



Portsmouth Gaseous
Diffusion Plant
National Historic Preservation Act
Program Activities

**U. S. DEPARTMENT OF ENERGY
PORTSMOUTH/PADUCAH PROJECT OFFICE**

**Status Update
November 17, 2011**

Purpose of Meeting



- **Review of DOE's EM Undertakings at PORTS**
 - *Upcoming CERCLA Remedial Actions*
 - *Potential for future undertakings*
- **Discuss DOE's potential site-wide approach to NHPA**
 - *Status of site surveys and investigations*
- **Outline DOE's Commitment to ongoing public involvement**
 - *Hold quarterly public meetings, issue fact sheets, provide documents for review and comments, etc.*
- **Review of Earthworks and Mounds and Lidar Reports**
- **Discuss DOE's Proposed NHPA Mitigation Strategy**
- **Questions and Answers**

Comprehensive NHPA Strategy at PORTS



DOE is implementing a Comprehensive Strategy to address NHPA at the Portsmouth Site

DOE's Strategy:

- **Integrate NHPA responsibilities into all of our work**
- **Identify historic properties under NHPA**
- **Assess the effects of proposed actions (e.g., D&D and remedial actions) on the historic properties**
- **Avoid, minimize, or mitigate adverse affects to historic properties**
- **Provide multiple opportunities throughout project review phases for public, SSAB, and Consulting Parties input**

Cultural Resource information is used for many activities at PORTS



**Property
Transfer**

**CERCLA
Balance
of Plant**

**CERCLA
Waste
Disposition**

Archaeological Surveys – Phase I and II
Farmstead Surveys – Phase I and II
Architectural Survey
Historical Documentation of Buildings

**Miscellaneous
PORTS
Activities**

**RCRA
Corrective
Measures**

**CERCLA
Process
Buildings**

PORTS NHPA Undertakings and Public Reviews

11-15-11

	Planning Activities	Investigation & Survey Phase	Documentation Phase	Public Review	Decision Phase	
Undertakings	CERCLA Balance of Plant Project <i>- EE/CA & Action Memorandum</i>	Ongoing	In process	In process	Ongoing EE/CA	★ AM – Jan 2012
	CERCLA Process Buildings Project <i>- RI/FS, Proposed Plan and ROD</i>	Ongoing	In process	In process	★ PP – Summer 2012	★ ROD – Late 2012
	CERCLA Waste Disposition Project <i>- RI/FS, Proposed Plan and ROD</i>	Ongoing	In process	In process	★ PP – Summer 2012	★ ROD – Late 2012
Proposed	Site Reuse	NEPA & NHPA reviews planned		★	★ Planned for 2013	
	RCRA Corrective Measures	NEPA & NHPA reviews planned		★	★ Planned for 2014+	
	Miscellaneous PORTS undertakings	Needs identified case-by-case			TBD	

EE/CA = Engineering Evaluation/Cost Analysis
CX = Categorical Exclusion

AM = Action Memorandum PP = Proposed Plan
NEPA = National Environmental Policy Act

ROD = Record of Decision
NHPA = National Historic Preservation Act

Integration of NHPA and CERCLA



- **Proposed Mitigation for Support Buildings outlined in BOP EE/CA.**
 - *Available for Public Review until November 23, 2011*
- **Building and Waste Disposition RI/FS Work Plans will be available in late 2011.**
 - *Proposed Mitigation Strategy is also presented in the Work Plans*
- **Building and Waste Disposition RI/FS Reports/Proposed Plans available in summer 2012.**
 - *Also include Proposed Mitigation Approach*
 - *To be refined based on public input on the Work Plans*
- **NHPA Mitigation for CERCLA undertakings to be finalized in Records of Decision.**
 - *Records of Decision to be finalized in late 2012*

What Else is DOE Doing to Keep the Public Involved?



- **Interaction with Consulting Parties and SSAB**
 - *Meetings will continue going forward*
- **NHPA Fact Sheet will be issued to the public in November 2011**
- **Quarterly Public Meetings on each of the projects**
 - *Will provide status of Regulatory Documents and Cleanup*
- **Providing notice for documents available for formal public reviews**
- **Making documents of archaeological interest available to the public**

DOE'S Proposed Mitigation Strategy – Process Buildings and Support Structures



DOE's Proposed Mitigation Approach:

- ***A combination of documentation and interpretation methods as part of the efforts to help preserve the PORTS Site history, including:***
 - *Selected artifact salvage*
 - *Photographs (new and vintage) of interior and exterior of buildings to document key features*
 - *Panoramic photographs of the site as it undergoes D&D*
 - *Development of a "GIS Atlas" to support understanding of operations / processes*

- ***Historic Context Report***
 - *Comprehensive report to document the history from 1952 (at acquisition) to 1992 (end of the Cold War)*
 - *Place the site in context with the DOE Complex*

- ***Virtual Museum***
 - *Will serve as the centerpiece of the site's historic preservation activities*
 - *Will provide ready access to all preserved documentation, oral histories , photographs*

DOE'S Proposed Mitigation Strategy – Historic Farmsteads and Prehistoric Archaeological Sites



DOE's Proposed Mitigation Approach:

- ***DOE will work with OHPO, Consulting Parties, SSAB and Public to:***
 - *Identify historic properties that could be impacted from DOE actions*
 - *Develop and refine appropriate mitigation for the effected property*

- ***The mitigation measures proposed would be comprehensive:***
 - *Address effects from the full range of DOE actions*
 - *Broad interpretation of site over time (prehistoric, historic-era and DOE-era)*
 - *Avoid incremental and repetitive efforts.*



Graded Way 33Pk1

Mound Cemetery

Rt 223

Linknow's Mill Mound

Vulgamore Mound 33Pk5

Van Meter Mounds 33Pk4

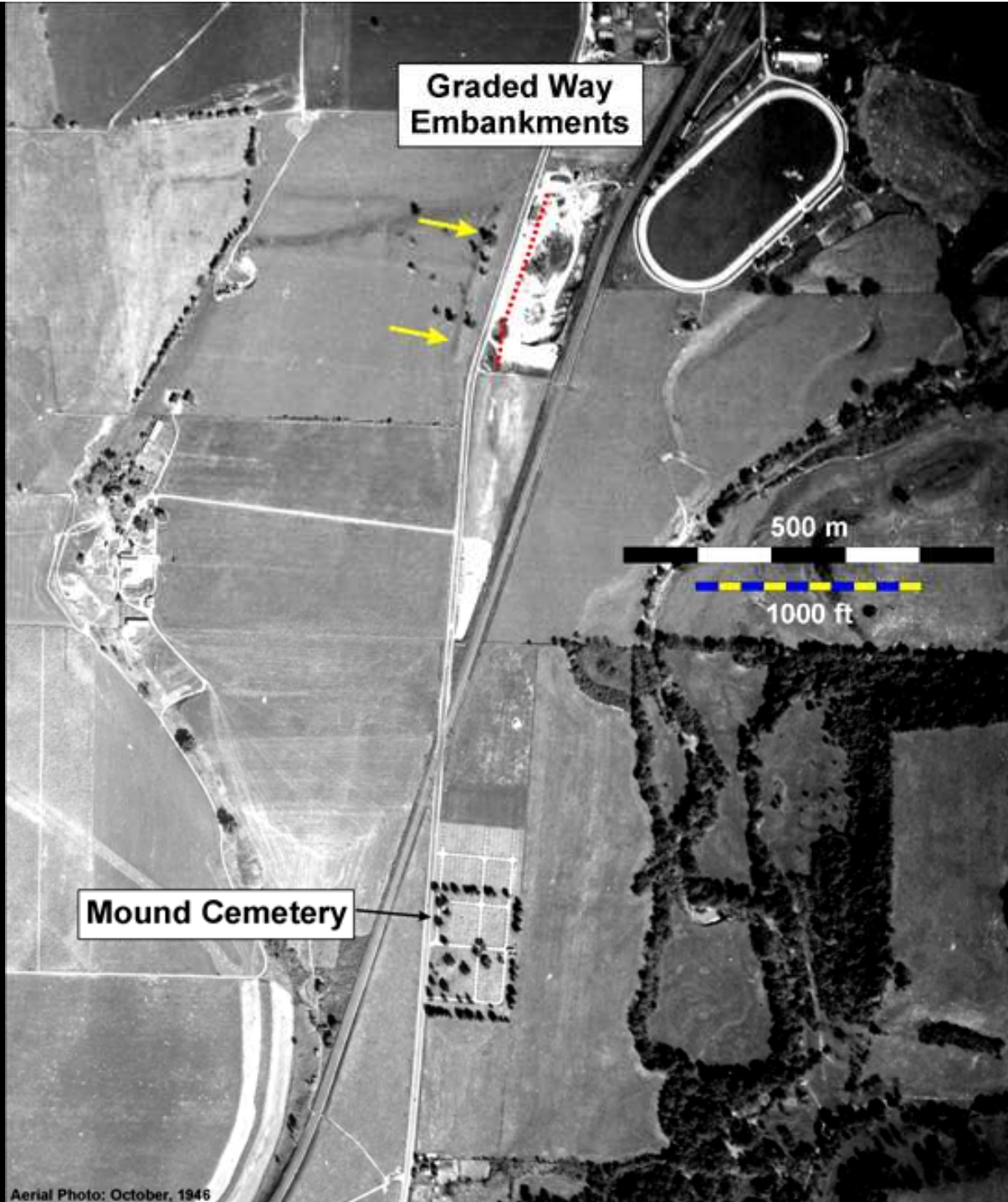
Earthwork "N" 33Pk6

Seal Township Works 33Pk22

Legend	
•	Mound
○	Earthwork

One Mile

1946



Graded Way
Embankments

500 m

1000 ft

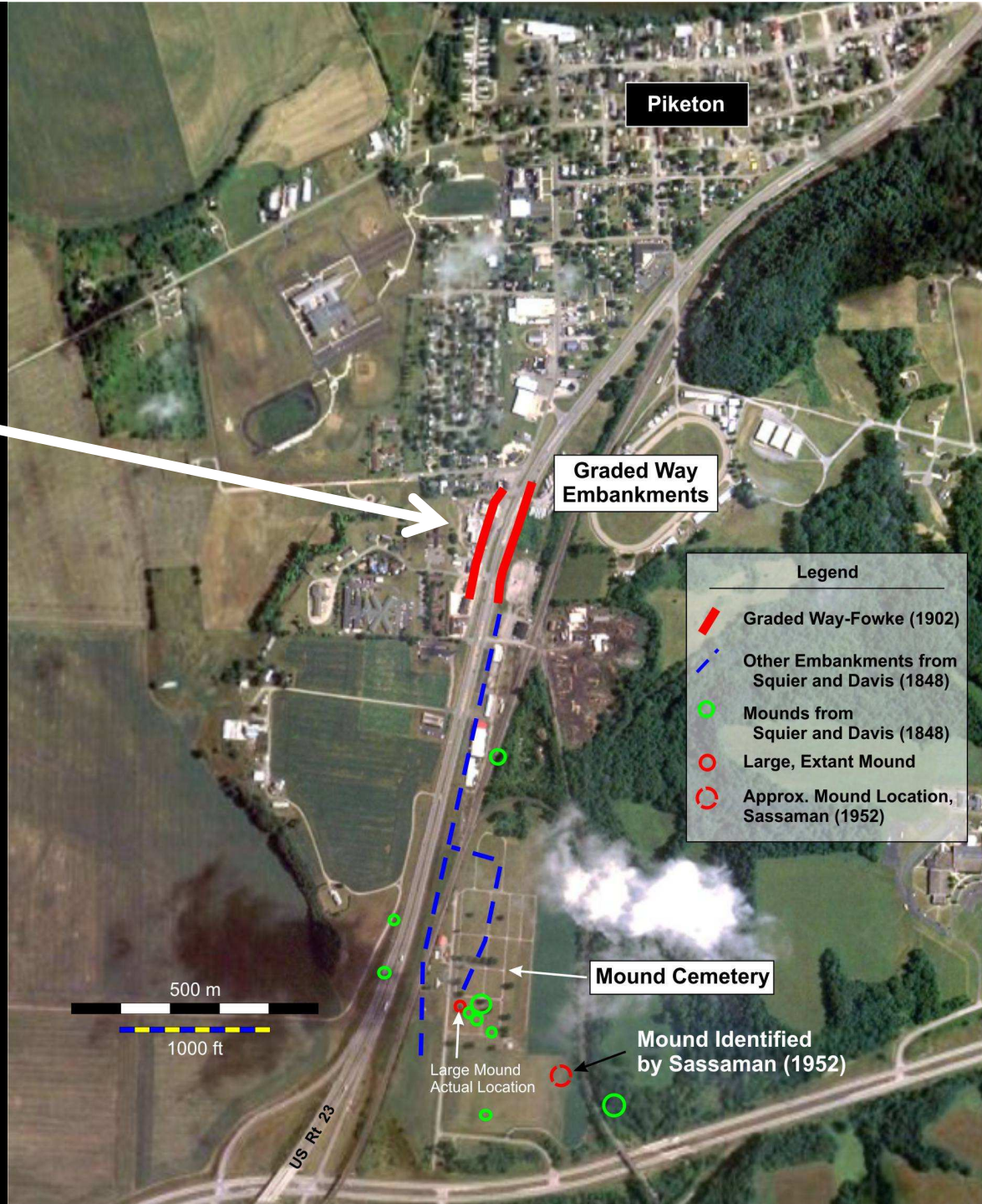
Mound Cemetery

Aerial Photo: October, 1946

**Graded Way
Embankments**



**Graded Way
Actual Location**





Graded Way 33Pk1

Mound Cemetery

Rt 23

Linknow's Mill Mound

Van Meter Mounds 33Pk4

Vulgamore Mound 33Pk5

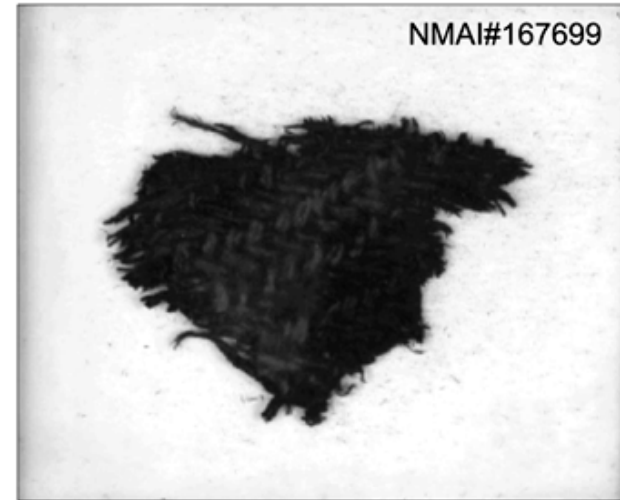
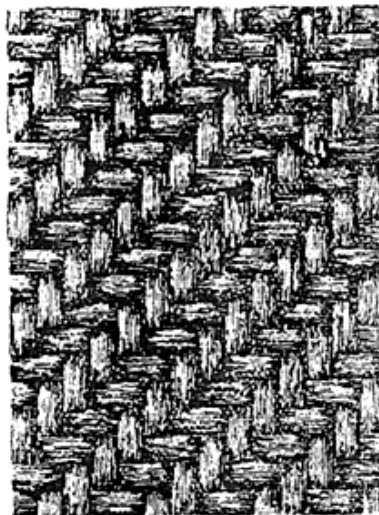
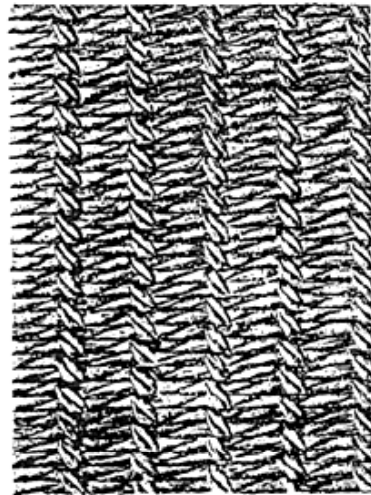
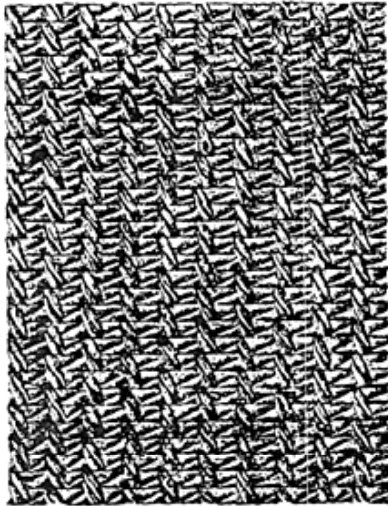
Earthwork "N" 33Pk6

Seal Township Works 33Pk22

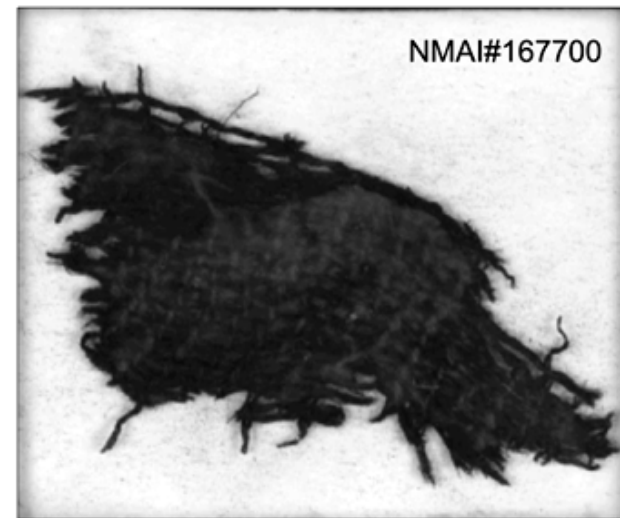
Legend	
•	Mound
○	Earthwork

One Mile

Fabric from larger Van Meter Mound at the Smithsonian

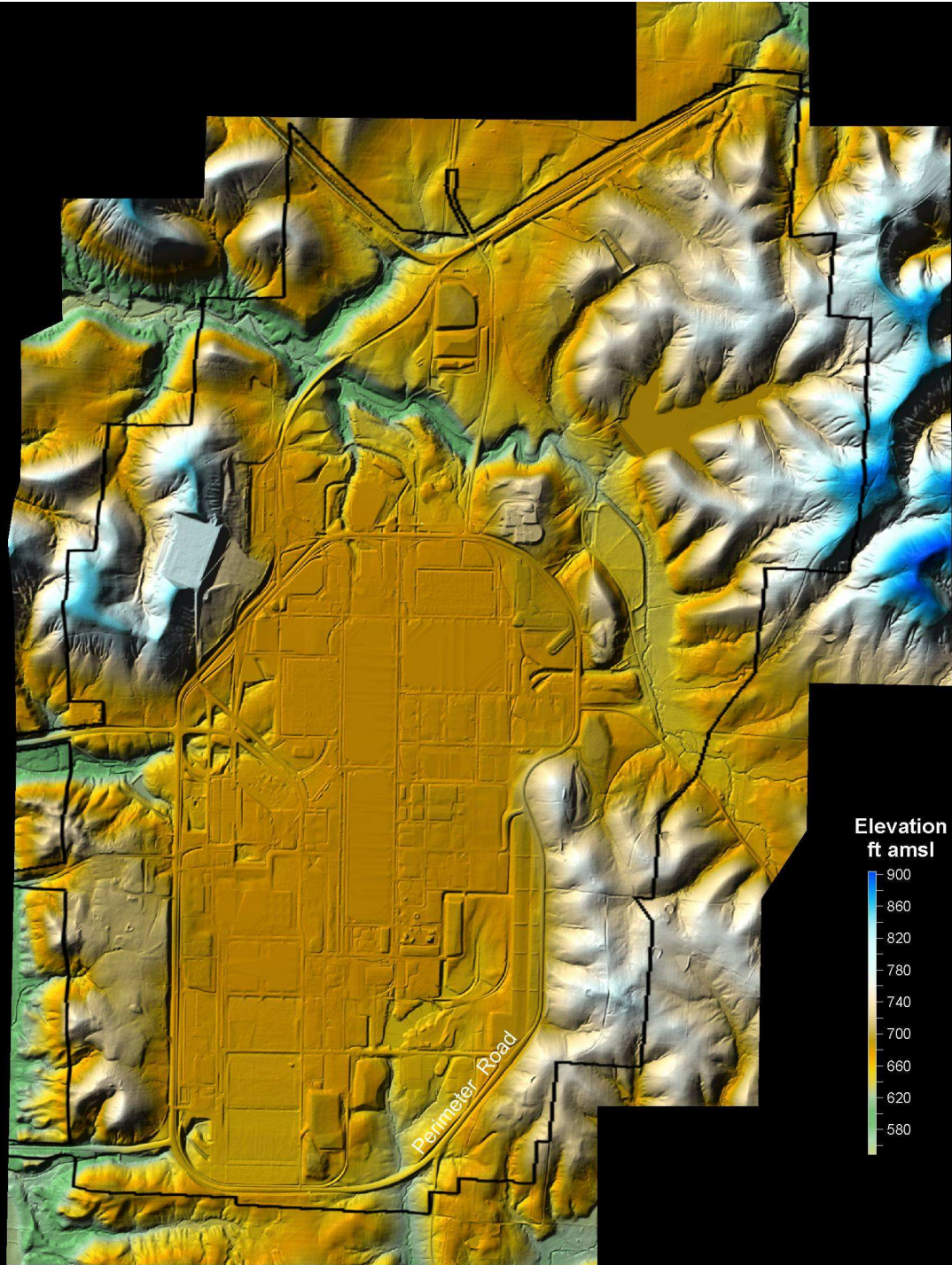


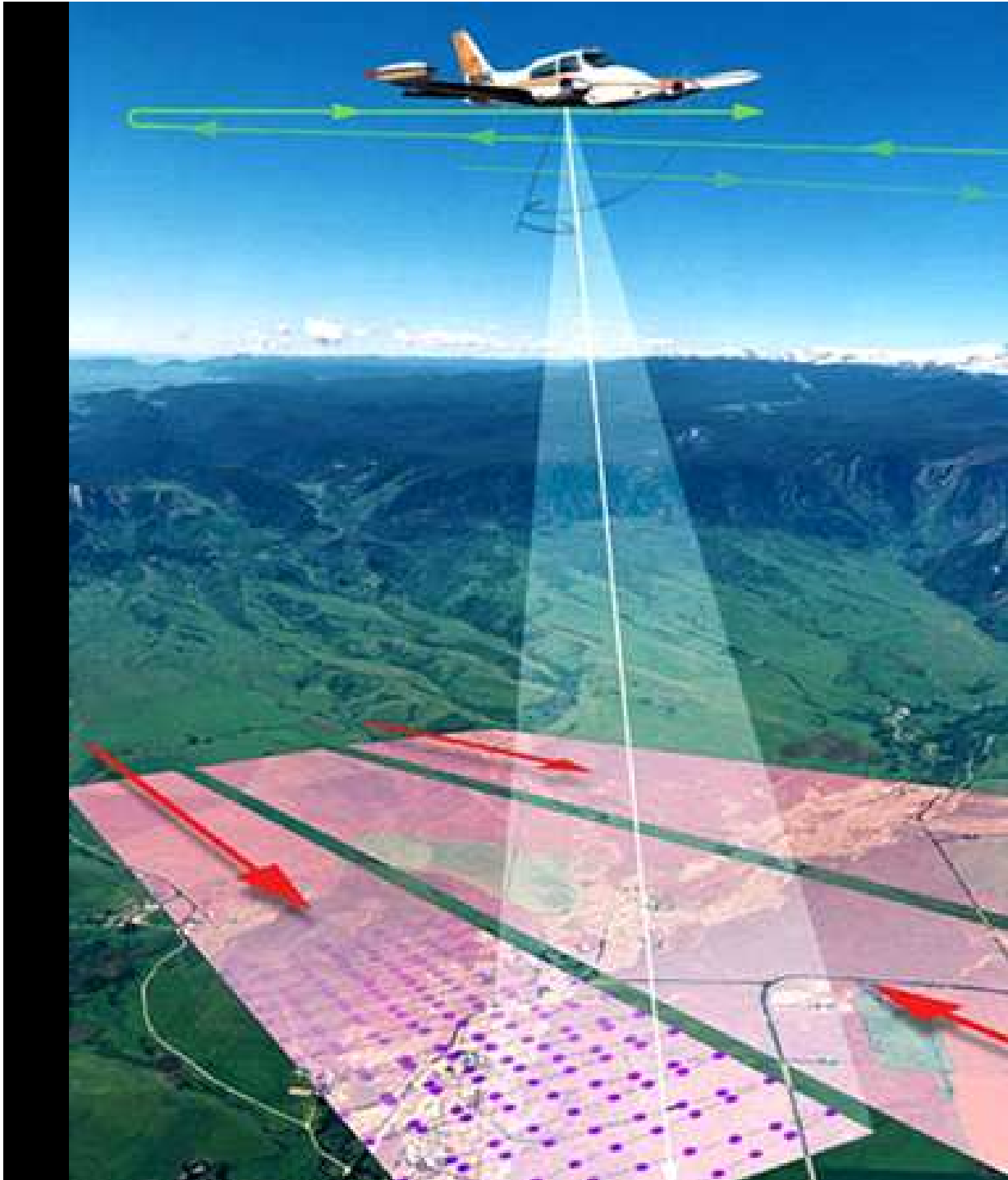
NMAI#167699



NMAI#167700

LiDAR Data PORTS

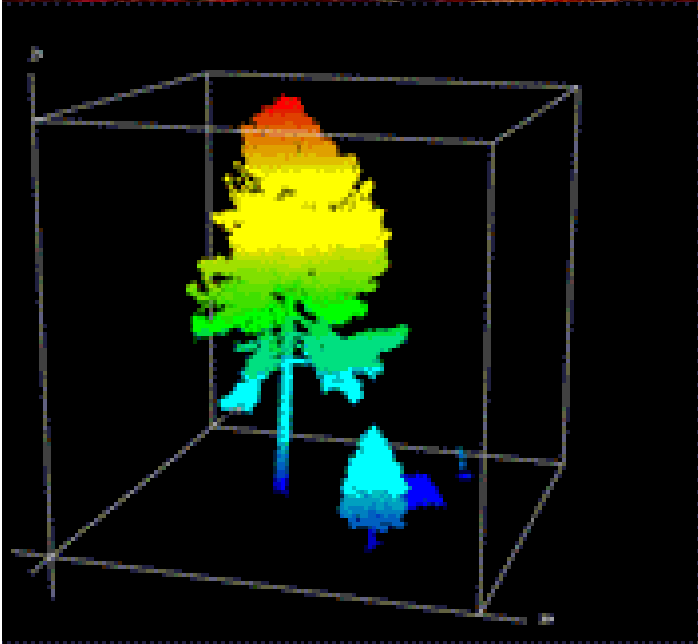




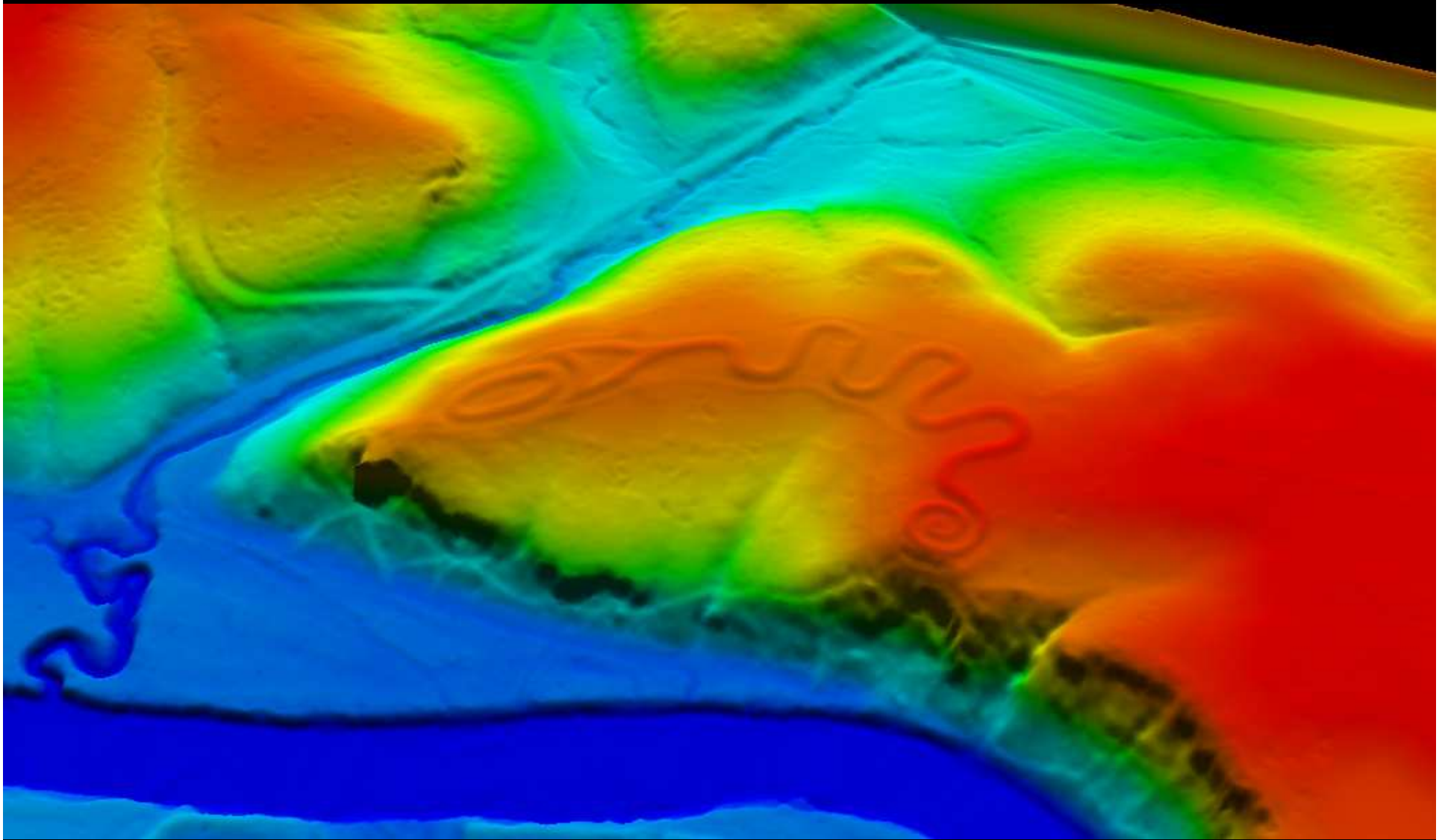
LiDAR Mapping

LiDAR=Light Detection
and Ranging

LiDAR Point Cloud
In 3D



Serpent Mound

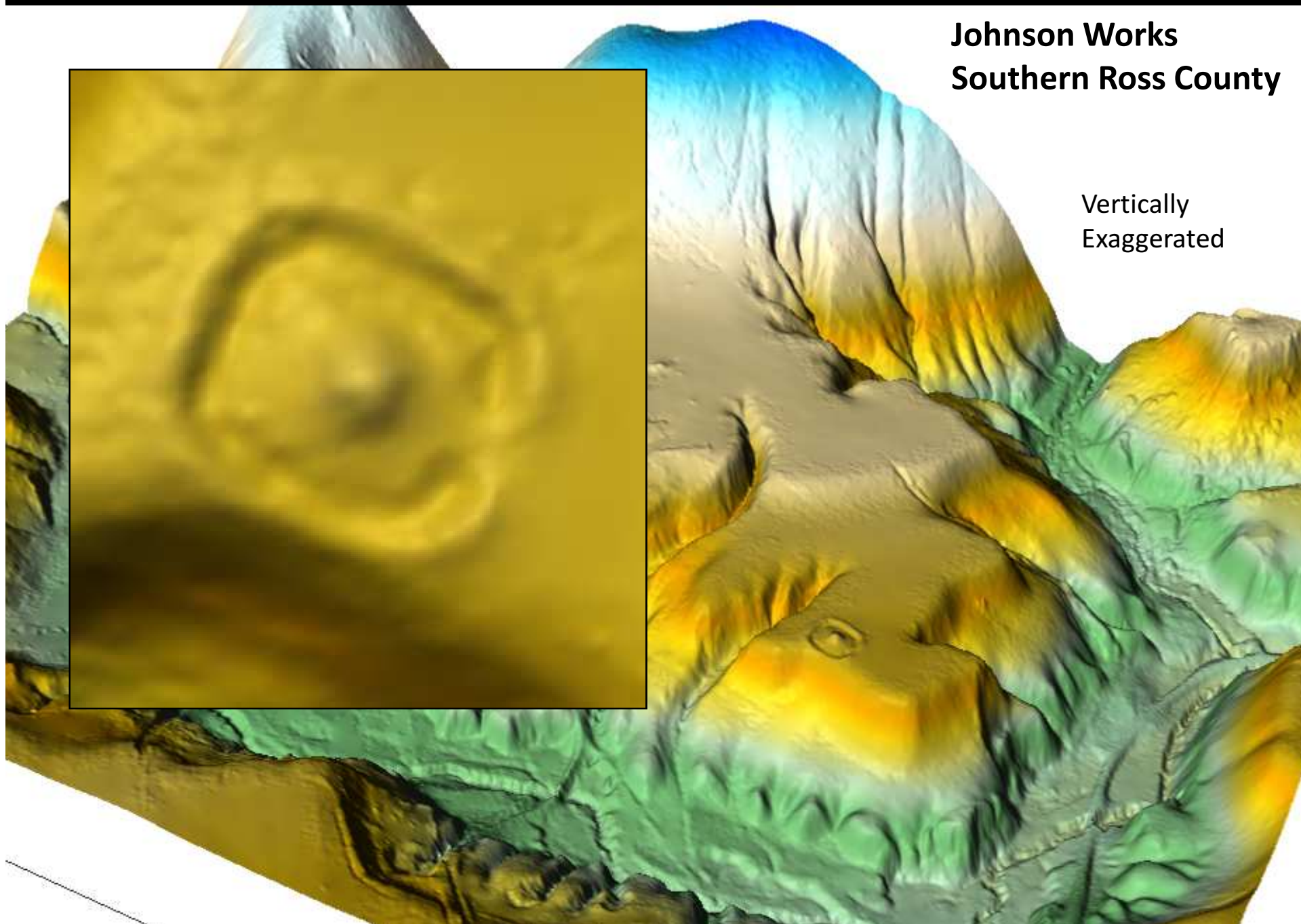


LiDAR Topo Data

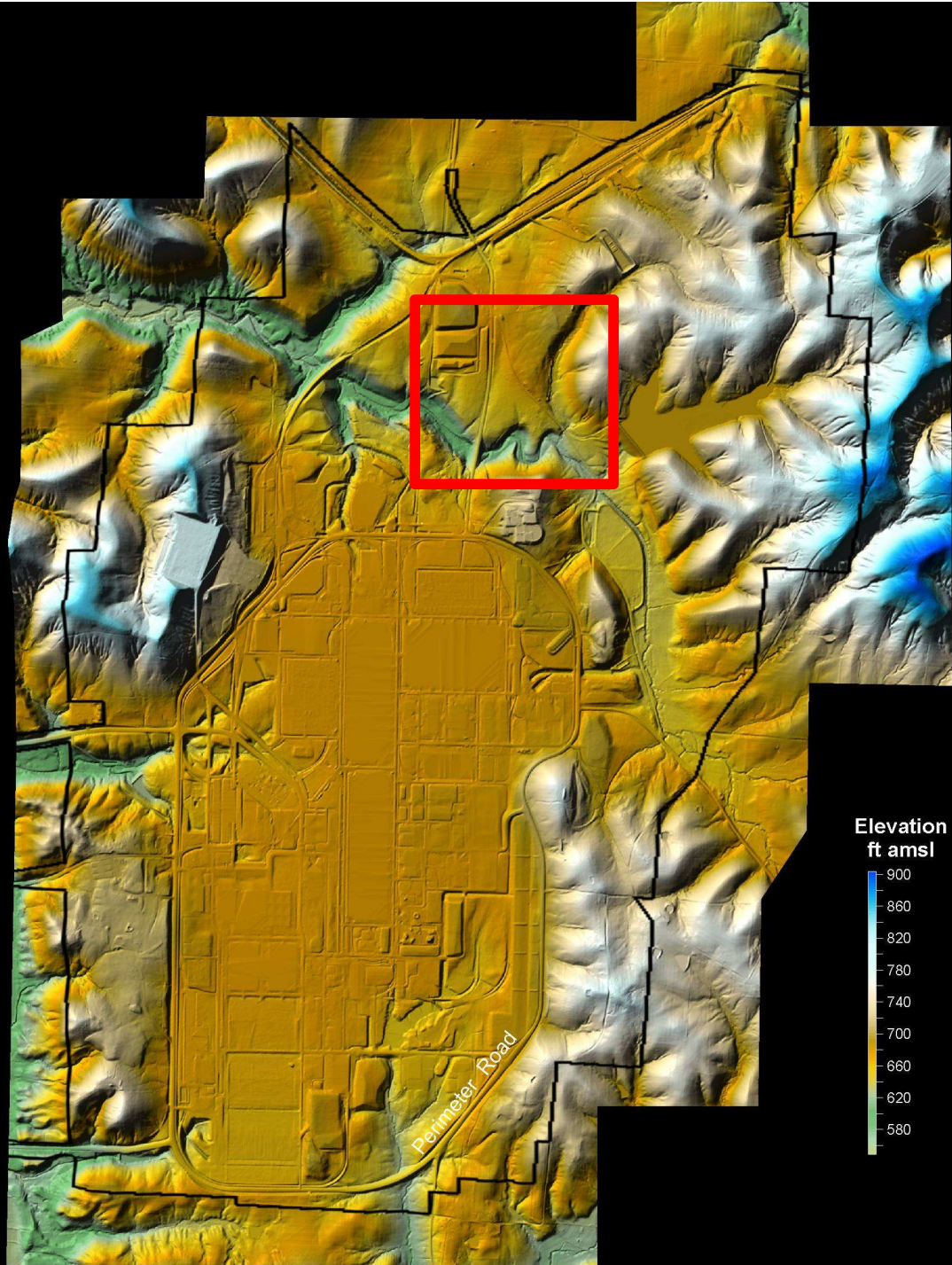
LiDAR Topo Data

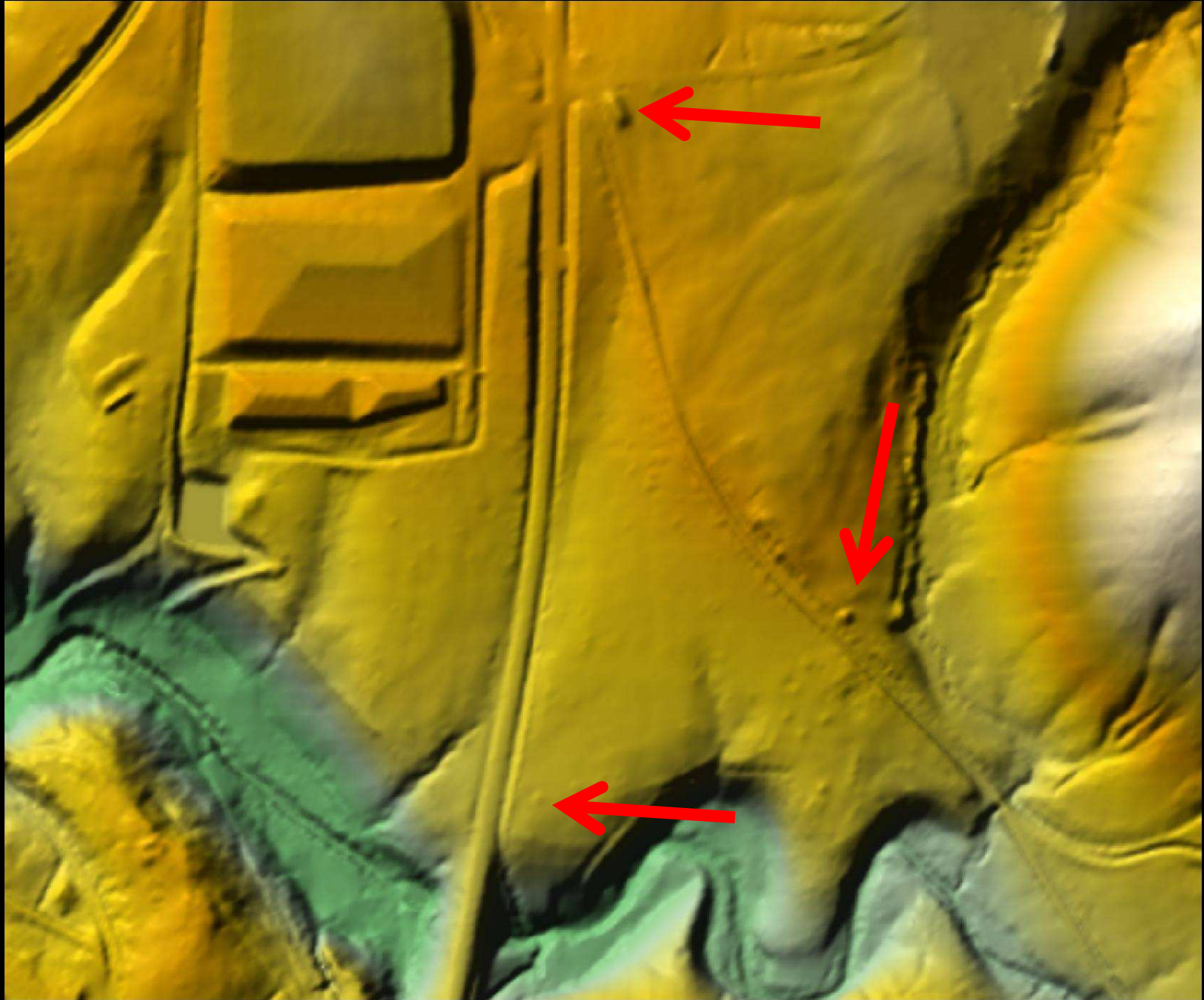
**Johnson Works
Southern Ross County**

Vertically
Exaggerated



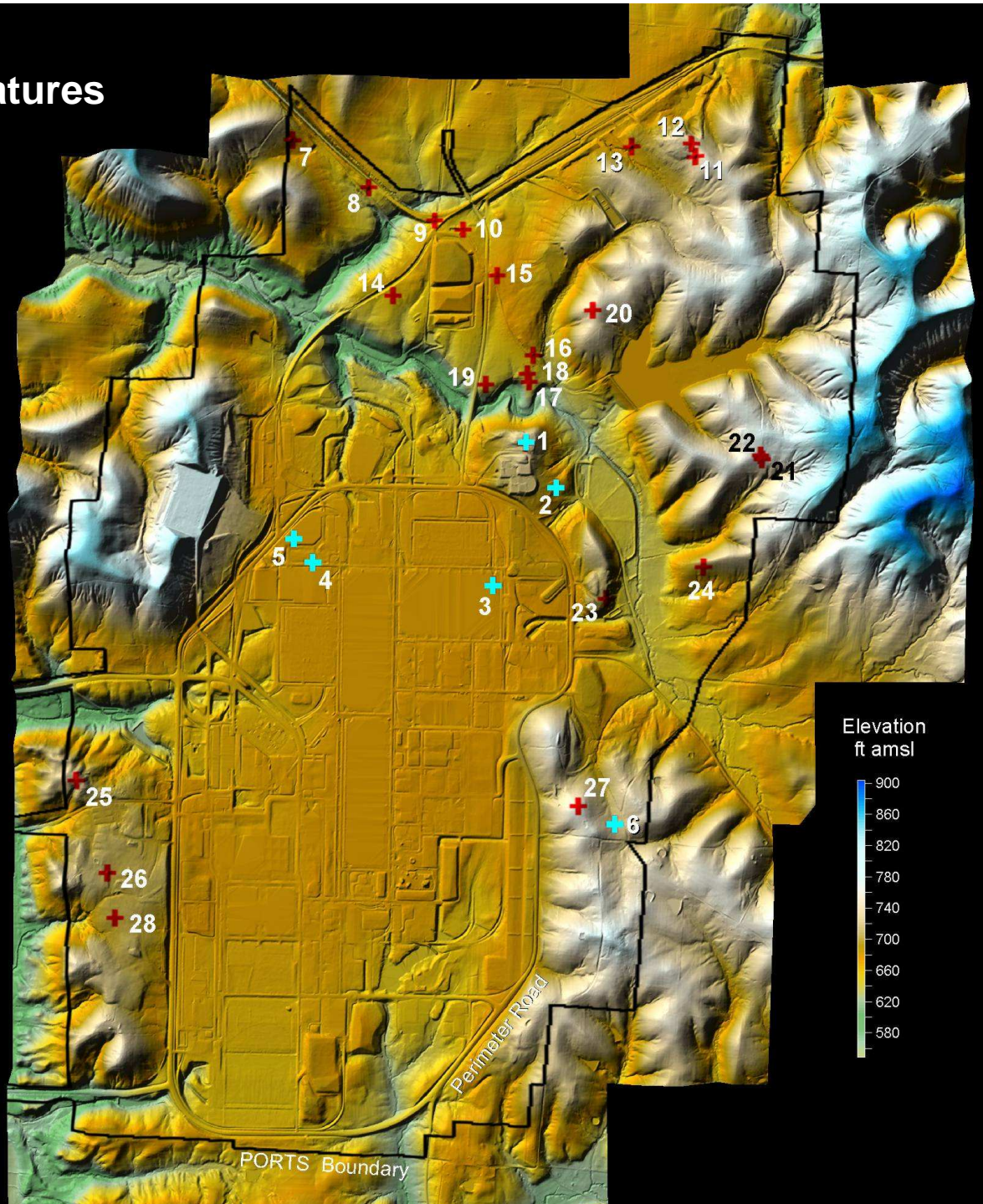
LiDAR Data PORTS



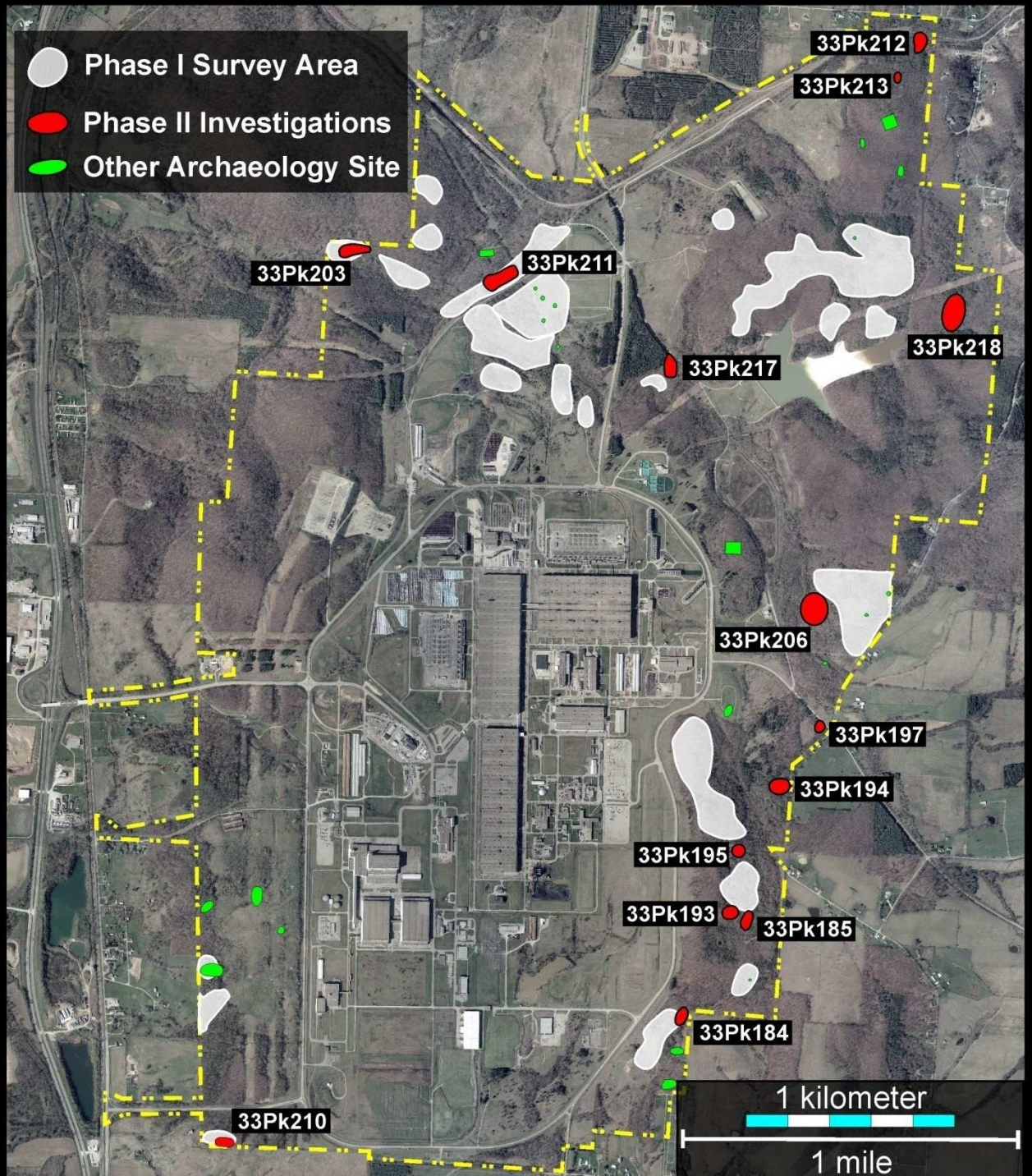


Mound-Like Topographic Features

28 Identified
25 Inspected on Foot

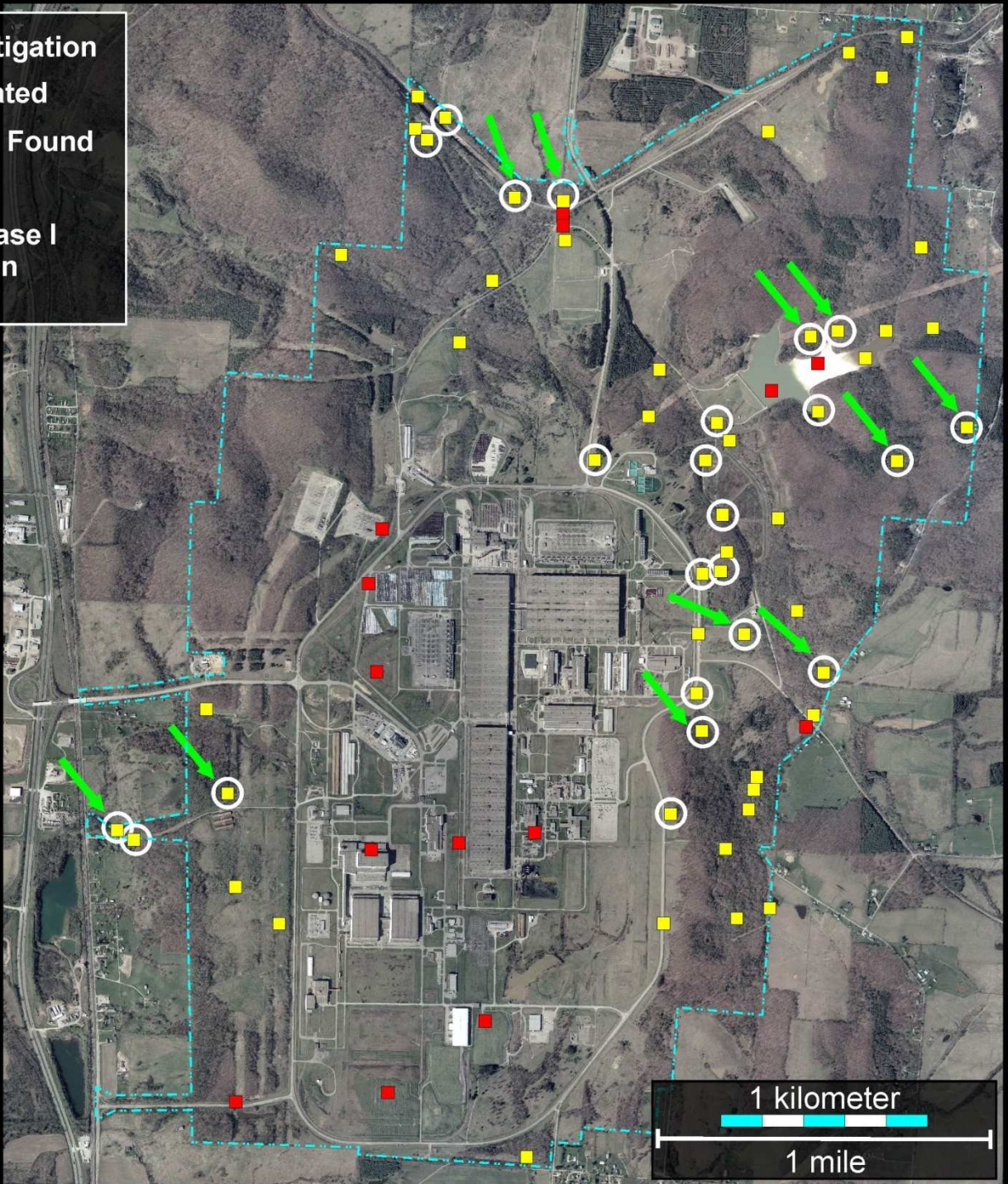


1997 Archaeological Survey



- Recon Investigation
- Not Investigated
- Archaeology Found on Recon
- ➔ Intensive Phase I Investigation

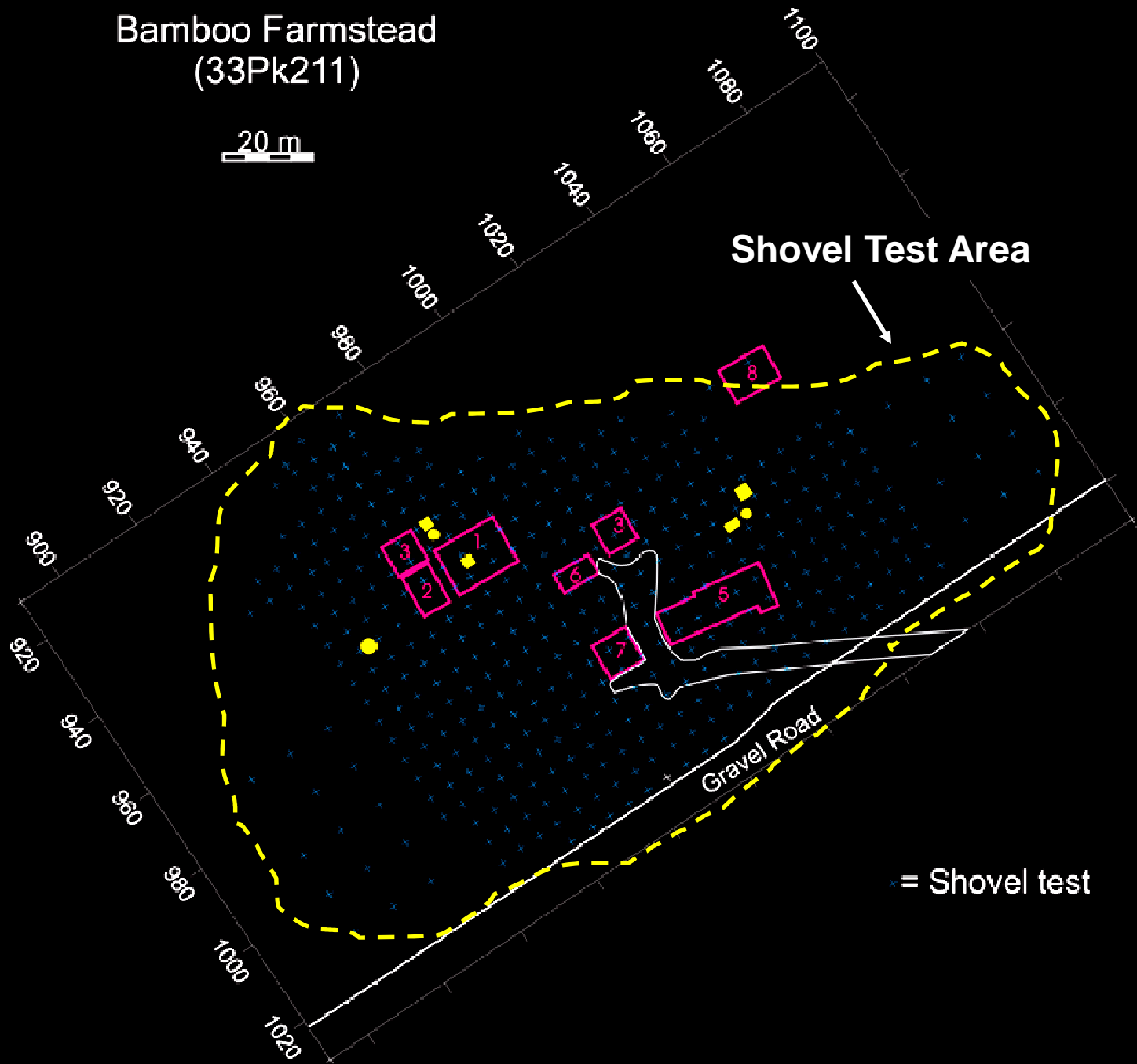
2011 Comprehensive Survey for Additional Farmsteads & Other Historic Sites



Bamboo Farmstead (33Pk211)

20 m

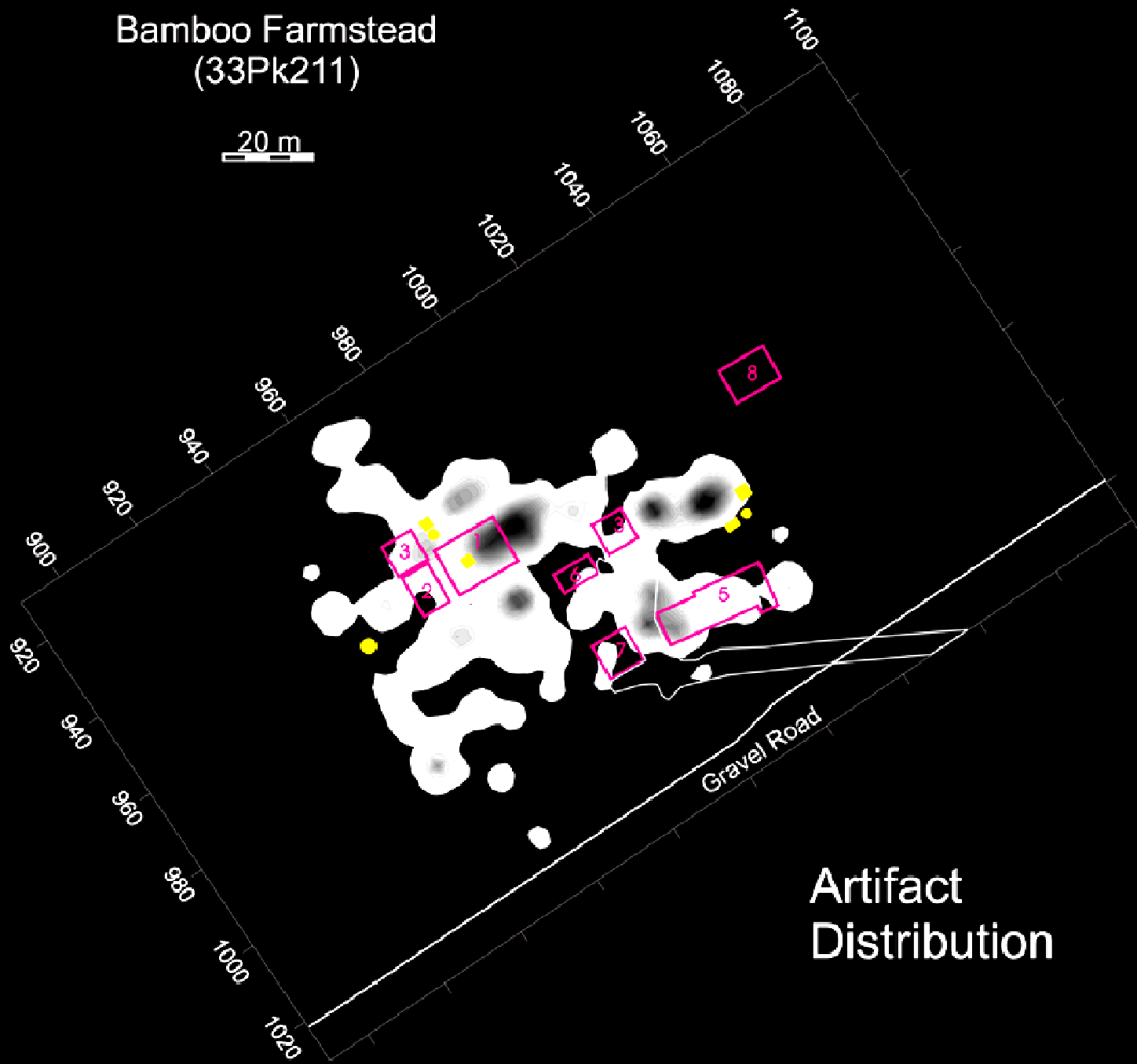
Shovel Test Area



= Shovel test

Bamboo Farmstead (33Pk211)

20 m



Artifact
Distribution

Bamboo Farmstead (33Pk211)

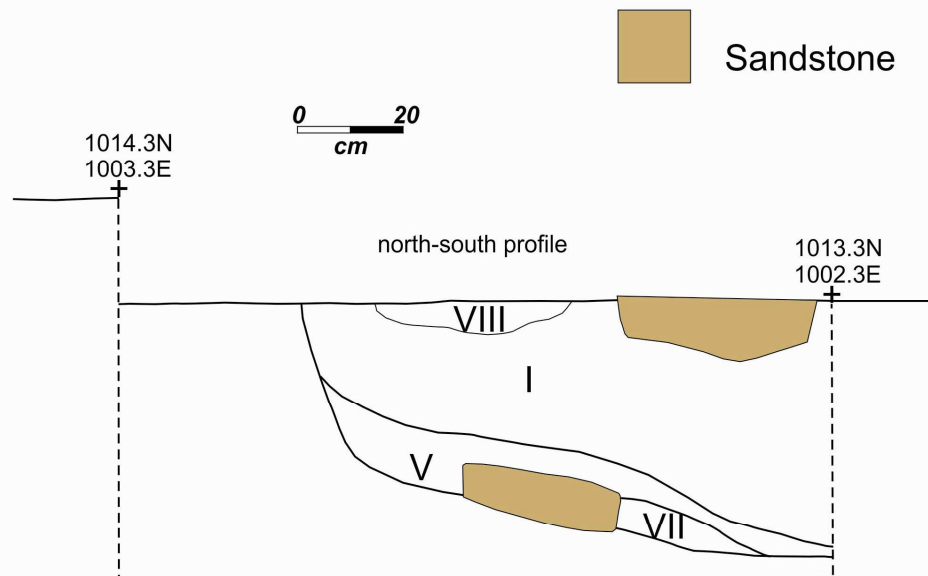
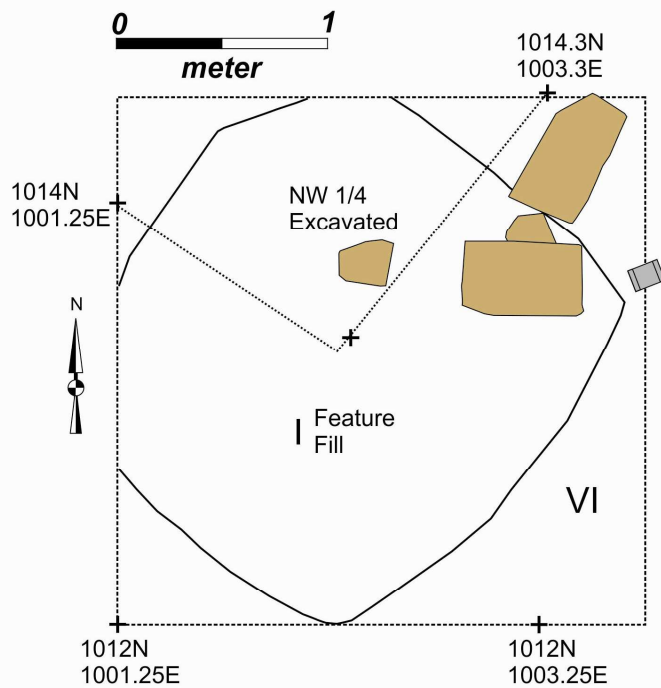
20 m



Architecture Group
Artifacts



South Shyville (33Pk185) Sub-floor Pit Cellar





33Pk185
Yellowware
ca. 1830-ca. 1940



33Pk185
Whiteware
Spongware (Spatter)-Blue
ca. 1820-ca. 1860



33Pk185
Whiteware
Transfer print-Black
ca. 1785-ca. 1864



33Pk185
Whiteware
Transfer print-Green
ca. 1818-ca. 1859

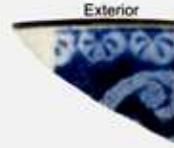


Exterior



Interior

33Pk203
Whiteware
Transfer print-Red
ca. 1818-ca. 1880

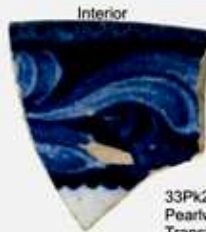


Exterior



Interior

33Pk203
Whiteware
Transfer print-Dark blue
ca. 1802-ca. 1846



Interior

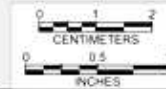


Exterior

33Pk206
Pearlware
Transfer print-Dark blue
ca. 1802-ca. 1846



33Pk206
Whiteware
Scalloped, molded
Flow Blue
ca. 1840-ca. 1860





33Pk211
Pearlware
Transfer print-Dark blue
ca. 1802-ca. 1846



33Pk211
Whiteware
Hand-painted polychrome
ca. 1830-ca. 1860



33Pk203
Pearlware
Slipware-Rouletting/Cat's eye
ca. 1800-ca. 1830



33Pk203
Whiteware
Even scalloped blue shell-edged
with impressed straight lines
ca. 1800-ca. 1835



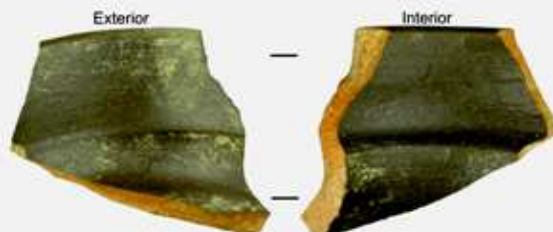
33Pk206
Whiteware
Transfer print-Black
with Clobbering (Green/Pink)
ca. 1840-ca. 1864



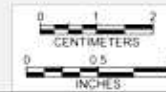
33Pk206
Pearlware
Scalloped (symmetrical) green shell-edged
Impressed straight lines/wheat
ca. 1800-ca. 1830



33Pk206
Whiteware
Spongware (Cut sponge)
Green with possible hand-painting
ca. 1845-ca. 1930s



33Pk206
Redware
ca. 1800-ca. 1900





33Pk185
Pt. Pleasant pipe bowl
ca. 1840-ca. 1890



33Pk203
Pt. Pleasant pipe bowl
ca. 1840-ca. 1890



33Pk211
Pt. Pleasant pipe bowl
ca. 1840-ca. 1890



33Pk211
Tobacco Pipe fragment
Shank portion



33Pk203
Glass Marble
ca. 1901-present



33Pk206
Brass
Brooch/Locket



33Pk203
Keyhole escutcheon plate



33Pk206
Glass bead



33Pk203
Glass button



33Pk185
Plastic button



33Pk206
Glass container



33Pk185
1918 Penny



33Pk218
1940 penny



33Pk206
Glass
Medicinal bottle



33Pk217
Porcelain
Doll Appendage

