

Marcellus Shale Development

Best Practices for Preserving
Archaeological and Historical
Resources



What are Archaeological and Historic Resources?

- Above ground resources such as historic buildings, structures and districts
- Below ground or buried resources such as:
 - Native American camps and larger settlements from ca. 10-1200 B.C. to the 18th century
 - Colonial and later homes, farms, communities commercial, military and industrial sites no longer standing





PLUMBE FORGE

About six-tenths mile north are the remains of the forge built by Dr. John Plumbe in 1828. Here, "blooms" were made from pig iron carried from the Bald Eagle Valley by mule. Costs of hauling products to the Pennsylvania Canal caused the forge to close in 1842.

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

SEP 3 2008



JUL 14 2008

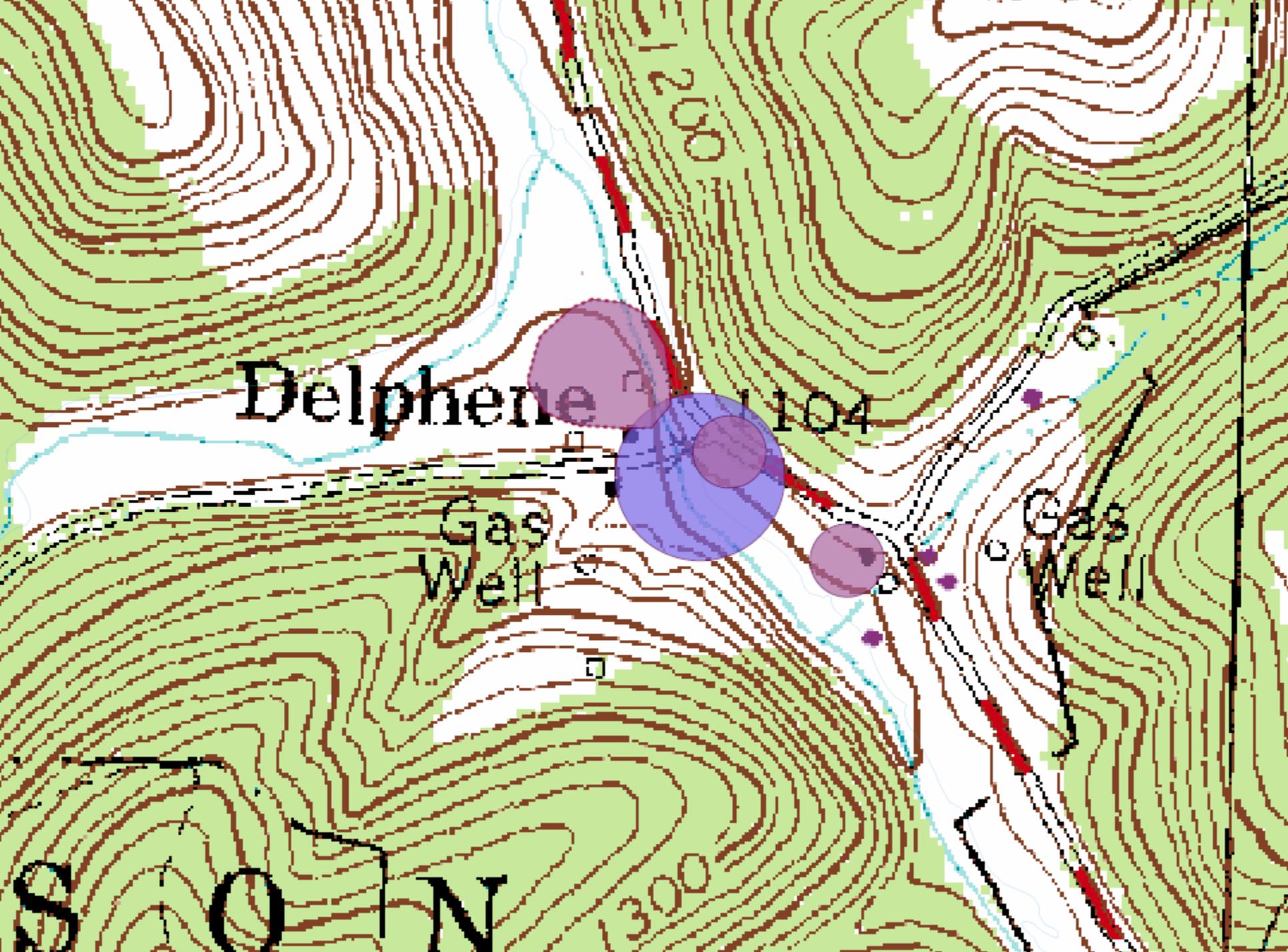




Selected Late Woodland Cultures in PA



 **Marcellus Shale Formation**



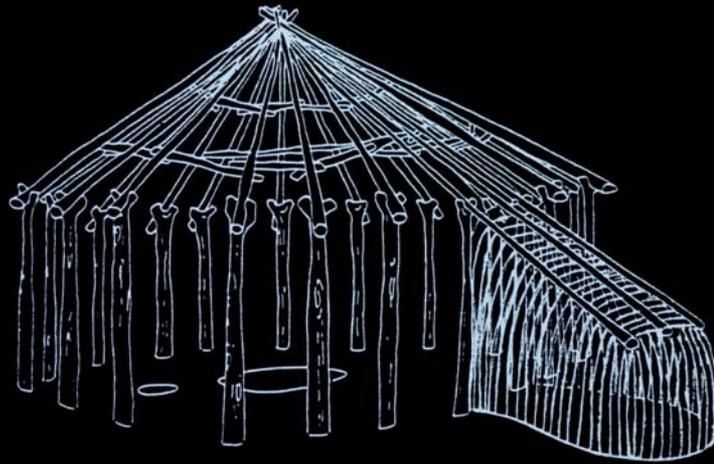
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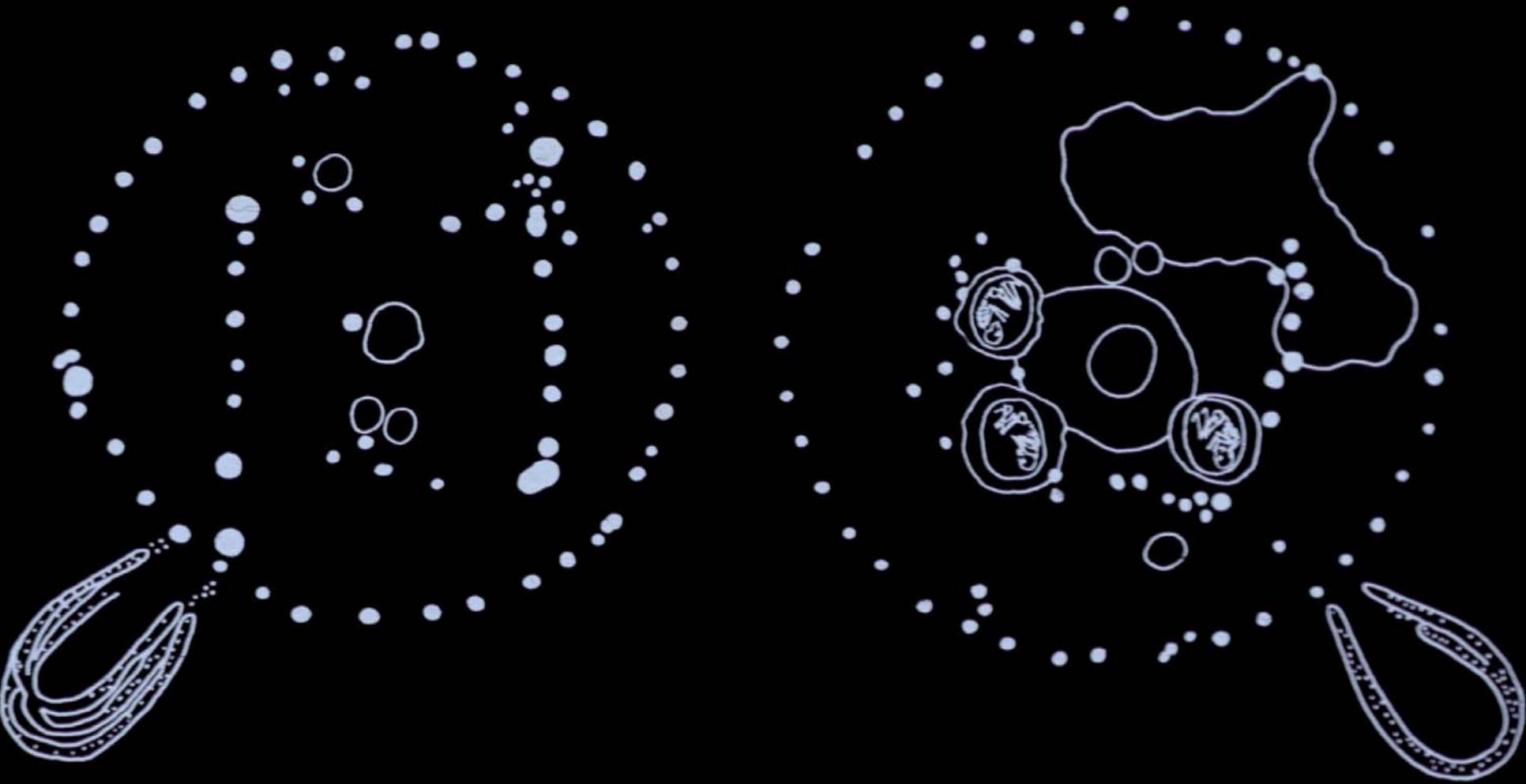
Gas Well

Gas Well

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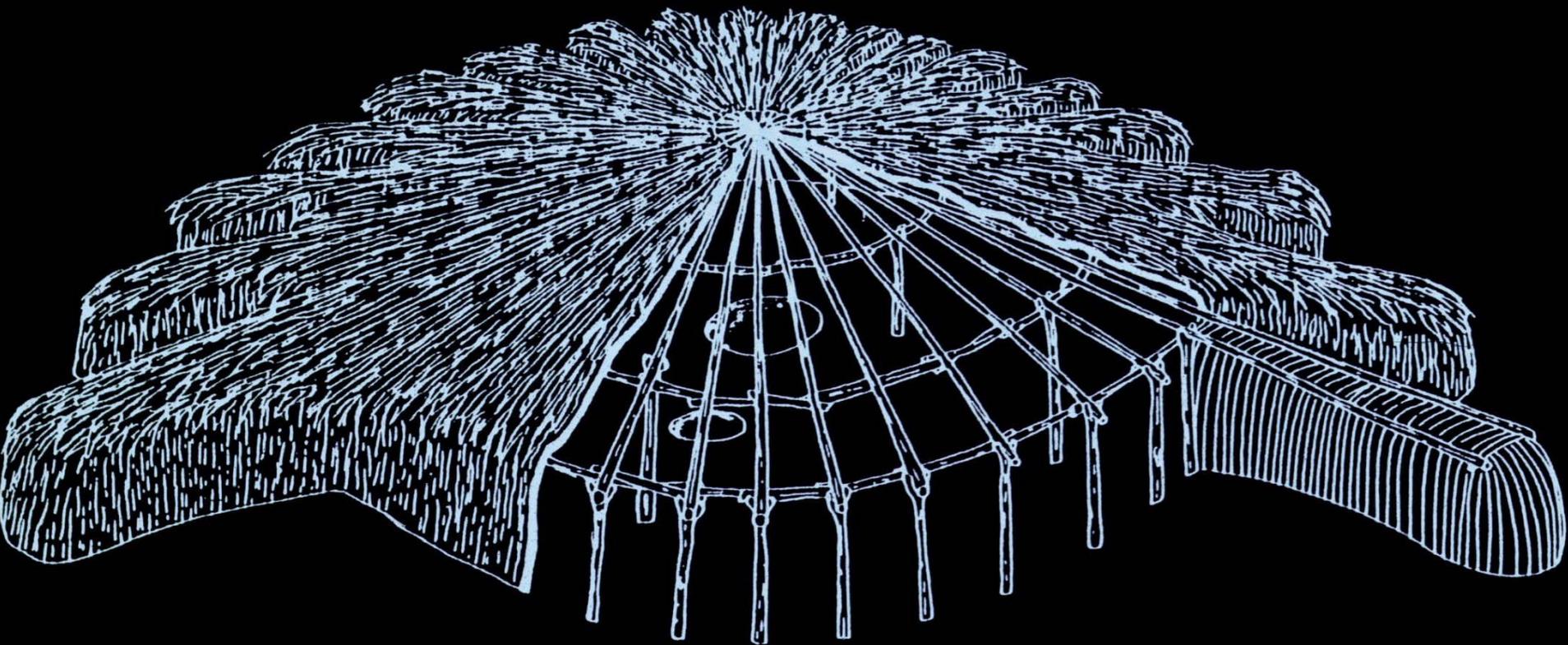




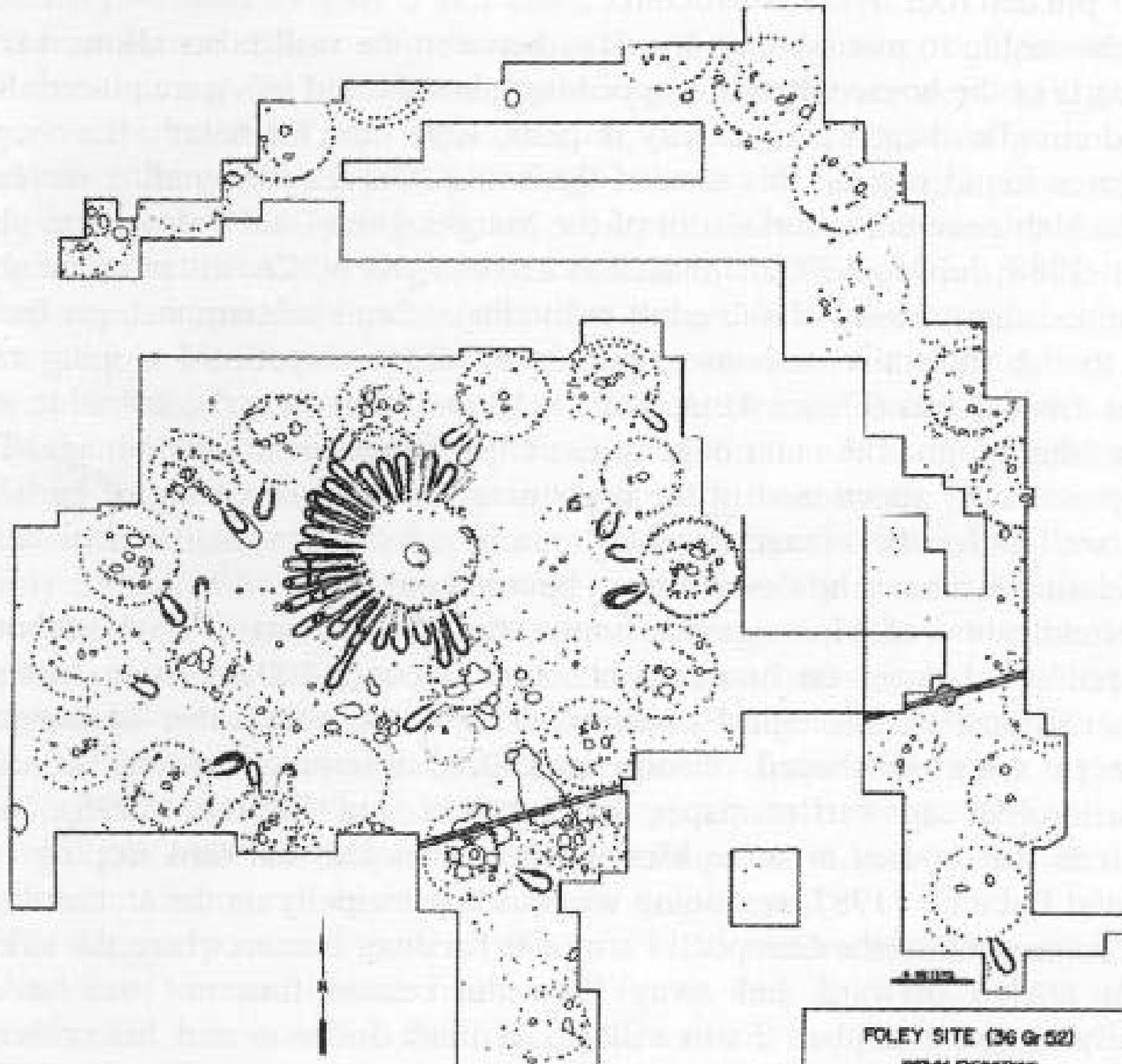


36 GR 52
BURIAL 3
N9 W36
1 29 83









FOLEY SITE (36 Gr 52)
 1953-54 EXCAVATIONS
 PERMANENT MATERIALS AND MOUND CONSTRUCTION



SITE PLANNING

- Lease document conditions
- Research the property
- Site Map/plans with resources to consider



CRGIS

What is CRGIS?

A Web-accessible,
map-based inventory of
Pennsylvania's historic and
archaeological sites and
surveys

CRGIS

CRGIS is built on four main Oracle © database files of historic and archaeological sites and surveys. Geo-referenced data are accessed through Geomedia © WebMap.

There currently are approximately 20,800 archaeological sites and 127,000 historic properties in these files.

CRGIS

Data Quality: Read the statement

- Absence of data does not necessarily mean absence of resources.
 - Historic resources in many parts of the state have never been surveyed.
 - The information in the files is only current to the date of recording.
 - Properties included in the files are not necessarily significant – we show undetermined and ineligible, too.
 - Properties are continually added to the survey files.

Another Challenge: Security

- Sensitive data
 - Archaeological site locations
 - Landowner information
 - Sacred places
- Who should have access to what?



CRGIS

3 Levels of Access

Public – anyone interested in history or archaeology

Planner – professional who develops or reviews project plans that have the potential to affect cultural resources

Archaeologist – any one who meets the Secretary of the Interior's Standards as an archaeological professional



CRGIS

- Public – open to every one with general password
 - Can search and view data for all resources through Ask ReGIS
 - Can map historic sites and archaeological surveys
 - Spatial search gives only summary archaeological information

CRGIS

- Planner – open to planning professionals by application for individual password
 - Can search and view data for all resources through Ask ReGIS
 - Can map historic sites and archaeological surveys
 - **Spatial search gives specific site information inside search area, but does not map archaeological sites**

CRGIS

How to Apply for a Password

- Go to <http://crgis.state.pa.us>
- Click on the “[To Register](#)” tab or “[\(click here to apply for a password\)](#)” in the text
- Read the [CRGIS Data Quality Statement](#)
- Download, read and sign the [Terms and Conditions](#) (confidentiality agreement)
- Click on “[the application](#)” in the text and fill out the online application

CRGIS

How to Apply for a Password

- Mail signed Terms and Conditions

AND

- Supporting Documentation
 - Archaeologist
 - Vita showing you meet the standards
 - Planner
 - A job description indicating that your position includes development or evaluation of plans that include ground disturbing activity
 - A letter from your agency or company justifying their need for information, indicating their willingness to abide by the Terms and Conditions of use, and requesting access for you.

CRGIS

Appropriate uses of CRGIS

- First cut in the planning process
 - tells you if a *known* resource is present
 - gives you a general look at what is known in an area
 - help establish level of survey needed
- Context studies
 - provides information to use to compare resources and determine eligibility

CRGIS

What CRGIS cannot do

- Determine that resources are ***NOT*** present
 - too much area is not surveyed or surveys are out of date



OTHER RESOURCES

- County Organizations
 - Historical Societies
 - Planning Offices and Commissions
(www.newpa.com)
- State Heritage and Corridors
 - (www.heritageareapa.net)
- Historic Maps



What about unmarked cemeteries?

- Check historic maps and legal documents
- If human remains are found:
 - Notify police/coroner
 - Notify PHMC if Native Burial is suspected or identified
 - Avoid/move away from area of find



Best Practices for Landowners

- Be aware of the potential for discovering unknown resources.
- consider including conditions in leases that require drillers to follow these best practices
- Landowners should develop a site plan when a lease is signed. This plan should be made in consultation with a driller
- Consult with and record resources with CRGIS, county or local historical society, and county planning office.
- Become familiar with PHMC resources that can be of assistance by visiting www.phmc.state.pa.us or calling (717) 783-8946.



Best Practices for Drillers

- Be aware of the potential for discovering unknown resources.
- Collaborate with the landowner on site development and potential impact on historic and archaeological resources.
- Collaborate with other local and regional drillers to share related information should such resources be known or discovered during development.
- Many rural counties have unidentified historic and archaeological resources. To avoid unexpectedly coming across an unknown site or property, developers planning to establish drilling operations in one or two counties may want to support a preliminary survey to identify and document unknown sites in that area.
- Consult CRGIS, county/local historical society, and county planning office.
- Become familiar with PHMC resources that can be of assistance by visiting www.phmc.state.pa.us or calling (717) 783-8946.