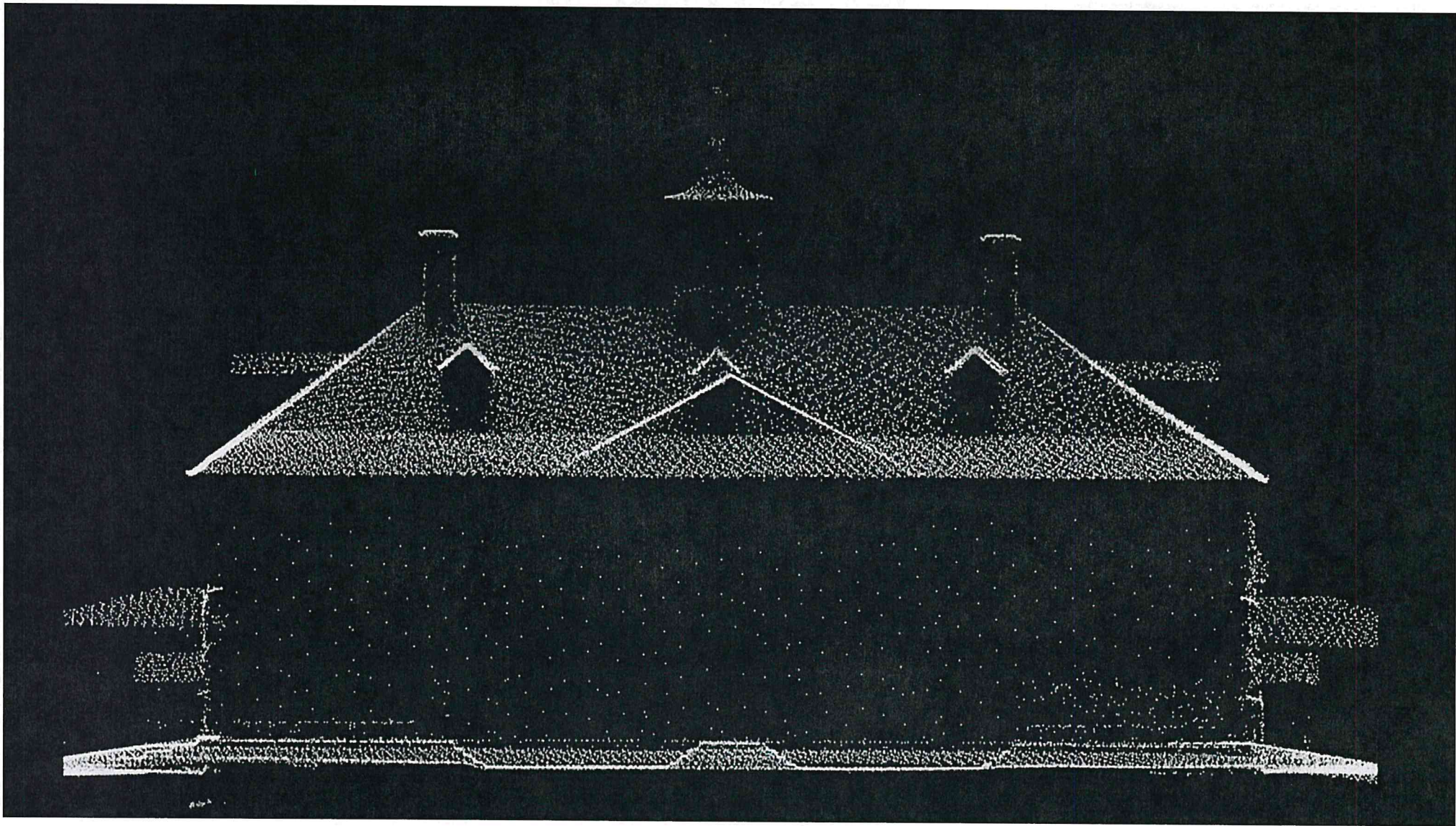


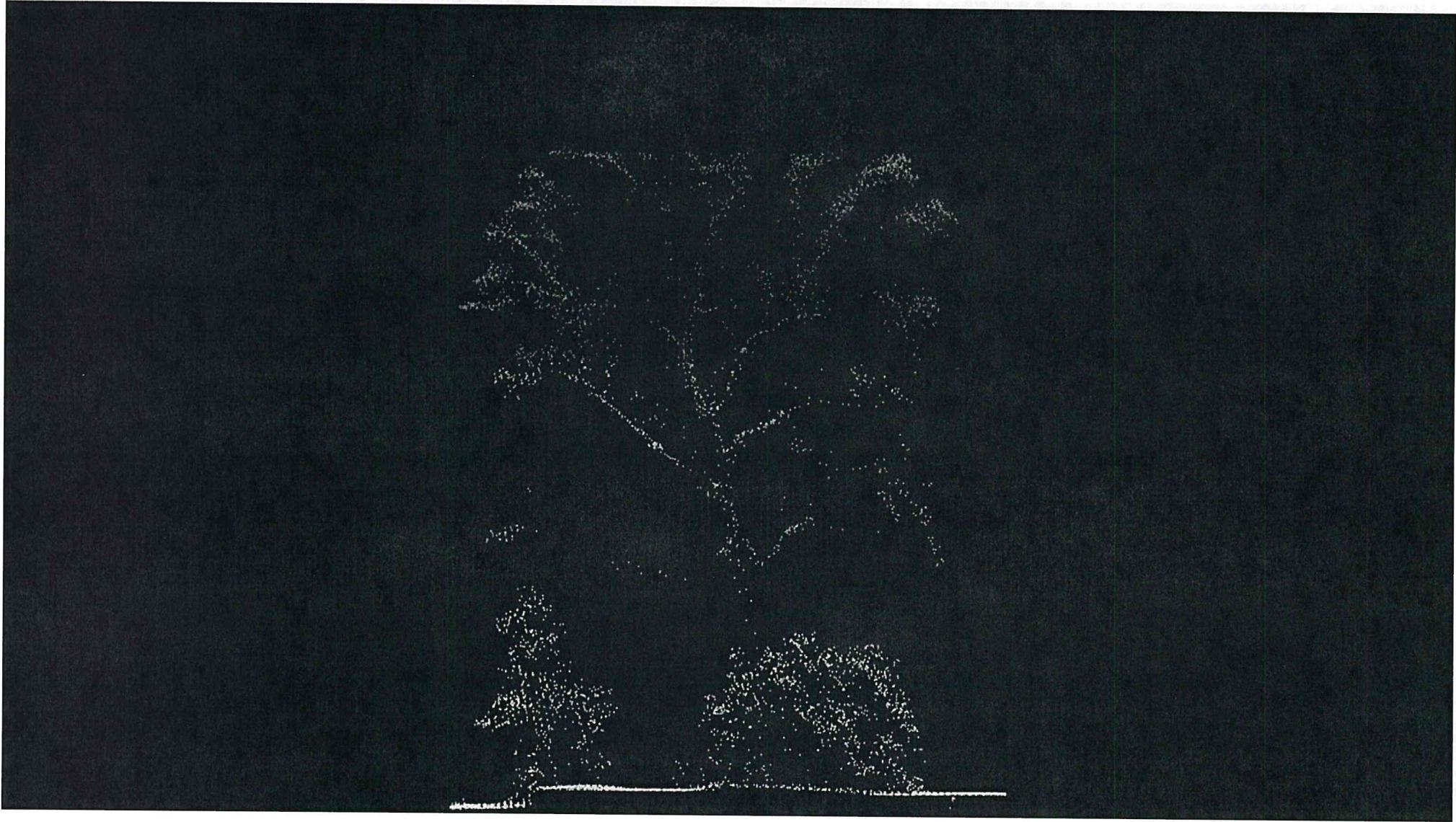


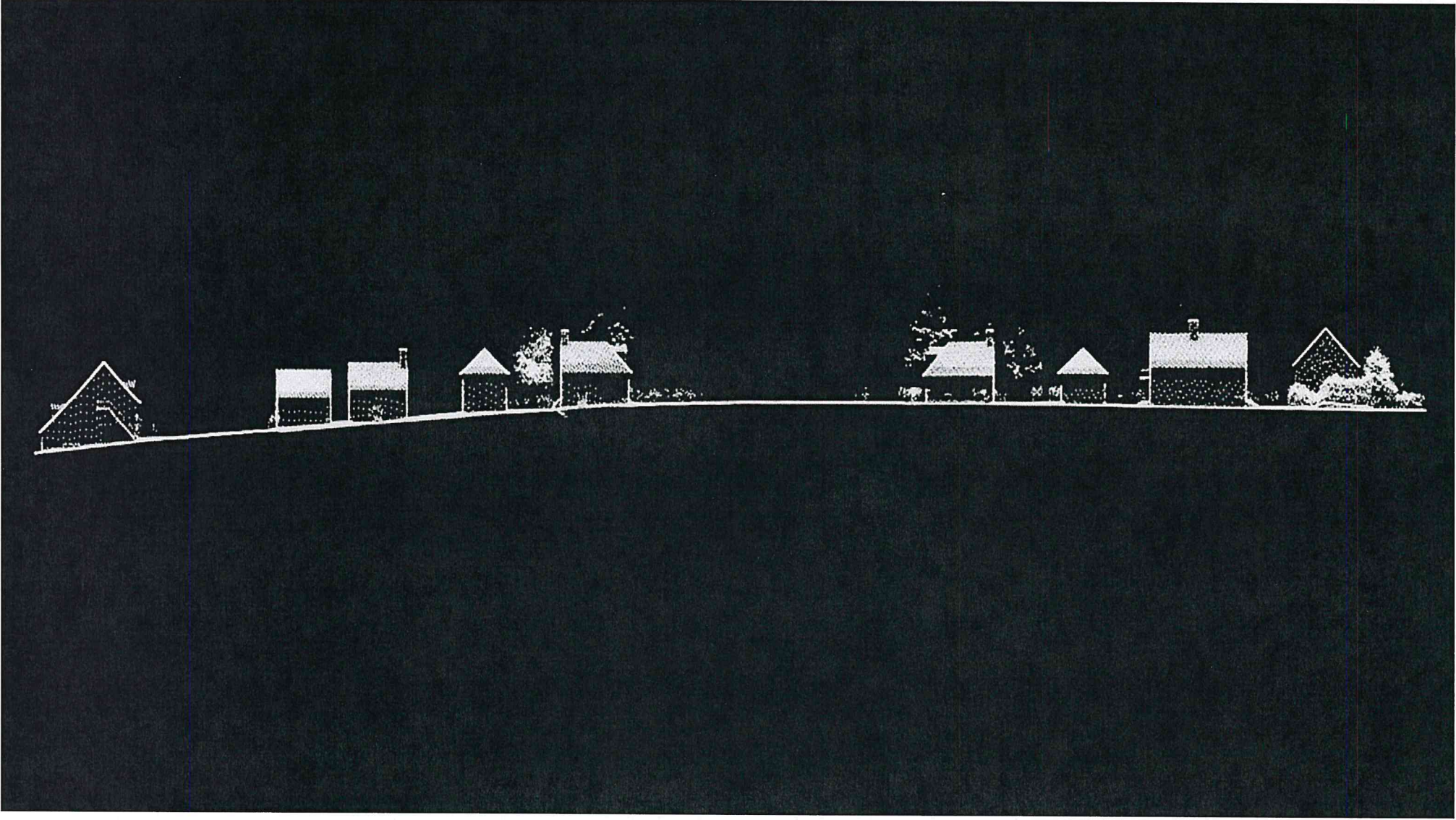






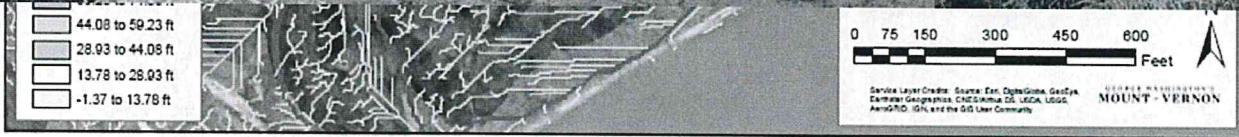
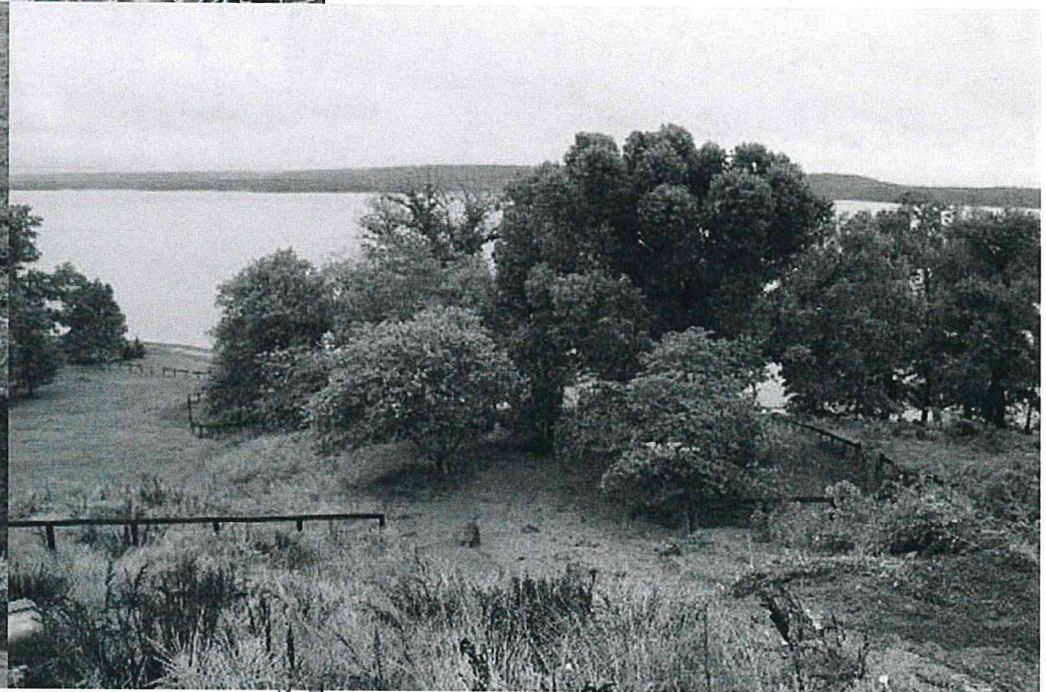
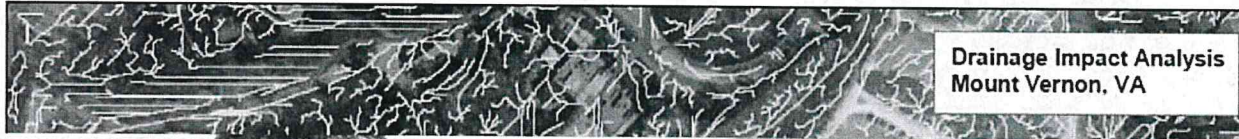








# Emerging Technologies for Cultural Resources



## Emerging Technologies for Cultural Resources

### UAVs

**An unmanned aerial vehicle (UAV), commonly known as a drone, is an aircraft without a human pilot aboard. UAVs are a component of an unmanned aircraft system (UAS); which include a UAV, a ground-based controller, and a system of communications between the two. The flight of UAVs may operate with various degrees of autonomy: either under remote control by a human operator or autonomously by onboard computers.**

**UAVs were originally used for missions too "dull, dirty or dangerous" for humans. While they originated mostly in military applications, their use is rapidly expanding to commercial, scientific, recreational, agricultural, and other applications. Civilian UAVs now vastly outnumber military UAVs, with estimates of over a million sold by 2015.**

## Emerging Technologies for Cultural Resources

**Small UAVs – most common types for use in historic**

**1) Multi-wing rotary vehicles**

**2) Fixed-wing vehicles**

**When first introduced in 2008, prices ranged from \$1,500 to \$5,000. At present, a good basic model can be obtained for under \$500.**



# Emerging Technologies for Cultural Resources

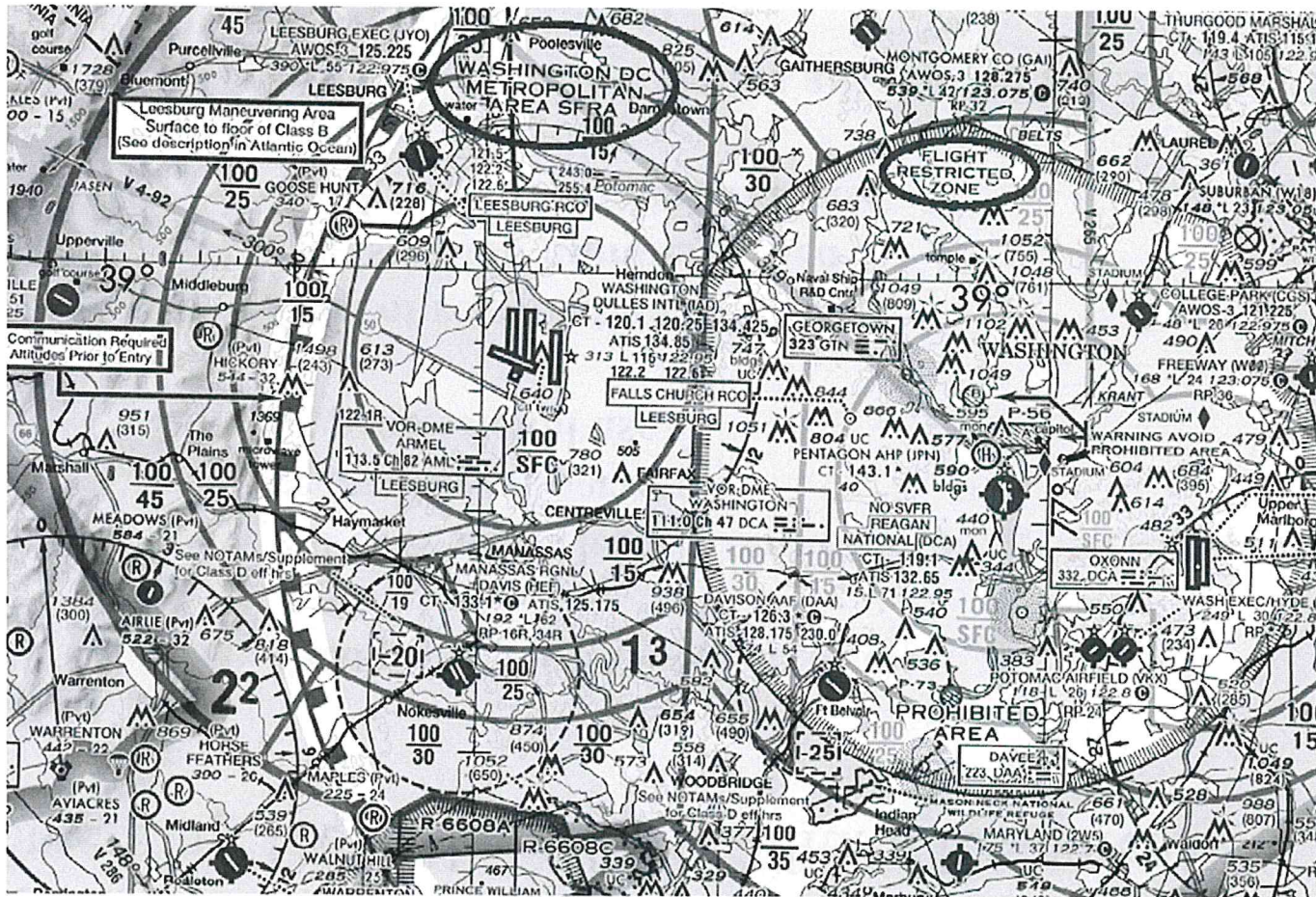
## **Using UAVs – FAA Regulations**

**All UAV users legally required to register equipment with FAA  
regardless of personal  
or professional use**

**Cost of registration: \$5  
Registration number issued  
Sufficient for recreational use**

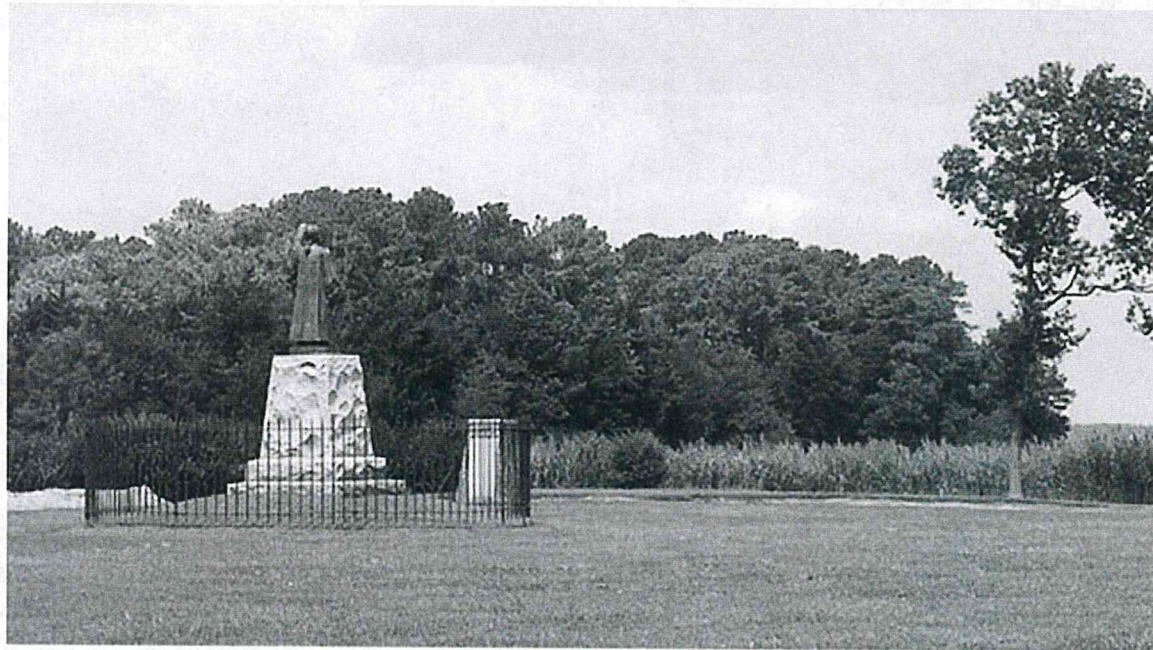
**Commercial use requires a Remote Pilot Airman Certificate  
Must be 16 years of age  
Must pass TSA screening**

# Emerging Technologies for Cultural Resources



Restricted Airspace

# Emerging Technologies for Cultural Resources



**Case Study: Francis Makemie site, Accomack, VA**

## Emerging Technologies for Cultural Resources



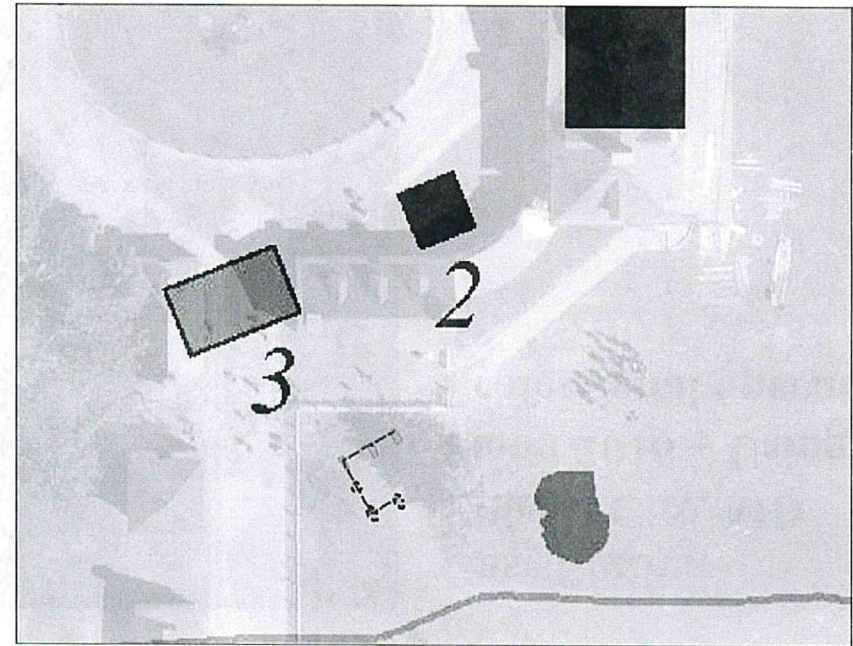
**Case Study: Mount Vernon's  
Slave Cemetery – Using a  
Professional operator**

# Emerging Technologies for Cultural Resources



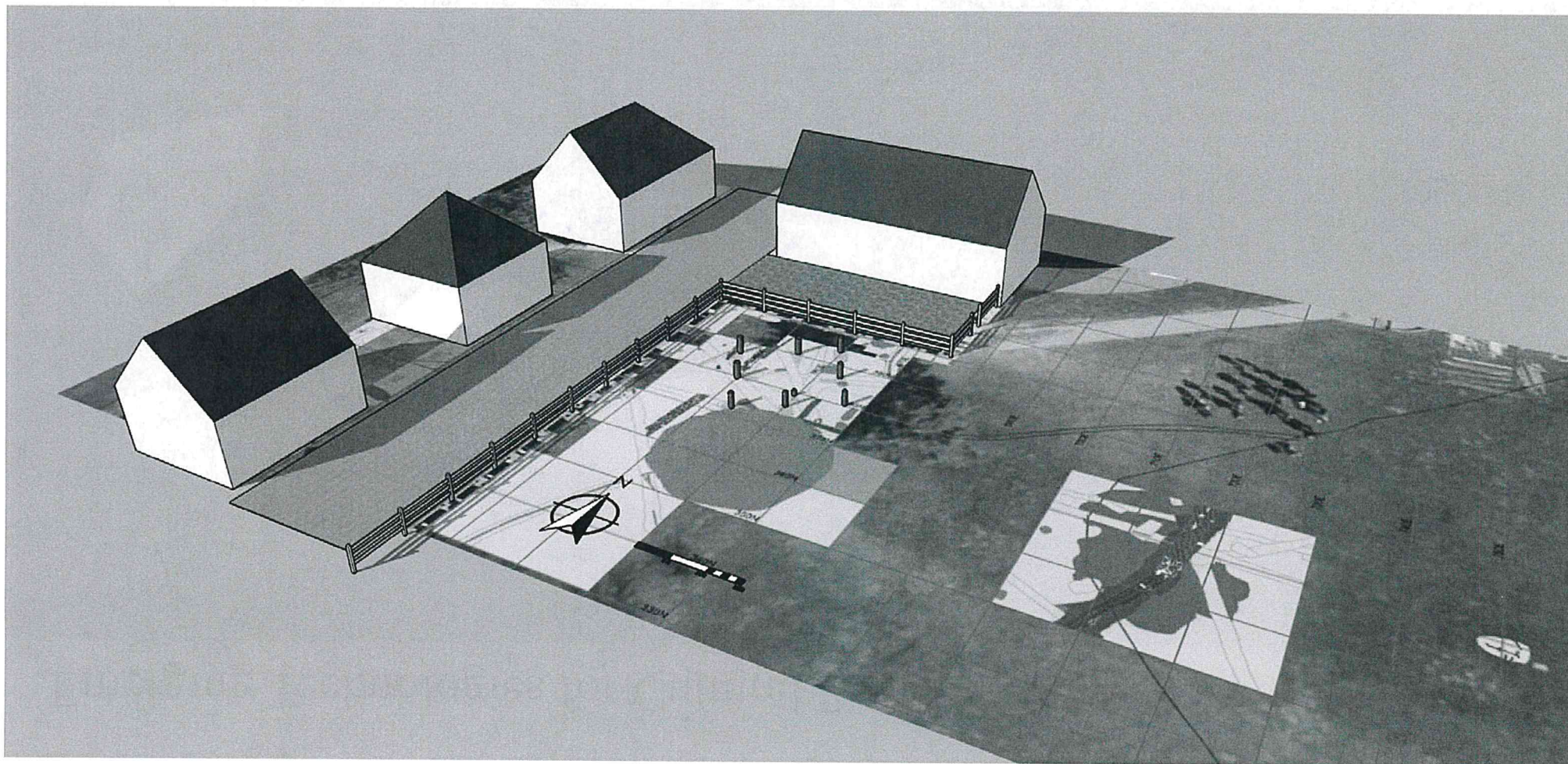
**Case Study:  
Ellicott City, MD  
Flood 2016 – Using a  
Professional operator**

## Emerging Technologies for Cultural Resources

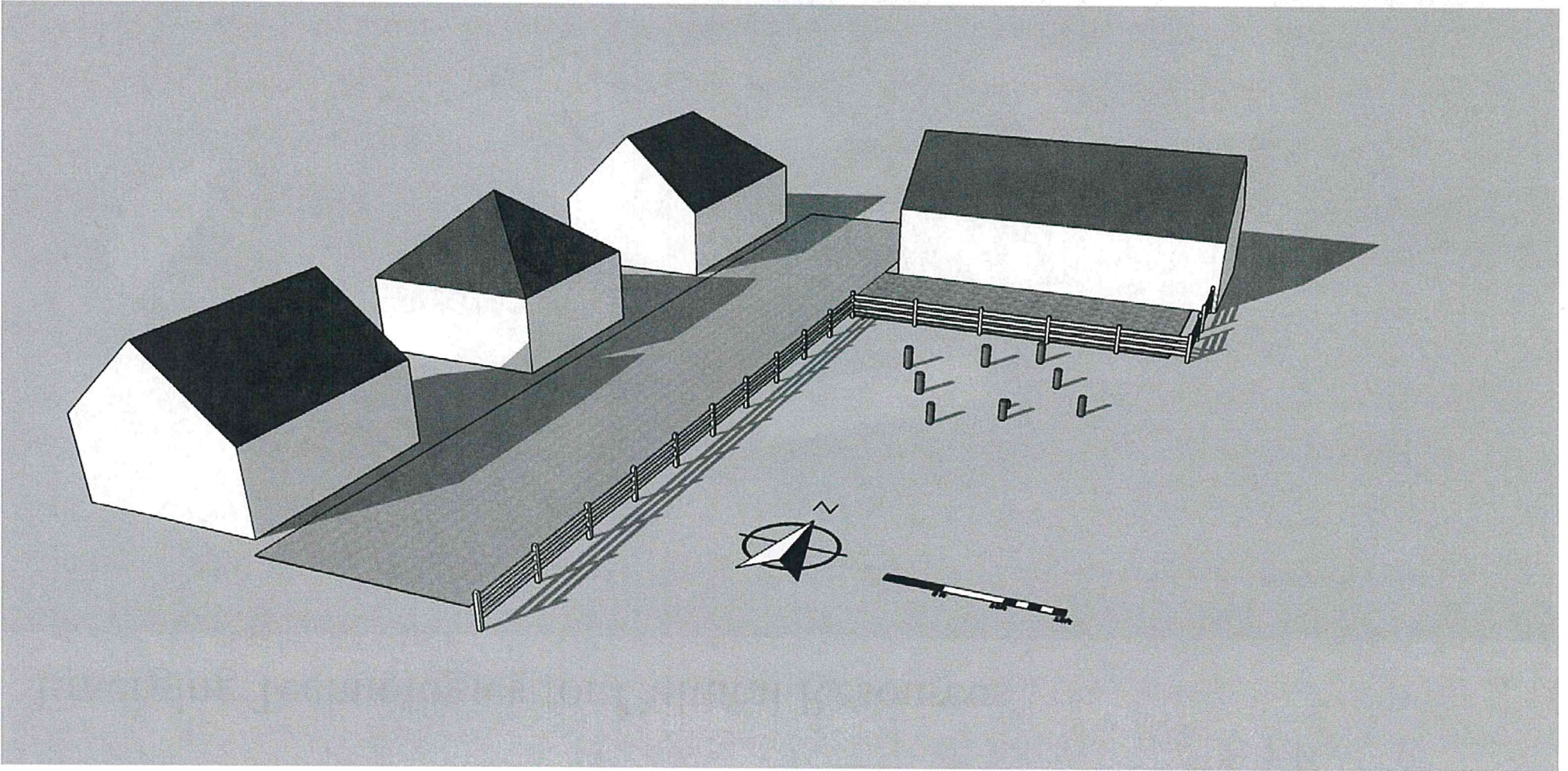


3D Rendering and Visualization

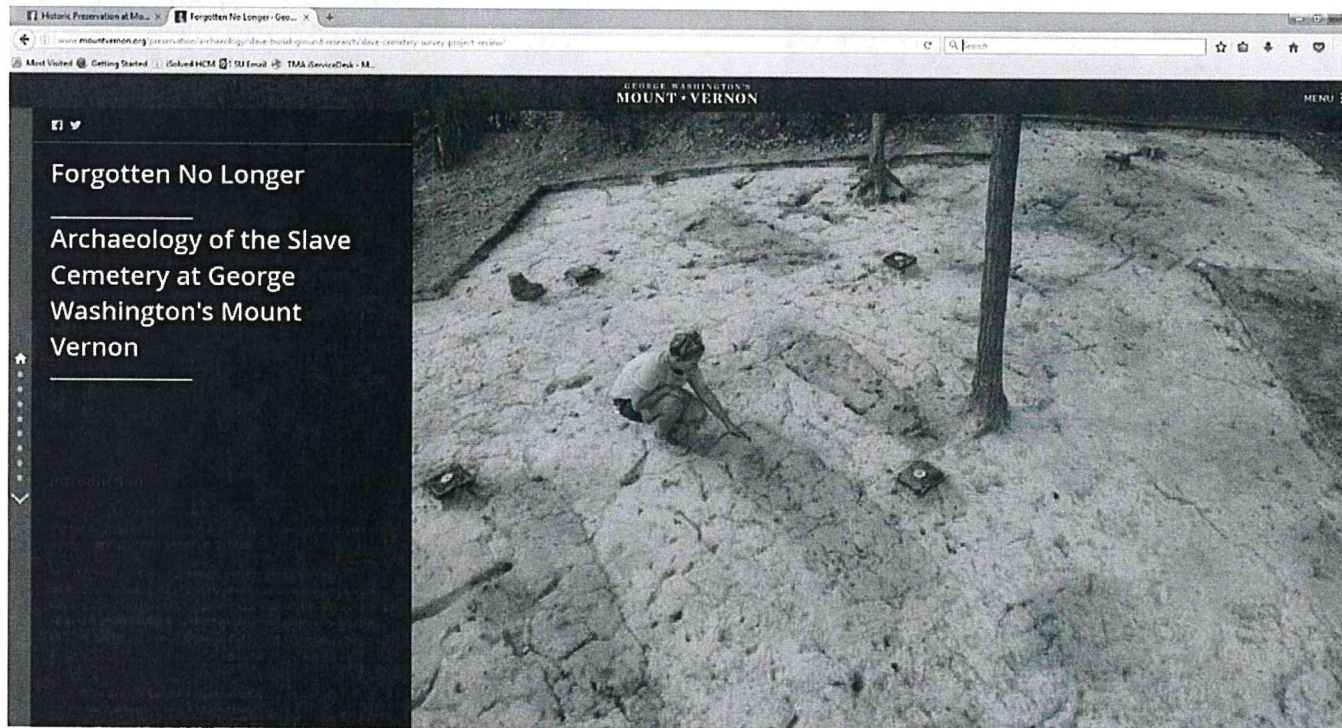
# Emerging Technologies for Cultural Resources



# Emerging Technologies for Cultural Resources



# Emerging Technologies for Cultural Resources



## Digital Storytelling:

Intersection of the integration of GIS, an interactive site report, and public outreach tool.

Mount Vernon Slave Cemetery

Project:

<http://www.mountvernon.org/preservation/archaeology/slave-burial-ground-research/slave-cemetery-survey-project-review/>

# Emerging Technologies for Cultural Resources

A story map titled "Piscataway Park Easements" is displayed in a web browser. The map shows the area around Mount Vernon and Piscataway National Park, with various land parcels highlighted in grey. A text pane on the left provides background information about the park's history and the easement program. A data popup for "RIVER RD" is visible, showing details such as Block 247, Page 103, Easement Date 12061971, Tax Account 033381, and a link to Download Easement.

**Piscataway Park Easements**

In the 1950s, local residents became concerned that proposed development along the Maryland shore across from Mount Vernon would rob the land of its natural and historic character. Their efforts led to an agreement by the National Park Service and Congress to protect the area through an innovative partnership between the federal government and landowners. A key element of this approach was the use of perpetual scenic easements covering private properties within the newly established Piscataway Park. Piscataway Park is a place of natural and cultural significance, and one of the nation's earliest public-private preservation successes. Landowners within Piscataway Park, have both a privilege and responsibility to participate in the protection of the land. The National Park Service and landowners act together to protect the river view from Mount Vernon and the natural and tranquil beauty of the Maryland shoreline.

This partnership results in a park which is very unique within the National Park system. Only 20% of the land in Piscataway Park is owned outright by the Federal Government. The remaining 80% is owned by private land holders. In order to maintain the integrity of the park and support its mission of preserving the view from Mount Vernon, the private lands are covered by easements which restrict what land owners may do with their property. These easements "run with the land", meaning that they are binding on every subsequent owner of the

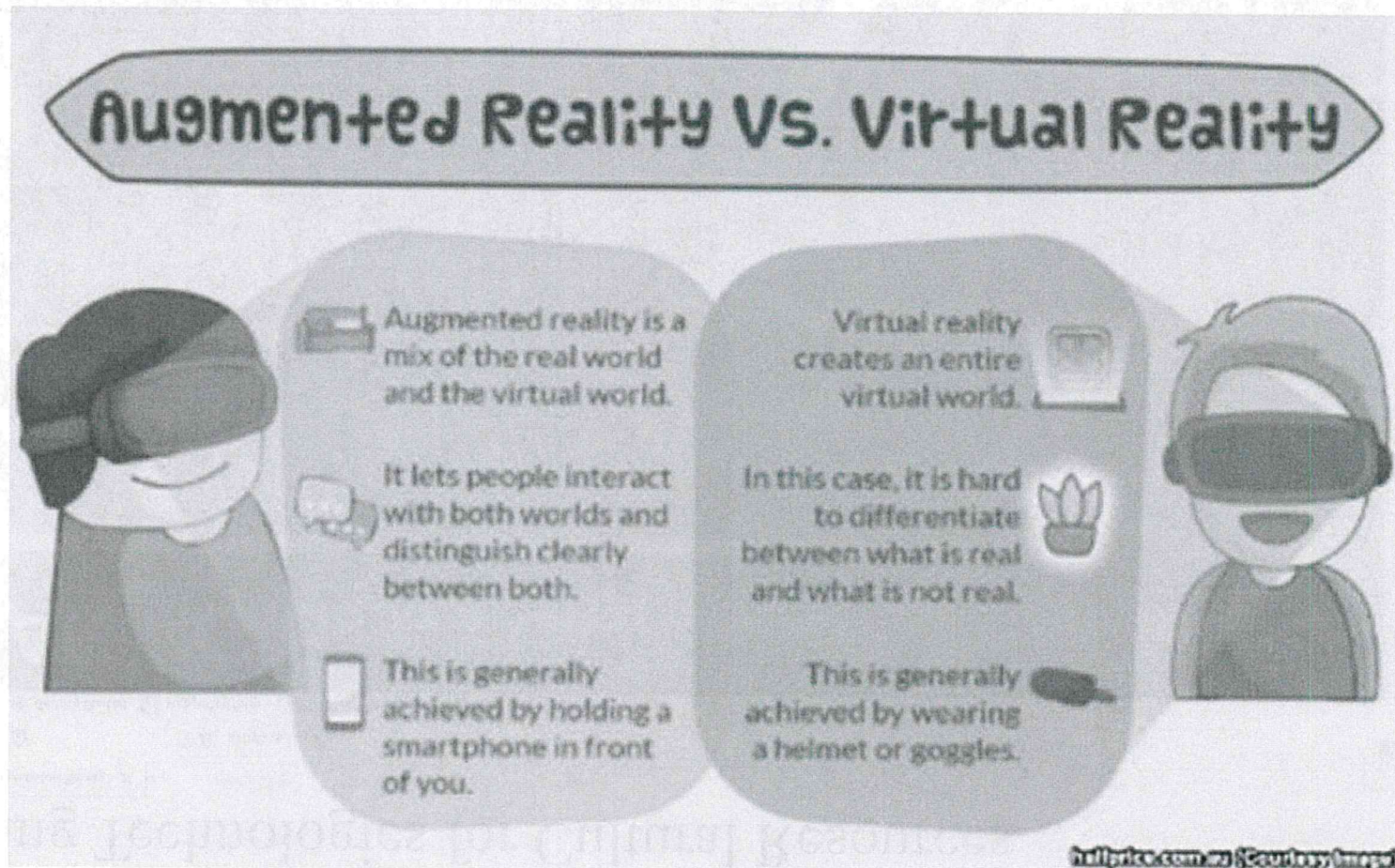
RIVER RD	
Block	247
Page	103
Easement Date	12061971
Tax Account	033381
Download Easement	<a href="#">More info</a>

County of Fairfax, M-NCPPC, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, esri

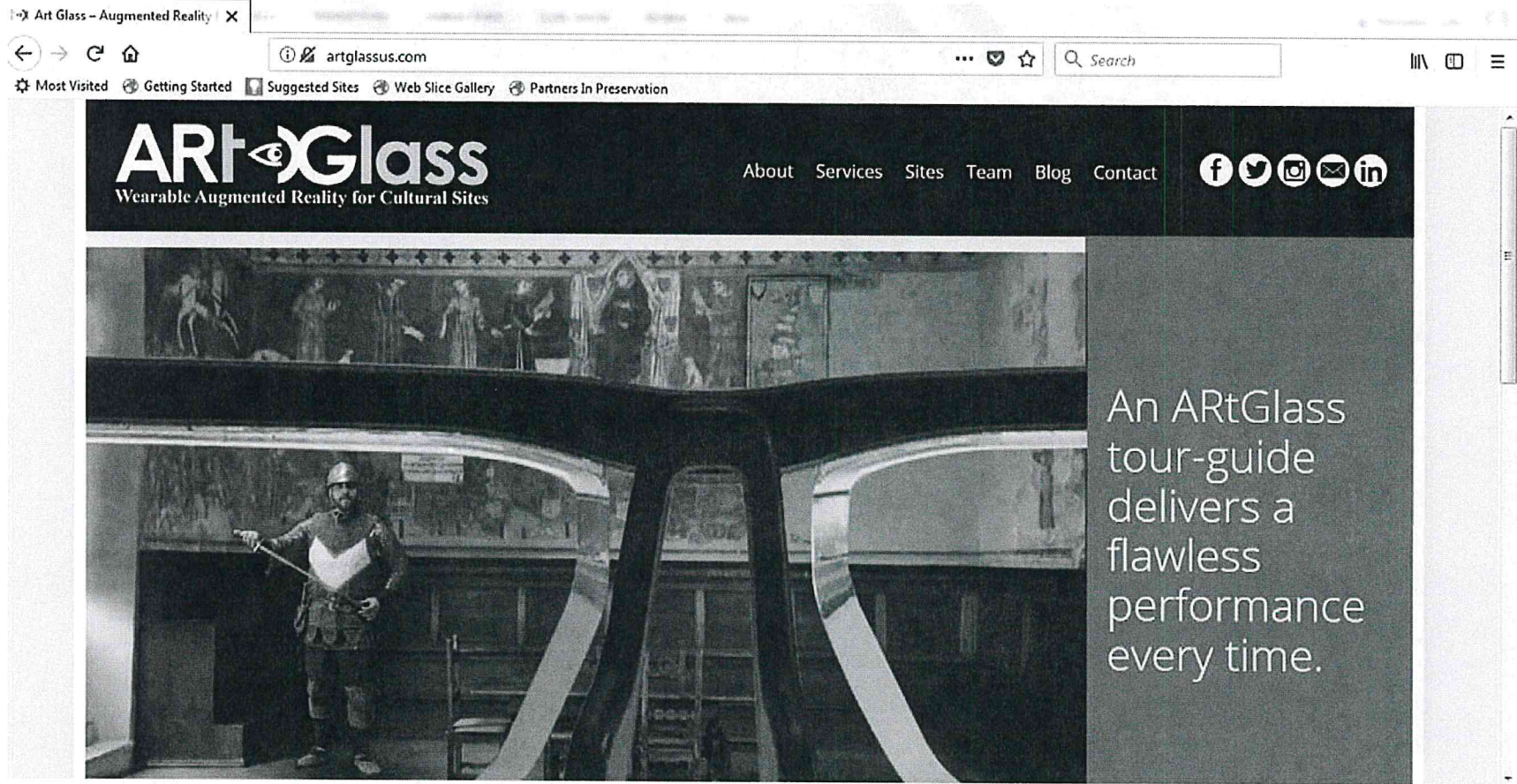
Mount Vernon Viewshed: A single pane StoryMap for public outreach:

<https://mountvernon.maps.arcgis.com/apps/MapJournal/index.html?appid=51e2c457bca04e21a00e049c91f4e88f>

# Emerging Technologies for Cultural Resources



# Emerging Technologies for Cultural Resources



<http://artglassus.com/>

## Training Seminars by Subject

### Identification, Planning, and Evaluation

Historic Bridges:

Management, Regulations, and Rehabilitation

Identification and Evaluation of Arts and Crafts,  
Ready-cut, and Prefabricated Houses\*

Preservation Planning for

Campuses, Complexes, and Installations\*

Preservation Planning and Policy Development  
for Historic Roads\*

The Recent Past: Strategies for Evaluation

Traditional Cultural Places

### Laws and Regulations

CERCLA and NHPA Coordination for Superfund Sites\*

CRM Compliance for Non-Specialists\*

NEPA Compliance and Cultural Resources

Section 4(f) Compliance for Historic Properties

Section 106: An Introduction

Section 106: A Review for Experienced Practitioners

Section 106: Agreement Documents

### Cultural and Natural Resource Management

Conflict Management and Negotiation Skills

for Cultural and Natural Resource Managers

Cultural and Natural Resources:

An Integrated Management Strategy

Emerging Technologies for Cultural Resources

GIS for Cultural Resources: An Introduction

GIS for Cultural Resources: Advanced Techniques

Landscape Preservation: An Introduction

Landscape Preservation:

Advanced Tools for Managing Change

Renewable Energy Development:

Impacts on Cultural Resources\*

### Native American Cultural Resources

NAGPRA and ARPA: Applications and Requirements

NAGPRA Essentials

NAGPRA: Preparing for and Writing Grant Proposals

Native American Cultural Property Law

### Historic Property Management

Historic Property Management

Historic Windows: Managing for Preservation,  
Maintenance, and Energy Conservation

HSRs and Maintenance Plans: Tools for Preservation

The Secretary of the Interior's Standards:

Treatment Considerations

Sustainable Preservation: Process and Practice\*

### Curation, Conservation, and Stewardship

Archaeological Curation and Collections Management

Cemetery Preservation\*

Cemetery Landscapes:

A Practical Guide to Care and Maintenance\*

Conservation Strategies for Archaeologists

Digital and Film Photography of Cultural Resources\*

\*These seminars are available as customized on-site  
training or may be scheduled in the future.

National Preservation Institute  
P.O. Box 1702 Alexandria, Virginia 22313-1702

2018-2019  
Professional Training Seminars  
in Historic Preservation  
& Cultural Resource  
Management

703.765.0100  
info@npi.org  
www.npi.org



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# National Preservation Institute

## 2018-2019 Professional Training Seminars in Historic Preservation & Cultural Resource Management

Continuing education training seminars are offered throughout the United States. Scheduled and customized on-site training subjects include:

- Identification, Planning, and Evaluation
- Laws and Regulations
- Cultural and Natural Resource Management
- Native American Cultural Resources
- Historic Property Management
- Curation, Conservation, and Stewardship

703.765.0100  
info@npi.org  
www.npi.org



## About NPI

The National Preservation Institute, a nonprofit 501(c)(3) organization founded in 1980, educates those involved in the management, preservation, and stewardship of cultural heritage. NPI serves a broad spectrum of professionals from government and the private sector by providing continuing education training through its seminars in historic preservation and cultural resource management. [www.npi.org/about](http://www.npi.org/about)

## Scheduled and Customized Professional Training Seminars

Descriptions and agendas for NPI's scheduled professional training seminars can be reviewed at [www.npi.org/Seminars](http://www.npi.org/Seminars). NPI also offers customized on-site training to meet specific organizational needs. Seminars may be tailored to create single- or multiple-day workshops at a location and time convenient to the sponsor.

[www.npi.org/customized\\_training](http://www.npi.org/customized_training)

## Cooperating Organizations

NPI actively seeks partners to assist in providing continuing education training seminars across the country. Cooperating organizations work with NPI by providing training space and audiovisual equipment and/or by promotion through listservs, social media, and web listings. In return, staff and students of cooperating organizations receive valuable educational opportunities.

[www.npi.org/cooperating\\_organization](http://www.npi.org/cooperating_organization)

## Faculty

NPI's continuing education training seminars are taught by nationally recognized educators, consultants, and practitioners in historic preservation, archaeology, architecture and landscape architecture, conservation, engineering, historical research, laws and regulations, planning, restoration, technology, and cultural resource management. [www.npi.org/faculty](http://www.npi.org/faculty)

## Support Scholarships for Training

Donations fund scholarship opportunities for NPI training seminars. NPI participates in America's Most Cost Effective Charities campaign. Through the AMCEC, NPI is included in the Combined Federal Campaign and in United Way, state employee, municipal, county, university, and independent corporate campaigns. [www.npi.org/donate](http://www.npi.org/donate)

## Scholarships for NPI Seminars

NPI offers scholarship opportunities for tuition assistance. Additionally, **National NAGPRA Program, National Park Service, Department of Interior** scholarships are available through NPI for participants from federally recognized Indian tribes, Alaska Native villages, Native Hawaiian organizations, and museums. [www.npi.org/register.html](http://www.npi.org/register.html)

## www.npi.org

Seminar descriptions and agendas

[www.npi.org/Seminars](http://www.npi.org/Seminars)

Registration forms and scholarship applications

[www.npi.org/register.html](http://www.npi.org/register.html)

Tools for cultural resource managers

[www.npi.org/resources](http://www.npi.org/resources)

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## August 2018

- 27 - 28 **Historic Windows: Managing for Preservation, Maintenance, and Energy Conservation**  
Portland, OR

## September

- 12 - 13 **Historic Bridges: Management, Regulations, and Rehabilitation**  
Denver, CO
- 12 - 13 **NAGPRA: Preparing for and Writing Grant Proposals**  
Tulsa, OK
- 12 - 13 **Section 106: A Review for Experienced Practitioners**  
Salt Lake City, UT
- 25 **HSRs and Maintenance Plans: Tools for Preservation**  
Mount Vernon, VA
- 25 - 26 **Cultural and Natural Resources: An Integrated Management Strategy**  
Sacramento, CA
- 25 - 26 **NAGPRA Essentials**  
Tucson, AZ
- 26 - 28 **Historic Property Management**  
Mount Vernon, VA
- 27 - 28 **NAGPRA and ARPA: Applications and Requirements**  
Sacramento, CA

## October

- 2 - 3 **Historic Windows: Managing for Preservation, Maintenance, and Energy Conservation**  
Atlanta, GA
- 4 - 5 **The Recent Past: Strategies for Evaluation**  
Atlanta, GA
- 9 - 11 **Section 106: An Introduction**  
San Diego, CA
- 16 - 17 **Landscape Preservation: An Introduction**  
Portland, OR
- 18 **Landscape Preservation: Advanced Tools for Managing Change**  
Portland, OR
- 22 - 23 **Conservation Strategies for Archaeologists**  
Austin, TX
- 23 - 24 **NEPA Compliance and Cultural Resources**  
Minneapolis, MN
- 24 - 26 **Archaeological Curation and Collections Management**  
Austin, TX

- 25 - 26 **Native American Cultural Property Law**  
Minneapolis, MN
- 26 **NAGPRA Essentials**  
Columbus, OH

## November

- 6 - 7 **GIS for Cultural Resources: An Introduction**  
Madison, WI
- 6 - 8 **Section 106: Agreement Documents**  
Montpelier, VT
- 6 - 8 **Section 106: An Introduction**  
Indianapolis, IN
- 8 **GIS for Cultural Resources: Advanced Techniques**  
Madison, WI
- 9 **Emerging Technologies for Cultural Resources**  
Madison, WI

## December

- 4 - 6 **Section 106: An Introduction**  
Seattle, WA
- 5 - 6 **The Secretary of the Interior's Standards: Treatment Considerations**  
Columbia, SC
- 6 - 7 **Section 4(f) Compliance for Historic Properties**  
Honolulu, HI

## February 2019

- 25 - 27 **Section 106: An Introduction**  
Honolulu, HI
- 28 - 3/1 **NEPA Compliance and Cultural Resources**  
Honolulu, HI

## March

- 11 - 13 **Section 106: Agreement Documents**  
Sacramento, CA
- 14 - 15 **Traditional Cultural Places**  
Sacramento, CA
- 18 - 19 **NAGPRA Essentials**  
Honolulu, HI
- 20 **GIS for Cultural Resources: Advanced Techniques**  
Mount Vernon, VA
- 21 **Emerging Technologies for Cultural Resources**  
Mount Vernon, VA
- 22 **GIS Symposium for Historical Resources**  
*offered by George Washington's Mount Vernon in conjunction with NPI seminars*  
Mount Vernon, VA

## April

- 2 - 4 **Conflict Management and Negotiation Skills for Cultural and Natural Resource Managers**  
Portland, OR
- 2 - 4 **Section 106: An Introduction**  
Santa Fe, NM
- 8 - 10 **Section 106: An Introduction**  
Atlanta, GA
- 11 - 12 **NAGPRA and ARPA: Applications and Requirements**  
Atlanta, GA
- 25 - 26 **Section 106: A Review for Experienced Practitioners**  
Minneapolis, MN
- 29 - 30 **Landscape Preservation: An Introduction**  
Anchorage, AK
- 30 - 5/2 **Section 106: An Introduction**  
Austin, TX

## May

- 1 **Landscape Preservation: Advanced Tools for Managing Change**  
Anchorage, AK
- 1 - 2 **The Secretary of the Interior's Standards: Treatment Considerations**  
Montpelier, VT
- 1 - 2 **Section 4(f) Compliance for Historic Properties**  
Richmond, VA
- 2 - 3 **NAGPRA Essentials**  
Norman, OK
- 7 - 9 **Section 106: Agreement Documents**  
Salt Lake City, UT

Seminar descriptions, agendas, and faculty  
[www.npi.org/Seminars](http://www.npi.org/Seminars)

Registration forms and scholarship applications  
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Contact information  
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# PARTICIPANT LIST

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## Emerging Technologies for Cultural Resources

December 5, 2018

Bismarck, ND

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# SEMINAR EVALUATION FORM

Please take the time to give us your opinion of the seminar you have just completed. The evaluation form may be given to a participant designated to collect the forms or mailed to the National Preservation Institute, P.O. Box 1702, Alexandria, VA 22313.

Seminar Title \_\_\_\_\_

Instructor \_\_\_\_\_

Date \_\_\_\_\_ City/State \_\_\_\_\_

Please rate: 1 (low) to 5 (high)

		1	2	3	4	5
Overall Quality of Program		1	2	3	4	5
Instructor(s)	Knowledge of material	1	2	3	4	5
	Clarity of presentation	1	2	3	4	5
Class Materials	Usefulness of handouts	1	2	3	4	5
	Effectiveness of exercises	1	2	3	4	5
Facilities	Convenience of location	1	2	3	4	5
	Comfort of seminar room	1	2	3	4	5

Would you recommend the seminar to a professional associate? Yes    No

Were you required to take this seminar? Yes    No

Will the seminar help you meet your professional requirements more effectively? Yes    No

In what ways did this seminar exceed, meet, or fall short of your expectations?  
 \_\_\_\_\_  
 \_\_\_\_\_

What seminar topics do you need for further professional development?  
 \_\_\_\_\_  
 \_\_\_\_\_

How did you learn about this seminar?  
 Internet     Brochure     Advertisement: \_\_\_\_\_  
 Professional meeting/conference: \_\_\_\_\_  
 Personal recommendation     Other: \_\_\_\_\_

Would your organization be interested in becoming an NPI Cooperating Organization by helping to sponsor a seminar? Yes    No  
 [Contact name/telephone: \_\_\_\_\_]

Additional comments? Please use the reverse side of this evaluation form if needed.  
 \_\_\_\_\_  
 \_\_\_\_\_









