

# **Doing Research with The Digital Archaeological Archive of Comparative Slavery: A Workshop**

**Handouts and Datasets available at:**  
<http://www.daacs.org/research/workshops/>

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# The Four Key Website Sections for Research

<http://www.daacs.org/>

Access these section here...

1. Archaeological Sites
2. Query the Database
3. About the Database
4. Research

And here...

The screenshot shows the DAACS website homepage. At the top, the DAACS logo is on the left, and the text "Digital Archaeological Archive of Comparative Slavery" is on the right. Below the logo is a navigation menu with links: "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the menu. The main content area features a large image of a metal cup with the text "Explore. Analyze. Discover." and a "Learn More >" button. Below this is a "Featured Galleries" section with four gallery items, each with an image and a brief description. At the bottom, there are three columns of text: "Archaeological Sites", "About the Database", and "What's New?".

DAACS  
Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors

Search the Site... SEARCH

*Explore. Analyze. Discover.* [Learn More >](#)

Learn more about enslaved Africans and their descendants living in the Chesapeake, Carolinas, and Caribbean during the Colonial and Ante-Bellum Periods. Analyze and compare archaeological assemblages and architectural plans from different sites at unprecedented levels of detail. DAACS is a community resource, conceived and maintained in the Department of Archaeology at Monticello, in collaboration with the research institutions and archaeologists working throughout the Atlantic World.

**Featured Galleries** [View All Galleries >](#)

- New Street, Port Royal**  
Examine items recovered during excavations carried out at New Street Tavern in Port Royal, Jamaica.
- The South Grove Midden**  
Explore objects found in the South Grove Midden, a site at George Washington's Mount Vernon.
- The Triplex**  
View personal items recovered from the Triplex site at Andrew Jackson's the Hermitage.
- Colonoware**  
View exceptional examples of colonoware vessels from sites in Virginia and South Carolina.

**Archaeological Sites**  
Browse summaries of archaeological fieldwork for each Archive site. Explore site plans and stratigraphic diagrams.

**Query the Database**  
Query the DAACS database for information on artifacts and their contexts. Download the results for further analysis.

**About the Database**  
Learn more about the DAACS database and how to make the most of your query.

**Papers & Manuscripts**  
Check out recent conference papers and reports that use DAACS data.

**About DAACS**  
Find out more about the goals and organization of the DAACS project.

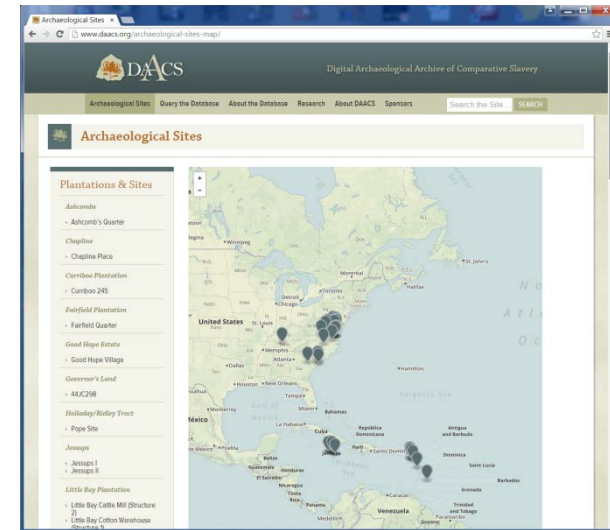
**What's New?**

- ▶ *Apply for a DAACS Fellowship. Deadline: November 1, 2015*
- ▶ *DAACS receives grant from Mellon Foundation for innovative collaborative project known as The DAACS Research Consortium*
- ▶ *The South Carolina Institute for Anthropology and Archaeology and DAACS receive Save America's Treasures Grant*

# How to Find Archaeological Sites and Plantations

1. Use Atlantic Sites Map to locate sites

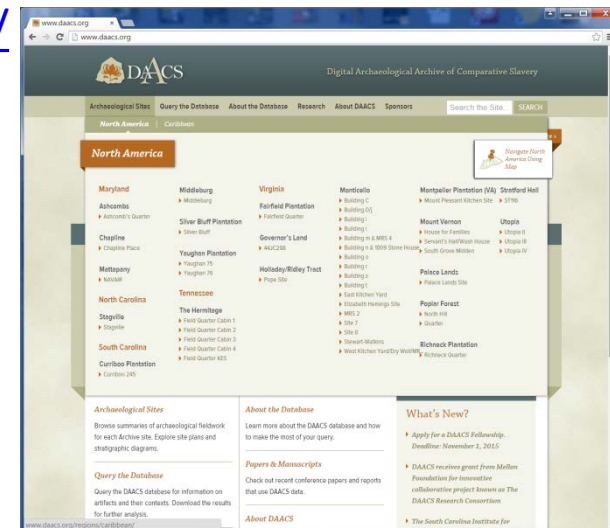
<http://www.daacs.org/archaeological-sites-map/>



2. Use fly-out menu and region maps to select specific sites

North America: <http://www.daacs.org/regions/north-america/>

Caribbean: <http://www.daacs.org/regions/caribbean/>



# Navigable Maps Locate Plantations and Sites

Archaeological Sites

Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors

Search the Site... SEARCH

## Archaeological Sites

### Plantations & Sites

- Ashcombs*
  - › Ashcomb's Quarter
- Chapline*
  - › Chapline Place
- Curriboo Plantation*
  - › Curriboo 245
- Fairfield Plantation*
  - › Fairfield Quarter
- Good Hope Estate*
  - › Good Hope Village
- Governor's Land*
  - › 44JC298
- Holladay/Ridley Tract*
  - › Pope Site
- Jessups*
  - › Jessups I
  - › Jessups II
- Little Bay Plantation*
  - › Little Bay Cattle Mill (Structure 2)
  - › Little Bay Cotton Warehouse (Structure 1)
  - › Little Bay Manor House (Structure 5)
  - › Little Bay Workers' Village
- Mattapany*

Mapbox © Mapbox © OpenStreetMap Improve this map

<http://www.daacs.org/archaeological-sites-map/>



# Navigate to Plantations

The screenshot shows a web browser window with the URL [www.daacs.org/regions/caribbean/](http://www.daacs.org/regions/caribbean/). The page features the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is present with the text "Search the Site..." and a "SEARCH" button.

The main content area is titled "Caribbean" and displays a list of "Plantations & Sites". The list includes:

- St. Nicholas Abbey
  - St. Nicholas Abbey Workers' Village
- Sugarloaf
  - Sugarloaf Village
- Good Hope Estate
  - Good Hope Village
- Mona Estate
  - Mona Great House
  - Mona Village
- Montpelier Estate (JA)
  - Montpelier House 14
  - Montpelier House 24
  - Montpelier House 26
  - Montpelier House 37
  - Montpelier Yard Contexts
- Papine Estate
  - Papine Village
- Seville Plantation
  - Seville House 15
  - Seville House 16

A map of the Caribbean Sea is shown, with a pop-up window for "Montpelier Estate (JA)". The pop-up window contains the following text:

**Montpelier Estate (JA)**  
[Montpelier Estate \(JA\) Home](#)  
\* [Montpelier House 14](#)  
\* [Montpelier House 24](#)  
\* [Montpelier House 26](#)  
\* [Montpelier House 37](#)  
\* [Montpelier Yard Contexts](#)

An arrow labeled "Plantation Page Link" points to the "Montpelier Estate (JA) Home" link in the pop-up window.

The map shows the Caribbean Sea with various islands and territories labeled, including the Bahamas, Turks and Caicos Islands (UK), Haiti, República Dominicana, Puerto Rico (U.S.), Anguilla (UK), Antigua and Barbuda, Guadeloupe, Dominica, Martinique (Fr.), Saint Vincent and the Grenadines, Saint Lucia, Barbados, Grenada, Aruba (Nid.), Curaçao (Nid.), Trinidad and Tobago, and the northern coast of South America (Venezuela).

At the bottom of the page, the URL [www.daacs.org/plantations/montpelier/](http://www.daacs.org/plantations/montpelier/) is visible.

# Montpelier Estate Plantation Page

The screenshot shows a web browser window displaying the Montpelier Estate page on the Digital Archaeological Archive of Comparative Slavery (DAACS) website. The browser's address bar shows the URL [www.daacs.org/plantations/montpelier/](http://www.daacs.org/plantations/montpelier/). The page features a dark green header with the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". Below the header is a navigation menu with links for "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the menu. The main content area is titled "Montpelier Estate (JA)" and includes a sub-menu with "PLANTATION HOME", "BACKGROUND", and "PLANTATION IMAGES". The central focus is a detailed site map of the plantation, showing various structures and features. A legend below the map identifies symbols for "SITE IN DAACS" (red circle), "HISTORIC STRUCTURE" (green diamond), "ANCHOR VY GULLY" (dashed line), "AQUEDUCT" (yellow line), "ROAD" (solid line), and "STONE WALL" (dotted line). A scale bar indicates distances up to 400 feet. To the right of the map is a list of "Montpelier Estate (JA) Sites" including Montpelier House 14, 24, 26, 37, and Yard Contexts. The footer of the page contains logos for the Monticello Founding Partner, the Andrew W. Mellon Foundation, and the National Endowment for the Humanities.

Montpelier Estate (JA)

PLANTATION HOME · BACKGROUND · PLANTATION IMAGES

Montpelier Estate (JA) Sites

- Montpelier House 14
- Montpelier House 24
- Montpelier House 26
- Montpelier House 37
- Montpelier Yard Contexts

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Monticello Founding Partner

Andrew W. Mellon Foundation

National Endowment for the Humanities

<http://www.daacs.org/plantations/montpelier/>

# Navigate to Individual Sites

The screenshot shows a web browser window with the URL [www.daacs.org/regions/caribbean/](http://www.daacs.org/regions/caribbean/). The page features the DAACS logo and the title "Digital Archaeological Archive of Comparative Slavery". A navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is present with the text "Search the Site..." and a "SEARCH" button.

The main content area is titled "Caribbean" and displays a list of "Plantations & Sites". The list includes:

- St. Nicholas Abbey
  - St. Nicholas Abbey Workers' Village
- Sugarloaf
  - Sugarloaf Village
- Good Hope Estate
  - Good Hope Village
- Mona Estate
  - Mona Great House
  - Mona Village
- Montpelier Estate (JA)
  - Montpelier House 14
  - Montpelier House 24
  - Montpelier House 26
  - Montpelier House 37
  - Montpelier Yard Contexts
- Papine Estate
  - Papine Village
- Seville Plantation
  - Seville House 15
  - Seville House 16

A map of the Caribbean Sea is shown, with a pop-up window for "Montpelier Estate (JA)". The pop-up window contains the following links:

- Montpelier Estate (JA) Home
- Montpelier House 14
- Montpelier House 24
- Montpelier House 26
- Montpelier House 37
- Montpelier Yard Contexts

An orange arrow points from the text "Individual Site Links" to the list of links in the pop-up window. The URL [www.daacs.org/sites/house-37/](http://www.daacs.org/sites/house-37/) is visible at the bottom left of the browser window.

<http://www.daacs.org/regions/caribbean/>

# Montpelier House 37

Montpelier House 37 x  
www.daacs.org/sites/house-37/

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## Montpelier House 37

SITE HOME · BACKGROUND · BEFORE YOU BEGIN · FEATURES · CHRONOLOGY · HARRIS MATRIX · IMAGES · BIBLIOGRAPHY ·

MONTPELIER ESTATE (JA)

The plan shows a rectangular structure with several internal features. A legend on the left defines the symbols: F01 (Feature Number), Plaster Floor (yellow), Raised Plaster Platform (grey), Quadrat Boundary (dashed line), Tree (orange), Stone Foundation (grey with dots), Partition, Conjectural (dotted line), and Feature, Approximate Location and Shape (circle with dot). A scale bar at the bottom left indicates 0, 5, and 10 feet.

LOCATION:	Montpelier, St. James Parish, Jamaica
OCCUPATION DATES:	Last-quarter 18th through second-quarter 19th century. Phasing and mean ceramic dates can be found on the Chronology Page.
EXCAVATOR(S):	Barry Higman with the collaboration of Tony Aarons and Robert Riordan
DATES EXCAVATED:	1973-1980

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humanities

<http://www.daacs.org/sites/house-37/>

# You can also navigate to specific Plantations and Sites using...

The screenshot displays the DAACS website interface. At the top, the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery" are visible. Below this is a navigation menu with options like "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is also present. The main content area is divided into "North America" and "Caribbean" sections. A "North America" fly-out menu is open, listing various states and their associated plantations and sites. On the left, a "Plantations & Sites" sidebar lists categories such as "Ashcombs", "Chapline", "Curriboo Plantation", "Fairfield Plantation", "Good Hope Estate", "Governor's Land", "Holladay/Ridley Tract", "Jessups", and "Little Bay Plantation". At the bottom, a map of the Caribbean region is shown with several locations marked. Two large brown arrows point to the "North America" fly-out menu and the left-hand navigation bar, with the text "The fly-out menu" and "The left-hand navigation bar" respectively.

Archaeological Sites

www.daacs.org/archaeological-sites-map/

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Archaeological Sites Query the Database About the Database Research About DAACS Sponsors Search the Site... SEARCH

North America Caribbean

Archaeological Sites

Plantations & Sites

Ashcombs

- Ashcomb's Quarter

Chapline

- Chapline Place

Curriboo Plantation

- Curriboo 245

Fairfield Plantation

- Fairfield Quarter

Good Hope Estate

- Good Hope Village

Governor's Land

- 44JC298

Holladay/Ridley Tract

- Pope Site

Jessups

- Jessups I
- Jessups II

Little Bay Plantation

- Little Bay Cattle Mill (Structure 2)
- Little Bay Cotton Warehouse (Structure 1)
- Little Bay Manor House (Structure 5)
- Little Bay Workers' Village

Maryland

- Ashcombs
  - Ashcomb's Quarter
- Chapline
  - Chapline Place
- Mattapany
  - NAVAIR
- North Carolina
- Stagville
  - Stagville
- South Carolina
- Curriboo Plantation
  - Curriboo 245

Middleburg

- Middleburg

Silver Bluff Plantation

- Silver Bluff

Yaughan Plantation

- Yaughan 75
- Yaughan 76

Tennessee

The Hermitage

- Field Quarter Cabin 1
- Field Quarter Cabin 2
- Field Quarter Cabin 3
- Field Quarter Cabin 4
- Field Quarter KES

Virginia

Fairfield Plantation

- Fairfield Quarter

Governor's Land

- 44JC298

Holladay/Ridley Tract

- Pope Site

Monticello

- Building C
- Building D/J
- Building I
- Building m & MRS 4
- Building n & 1809 Stone House
- Building o
- Building r
- Building s
- Building t
- East Kitchen Yard
- Elizabeth Hemings Site
- MRS 2
- Site 7
- Site 8
- Stewart-Watkins
- West Kitchen Yard/Dry Well/MRS

Montpelier Plantation (VA)

- Mount Pleasant Kitchen Site

Stratford

- STRA

Mount Vernon

- House for Families
- Servant's Hall/Wash House
- South Grove Midden

Palace Lands

- Palace Lands Site

Poplar Forest

- North Hill
- Quarter

Richneck Plantation

- Richneck Quarter

Utopia

- Utopia II
- Utopia III
- Utopia IV

North America Using Map

The fly-out menu

The left-hand navigation bar

Mapbox

© Mapbox © OpenStreetMap Improve this map



# Archaeological Sites Pages

The first place to start researching an archaeological site.

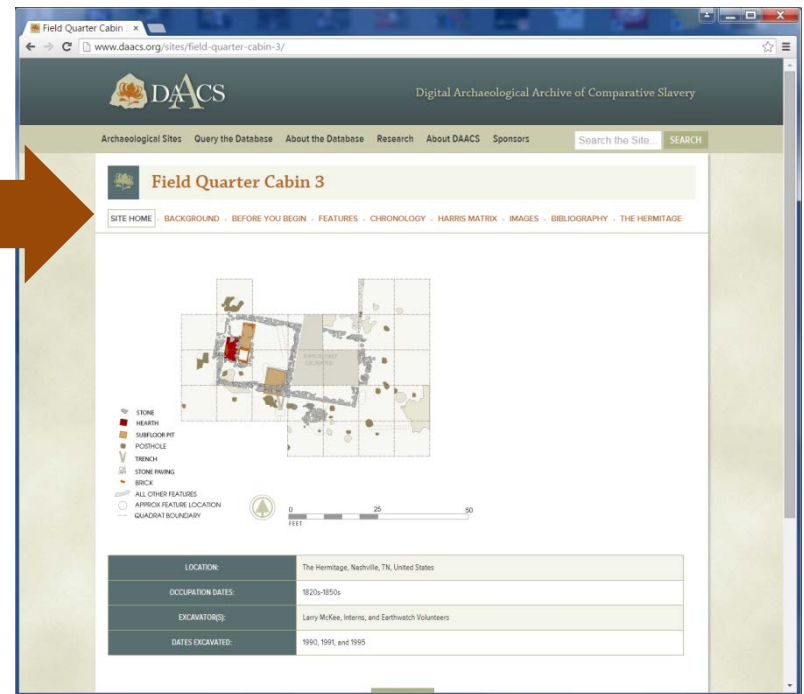
**Every** archaeological site in DAACS has a suite of seven related content pages that provide a researcher with a site report, chronology, Harris matrix, downloadable maps and images, as well as critical information that with aid in the analysis of data from each site.

Researchers need to spend time with these pages prior to accessing the site's context and artifact data.

The seven content pages are:

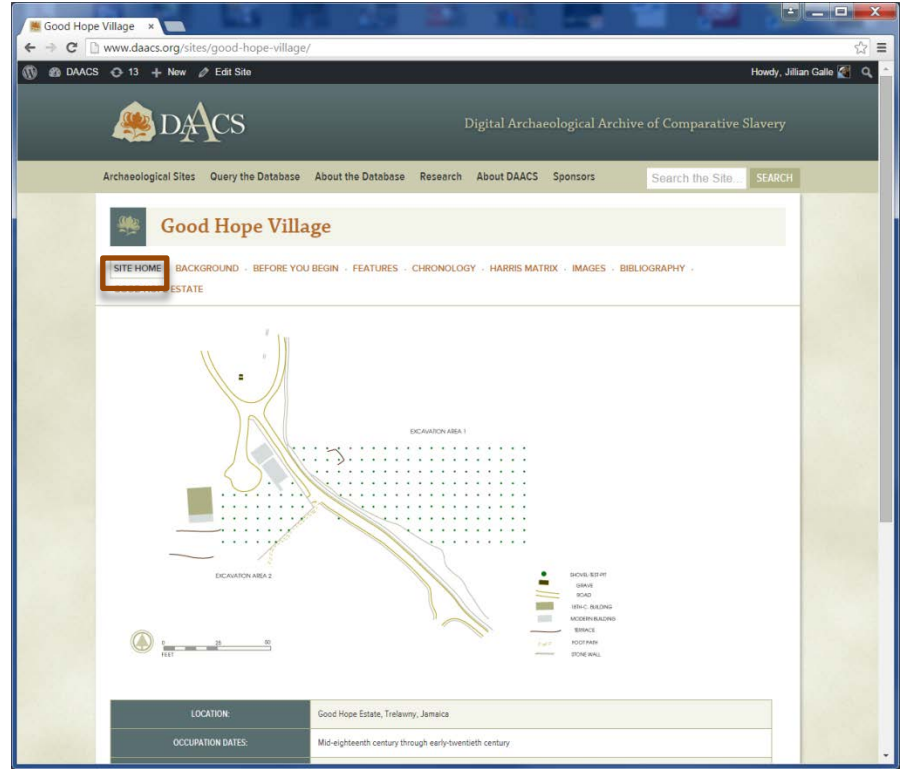
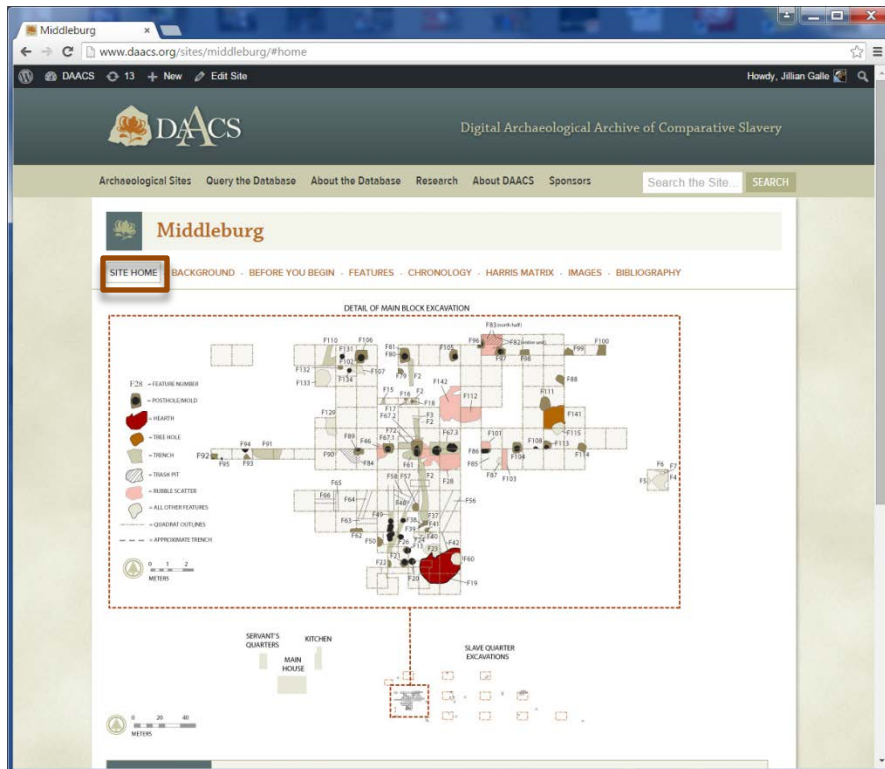
1. Site Home
2. Background
3. Before You Begin
4. Features
5. Chronology
6. Harris Matrix
7. Images

Links are here



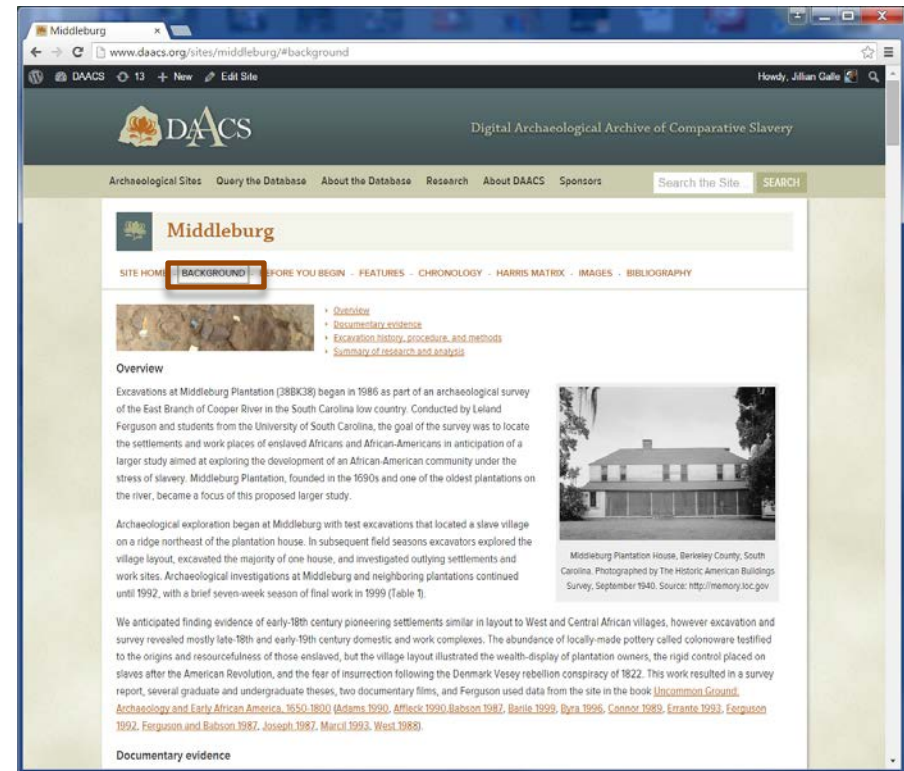
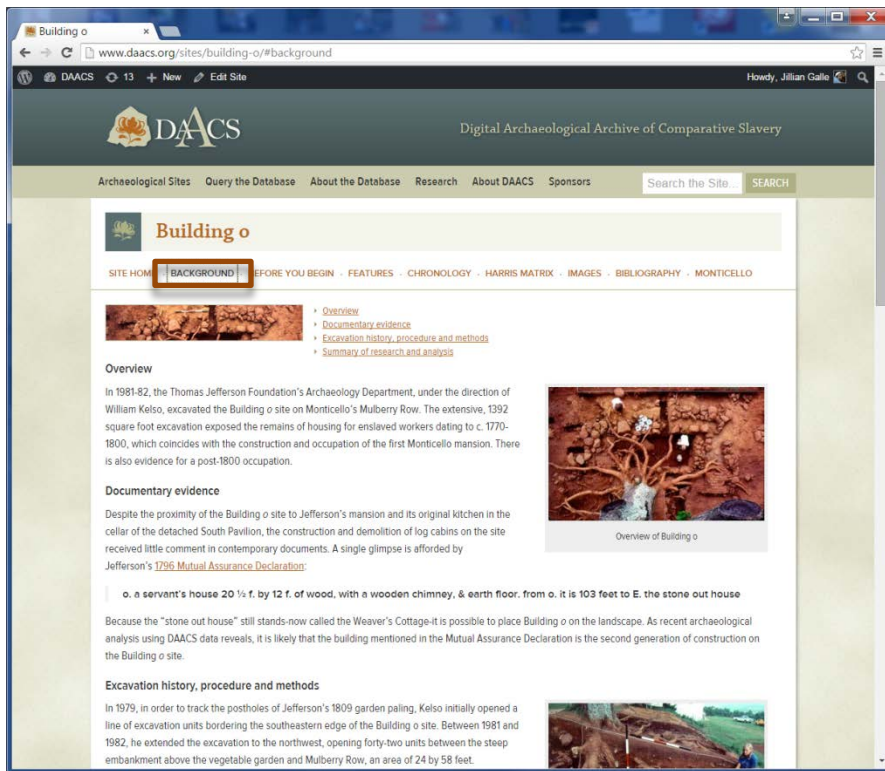
# Site Home Page

1. Provides a map detailing the full extent of the site's excavation. Downloadable maps available through the Site Images page.
2. Provides an at-a-glance summary of the site's location, when it was excavated, and by whom.



# Site Background Page: A must read!

1. Site background pages are most often written by the project's principal investigator.
2. Every site background page has the same four subheadings: *Overview*, *Documentary evidence*, *Excavation history, procedure and methods*, and *Summary of research and analysis*.
3. Site Images are expandable and downloadable.



# Before You Begin Page: A must read!

1. Provides a list of things a researcher needs to know before using the data from the site.
2. Provides a quick view of excavation methods, as well as any parts of the collection that may be digitally translated, cataloged with different protocols, or that are missing.

The screenshot shows the DAACS website for the Middleburg site. The page title is "Middleburg" and the subtitle is "Digital Archaeological Archive of Comparative Slavery". The navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". The "Before You Begin" link is highlighted with a red box. The main content area is titled "Things you need to know about Middleburg excavations before you use the data:" and contains a list of bullet points. The footer includes the URL "www.daacs.org/sites/middleburg/#features".

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## Middleburg

SITE HOME · BACKGROUND · **BEFORE YOU BEGIN** · FEATURES · CHRONOLOGY · HARRIS MATRIX · IMAGES · BIBLIOGRAPHY

Things you need to know about Middleburg excavations before you use the data:

- Measurements are in meters and centimeters.
- All sediment was screened through 1/4 inch mesh, with the exception of a few sediment samples that were floated.
- Some contexts that were excavated but did not contain artifacts were not designated a Field Specimen Number (FS#) in the field. In order to represent these contexts in the archive, DAACS has created FS numbers for these negative contexts. DAACS-assigned context IDs for these contexts begin with the same number as the context or FS number above the layer in question, and have a ".1" suffix. For example, "209.1" is the context ID for the sediment layer below context 209. 209.1 had no artifacts. The following DAACS-assigned FS numbers were given to contexts that had no artifacts: 017.2, 054.1, 054.2, 054.3, 141.2, 163.2, 209.1, 225.1
- An Oakenfield corer measuring 1 inch in diameter was used at systematic intervals in the block excavation area. Grid coordinates were recorded for each core. Artifacts were recovered for some of the cores. Stratigraphic layers within a core that contained artifacts were assigned FS (context) numbers; no FS numbers were assigned for "negative" layers within a core. In order to represent all sediment layers in the core samples, whether they were negative or positive, and to lessen confusion, DAACS has created new contexts for all core samples. The cores have been assigned context numbers beginning with "Core1A" (Core 1, Level A), etc. Center points for the cores have been recorded as "Quadrat Boundaries."
- Please see the Site Features page for detailed information about features at Middleburg.

### Middleburg Site Maps

- Magnetic North is 29 degrees east of grid north for Middleburg excavations.
- Quadrats are identified by their southwest corner coordinates, which also serve as Quadrat IDs.
- A final site map that contained all quadrats and features was never compiled for the Middleburg excavations. As a result, the site maps included on the DAACS website have been compiled by Leslie Cooper, DAACS Archaeological Analyst. Cooper used Microstation and ArcGIS to compile hundreds of maps and field sketches that were drawn by the excavators between 1986 and 1999. These maps were found throughout the context and feature field forms. Cooper combined these small individual feature and context maps with two large area survey maps produced by Ferguson and Babson in the late 1980s. Ferguson consulted extensively with Cooper on the production of the Middleburg/DAACS site maps and they believe they are the best representation of the contexts and features excavated at Middleburg between 1986 and 1999. We suggest, however, that researchers use the maps in conjunction with the context and feature descriptions that can be retrieved through the Context Query page.

www.daacs.org/sites/middleburg/#features

The screenshot shows the DAACS website for the Good Hope Village site. The page title is "Good Hope Village" and the subtitle is "Digital Archaeological Archive of Comparative Slavery". The navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". The "Before You Begin" link is highlighted with a red box. The main content area is titled "GOOD HOPE ESTATE" and contains a list of bullet points. The footer includes the URL "www.daacs.org/sites/good-hope-village/#features".

DAACS Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors Search the Site SEARCH

## Good Hope Village

SITE HOME · BACKGROUND · **BEFORE YOU BEGIN** · FEATURES · CHRONOLOGY · HARRIS MATRIX · IMAGES · BIBLIOGRAPHY

GOOD HOPE ESTATE

- In the DAACS database, the Good Hope Village site is designated as Project "1236". Artifact ID numbers for artifacts associated with the village therefore begin with the 1236 prefix.
- Measurements are in meters and centimeters.
- All sediment excavated from the site was screened through 1/4-inch mesh.
- The excavation utilized a local grid and datum point.
- 182 shovel-test-pits were excavated at the Good Hope Village in May and June 2014.
- This initial season adopted methodological protocols previously used on the island by DAACS at Stewart Castle, Mona, and Papine, using a systematic shovel-test-pit (STP) survey to investigate social and temporal variation across larger landscapes.
- An alphanumeric system was established for naming STPs that combine the Area, the Transect Letter, and the STP number. The Good Hope Village site was divided into two areas, Area 1 and Area 2. Transects were labeled alphabetically across the site. STPs were numbered consecutively within each transect. As a result, STP context numbers follow this format: 1-R-04, which translates into Pit 4, on Transect R, in Area 1.
- Hayden Basset is a Ph.D. candidate in Anthropology at the College of William and Mary and is was the DAACS Caribbean Initiative's research assistant during the two-year DAACS Research Consortium project. In addition to planning and conducting the Good Hope excavations, Hayden, assisted by DAACS staff Leslie Cooper, Lynsey Bates, and Elizabeth Bollwerk, cataloged all of the artifacts and context records excavated from the Good Hope Village.

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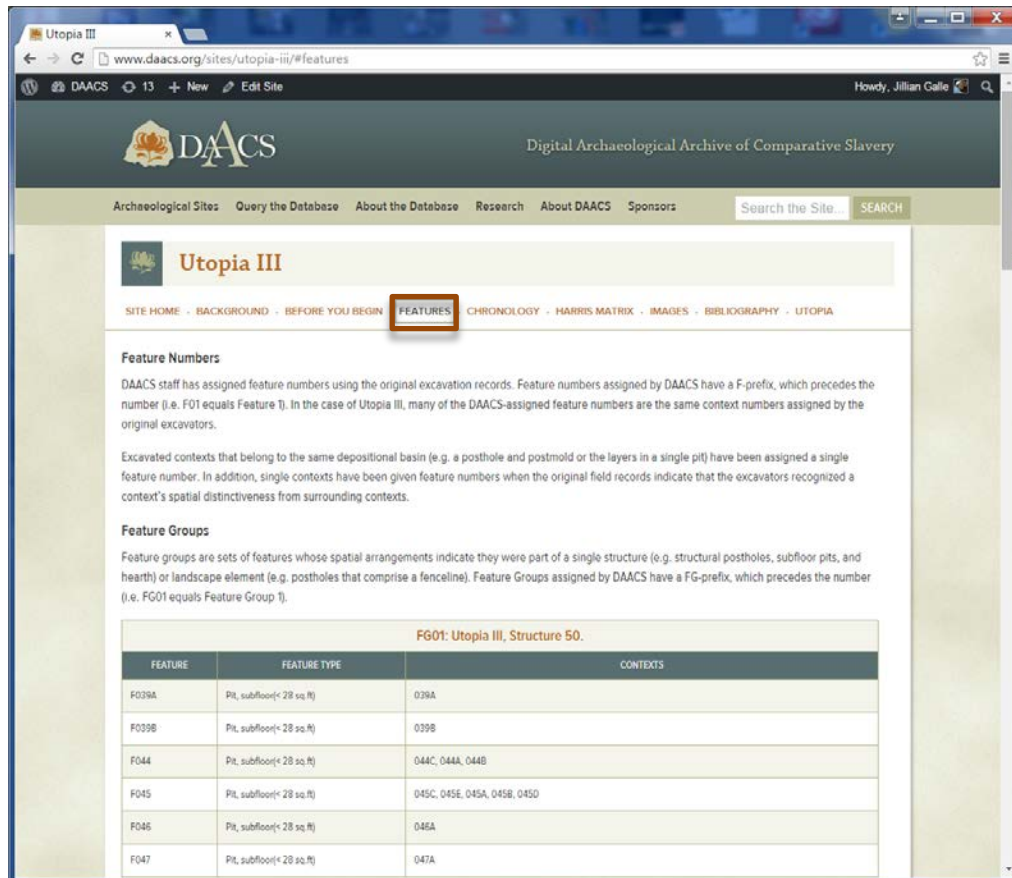
Humanities

www.daacs.org/sites/good-hope-village/#features



# Site Features

1. Summarizes how features were identified and excavated at the site. The page provides readers with an overview of the features.
2. If features were excavated at the site, provides summary tables that group features Feature Groups and provides quick identifying information. The Context Queries in the Query the Database section provide many more details on individual features.



The screenshot shows the DAACS website for Utopia III. The 'FEATURES' link in the navigation menu is highlighted with a red box. Below the navigation, there is a section titled 'Feature Numbers' and another titled 'Feature Groups'. The 'Feature Groups' section includes a table for 'FG01: Utopia III, Structure 50.' with columns for FEATURE, FEATURE TYPE, and CONTEXTS.

FEATURE	FEATURE TYPE	CONTEXTS
F039A	Pit, subfloor(± 28 sq ft)	039A
F039B	Pit, subfloor(± 28 sq ft)	039B
F044	Pit, subfloor(± 28 sq ft)	044C, 044A, 044B
F045	Pit, subfloor(± 28 sq ft)	045C, 045E, 045A, 045B, 045D
F046	Pit, subfloor(± 28 sq ft)	046A
F047	Pit, subfloor(± 28 sq ft)	047A



# Site Chronology

1. DAACS has developed an uniform set of methods to infer intra-site chronologies for all of the sites included in the archive. Each *Chronology* page describes the frequency seriation and correspondence analysis methods used to develop the site chronology.
2. Occupation phases are assigned for each site, and a table provides the accompanying MCD, BLUEMCD, TPQ, TPQ90 and TPQ95. The DAACS Glossary defines these terms.
3. The Query the Database section of the archive provides vanilla Mean Ceramic Dates by Context, Feature Numbers, Feature Types, Feature Groups, Stratigraphic Groups, Phased, and Sites.

Good Hope Village

DAACS Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors Search the Site SEARCH

Good Hope Village

SITE HOME BACKGROUND BEFORE YOU BEGIN FEATURES **CHRONOLOGY** SERIES MATRIX IMAGES BIBLIOGRAPHY

GOOD HOPE ESTATE

### Intra-Site Chronologies

DAACS has developed an uniform set of methods to infer intra-site chronologies for all of the sites included in the archive. These methods, which include frequency-seriation and correspondence analysis, were developed by DAACS (see [Heaman, Gallo, and Whitaker 2012](#) for technical details). The use of common methods for all sites in the archive is designed to increase comparability among temporal phases at different sites. The methods and the phase assignments they produced are summarized below. Archive users may also use the Mean Ceramic Date queries provided on the [Query the Database](#) section of this website to calculate MCDs for individual contexts or features.

### DAACS Seriation Method

This section summarizes the frequency-seriation based chronology for shovel-test-pits excavated at the Good Hope Village during the 2014 field season. This chronology will be revised as additional excavation data are added to the archive after the 2015 field season. To infer a chronology from the STPs we used correspondence analysis (CA) of ware-type frequencies. We employ CA because with the numbers of STP assemblages in the hundreds, a traditional manual frequency seriation is completely impractical. CA converts a data matrix of ware-type frequencies into a set of scores that estimate the positions of the assemblages on underlying axes or dimensions of variation. MCDs are weighted averages of the historically documented manufacturing dates for each ware type found in an assemblage, where the weights are the relative frequencies of the types. Measuring the correlation between CA axis scores and MCDs offer an indication of whether the CA scores capture time ([Brammelsky, Neuman and Parise 2009](#)).

DAACS seriated ceramic assemblages from the slave village that contained more than 5 sherds from individual excavated contexts. Seriated contexts were assigned to four phases. Phases are groups of assemblages that have similar correspondence-analysis scores and are therefore inferred to be broadly contemporary. Phases assigned by DAACS have a P-prefix that precedes the phase number (e.g. P01 equals Phase 1). Please note that at the Good Hope Village, ware types, not mean-ceramic-date types, were used in the frequency seriation, correspondence analysis, and in developing the dates for each occupational phase. Please go to see the [About the Database](#) section for more information on the differences between ware types and mean-ceramic-date types.

Plot of Dimension 1 by Dimension 2 scores for STP assemblages from the Good Hope Village.

Good Hope Village Chronology

The CA for the Good Hope Village resulted in four occupational phases for the survey area. The Good Hope Village dates from the 1770s through the mid-19th century.

The table below includes the site-wide Mean Ceramic Date and the BLUE MCD, which gives less influence to ceramic types with long manufacturing spans, point to the occupation's temporal placement the second quarter of the eighteenth century. It also provides three TPQ estimates. The first TPQ estimate is the usual one – the maximum beginning manufacturing date among all the ware-types in the assemblage. The second estimate – [TPQ90](#) – is the 90th percentile of the beginning manufacturing dates among all the sherds in the assemblage, based on their ware-types. The [TPQ95](#) provides a robust estimate of the site's TPQ based on the 95th percentile of the beginning manufacturing dates for all the artifacts comprising it. These last two TPQ estimates are more robust against excavation errors and taphonomic processes that might have introduced a few anomalously late sherds into an assemblage.

PHASE	MCD	BLUEMCD	TPQ	TPQ90	TPQ95	TOTAL COUNT
P01	1893.2	1790.1	1820	1775	1775	107
P02	1806.3	1800	1820	1820	1820	447
P03	1827.3	1810.7	1840	1820	1820	374
P04	1859.7	1822.8	1840	1820	1820	180

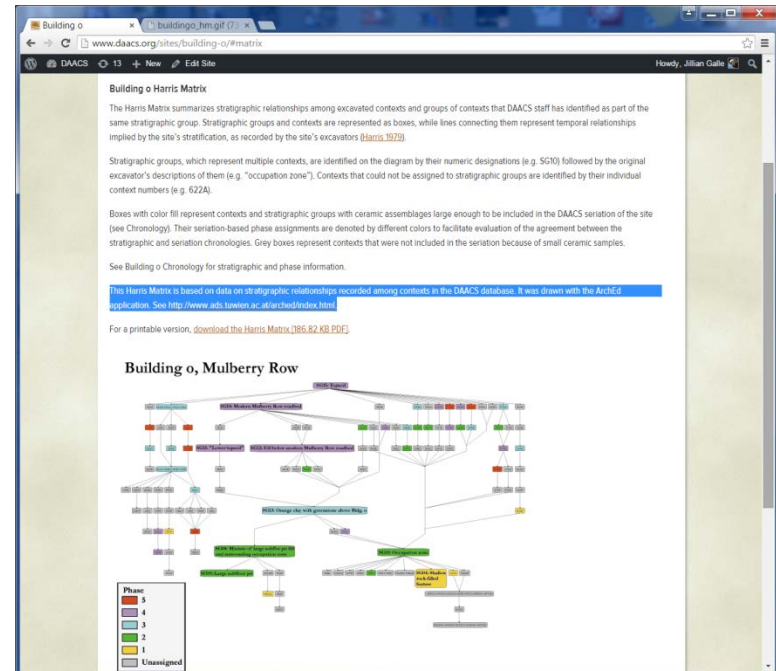
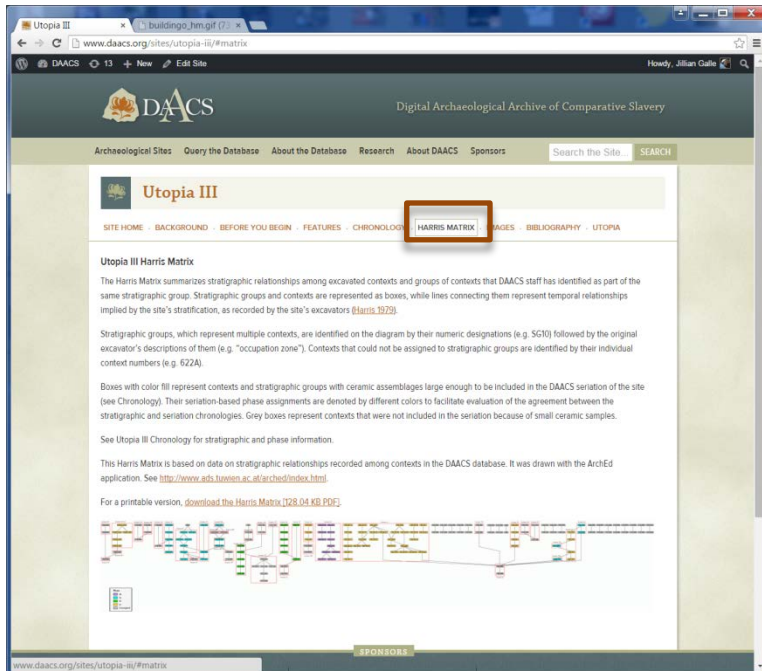
SPONSORS

Andrew W. Mellon FOUNDATION

Humanities

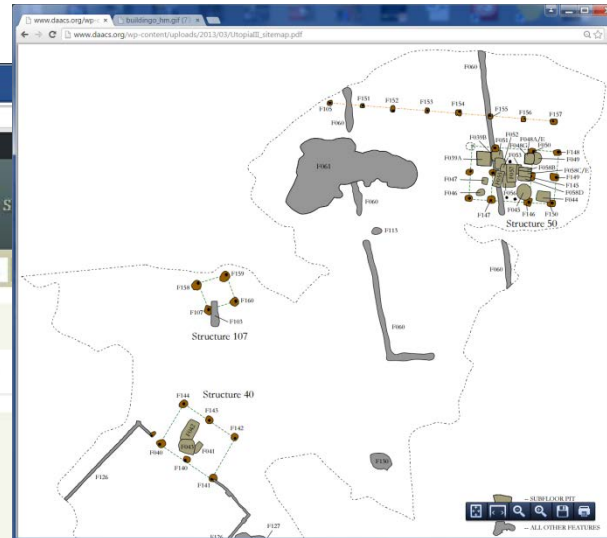
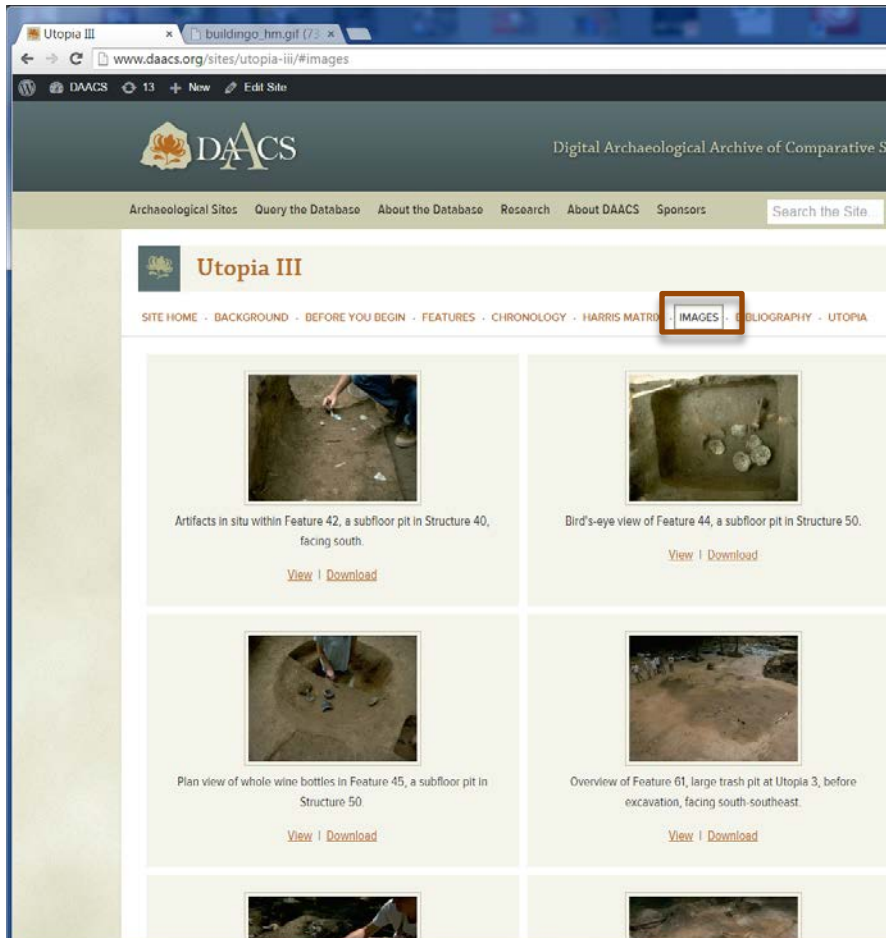
# Harris Matrix

1. The Harris Matrix summarizes stratigraphic relationships among excavated contexts and groups of contexts that DAACS staff has identified as part of the same stratigraphic group.
2. DAACS staff create the Harris Matrix based on data on stratigraphic relationships recorded among contexts in the DAACS database. It also includes color codes contexts, features, and stratigraphic groups by phase.
3. The Harris Matrix is drawn with the ArchEd application (<http://www.ads.tuwien.ac.at/arched/index.html>) and are downloadable.



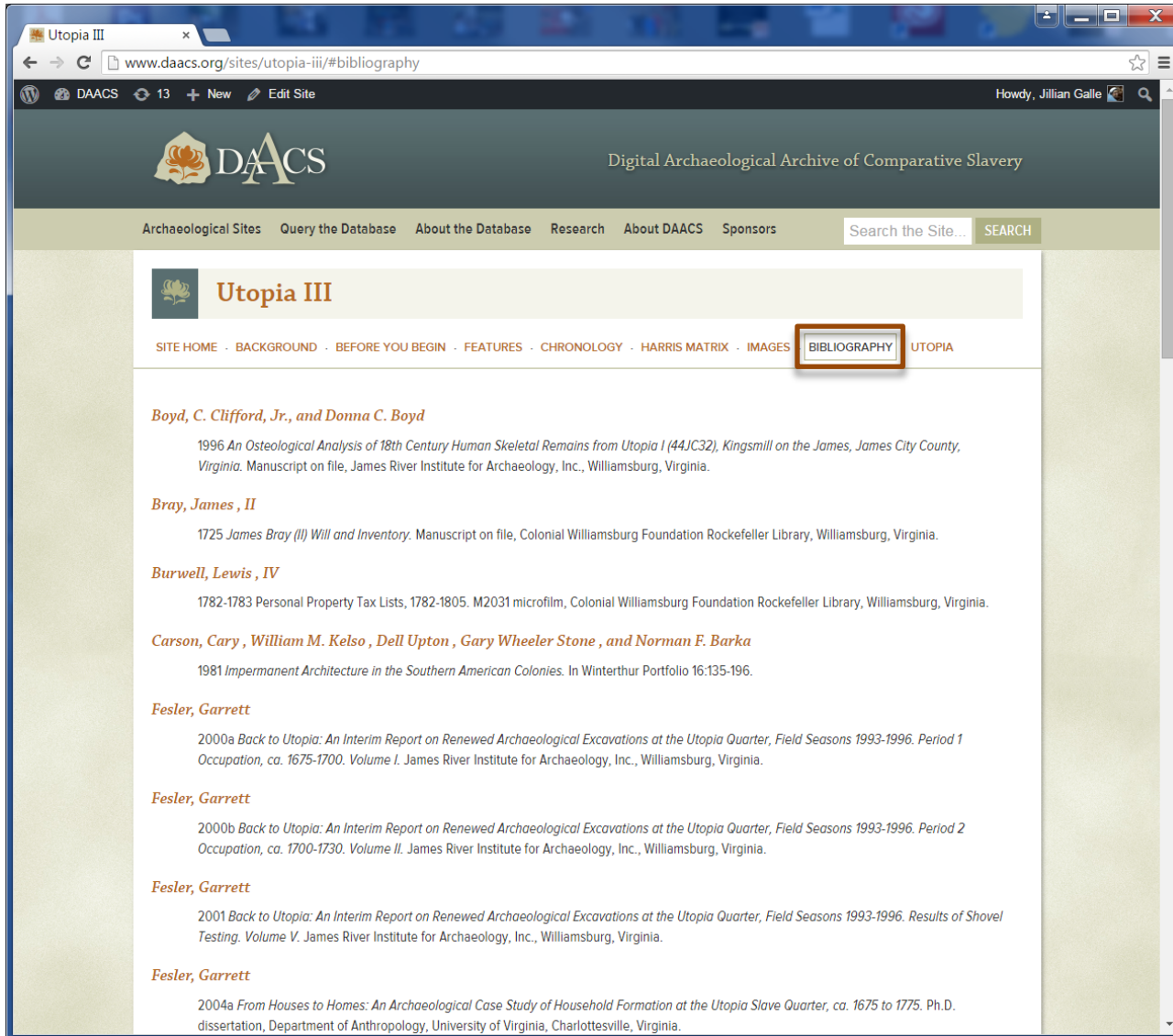
# Images

1. The Image Page provides expandable and downloadable photographs of the site and some of the recovered artifacts. All images related to the site can be found using an Image Query in the Query the Database section of the website.
2. Site maps, in .pdf, .dgn, and .dxf formats, are also available for download and use through the Images page.



# Bibliography

1. Provides a detailed bibliography of published and presented papers relating to the site.



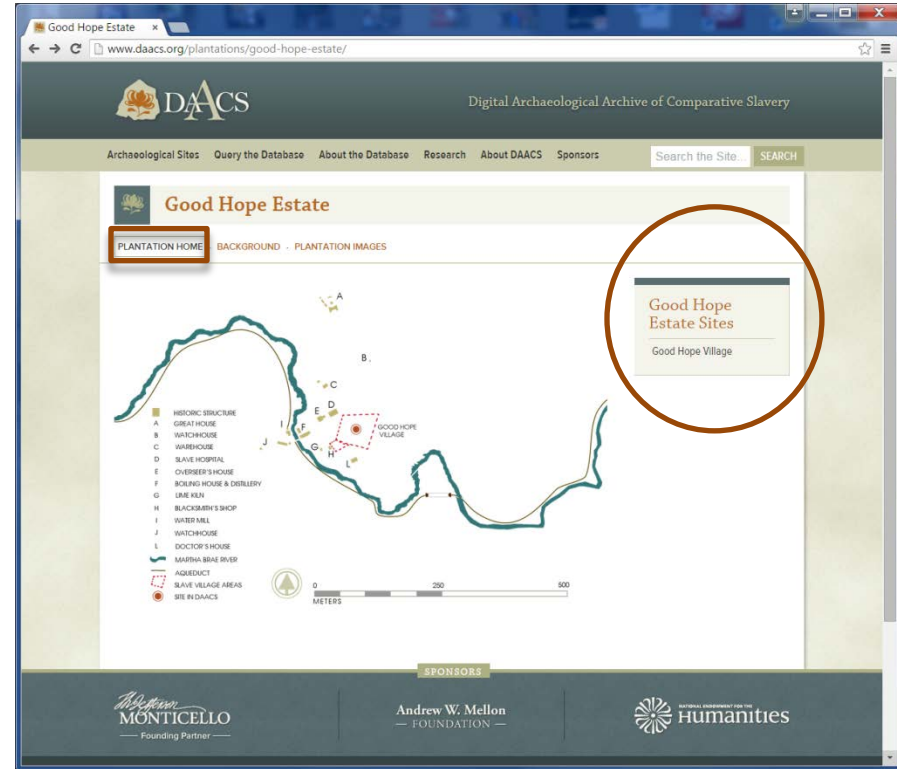
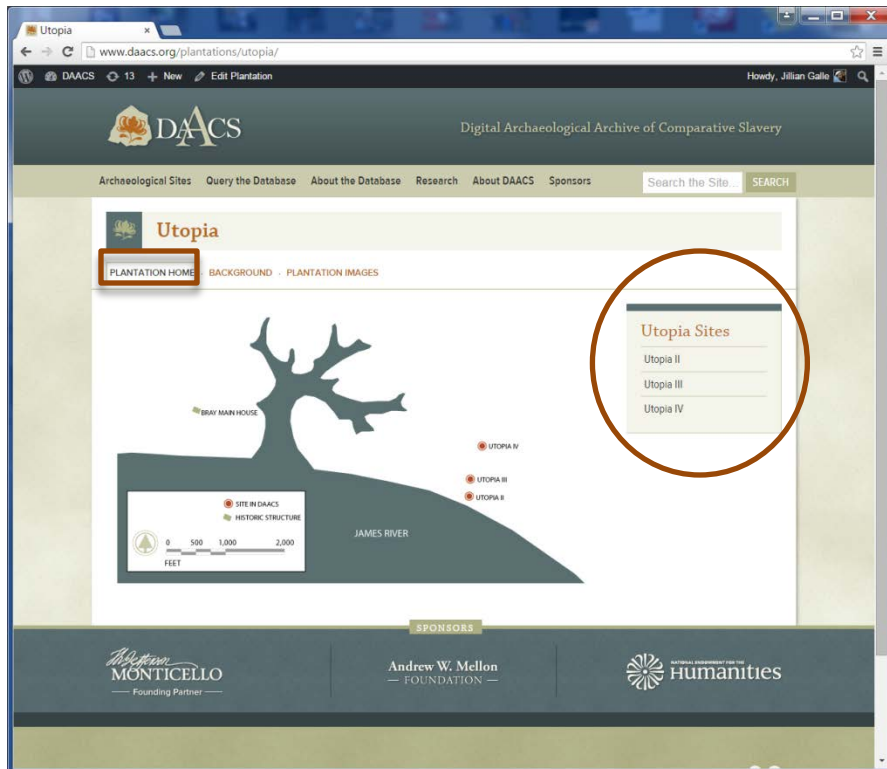
The screenshot shows a web browser window displaying the DAACS website. The address bar shows the URL [www.daacs.org/sites/utopia-iii/#bibliography](http://www.daacs.org/sites/utopia-iii/#bibliography). The website header includes the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu contains links for "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors", along with a search box. The main content area is titled "Utopia III" and features a navigation bar with links: "SITE HOME", "BACKGROUND", "BEFORE YOU BEGIN", "FEATURES", "CHRONOLOGY", "HARRIS MATRIX", "IMAGES", "BIBLIOGRAPHY" (highlighted with a red box), and "UTOPIA". Below the navigation bar, a list of bibliographic entries is displayed, each starting with the author's name in italics. The entries include:

- Boyd, C. Clifford, Jr., and Donna C. Boyd*  
1996 *An Osteological Analysis of 18th Century Human Skeletal Remains from Utopia I (44JC32), Kingsmill on the James, James City County, Virginia*. Manuscript on file, James River Institute for Archaeology, Inc., Williamsburg, Virginia.
- Bray, James, II*  
1725 *James Bray (II) Will and Inventory*. Manuscript on file, Colonial Williamsburg Foundation Rockefeller Library, Williamsburg, Virginia.
- Burwell, Lewis, IV*  
1782-1783 Personal Property Tax Lists, 1782-1805. M2031 microfilm, Colonial Williamsburg Foundation Rockefeller Library, Williamsburg, Virginia.
- Carson, Cary, William M. Kelso, Dell Upton, Gary Wheeler Stone, and Norman F. Barka*  
1981 *Impermanent Architecture in the Southern American Colonies*. In *Winterthur Portfolio* 16:135-196.
- Fesler, Garrett*  
2000a *Back to Utopia: An Interim Report on Renewed Archaeological Excavations at the Utopia Quarter, Field Seasons 1993-1996. Period 1 Occupation, ca. 1675-1700. Volume I*. James River Institute for Archaeology, Inc., Williamsburg, Virginia.
- Fesler, Garrett*  
2000b *Back to Utopia: An Interim Report on Renewed Archaeological Excavations at the Utopia Quarter, Field Seasons 1993-1996. Period 2 Occupation, ca. 1700-1730. Volume II*. James River Institute for Archaeology, Inc., Williamsburg, Virginia.
- Fesler, Garrett*  
2001 *Back to Utopia: An Interim Report on Renewed Archaeological Excavations at the Utopia Quarter, Field Seasons 1993-1996. Results of Shovel Testing. Volume V*. James River Institute for Archaeology, Inc., Williamsburg, Virginia.
- Fesler, Garrett*  
2004a *From Houses to Homes: An Archaeological Case Study of Household Formation at the Utopia Slave Quarter, ca. 1675 to 1775*. Ph.D. dissertation, Department of Anthropology, University of Virginia, Charlottesville, Virginia.



# Plantation Home Page

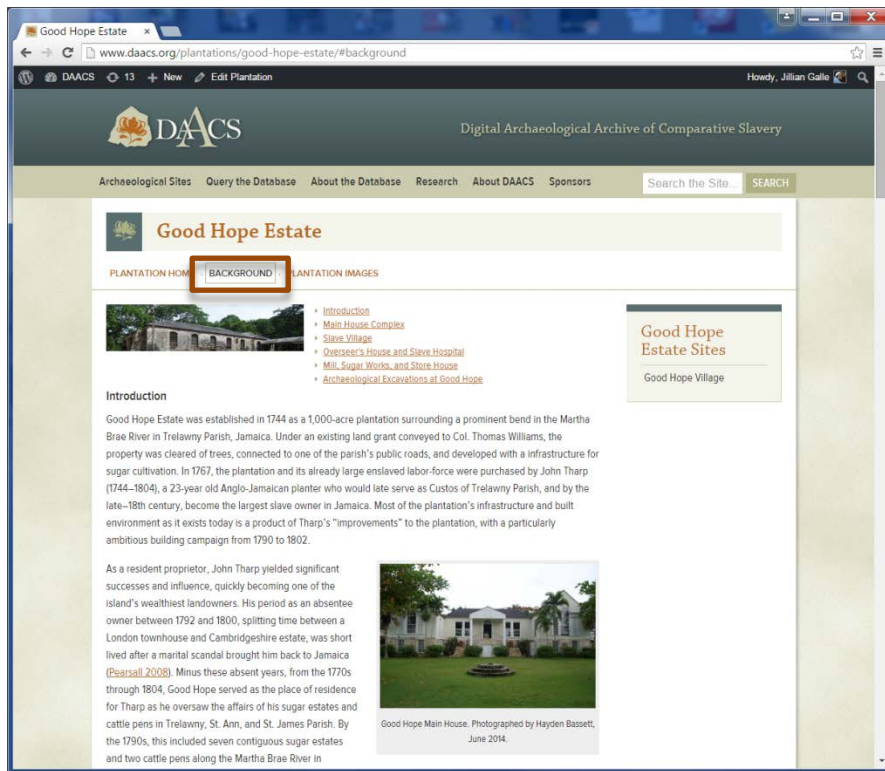
1. Provides schematic map of plantation, with archaeological sites that are in DAACS located by orange “bulls-eyes”.
2. Provides links to the archaeological sites from the plantation currently in DAACS



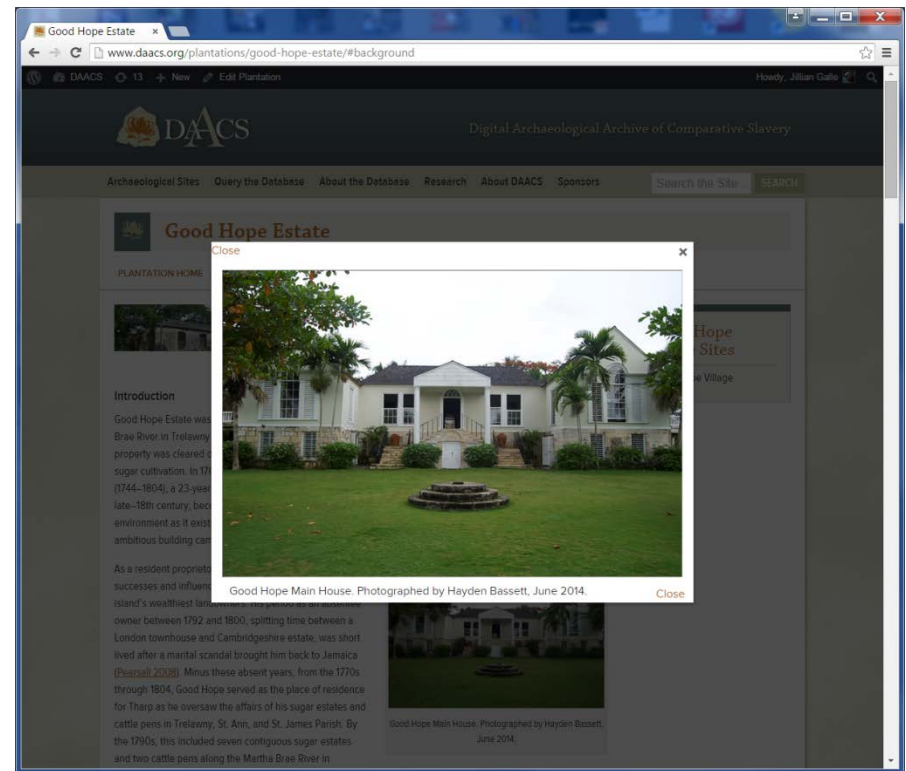


# Plantation Background

1. Provides detailed background information, including summaries about what is known about the plantation from documentary and archaeological sources.
2. Provides links to expandable and downloadable images..



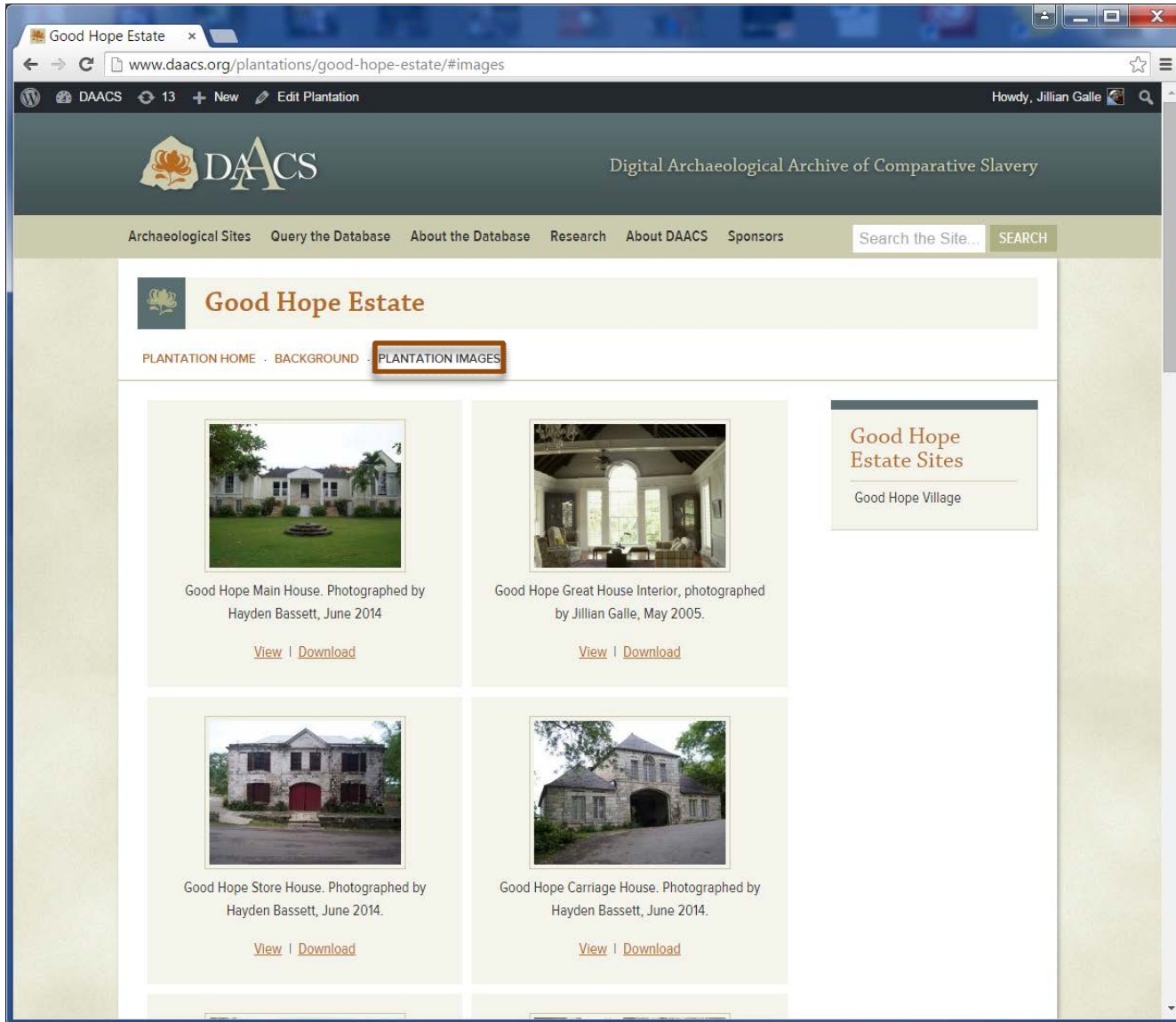
The screenshot shows the DAACS website interface. The header includes the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu contains links for "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right. The main content area is titled "Good Hope Estate" and features three tabs: "PLANTATION HOME", "BACKGROUND" (which is highlighted with a red box), and "PLANTATION IMAGES". Below the tabs, there is a list of links: "Introduction", "Main House Complex", "Slave Village", "Overseer's House and Slave Hospital", "Mill, Sugar Works, and Store House", and "Archaeological Excavations at Good Hope". The "Introduction" section is visible, starting with "Good Hope Estate was established in 1744 as a 1,000-acre plantation...". A small image of the main house is shown at the bottom left, with a caption: "Good Hope Main House. Photographed by Hayden Bassett, June 2014."



This screenshot shows the same DAACS website page, but with a modal window open. The modal window displays a large, high-resolution photograph of the Good Hope Main House, a white, two-story building with a central portico and a large lawn in front. The caption below the image reads: "Good Hope Main House. Photographed by Hayden Bassett, June 2014." The modal window has "Close" buttons in the top right and bottom right corners. The background content of the page is dimmed but still visible.

# Plantation Images

1. Provides downloadable images and maps of the plantation.



The screenshot shows a web browser window displaying the DAACS website. The browser's address bar shows the URL [www.daacs.org/plantations/good-hope-estate/#images](http://www.daacs.org/plantations/good-hope-estate/#images). The website header features the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu includes links for "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the header.

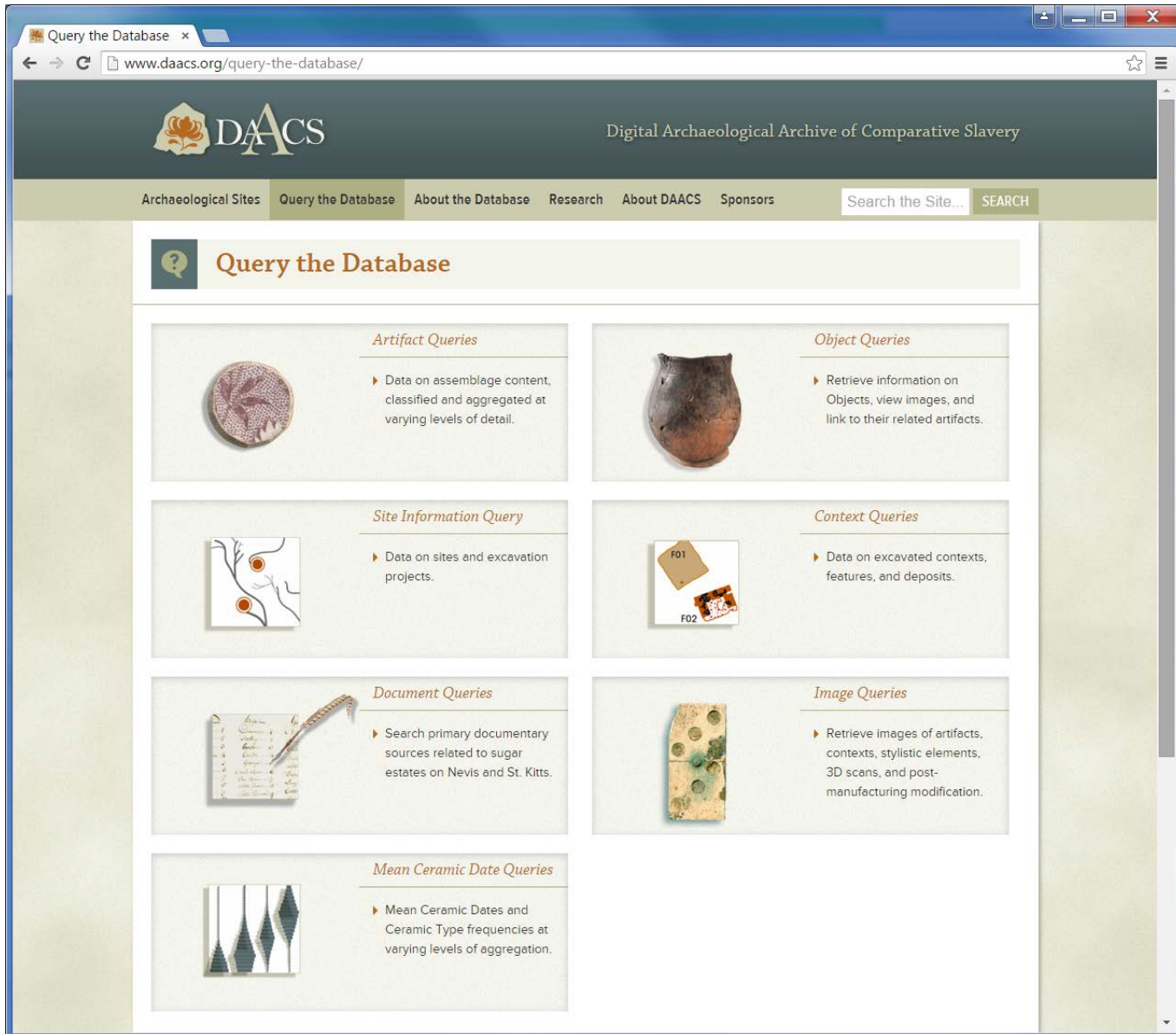
The main content area is titled "Good Hope Estate" and has a sub-navigation menu with "PLANTATION HOME", "BACKGROUND", and "PLANTATION IMAGES" (which is highlighted with a red box). Below this, there is a grid of four image cards:

- Good Hope Main House:** Photographed by Hayden Bassett, June 2014. Includes "View" and "Download" links.
- Good Hope Great House Interior:** Photographed by Jillian Galle, May 2005. Includes "View" and "Download" links.
- Good Hope Store House:** Photographed by Hayden Bassett, June 2014. Includes "View" and "Download" links.
- Good Hope Carriage House:** Photographed by Hayden Bassett, June 2014. Includes "View" and "Download" links.

On the right side of the page, there is a sidebar titled "Good Hope Estate Sites" with a link to "Good Hope Village".

# Query the Database

<http://www.daacs.org/query-the-database/>



Query the Database x








www.daacs.org/query-the-database/

DAACS Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors

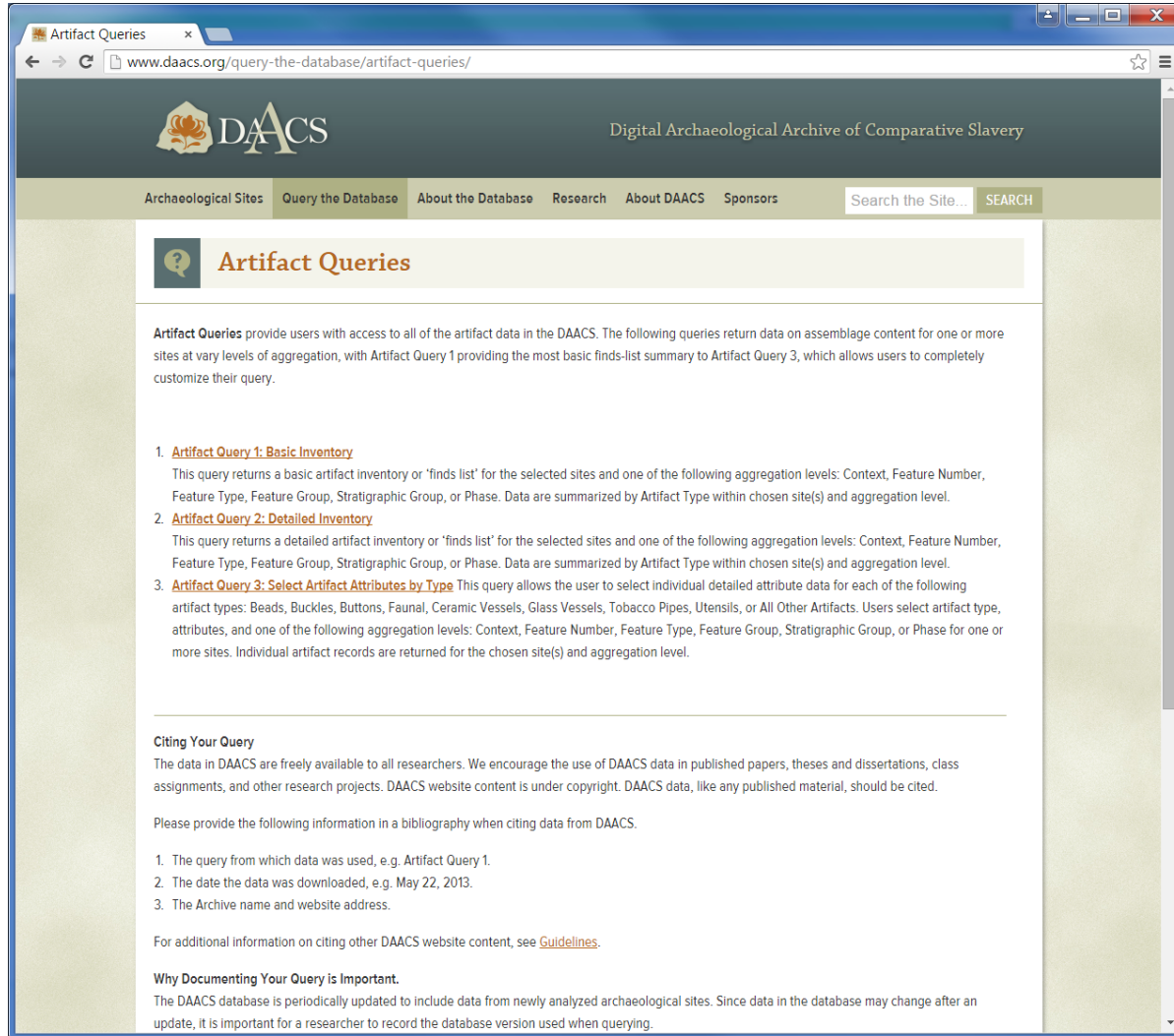
Search the Site... SEARCH

## Query the Database

- Artifact Queries**  

  - ▶ Data on assemblage content, classified and aggregated at varying levels of detail.
- Object Queries**  

  - ▶ Retrieve information on Objects, view images, and link to their related artifacts.
- Site Information Query**  

  - ▶ Data on sites and excavation projects.
- Context Queries**  

  - ▶ Data on excavated contexts, features, and deposits.
- Document Queries**  

  - ▶ Search primary documentary sources related to sugar estates on Nevis and St. Kitts.
- Image Queries**  

  - ▶ Retrieve images of artifacts, contexts, stylistic elements, 3D scans, and post-manufacturing modification.
- Mean Ceramic Date Queries**  

  - ▶ Mean Ceramic Dates and Ceramic Type frequencies at varying levels of aggregation.

# Artifact Queries

**Artifact Queries** provide users with access to all of the artifact data in the DAACS. The queries return data on assemblage content for one or more sites at varying levels of details and aggregation.



The screenshot shows a web browser window with the URL [www.daacs.org/query-the-database/artifact-queries/](http://www.daacs.org/query-the-database/artifact-queries/). The page features the DAACS logo (Digital Archaeological Archive of Comparative Slavery) and a navigation menu with links for Archaeological Sites, Query the Database, About the Database, Research, About DAACS, and Sponsors. A search bar is located in the top right corner. The main content area is titled "Artifact Queries" and includes an introductory paragraph, three numbered queries with descriptions, a "Citing Your Query" section with instructions and a list of required information, and a "Why Documenting Your Query is Important" section.

**Artifact Queries** provide users with access to all of the artifact data in the DAACS. The following queries return data on assemblage content for one or more sites at vary levels of aggregation, with Artifact Query 1 providing the most basic finds-list summary to Artifact Query 3, which allows users to completely customize their query.

- Artifact Query 1: Basic Inventory**  
This query returns a basic artifact inventory or 'finds list' for the selected sites and one of the following aggregation levels: Context, Feature Number, Feature Type, Feature Group, Stratigraphic Group, or Phase. Data are summarized by Artifact Type within chosen site(s) and aggregation level.
- Artifact Query 2: Detailed Inventory**  
This query returns a detailed artifact inventory or 'finds list' for the selected sites and one of the following aggregation levels: Context, Feature Number, Feature Type, Feature Group, Stratigraphic Group, or Phase. Data are summarized by Artifact Type within chosen site(s) and aggregation level.
- Artifact Query 3: Select Artifact Attributes by Type** This query allows the user to select individual detailed attribute data for each of the following artifact types: Beads, Buckles, Buttons, Faunal, Ceramic Vessels, Glass Vessels, Tobacco Pipes, Utensils, or All Other Artifacts. Users select artifact type, attributes, and one of the following aggregation levels: Context, Feature Number, Feature Type, Feature Group, Stratigraphic Group, or Phase for one or more sites. Individual artifact records are returned for the chosen site(s) and aggregation level.

**Citing Your Query**  
The data in DAACS are freely available to all researchers. We encourage the use of DAACS data in published papers, theses and dissertations, class assignments, and other research projects. DAACS website content is under copyright. DAACS data, like any published material, should be cited.

Please provide the following information in a bibliography when citing data from DAACS.

- The query from which data was used, e.g. Artifact Query 1.
- The date the data was downloaded, e.g. May 22, 2013.
- The Archive name and website address.

For additional information on citing other DAACS website content, see [Guidelines](#).

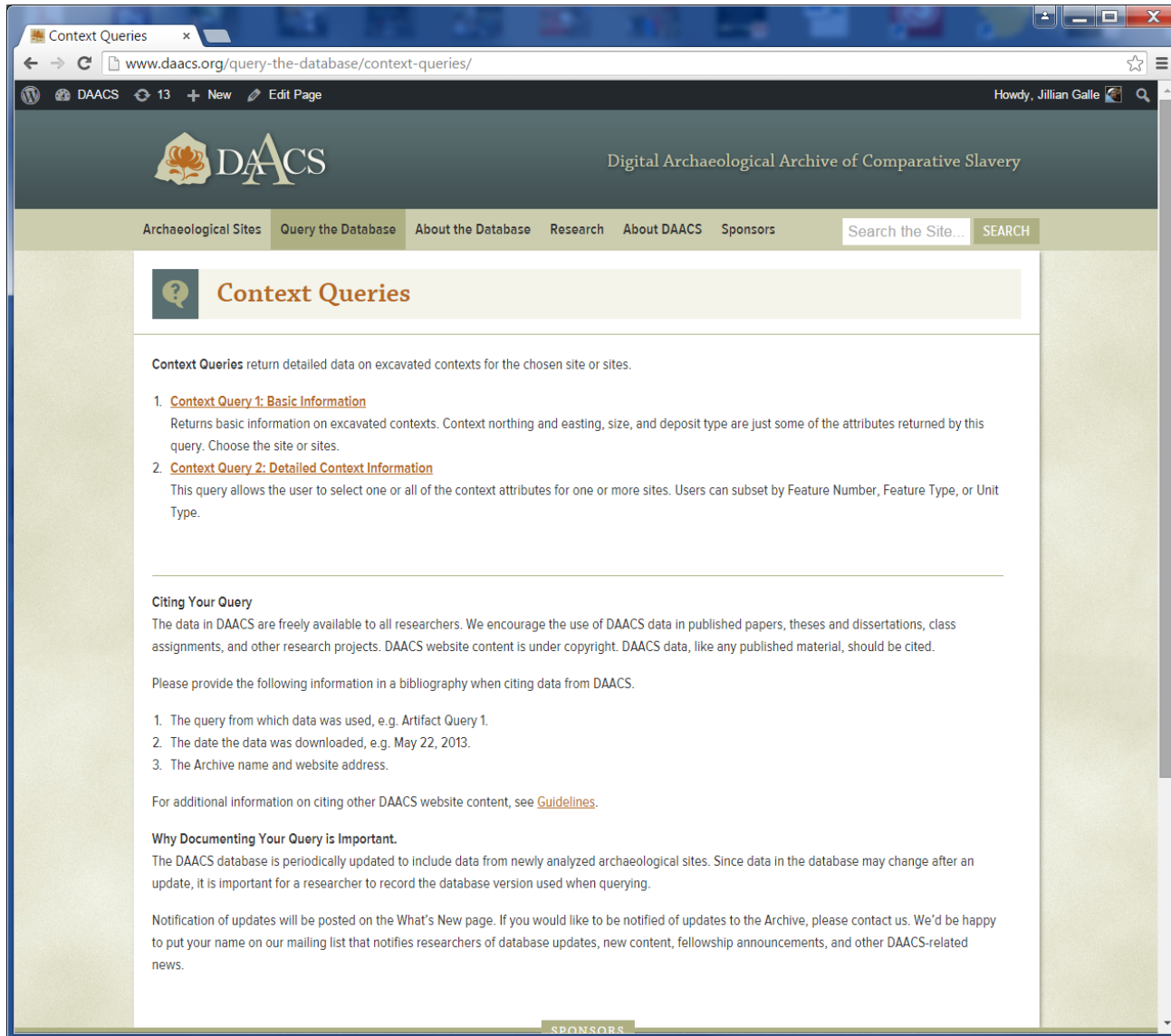
**Why Documenting Your Query is Important.**  
The DAACS database is periodically updated to include data from newly analyzed archaeological sites. Since data in the database may change after an update, it is important for a researcher to record the database version used when querying.

<http://www.daacs.org/query-the-database/artifact-queries/>



# Context Queries

**Context Queries** return detailed data on excavated contexts for the chosen site or sites..



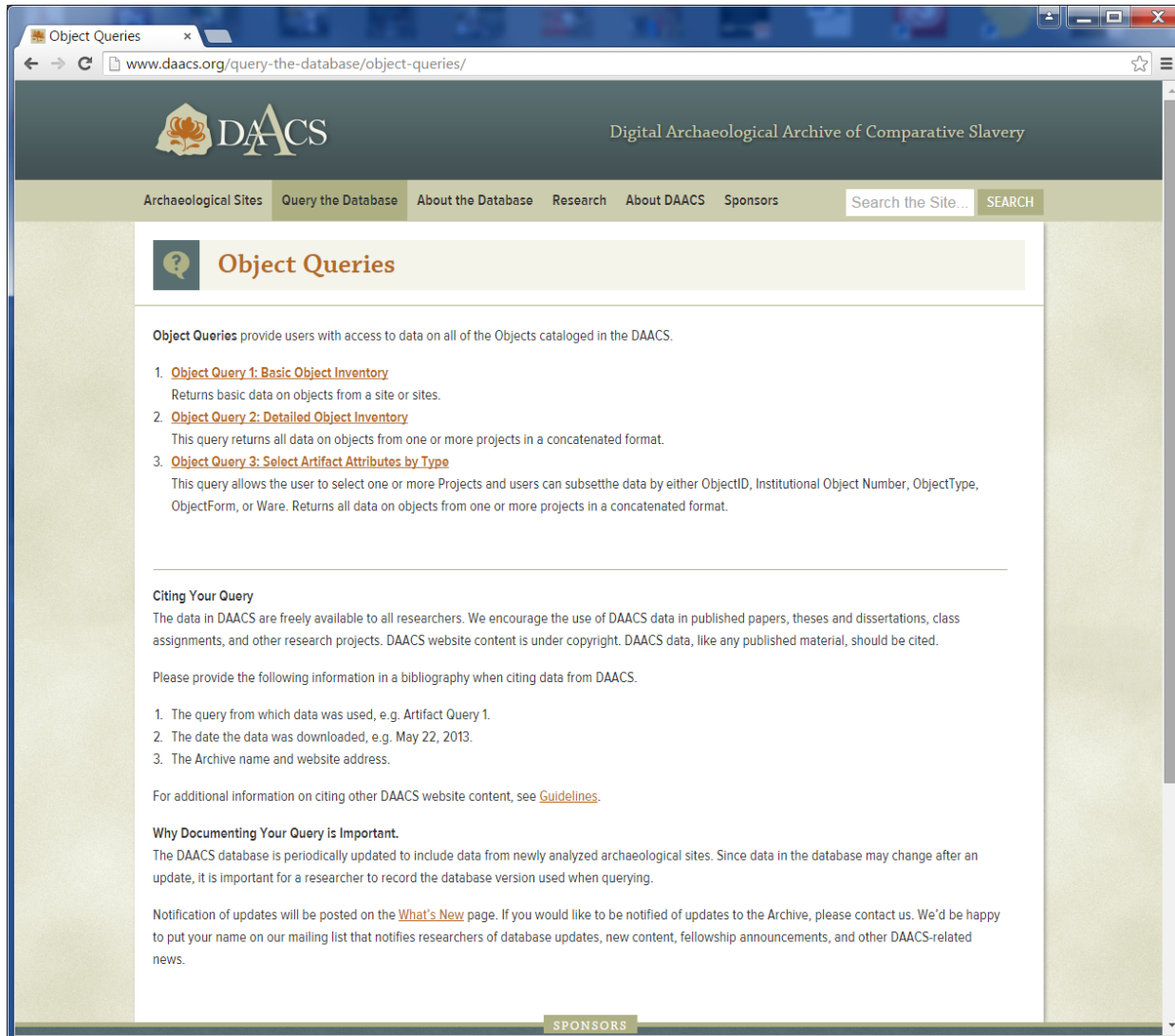
The screenshot shows a web browser window displaying the DAACS website. The browser's address bar shows the URL [www.daacs.org/query-the-database/context-queries/](http://www.daacs.org/query-the-database/context-queries/). The website header includes the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu contains links for "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the menu. The main content area features a section titled "Context Queries" with a question mark icon. Below this title, a paragraph explains that context queries return detailed data on excavated contexts. Two numbered links are provided: "1. Context Query 1: Basic Information" and "2. Context Query 2: Detailed Context Information". The "Citing Your Query" section provides instructions on how to cite DAACS data in a bibliography, listing three required pieces of information: the query name, the download date, and the archive name and address. A "Guidelines" link is also provided for more information. The "Why Documenting Your Query is Important" section explains that the DAACS database is periodically updated and that researchers should record the database version used when querying. A final paragraph mentions that updates will be posted on the "What's New" page and that researchers can sign up for a mailing list for notifications.

<http://www.daacs.org/query-the-database/context-queries/>



# Object Queries

**Object Queries** provide users with access to data on all of the Objects cataloged in the DAACS.

A screenshot of a web browser displaying the DAACS Object Queries page. The browser's address bar shows the URL 'www.daacs.org/query-the-database/object-queries/'. The page features the DAACS logo and the text 'Digital Archaeological Archive of Comparative Slavery'. A navigation menu includes 'Archaeological Sites', 'Query the Database', 'About the Database', 'Research', 'About DAACS', and 'Sponsors'. A search bar is located on the right. The main content area is titled 'Object Queries' and contains an introductory paragraph, three numbered links to specific queries, a 'Citing Your Query' section with instructions and a list of required information, a 'Why Documenting Your Query is Important' section, and a final paragraph about updates and a mailing list. A 'SPONSORS' link is visible at the bottom of the page.

Object Queries

Object Queries provide users with access to data on all of the Objects cataloged in the DAACS.

- [Object Query 1: Basic Object Inventory](#)  
Returns basic data on objects from a site or sites.
- [Object Query 2: Detailed Object Inventory](#)  
This query returns all data on objects from one or more projects in a concatenated format.
- [Object Query 3: Select Artifact Attributes by Type](#)  
This query allows the user to select one or more Projects and users can subset the data by either ObjectID, Institutional Object Number, ObjectType, ObjectForm, or Ware. Returns all data on objects from one or more projects in a concatenated format.

---

**Citing Your Query**

The data in DAACS are freely available to all researchers. We encourage the use of DAACS data in published papers, theses and dissertations, class assignments, and other research projects. DAACS website content is under copyright. DAACS data, like any published material, should be cited.

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- The date the data was downloaded, e.g. May 22, 2013.
- The Archive name and website address.

For additional information on citing other DAACS website content, see [Guidelines](#).

**Why Documenting Your Query is Important.**

The DAACS database is periodically updated to include data from newly analyzed archaeological sites. Since data in the database may change after an update, it is important for a researcher to record the database version used when querying.

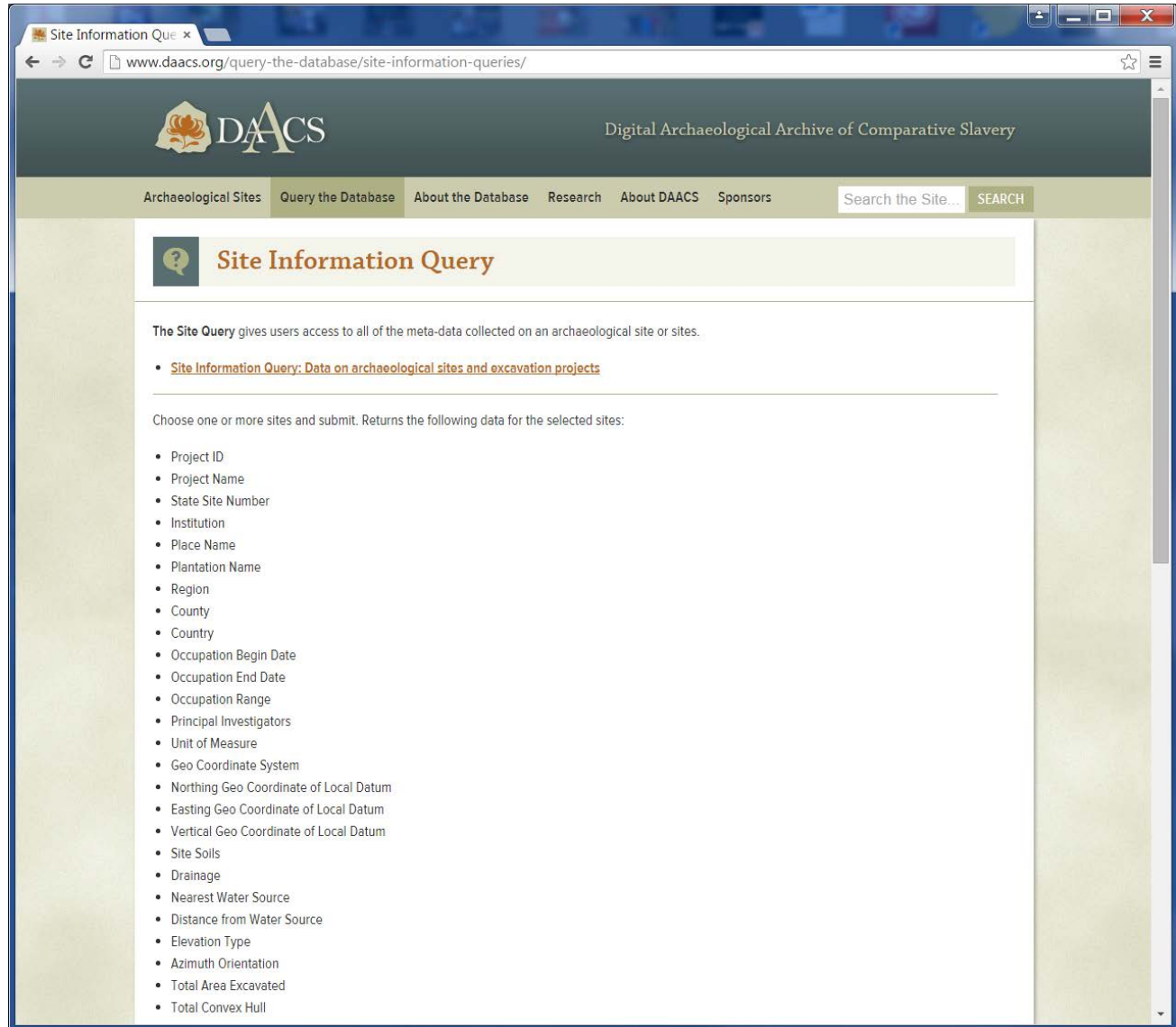
Notification of updates will be posted on the [What's New](#) page. If you would like to be notified of updates to the Archive, please contact us. We'd be happy to put your name on our mailing list that notifies researchers of database updates, new content, fellowship announcements, and other DAACS-related news.

SPONSORS

<http://www.daacs.org/query-the-database/object-queries/>

# Site Information Query

The **Site Query** gives users access to all of the meta-data collected on an archaeological site or sites.



The screenshot shows a web browser window with the URL [www.daacs.org/query-the-database/site-information-queries/](http://www.daacs.org/query-the-database/site-information-queries/). The page features the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located in the top right corner. The main content area is titled "Site Information Query" and contains the following text:

The **Site Query** gives users access to all of the meta-data collected on an archaeological site or sites.

- [Site Information Query: Data on archaeological sites and excavation projects](#)

Choose one or more sites and submit. Returns the following data for the selected sites:

- Project ID
- Project Name
- State Site Number
- Institution
- Place Name
- Plantation Name
- Region
- County
- Country
- Occupation Begin Date
- Occupation End Date
- Occupation Range
- Principal Investigators
- Unit of Measure
- Geo Coordinate System
- Northing Geo Coordinate of Local Datum
- Easting Geo Coordinate of Local Datum
- Vertical Geo Coordinate of Local Datum
- Site Soils
- Drainage
- Nearest Water Source
- Distance from Water Source
- Elevation Type
- Azimuth Orientation
- Total Area Excavated
- Total Convex Hull

<http://www.daacs.org/query-the-database/site-information-queries/>

# Image Queries

Image Queries return image data for chosen sites.



The screenshot shows a web browser window displaying the DAACS website. The browser's address bar shows the URL [www.daacs.org/query-the-database/image-queries/](http://www.daacs.org/query-the-database/image-queries/). The website header features the DAACS logo and the text "Digital Archaeological Archive of Comparative Slavery". A navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the menu.

## Image Queries

Image Queries return image data for chosen sites.

- [Image Query 1: Image Inventory](#)  
This query returns all images for the selected site or sites and includes basic artifact data associated with the image.
- [Image Query 2: Image Type](#)  
This query returns images and detailed information about the images for the selected site or sites. User may subset Images by Type or Subtype.

### Citing Your Query

The data in DAACS are freely available to all researchers. We encourage the use of DAACS data in published papers, theses and dissertations, class assignments, and other research projects. DAACS website content is under copyright. DAACS data, like any published material, should be cited.

Please provide the following information in a bibliography when citing data from DAACS.

- The query from which data was used, e.g. Artifact Query 1.
- The date the data was downloaded, e.g. May 22, 2013.
- The Archive name and website address.

For additional information on citing other DAACS website content, see [Guidelines](#).

### Why Documenting Your Query is Important.

The DAACS database is periodically updated to include data from newly analyzed archaeological sites. Since data in the database may change after an update, it is important for a researcher to record the database version used when querying.

Notification of updates will be posted on the What's New page. If you would like to be notified of updates to the Archive, please contact us. We'd be happy to put your name on our mailing list that notifies researchers of database updates, new content, fellowship announcements, and other DAACS-related news.

SPONSORS

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MONTICELLO

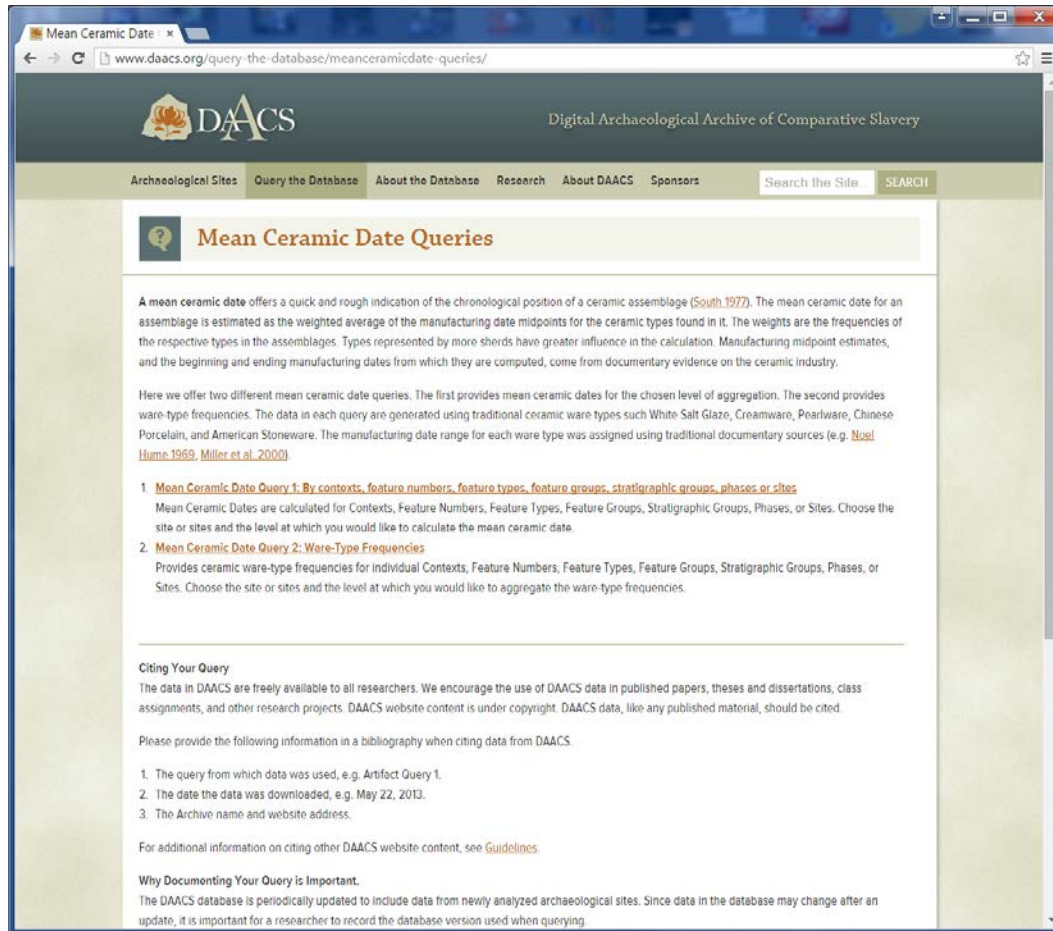
Andrew W. Mellon

NATIONAL ENDOWMENT FOR THE  
HUMANITIES

<http://www.daacs.org/query-the-database/image-queries/>

# Mean Ceramic Date Queries

A **mean ceramic date** offers a quick and rough indication of the chronological position of a ceramic assemblage. DAACS offers two different mean ceramic date queries. The first provides mean ceramic dates for the chosen level of aggregation. The second provides ware-type frequencies.



The screenshot shows a web browser window displaying the DAACS website. The page title is "Mean Ceramic Date Queries". The DAACS logo is visible at the top left, and the full name "Digital Archaeological Archive of Comparative Slavery" is at the top right. A navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the menu. The main content area features a heading "Mean Ceramic Date Queries" with a question mark icon. Below the heading, there is a paragraph explaining the concept of a mean ceramic date, followed by a paragraph detailing the two types of queries offered. A list of two queries is provided: "Mean Ceramic Date Query 1: By contexts, feature numbers, feature types, feature groups, stratigraphic groups, phases or sites" and "Mean Ceramic Date Query 2: Ware-Type Frequencies". Below the list, there is a section titled "Citing Your Query" with instructions on how to cite data from DAACS, including a list of three items to include in a bibliography. At the bottom, there is a section titled "Why Documenting Your Query is Important" explaining the importance of recording the database version used.

Mean Ceramic Date

www.daacs.org/query-the-database/meanceramicdate-queries/

DAACS  
Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors

Search the Site SEARCH

## Mean Ceramic Date Queries

A mean ceramic date offers a quick and rough indication of the chronological position of a ceramic assemblage (South 1977). The mean ceramic date for an assemblage is estimated as the weighted average of the manufacturing date midpoints for the ceramic types found in it. The weights are the frequencies of the respective types in the assemblages. Types represented by more sherds have greater influence in the calculation. Manufacturing midpoint estimates, and the beginning and ending manufacturing dates from which they are computed, come from documentary evidence on the ceramic industry.

Here we offer two different mean ceramic date queries. The first provides mean ceramic dates for the chosen level of aggregation. The second provides ware-type frequencies. The data in each query are generated using traditional ceramic ware types such as White Salt Glaze, Creamware, Pearlware, Chinese Porcelain, and American Stoneware. The manufacturing date range for each ware type was assigned using traditional documentary sources (e.g. [Neal Hume 1969](#), [Miller et al. 2000](#)).

- Mean Ceramic Date Query 1: By contexts, feature numbers, feature types, feature groups, stratigraphic groups, phases or sites**  
Mean Ceramic Dates are calculated for Contexts, Feature Numbers, Feature Types, Feature Groups, Stratigraphic Groups, Phases, or Sites. Choose the site or sites and the level at which you would like to calculate the mean ceramic date.
- Mean Ceramic Date Query 2: Ware-Type Frequencies**  
Provides ceramic ware-type frequencies for individual Contexts, Feature Numbers, Feature Types, Feature Groups, Stratigraphic Groups, Phases, or Sites. Choose the site or sites and the level at which you would like to aggregate the ware-type frequencies.

### Citing Your Query

The data in DAACS are freely available to all researchers. We encourage the use of DAACS data in published papers, theses and dissertations, class assignments, and other research projects. DAACS website content is under copyright. DAACS data, like any published material, should be cited.

Please provide the following information in a bibliography when citing data from DAACS.

- The query from which data was used, e.g. Artifact Query 1.
- The date the data was downloaded, e.g. May 22, 2013.
- The Archive name and website address.

For additional information on citing other DAACS website content, see [Guidelines](#).

### Why Documenting Your Query is Important.

The DAACS database is periodically updated to include data from newly analyzed archaeological sites. Since data in the database may change after an update, it is important for a researcher to record the database version used when querying.

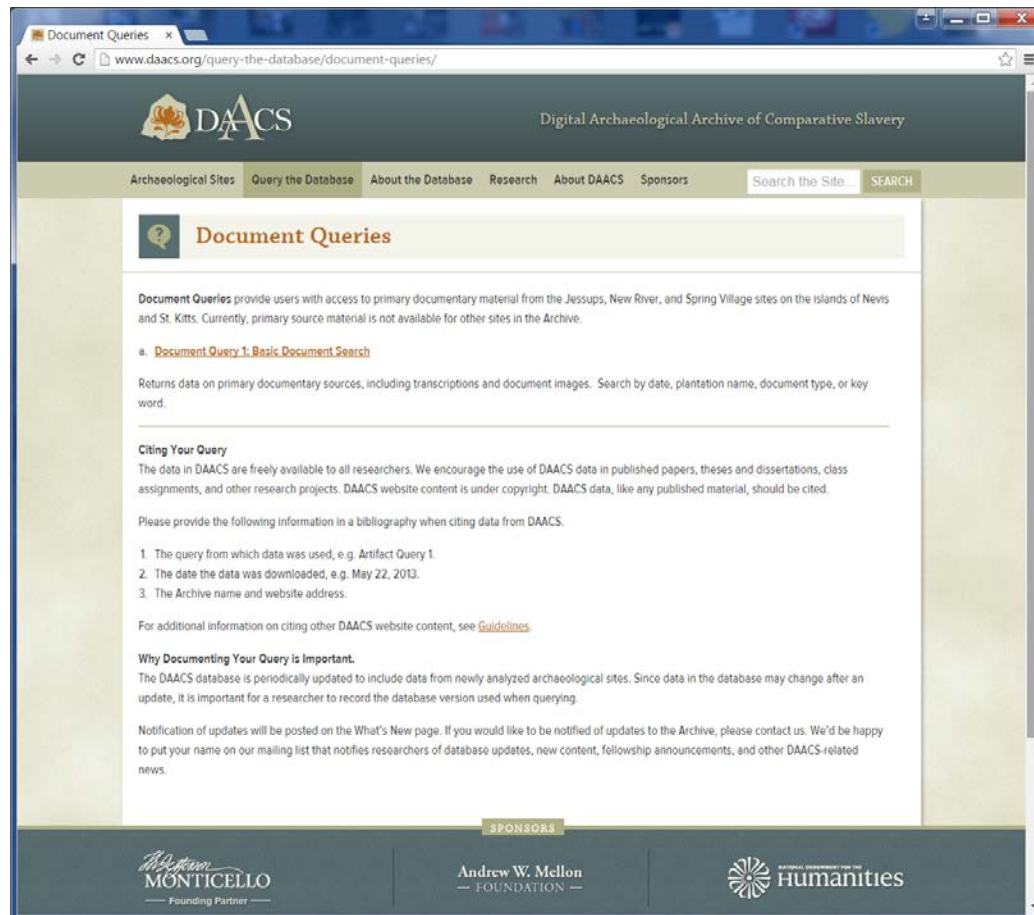
<http://www.daacs.org/query-the-database/meanceramicdate-queries/>



# Document Queries

(only for Nevis and St. Kitts sites)

**Document Queries** provide users with access to primary documentary material from the Jessups, New River, and Spring Village sites on the islands of Nevis and St. Kitts. Currently, primary source material is not available for other sites in the Archive.



<http://www.daacs.org/query-the-database/document-queries/>

# How Queries Work: an example

## Before You Begin

Each query is different, offering a range of options for summarizing and aggregating the data.

The first query of any given query type provides the most basic data (the fewest fields) and few aggregation options.

Subsequent queries within a query type offer more options for getting the data you want.

All query results can be downloaded for use in the stats package of your choice (or excel).

# How Queries Work: an example

**Query the Database** BACK TO QUERIES PAGE

Artifact Query 1: Basic Inventory by Category WHAT DOES THIS QUERY DO?

STEP 1 STEP 2

**STEP 1: AGGREGATE AND SUBSET DATA** ?

- CONTEXT ?
- FEATURE GROUP ?
- FEATURE NUMBER ?
- FEATURE TYPE ?
- PHASE** ?
- STRATIGRAPHIC GROUP ?
- SITE ?

Write In one phase per line. You may use the wildcard character \*.

For Example:

- P01
- P02
- P1\*

Specify Phase or leave blank and get data for all Phases

Step 1: Aggregate/Subset Data

Here we chose Phase

Specify Phase or leave blank and get data for all Phases

# Query the Database

[BACK TO QUERIES PAGE](#)

Artifact Query 1: Basic Inventory by Category WHAT DOES THIS QUERY DO?

STEP 1 **STEP 2**

Step 2: Choose Site or Sites

STEP 2: CHOOSE ONE OR MORE SITES

CARIBBEAN **NORTH AMERICA**  Select All

Select All in Region

## MARYLAND

### Ashcroft

Ashcroft's Quarter

### Chapline

Chapline Place

### Muttons

Muttons 18ST38

NAVAIR

## NORTH CAROLINA

### Stagville Plantation

Stagville Slave Cabin

### Drayton Hall Plantation

Drayton Hall South Pavilion

### Middleburg Plantation

Middleburg Village

### Silver Bluff Plantation

Silver Bluff

### Youghan Plantation

388K75

388K76

## TENNESSEE

### The Hermitage Plantation

Field Quarter Cabin 1

Field Quarter Cabin 2

Field Quarter Cabin 3

Field Quarter Cabin 4

Field Quarter KES

Field Quarter STP Survey

First Hermitage South Cabin

First Hermitage Survey 1997

Mansion Backyard STP Survey

Triplex

Yard Cabin

## VIRGINIA

### Fairfield Plantation

Fairfield Quarter

### Governor's Land

44JC298

### Holiday/Widley Tract

Pope Site

### Monticello Plantation

Building C (Joiner's Shop)

Building D (Smith/Navers Shop)

Building J (Carpenter's Shop)

Building I

Building M (Smoke House/Dairy) & MRS 4

Building N (Wash House) & 1809 Stone House

Building O

Building J

Building S

Building T

East Kitchen Yard

Elizabeth Hemings Site

Home Farm Quarter Site 7

Home Farm Quarter Site 8

MRS 2

Stewart-Wadkins

West Kitchen Yard, Dry Well, & MRS 1

### Montauker Plantation (VA)

Mount Pleasant Kitchen

### Mount Vernon Plantation

House for Families

Servants Hall/Wash House

South Grove

### Palace Lands Plantation

Palace Lands Site

### Poplar Forest Plantation

North Hill

Quarter

Wings

### Swatford Hall Plantation

ST16

### Utopia

Utopia II

Utopia III

Utopia IV

Selected Building o

## Query Selections

Step 1: Subset Data By

Step 2: Sites

Phase: P01

Building o

[Reset](#)

**SUBMIT**



Phase:  
P01

Artifact Count:  
852

Sites:  
Building 0

## QUERY OPTIONS

[New Query](#)

[Modify Query](#)

[Download Data](#)

## Query Results

Artifact Query 1: Basic inventory by Category

Phase:  
P01

Artifact Count:  
852

Sites:  
Building 0

QUERY OPTIONS

BACK TO QUERIES PAGE

67 items found

1 2 3 Next Last >

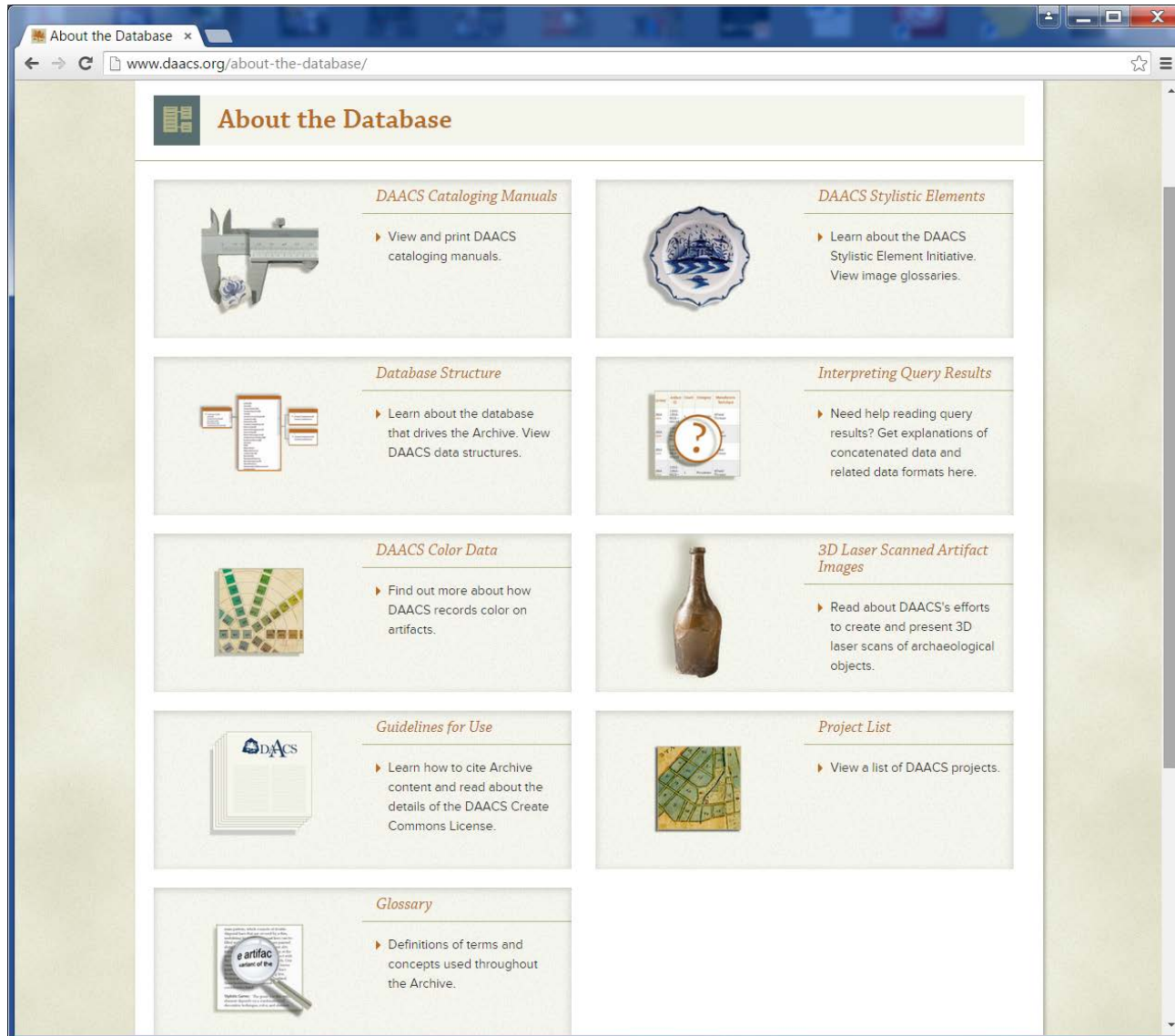
Results per Page

25

PROJECT NAME	PROJECT ID	DAACS PHASE	TOTAL COUNT	ARTIFACT TYPE	ARTIFACT CATEGORY
Building 0	1000	P01	1	Buckle, Shoe	Buckle
Building 0	1000	P01	1	Button, 2 Piece	Button
Building 0	1000	P01	1	Button, Flat Disc	Button
Building 0	1000	P01	3	American Stoneware	Ceramic
Building 0	1000	P01	2	British Stoneware	Ceramic
Building 0	1000	P01	5	Coarse Earthenware, unidentified	Ceramic
Building 0	1000	P01	65	Creamware	Ceramic
Building 0	1000	P01	26	Delftware, Dutch/British	Ceramic
Building 0	1000	P01	1	Jackfield Type	Ceramic
Building 0	1000	P01	1	Pearlware	Ceramic
Building 0	1000	P01	31	Porcelain, Chinese	Ceramic
Building 0	1000	P01	3	Redware	Ceramic
Building 0	1000	P01	2	Refined Earthenware, identifiable	Ceramic
Building 0	1000	P01	1	Sipware, North Midlands/Staffordshire	Ceramic
Building 0	1000	P01	1	Staffordshire Brown Stoneware	Ceramic
Building 0	1000	P01	2	Stoneware, identifiable	Ceramic
Building 0	1000	P01	2	Westerwald/Rhenish	Ceramic
Building 0	1000	P01	3	Whitton-type Ware	Ceramic
Building 0	1000	P01	10	White Salt Glaze	Ceramic
Building 0	1000	P01	9	Bird	Faunal
Building 0	1000	P01	5	Chicken	Faunal
Building 0	1000	P01	8	Domestic Cow	Faunal
Building 0	1000	P01	1	Domestic Cow, Calf	Faunal
Building 0	1000	P01	35	Domestic Pig	Faunal
Building 0	1000	P01	5	Domestic Sheep or Goat	Faunal

1 2 3 Next Last >

# About the Database



The screenshot shows a web browser window with the address bar displaying [www.daacs.org/about-the-database/](http://www.daacs.org/about-the-database/). The page title is "About the Database". The content is organized into a grid of ten cards, each with a title, an image, and a brief description:

- DAACS Cataloging Manuals**: View and print DAACS cataloging manuals. (Image: calipers)
- DAACS Stylistic Elements**: Learn about the DAACS Stylistic Element Initiative. View image glossaries. (Image: decorative plate)
- Database Structure**: Learn about the database that drives the Archive. View DAACS data structures. (Image: database diagram)
- Interpreting Query Results**: Need help reading query results? Get explanations of concatenated data and related data formats here. (Image: query results screen)
- DAACS Color Data**: Find out more about how DAACS records color on artifacts. (Image: color calibration chart)
- 3D Laser Scanned Artifact Images**: Read about DAACS's efforts to create and present 3D laser scans of archaeological objects. (Image: 3D scan of a bottle)
- Guidelines for Use**: Learn how to cite Archive content and read about the details of the DAACS Create Commons License. (Image: DAACS logo)
- Project List**: View a list of DAACS projects. (Image: map)
- Glossary**: Definitions of terms and concepts used throughout the Archive. (Image: magnifying glass over text)

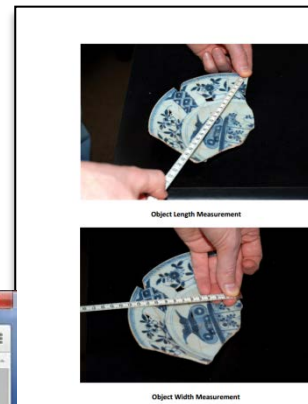
<http://www.daacs.org/about-the-database/>

# About the Database: Cataloging Manuals

The DAACS Cataloging Manuals provide researchers using DAACS data with a comprehensive manual describing how those data were created and insure data consistency between catalogers through the duration of the project by explicating cataloging protocols.

DAACS Cataloging Manual

- Project-Context-Feature Manual
- Bead Manual
- Buckle Manual
- Button Manual
- Ceramic Manual
- Ceramic Genre Appendix
- Ceramic Pattern Appendix
- Faunal Manual
- Glass Vessel Manual
- Tobacco Pipe Manual
- Utensil Manual
- All Other Artifacts Manual
- Object Manual
- Images Manual



DAACS Cataloging Manual: Projects, Contexts, and Features

by Jennifer Aultman and Jesse Sawyer

- Manual Links
- DAACS Cataloging Manual
- Project-Context-Feature Manual
  - Bead Manual
  - Buckle Manual
  - Button Manual
  - Ceramic Manual
  - Ceramic Genre Appendix
  - Ceramic Pattern Appendix
  - Faunal Manual
  - Glass Vessel Manual
  - Tobacco Pipe Manual
  - Utensil Manual
  - All Other Artifacts Manual
  - Object Manual
  - Images Manual

DAACS Cataloging Manual: Ceramics

MAY 2015

1. TOBACCO PIPE MATERIAL TABLE

1.01 ARTIFACT COUNT

Do not batch diagnostic tobacco pipe fragments. This includes pipes with decoration, pipes with measurable bore diameters, and fragments with multiple completeness entries (e.g., "Base, bowl", "Bowl, rim", "Stem, bowl" etc.)

Please note that new batching rules for all undiagnostic tobacco pipes were implemented on February 8, 2012. Prior to implementation, all undiagnostic pipe fragments that had a maximum sherd measurement greater than 35 mm were individually recorded, measured, and weighed.

The new pipe batching rules are as follows:  
Batch undiagnostic tobacco pipe fragments by completeness and size; undiagnostic pipe fragments that had a maximum sherd measurement greater than 35 mm were individually recorded, measured, and weighed.

Here is a batching example for bowl fragments: If you had 5 pipe bowl fragments whose max. sherd size were 35 mm:

Count:	5
Completeness:	"Bowl Fragment"
Material:	"Earthenware, ball clay"
Paint Color:	"Not Applicable"
Inclusions:	"None"
Manufacture:	"Unknown"
Mended:	"No"
Decoration:	"No"
Glaze Type:	"No Glaze"
Glaze Color:	"Not Applicable"
Mended:	"No"
Decoration:	"No"
Sherd Weight:	Enter weight of the batch in grams (Measurements tab)
Max. Sherd Measurement:	35 mm
Bowl Form:	"Undifferentiable" (Bowl/Mouthpiece tab)

Here is a batching example for undiagnostic stems: If you had 3 split stem fragments, each with a max. sherd size of 20 mm:

Count:	3
Completeness:	"Stem"
Material:	"Earthenware, ball clay"

1.2.4 STICK

The stick was a stem that wrapped around the neck and was buckled in the bowl. Buckles were made from a variety of materials including silver and painted copper alloys. They were often elaborately decorated, including designs set with gemstones. The frame is usually rectangular or oval, with the pin attached between shorter sides of the frame. The stick usually had a hook with three or four studs, and its tongue usually has three or four prongs.

# About the Database: Stylistic Elements



Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors Search the Site... SEARCH

## DAACS Stylistic Elements

ABOUT THE DATABASE · DAACS STYLISTIC ELEMENTS

### About the Database

DAACS Cataloging Manuals

DAACS Color Data

▶ DAACS Stylistic Elements

Database Structure

Interpreting Query Results

Glossary

Guidelines for Use

DAACS offers two approaches to recording and analyzing decoration on ceramics, the DAACS Stylistic Element Initiative and DAACS Ceramic Genres. The DAACS Stylistic Element Initiative records individual decorative elements on the sherd level, providing researchers with detailed data on decorative elements and motifs. DAACS Ceramic Genres provide a way of understanding decoration on ceramics by using traditional types, based on decorative technique and patterns. Both are described below.

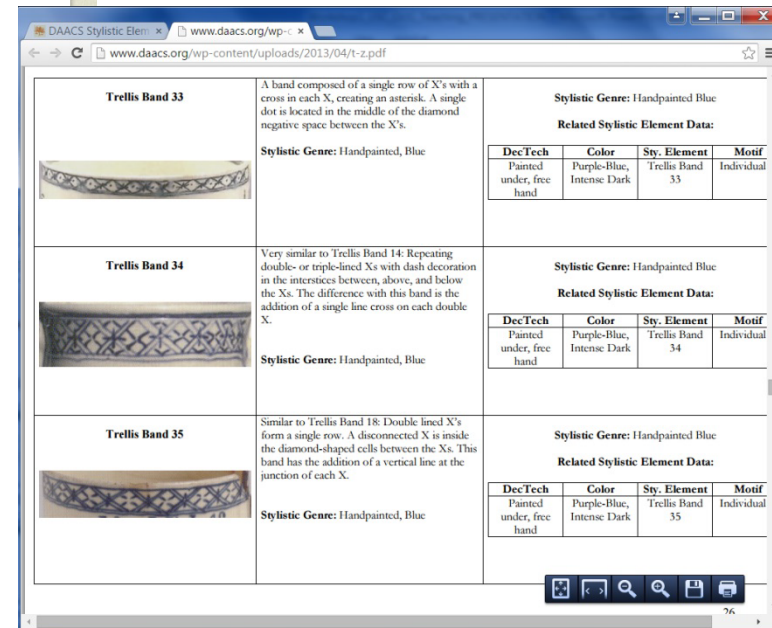
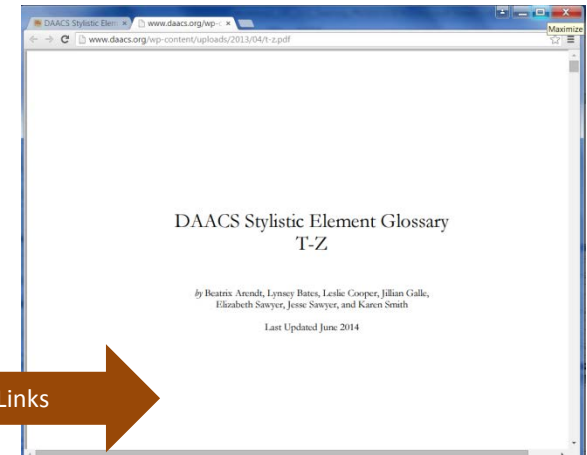
### DAACS Stylistic Element Initiative

The DAACS Stylistic Element Initiative explores an approach to measuring variation in applied decoration on ceramics that is novel in historical archaeology. Traditionally historical archaeologists have measured decorative variation at the level of the sherd or vessel. This means that a single sherd or vessel has to be assigned to a single decorative category or genre. This approach produces useful results (and we have followed it in the DAACS ceramic genre field), but it may obscure decorative variation when there are multiple decorative elements on a single

### DAACS Stylistic Element Glossaries

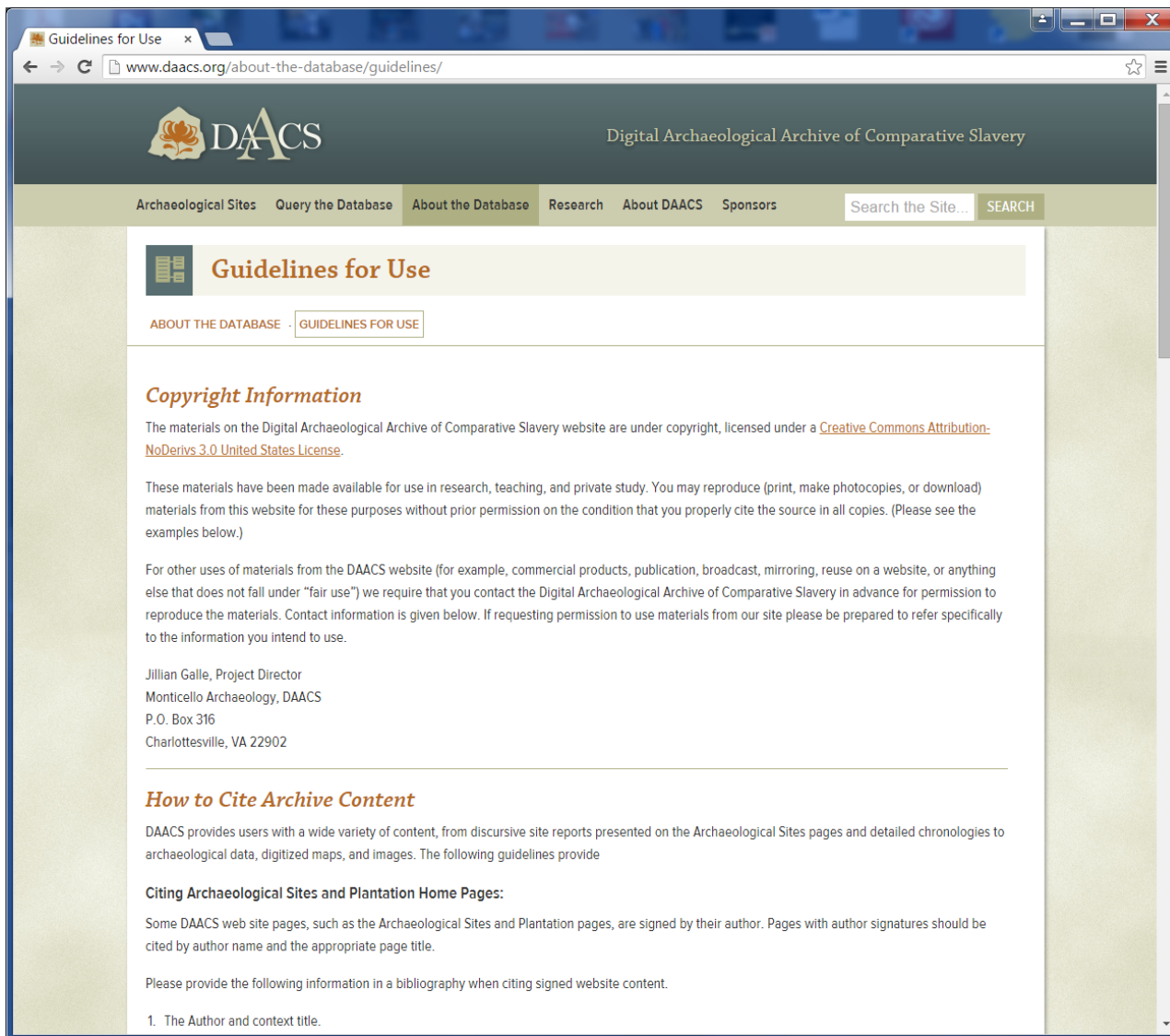
- [Stylistic Element Glossary A-C \(4 MB\)](#)
- [Stylistic Element Glossary D-G \(1.386 KB\)](#)
- [Stylistic Element Glossary H-Q \(895 KB\)](#)
- [Stylistic Element Glossary R-S \(1.088 KB\)](#)
- [Stylistic Element Glossary T-Z \(952 KB\)](#)

Glossary Links





# About the Database: Guidelines for Use Copyright and Citation Information

A screenshot of a web browser displaying the 'Guidelines for Use' page on the DAACS website. The browser's address bar shows the URL 'www.daacs.org/about-the-database/guidelines/'. The website header features the DAACS logo (a stylized flower) and the text 'Digital Archaeological Archive of Comparative Slavery'. A navigation menu includes 'Archaeological Sites', 'Query the Database', 'About the Database', 'Research', 'About DAACS', and 'Sponsors'. A search bar is located on the right side of the menu. The main content area has a heading 'Guidelines for Use' and a sub-heading 'ABOUT THE DATABASE · GUIDELINES FOR USE'. The text is organized into sections: 'Copyright Information', 'How to Cite Archive Content', and 'Citing Archaeological Sites and Plantation Home Pages:'. The 'Copyright Information' section states that materials are under copyright and licensed under a Creative Commons Attribution-NonDerivs 3.0 United States License. It provides details on reproduction for research, teaching, and private study, and requires permission for other uses. Contact information for Jillian Galle, Project Director, is provided. The 'How to Cite Archive Content' section explains that DAACS provides a wide variety of content and lists guidelines for citation. The 'Citing Archaeological Sites and Plantation Home Pages:' section notes that some pages are signed by their author and should be cited accordingly. A list of required information for citation is provided at the bottom.

Guidelines for Use

www.daacs.org/about-the-database/guidelines/

DAACS  
Digital Archaeological Archive of Comparative Slavery

Archaeological Sites Query the Database About the Database Research About DAACS Sponsors

Search the Site... SEARCH

## Guidelines for Use

ABOUT THE DATABASE · GUIDELINES FOR USE

### Copyright Information

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These materials have been made available for use in research, teaching, and private study. You may reproduce (print, make photocopies, or download) materials from this website for these purposes without prior permission on the condition that you properly cite the source in all copies. (Please see the examples below.)

For other uses of materials from the DAACS website (for example, commercial products, publication, broadcast, mirroring, reuse on a website, or anything else that does not fall under "fair use") we require that you contact the Digital Archaeological Archive of Comparative Slavery in advance for permission to reproduce the materials. Contact information is given below. If requesting permission to use materials from our site please be prepared to refer specifically to the information you intend to use.

Jillian Galle, Project Director  
Monticello Archaeology, DAACS  
P.O. Box 316  
Charlottesville, VA 22902

### How to Cite Archive Content

DAACS provides users with a wide variety of content, from discursive site reports presented on the Archaeological Sites pages and detailed chronologies to archaeological data, digitized maps, and images. The following guidelines provide

#### Citing Archaeological Sites and Plantation Home Pages:

Some DAACS web site pages, such as the Archaeological Sites and Plantation pages, are signed by their author. Pages with author signatures should be cited by author name and the appropriate page title.

Please provide the following information in a bibliography when citing signed website content.

1. The Author and context title.

<http://www.daacs.org/about-the-database/guidelines/>

# Research

The screenshot shows a web browser window with the address bar displaying [www.daacs.org/research/](http://www.daacs.org/research/). The page features a dark blue header with the DAACS logo (a stylized orange flower) and the text "Digital Archaeological Archive of Comparative Slavery". Below the header is a navigation menu with links for "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located on the right side of the menu.

The main content area is titled "Research" and is divided into six sections, each with an icon and a brief description:

- Galleries**: Browse knock-out objects and read project highlights from DAACS sites. (Icon: White Ball Clay Mole)
- Papers & Manuscripts**: Links to and citations for papers and manuscripts that use DAACS data. (Icon: Stack of books)
- Theses and Dissertations**: Citations and links to Ph.D. dissertations, and MA and BA theses that use DAACS data. (Icon: Laptop and book)
- Workshops and Handouts**: Links to handouts and data files presented during DAACS workshops. (Icon: DAACS logo on a document)
- Bibliography**: Bibliography of all works referenced throughout the DAACS website. (Icon: Book cover)

The footer of the page includes a "SPONSORS" section with logos for Monticello (Founding Partner), Andrew W. Mellon Foundation, and the National Endowment for the Humanities.

<http://www.daacs.org/research/>

# Research: Papers and Manuscripts

The screenshot shows a web browser window with the address bar displaying [www.daacs.org/research/papers-manuscripts/](http://www.daacs.org/research/papers-manuscripts/). The website header features the DAACS logo (Digital Archaeological Archive of Comparative Slavery) and a navigation menu with links for 'Archaeological Sites', 'Query the Database', 'About the Database', 'Research', 'About DAACS', and 'Sponsors'. A search bar is located on the right side of the header.

The main content area is titled 'Papers & Manuscripts' and includes a sub-menu with 'RESEARCH' and 'PAPERS & MANUSCRIPTS'. On the left side, there is a 'Research' sidebar with links for 'Galleries', 'Papers & Manuscripts', 'Theses and Dissertations', and 'Bibliography'.

The main content area lists 'PAPERS, SCIENTIFIC POSTERS, AND MANUSCRIPTS:' for the years 2014, 2013, and 2012. Each entry includes a PDF icon, a title, a PDF size, and the author(s) and presentation details.

**2014:**

- [Ceramic Variation Among Slave Sites at the Hermitage, TN](#) (PDF:1.5MB) By Lynsey Bates, Beatrix Arendt, and Leslie Cooper, University of Pennsylvania and The Thomas Jefferson Foundation. *Scientific Poster Presented at the Society for American Archaeology, April 2014. Austin, Texas.*
- [Yaughan and Curriboo: A New Look at Two eighteenth-Century Low Country Plantations](#). (PDF:1.9MB)  
By Leslie Cooper and Jillian Galle, The Thomas Jefferson Foundation  
*Scientific Poster Presented at the Society for Historical Archaeology, January 2014. Quebec City, Quebec.*
- [Cross-mends that Cross Lines: A study of inter-structure cross-mended objects from Monticello's Mulberry Row](#) (PDF:3.03M) By Jenn Briggs and Elizabeth Sawyer, The Thomas Jefferson Foundation. *Paper presented at the Society for Historical Archaeology, January 2014. Quebec City, Quebec.*

**2013:**

- [Mends and Mystery Buildings: A case study of inter-structure cross-mended objects from Monticello's Mulberry Row Reassessment Project](#) (PDF: 3.38M) By Jenn Briggs and Elizabeth Sawyer, The Thomas Jefferson Foundation. *Paper presented at the Middle Atlantic Archaeological Conference, March 2013. Virginia Beach, Virginia.*
- [Book Review of Lois Roberts' Dated in Blue: Underglaze Blue Painted Earthenware, 1776 to 1800](#) (PDF:2MB)  
By Jillian Galle. In *Ceramics in America 2012*, edited by Robert Hunter. The Chipstone Foundation.

Order a copy of *Ceramics in America 2012* through [The University of New England Press](#).

**2012:**

<http://www.daacs.org/research/papers-manuscripts/>

# Research: Galleries

The screenshot shows a web browser window with the address [www.daacs.org/research/galleries/](http://www.daacs.org/research/galleries/). The page features the DAACS logo and the title "Digital Archaeological Archive of Comparative Slavery". A navigation menu includes "Archaeological Sites", "Query the Database", "About the Database", "Research", "About DAACS", and "Sponsors". A search bar is located in the top right corner.

The main content area is titled "Galleries" and displays five featured items, each with an image and a brief description:

- New Street, Port Royal**: Examine items recovered during excavations carried out at New Street Tavern in Port Royal, Jamaica. (Image: A fragment of a yellowish-brown ceramic or metal object with a textured surface.)
- The South Grove Midden**: Explore objects found in the South Grove Midden, a site at George Washington's Mount Vernon. (Image: A reddish-brown, oval-shaped object, possibly a coin or a small vessel.)
- The Triplex**: View personal items recovered from the Triplex site at Andrew Jackson's the Hermitage. (Image: A black silhouette of a hand holding a small object, with a star shape cut out.)
- Colonoware**: View exceptional examples of colonoware vessels from sites in Virginia and South Carolina. (Image: A dark, bowl-shaped ceramic vessel.)
- The Dry Well**: The Dry Well is one of the most artifact-rich archaeological features at Monticello. (Image: A white ceramic bowl with blue floral patterns.)

At the bottom of the page, a "SPONSORS" section lists three organizations:

- Monticello**: Founding Partner
- Andrew W. Mellon Foundation**
- National Endowment for the Humanities**

<http://www.daacs.org/research/galleries/>



# Use of DAACS by Historians

## (that we know about)

Morgan, P. D., and A. J. O'Shaughnessy

2006 Arming Slaves in the American Revolution. In *Arming Slaves: From Classical Times to the Modern Age*, pp. 180-208, edited by Christopher Leslie Brown and Philip D. Morgan. Yale University Press, New Haven.

Bly, Antonio

2008 "Pretends he can read": Runaways and Literacy in Colonial America, 1730-1776"

Early American Studies 6.2 (Fall 2008): 261-294.

<http://history.appstate.edu/sites/history.appstate.edu/files/Bly,%20Pretends%20he%20can%20read.pdf>

DAACS figures in historians' reflections on the ways in which archaeological data might advance their understanding of changing slave life ways

Morgan, Phillip D.

2006 Archaeology and history in the study of African-Americans. *African Re-Genesis: Confronting Social Issues in the Diaspora*, edited by Jay B Haviser and Kevin C MacDonald, pp. 53-61. Left Coast Press, Walnut Creek, CA.

2011 The future of Chesapeake Studies. In *Early Modern Virginia*, edited by Douglas Bradburn and John C. Coombs, pp. 300-333. University of Virginia Press, Charlottesville.

# Other Digital Resources for Teaching Slavery and Archaeology

## Data Rich

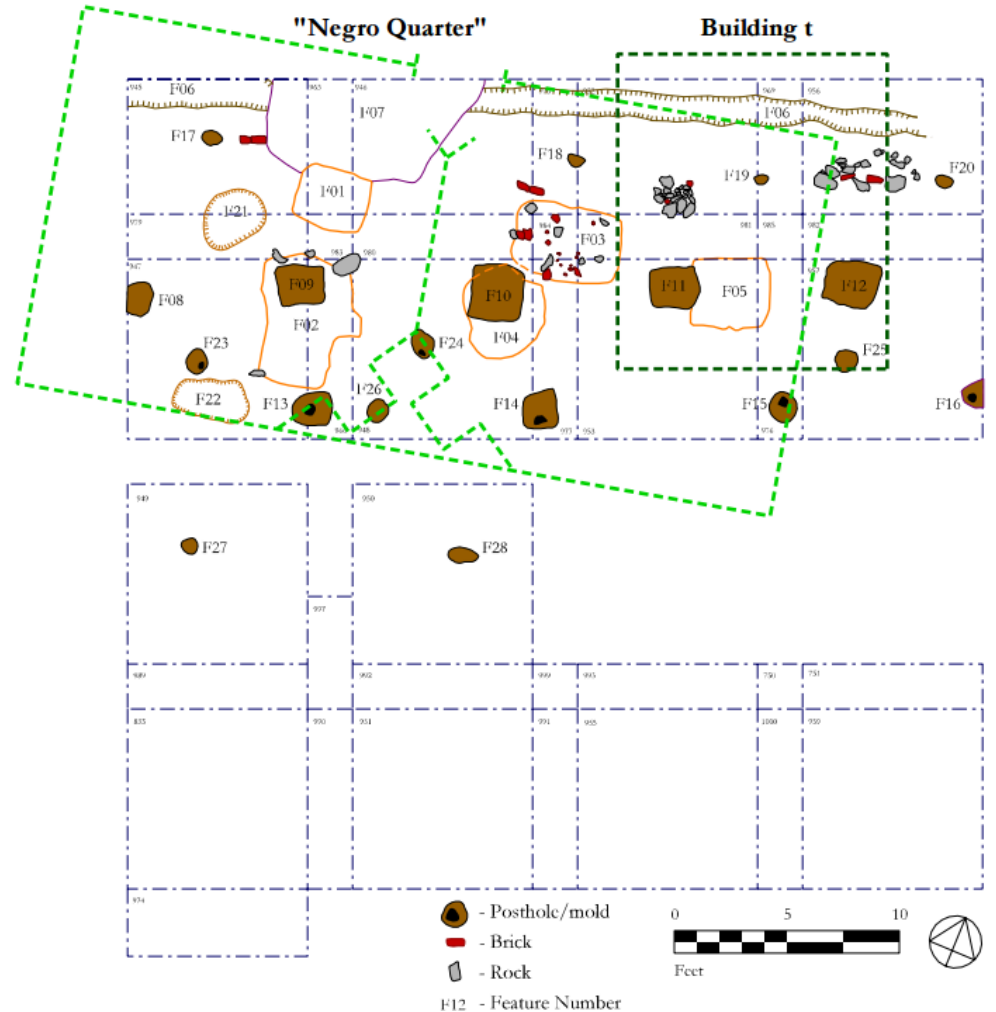
- Voyages: The Trans-Atlantic Slave Trade Database: <http://www.slavevoyages.org/tast/index.faces>
- The Digital Archaeological Record (tDar): <http://core.tdar.org/>
- Chaco Research Archive: <http://www.chacoarchive.org/cra/>
- The Comparative Archaeological Study of Colonial Chesapeake Culture: <http://www.chesapeakearchaeology.org/index.cfm>

## Qualitative historical data but quantitative data could be gleaned

- Two Plantations (companion to Richard Dunn's 2015 book, A Tale of Two Plantations): [www.twoplantations.com](http://www.twoplantations.com)
- Slave Revolt in Jamaica, 1760-1761: A Cartographic Narrative: <http://revolt.axismaps.com/>

# Working with data is an iterative process!

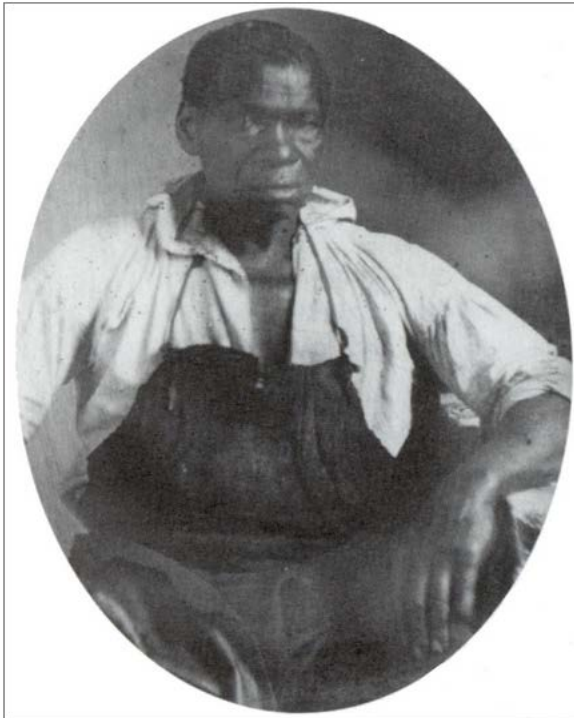
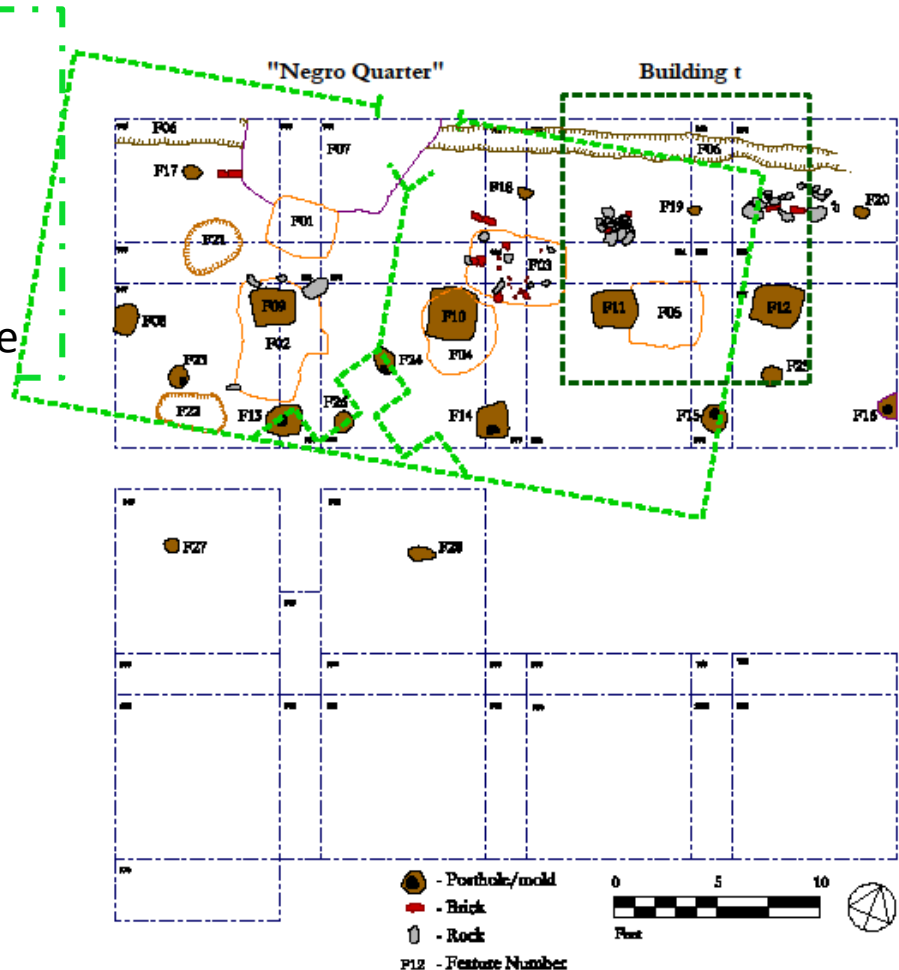
## An example from MCD Queries



Monticello's *Building t* and the "Negro Quarter"

# Negro Quarter:

- Occupied 1770s-1790s.
- Log house with four rooms, each with their own subfloor
- Pit (F01-F04)..
- Possibly home to Issac Jefferson and his parents, Ursala and Great George

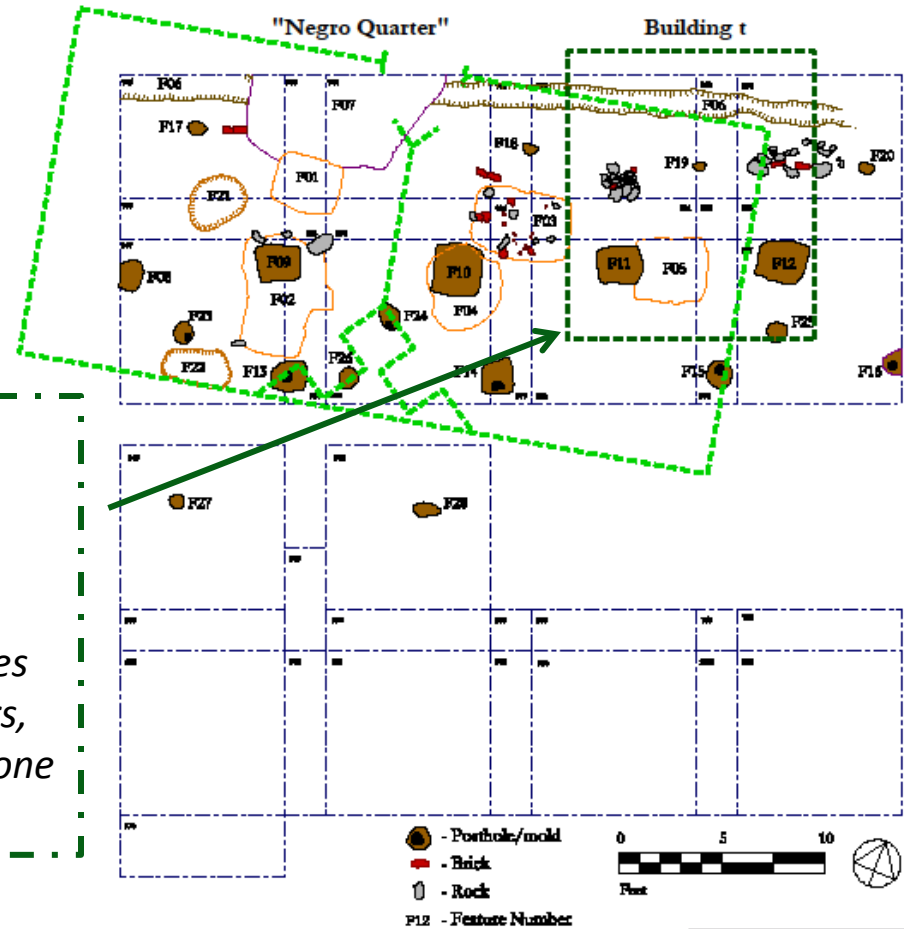


Isaac Jefferson (1775-c.1850), c.1847 (courtesy of the University of Virginia Library)

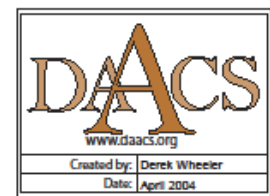
Close



# Building t:

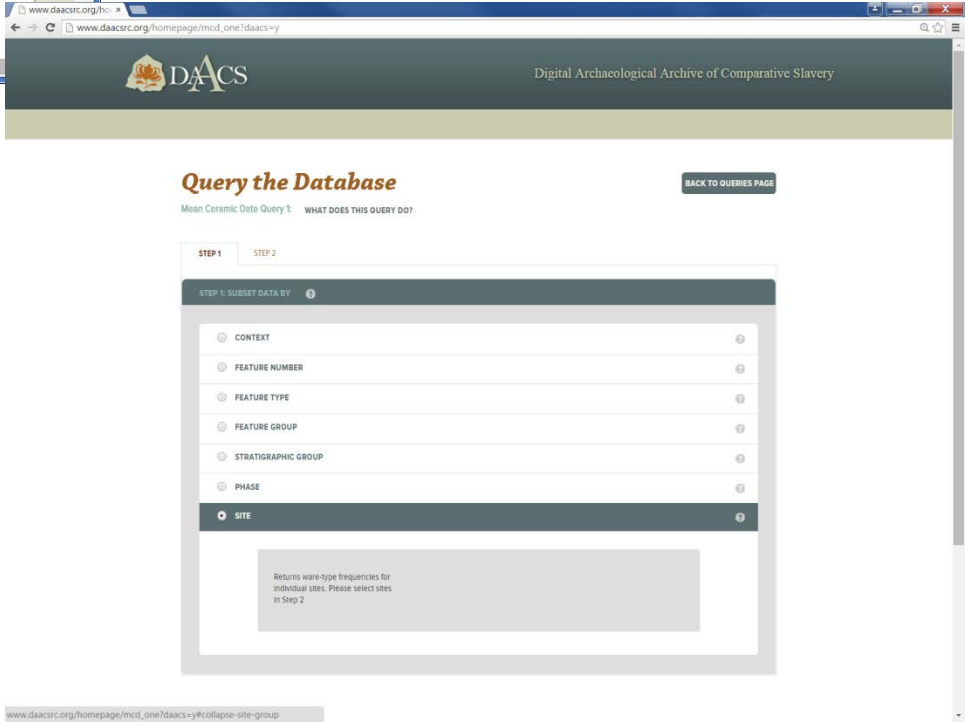
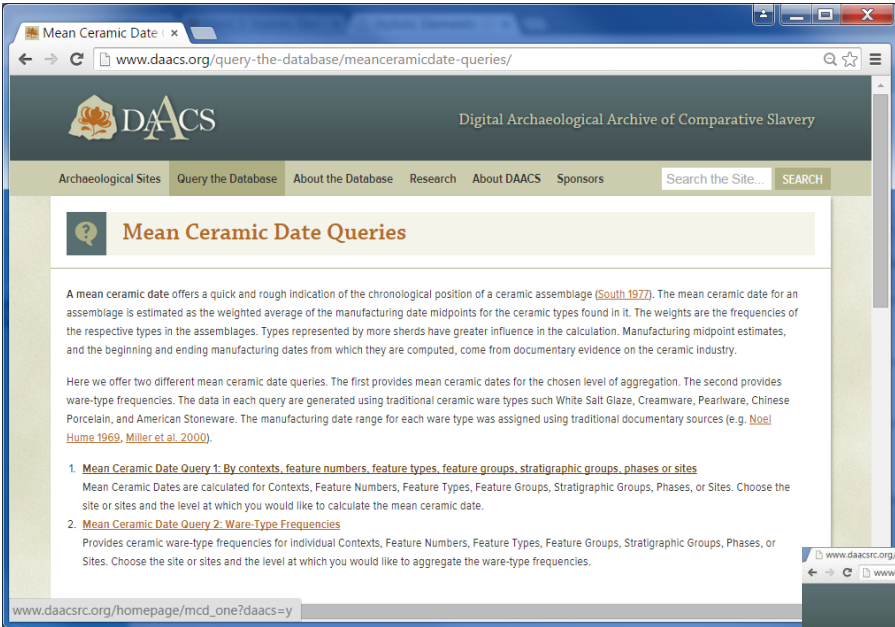


--Constructed between 1793 and 1795.  
--One subfloor pit (F05)  
--Described by Jefferson on his 1796 Mutual assurance plat  
*r. which as well as s. and t. are servants houses of wood with wooden chimnies, & earth floors, 12. by 14. feet, each and 27. feet apart from one another. from t. it is 85 feet to F. the stable .*





# Mean Ceramic Date Query 1



# The DAACS Mean Ceramic Date Query 1

calculates two types of Mean Ceramic Dates

**Regular MCDs:** Are calculated using established beginning and ending manufacturing dates for ceramic ware types.

**BLUE MCDs** (BLUE stands for Best Linear Unbiased Estimator): Uses the same beginning and ending manufacturing dates but gives less emphasis to ceramic ware with long manufacturing spans.

$$MCD_{blue} = \frac{\sum_{i=1}^t m_i p_i \left(\frac{1}{s_i/6}\right)^2}{\sum_{i=1}^t p_i \left(\frac{1}{s_i/6}\right)^2}$$

Where  $m_i$  is the manufacturing midpoint for the  $i$ 'th ceramic type,  $p_i$  is its relative frequency, and  $s_i$  is its manufacturing span.

## Mean Ceramic Date Query 1: Aggregate by site.

PROJECT NAME	MCD	BLUE MCD	TOTAL COUNT
Building t	1800.0	1796.0	3320

## Mean Ceramic Date Query 1: Aggregate by Feature Group.

PROJECT NAME	FEATURE GROUP	FEATURE GROUP INTERPRETATION	MCD	BLUE MCD	TOTAL COUNT
Building t	FG01	Negro Quarter subfloor pits.	1800.0	1785.0	102
Building t	FG02	East-West fenceline running through both the Negro Quarter and Building t.	1796.0	1791.0	26
Building t	FG03	East-West fenceline located along the south wall of Building t.	1788.0	1791.0	12
Building t	FG04	East-West fenceline running along the north edge of the site and passing through the Negro Quarter and Building t.	1760.0	1760.0	1

# Mean Ceramic Date Query 1: Aggregate by Feature Number.

PROJECT NAME	FEATURE NUMBER	FEATURE GROUP	FEATURE GROUP INTERPRETATION	MCD	BLUE MCD	TOTAL COUNT
Building t	F01	FG01	Negro Quarter subfloor pits.	1823.0	1815.0	60
Building t	F02	FG01	Negro Quarter subfloor pits.	1789.0	1774.0	16
Building t	F03	FG01	Negro Quarter subfloor pits.	1737.0	1759.0	15
Building t	F04	FG01	Negro Quarter subfloor pits.	1778.0	1783.0	11
Building t	F05			1781.0	1794.0	13

# MCDQ2: Ware Type Frequencies

--Step 1: Select Feature 01

--Step 2: Select Building t.

PROJECT NAME	FEATURE NUMBER	FEATURE TYPE	FEATURE GROUP	FEATURE GROUP INTERPRETATION	WARE TYPES	COUNT	WEIGHT
Building t	F01	Pit, subfloor(< 28 sq.ft)	FG01	Negro Quarter subfloor pits.	American Stoneware	49	436.6993
Building t	F01	Pit, subfloor(< 28 sq.ft)	FG01	Negro Quarter subfloor pits.	Creamware	2	25.0
Building t	F01	Pit, subfloor(< 28 sq.ft)	FG01	Negro Quarter subfloor pits.	Delftware, Dutch/British	2	2.3
Building t	F01	Pit, subfloor(< 28 sq.ft)	FG01	Negro Quarter subfloor pits.	Porcelain, Chinese	2	4.1
Building t	F01	Pit, subfloor(< 28 sq.ft)	FG01	Negro Quarter subfloor pits.	Redware	4	5.9
Building t	F01	Pit, subfloor(< 28 sq.ft)	FG01	Negro Quarter subfloor pits.	White Salt Glaze	1	0.3

## What do we know about American Stoneware?

--Long manufacturing span!

-- Being 1750, end 1820 (DAACS dates).

**Next step, recalculate MCD without Stoneware**

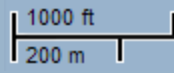
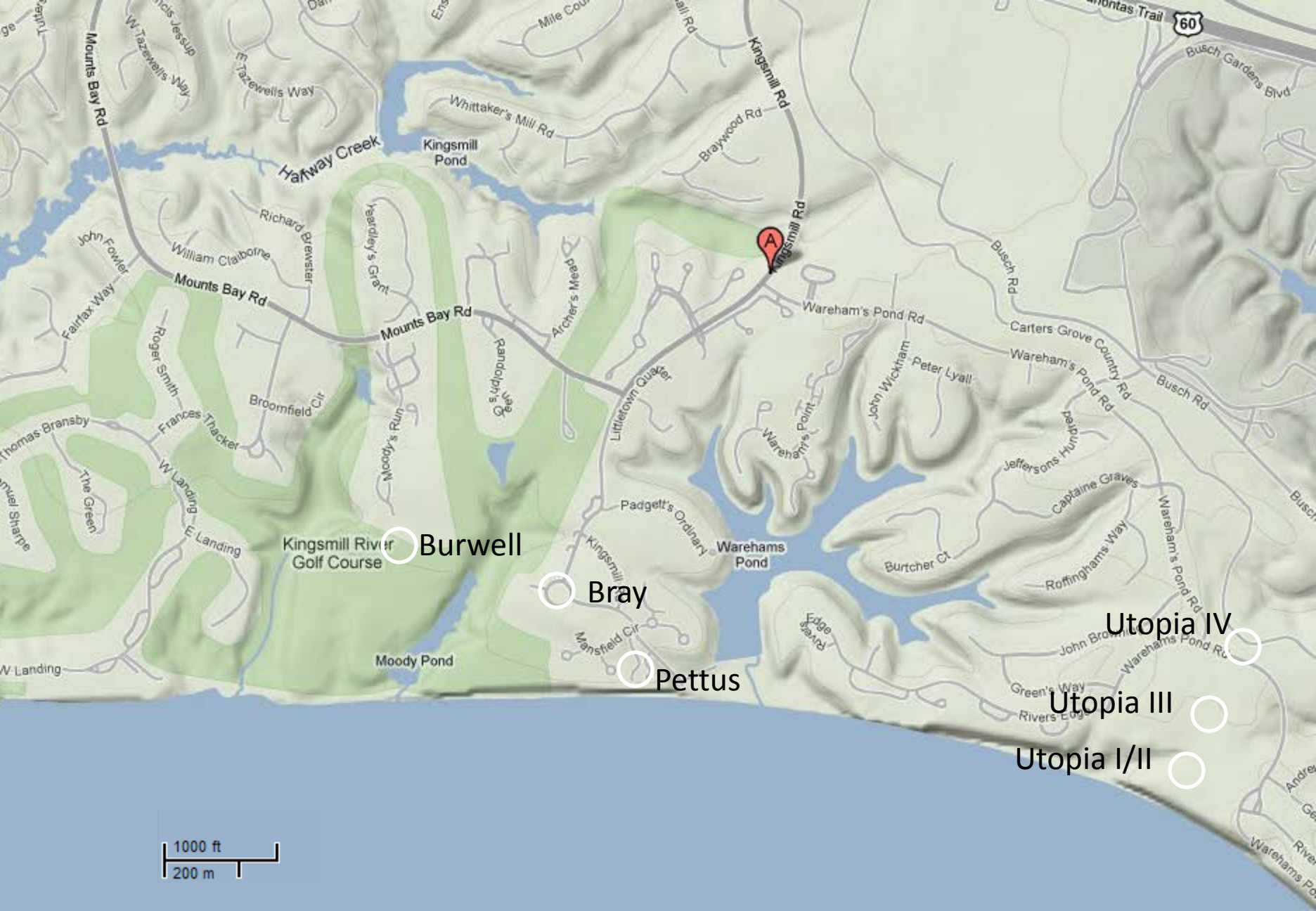


# Backend view of tblCeramicWare in the DAACS database

WareID	Ware	ObjectTypeID	BeginDate	EndDate	CeramicMaterialID
97	Agate, refined (Whieldon-type)	4	1740	1775	1
118	Albisola	4	(Null)	(Null)	8
52	American Stoneware	4	1750	1920	3
31	Astbury Type	4	1725	1775	1
33	Bennington/Rockingham	4	1830	1900	1
122	Biot	4	(Null)	(Null)	8
61	Black Basalt	4	1750	1820	3
115	Bristol Glaze Stoneware	4	(Null)	(Null)	3
53	British Stoneware	4	1671	1800	3
5	Buckley	4	1720	1775	8
56	Burslem	4	1700	1725	2
88	Canary Ware	4	1780	1835	1
103	Caribbean Coarse Earthenware, hand built	4	(Null)	(Null)	8
117	Caribbean Coarse Earthenware, unid.	4	(Null)	(Null)	8
116	Caribbean Coarse Earthenware, wheel thrown	4	(Null)	(Null)	8
99	Cauliflower ware	4	1760	1780	1
1	Coarse Earthenware, unidentified	4	(Null)	(Null)	8
16	Colonoware	4	(Null)	(Null)	8
23	Creamware	4	1762	1820	1
106	Creamware, Carolina	4	1765	1775	1
36	Delftware, Dutch/British	4	1600	1802	1
95	Derbyshire	4	1750	1800	8
35	Faience	4	1700	1800	1

# **Case Study: Pipes from Utopia II**

## **Chronology and Social Dynamics**

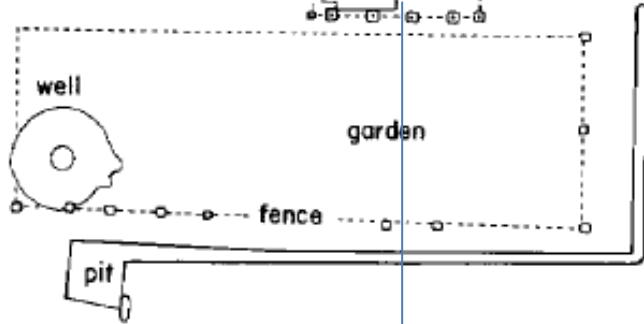




outbuilding



dwelling

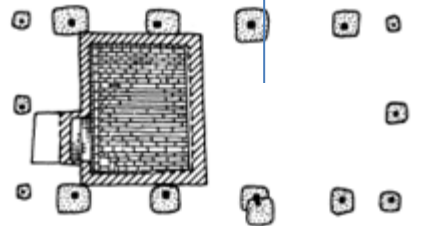


well

garden

fence

pit



UTOPIA LEASEHOLD

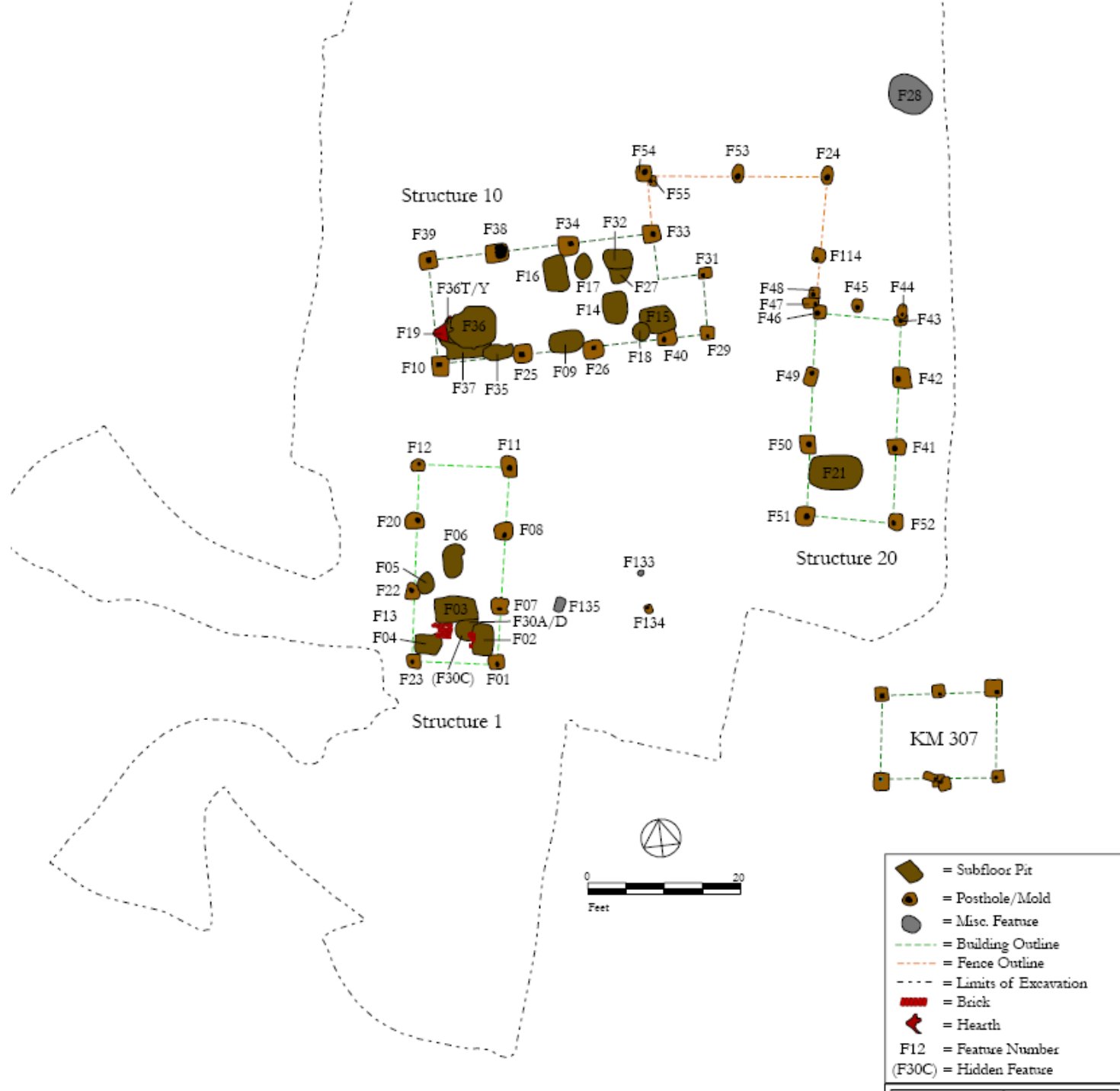


Utopia I



- = Subfloor Pit
- = Posthole/Mold
- = Misc. Feature
- = Building Outline
- = Fence Outline
- = Limits of Excavation
- = Brick
- = Hearth
- F12 = Feature Number
- (F30C) = Hidden Feature

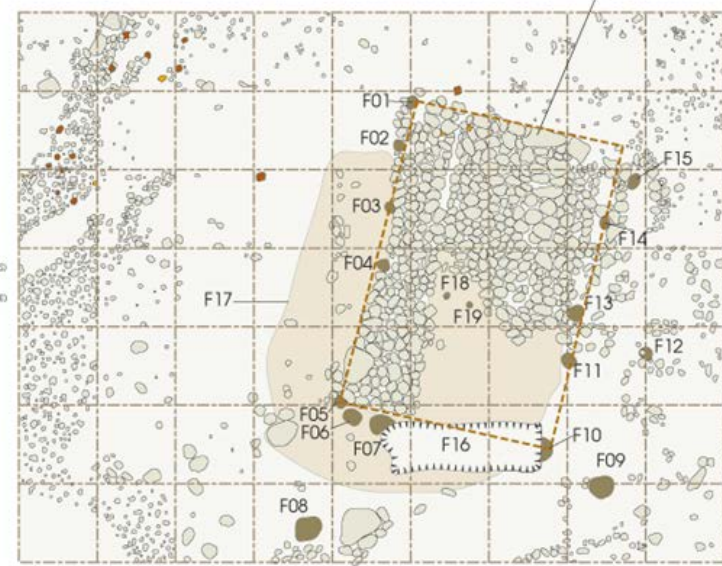
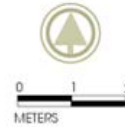
Utopia II





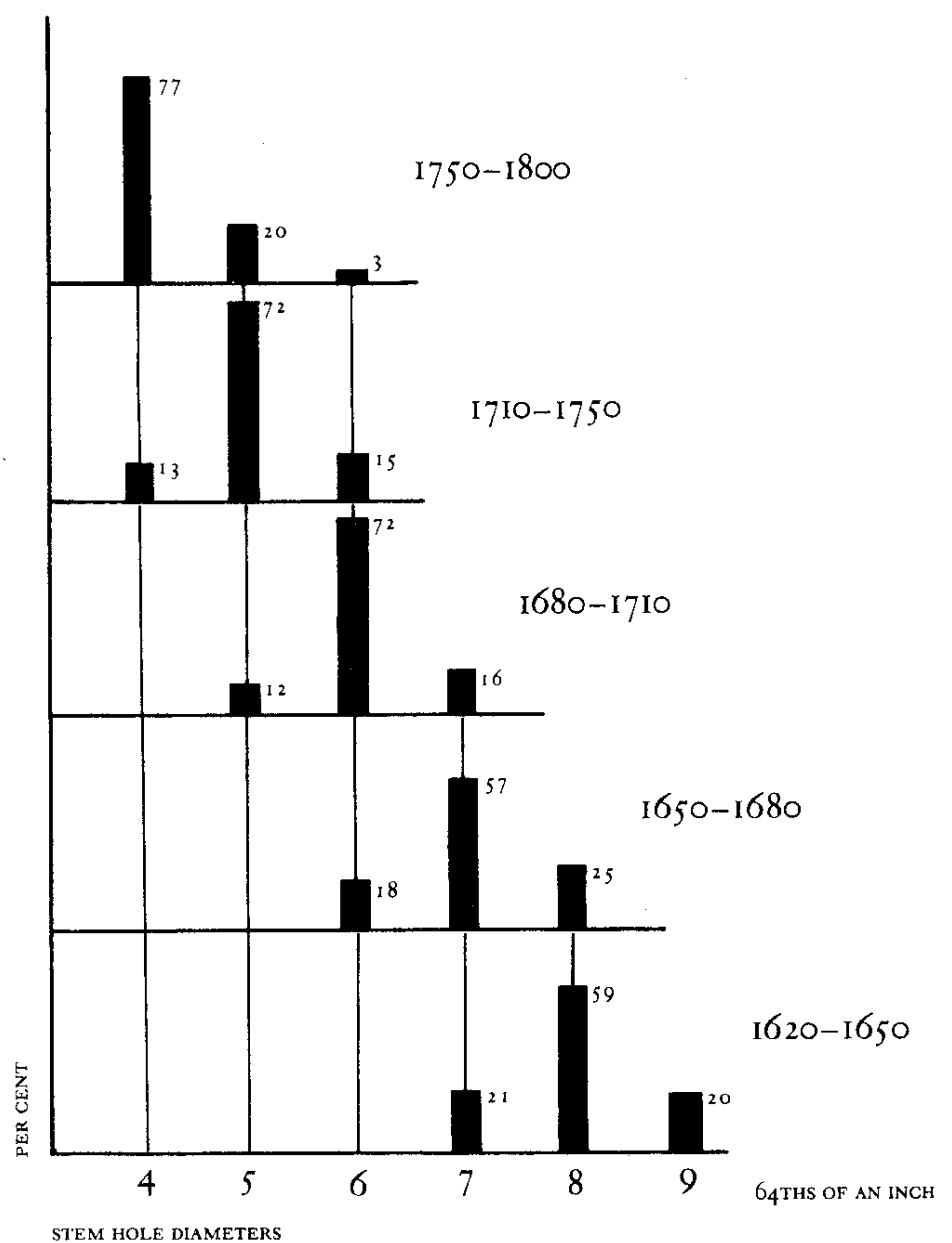
# Sub-Floor Pit Hypotheses

- Africanisms
- “Hidey holes”
- Winter root-crop storage
- Safe-deposit boxes



# Chronology

## Harrington Histograms



Source:

Harrington, JC

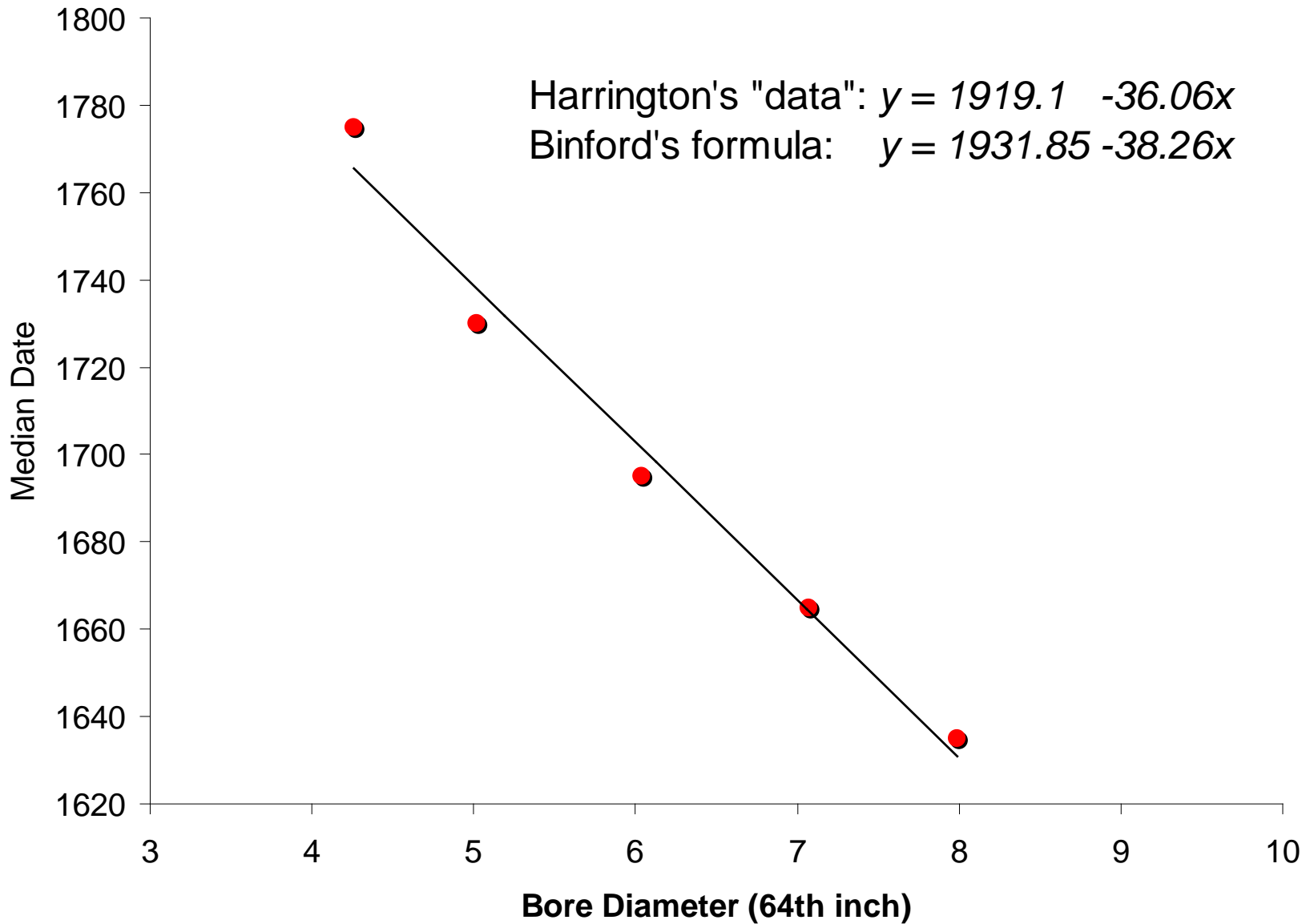
1954

Dating stem fragments of 17<sup>th</sup> and 18<sup>th</sup> century tobacco pipes. *Quarterly Bulletin of the Archaeological Society of Virginia*



# Chronology

## Binford's Regression Approach



# Pipes as Signals

- Bore diameter decrease is driven by the demand for longer thinner stems, in costly signaling arms race in the 17th and early 18th centuries

- Three measurements are sensitive to this process:

  - Bore diameter

    - *mm*

    - *64th-inch*

  - Exterior stem diameter

  - Stem length for *whole* pipes

- A complication:

  - Local vs. Imported pipes

  - DAACS field: *Material*



Plate XXXVI. Vol. 2, p. 312





# Estimating Pipe Length in Assemblages

$$\text{Pipestem Index} = \frac{\# \text{ Stem Fragments}}{\# \text{ Stem Fragments} + \# \text{ Bowl Fragments}}$$

## DAACS Field: Tobacco Pipe Completeness

Base, Bowl

Base, Bowl, Rim

Bowl Fragment

Bowl, Rim

Mouthpiece, Stem

Stem

Stem, Base

Stem, Base, Bowl

Stem, Bowl

Stem, Bowl, Rim

Unidentified

# Estimating Pipe Length in Assemblages

$$\text{Pipestem Index} = \frac{\# \text{ Stem Fragments}}{\# \text{ Stem Fragments} + \# \text{ Bowl Fragments}}$$

# Bowl Fragments =

Base, Bowl +

Base, Bowl, Rim +

Bowl Fragment +

Bowl, Rim

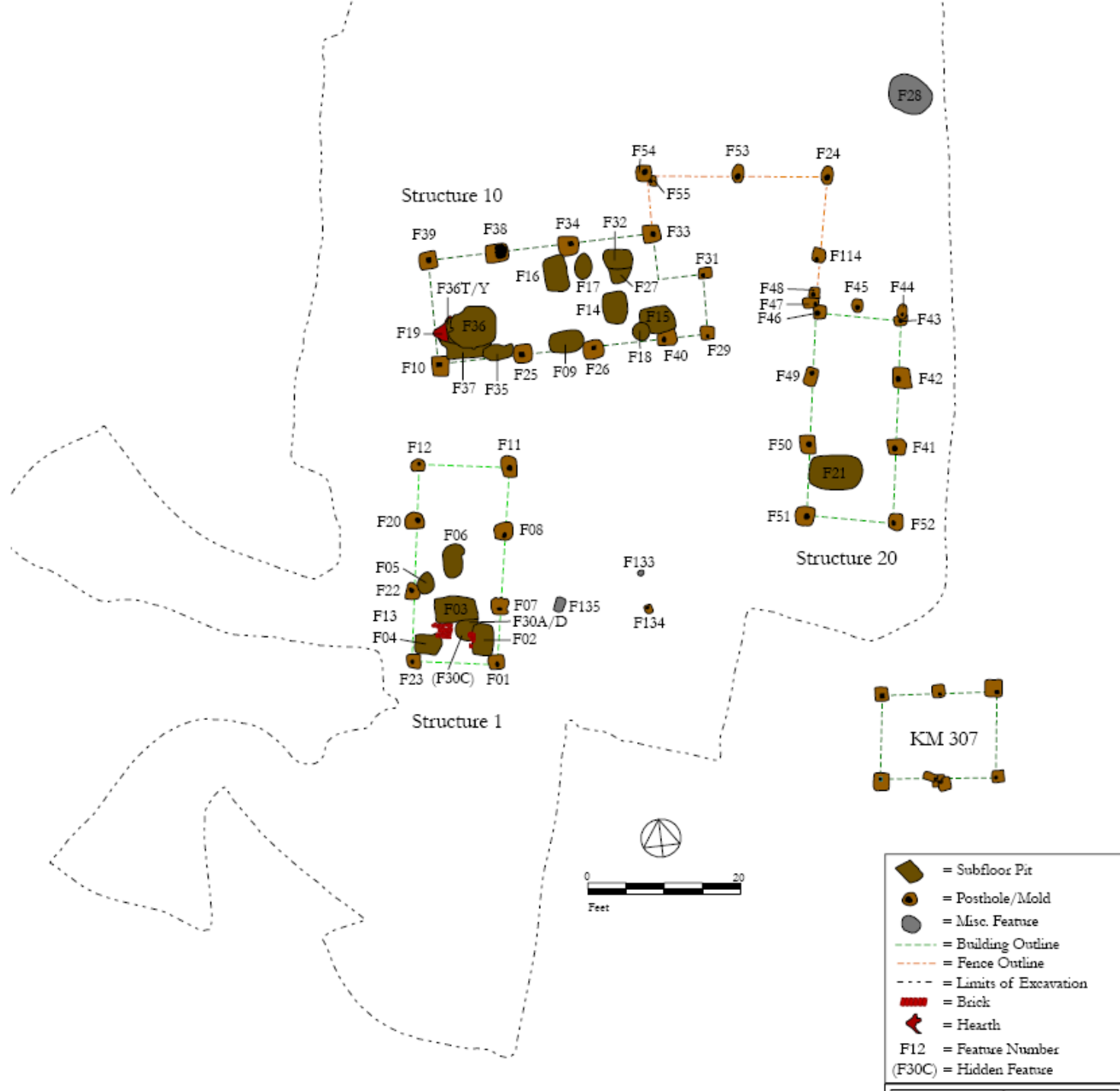
# Stem Fragments =

Mouthpiece, Stem +

Stem +

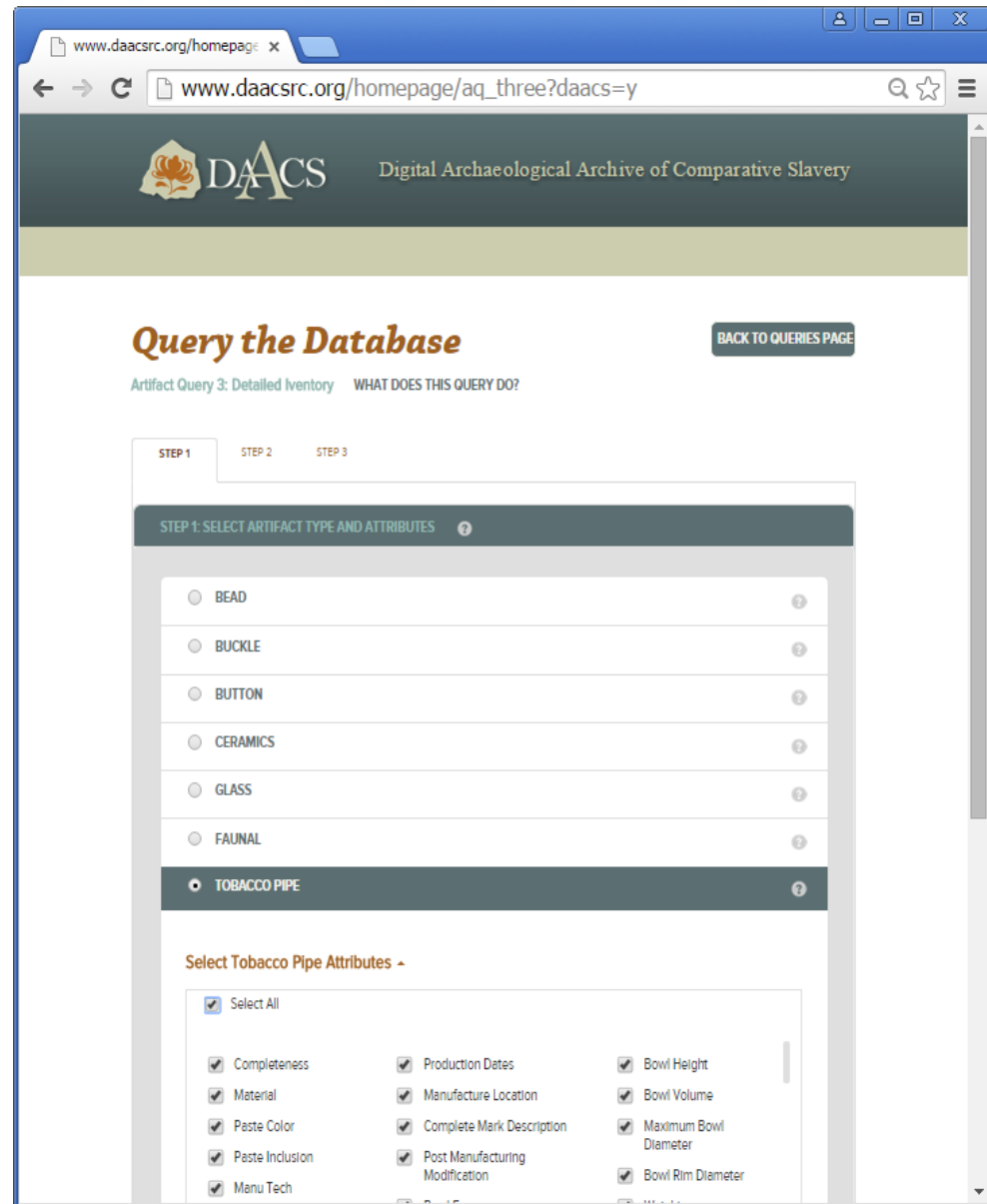
Stem, Base





# Data Analysis Plan

- Artifact Query 3
- "Select All" attributes
- Download the .xls
- Excel: Pivot Table
- Select ("filter") imported pipes only
- Compute **mean metric bore diameters** for Feature Groups
- Convert to 64th inches and estimate dates. ( $64\text{th inches} = .03937\text{mm} * 64$ )
- Check order against **proportion local pipes**
- Compute **mean exterior stem diameters** for Feature Groups
- Compute **pipe stem index** for Feature Groups





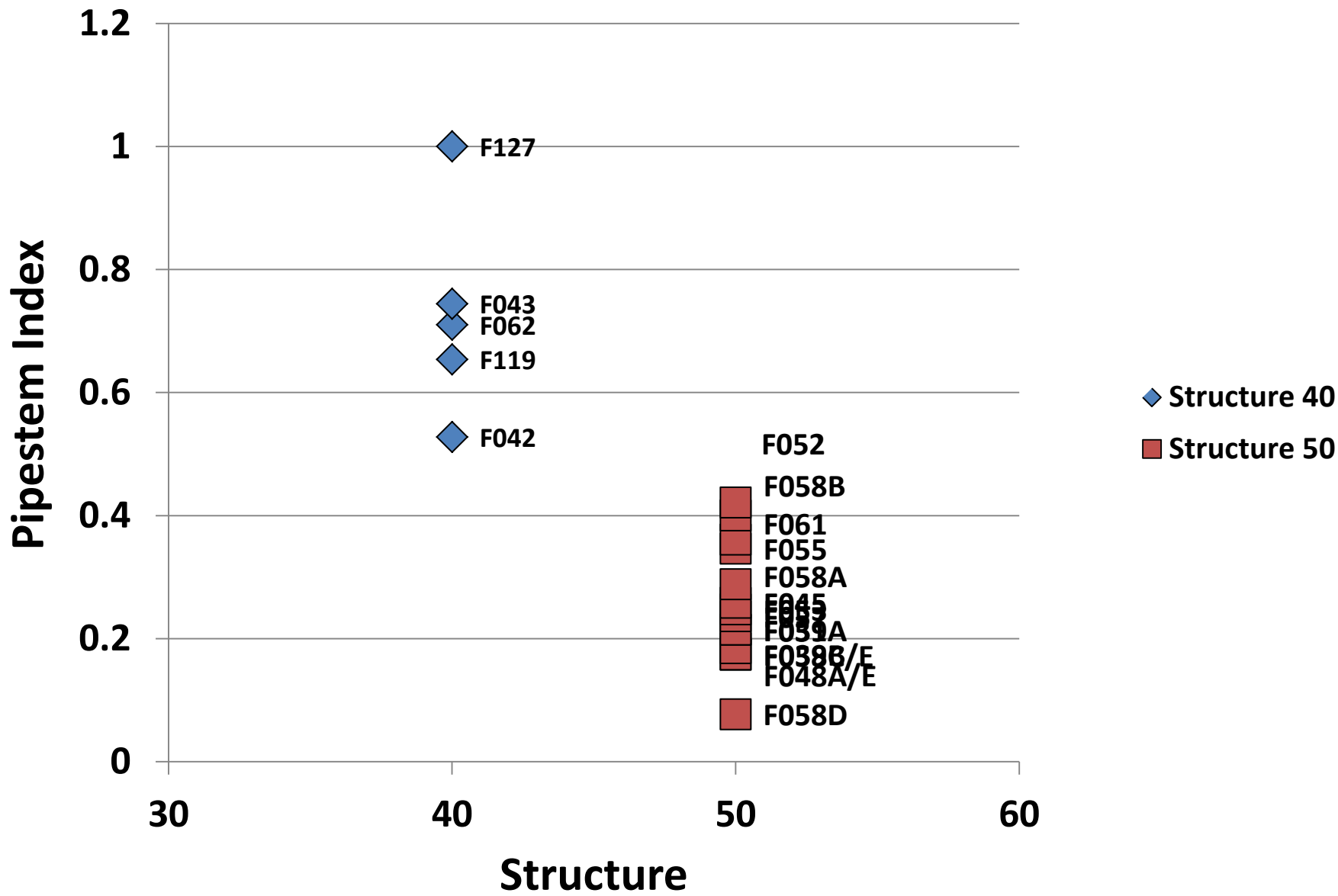
## Utopia III, your turn! Calculate the Pipestem Index for Structures 40 and 50.

1. First, check out the Utopia III site map. Find it in the Archaeological Sites Pages, Images.
2. Check out the differences between Structure 40 and Structure 50.
3. Then go to Artifact Query 3. Select Tobacco Pipes, Feature Numbers, Utopia III.
4. Run, download data. Open Data in Excel
5. Insert Pivot Table. Rows = Feature Number, Columns = Completeness, Values= Count
4. Filter on the following features:F039A, F039B, F042, F043, F045, F048A/E, F051, F052, F053, F055, F057, F058A, F058B, F058C/E, F058D, F061, F062, F119, F127.
5. Filter on all Bowl Completeness. Copy Feature Row and Bowl Grand Total Row to create a new table below the pivot table. Use paste special values.
6. Revise pivot table. Filter on All Stem Completeness. Copy Stem Grand Total Row into the table below the pivot table. Use paste special values.
7. Now you have a new table with three columns: Feature Number, Bowl Count, and Stem Count.
8. Now calculate the Pipestem Index in the Column to the right of Stem Count. Your Formula will look like  $\text{= Pipestems}/(\text{Pipestems}+\text{Bowls})$ . Calculate for each Feature.
9. Insert Scatter Plot.
10. Create two series. Series 1: Structure 40. X Axis = Structure, Y Axis = Index Value. Series 2: Structure 50, X Axis = Structure, Y Axis = Index Value.
11. Add Labels. <http://people.virginia.edu/~fn9r/arh3604/XYChartLabeler.xlam> Make it look nice. Ta-Da!

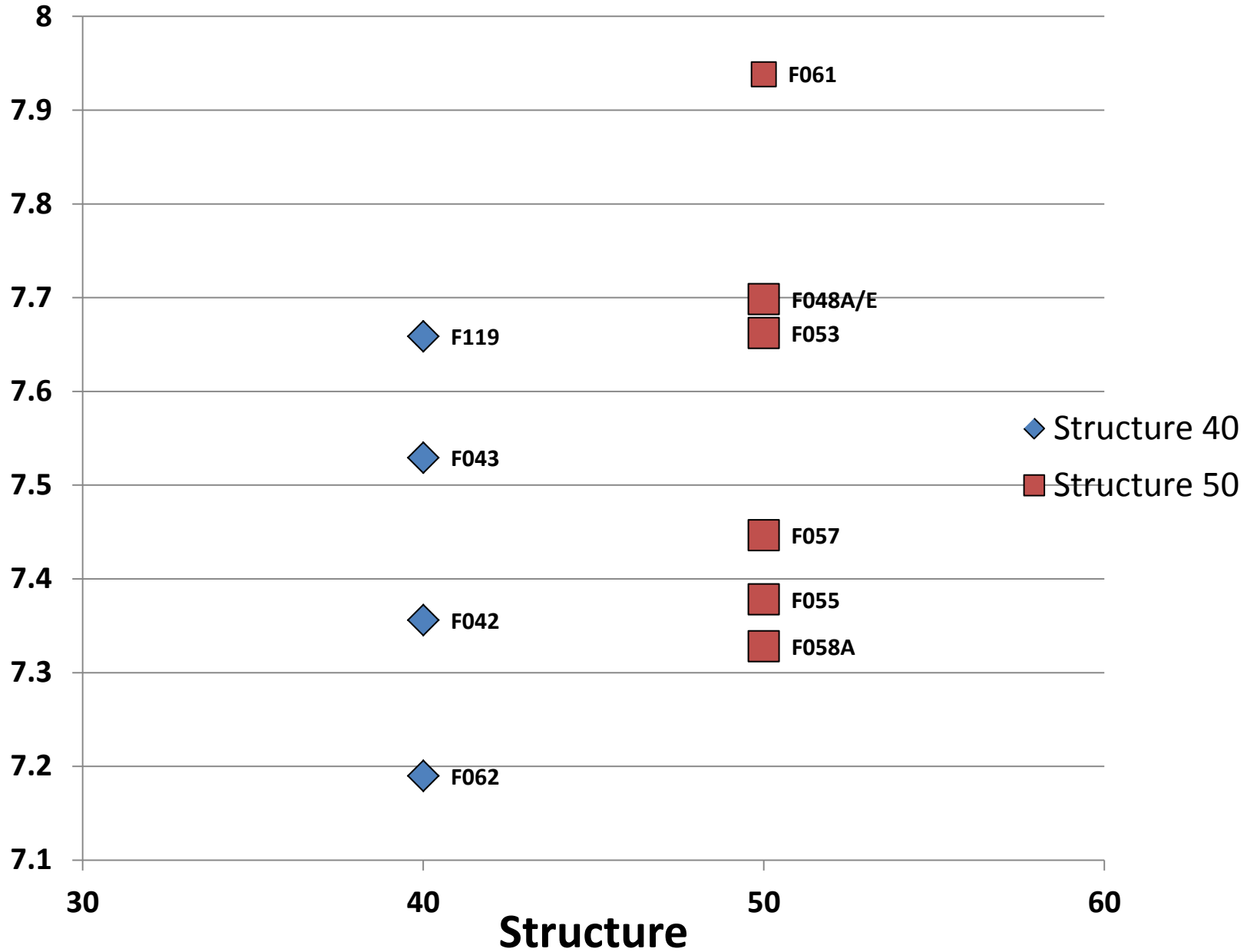
# Utopia III, your turn!

Calculate the Mean Exterior Pipe Bore Diameter and Plot it For Structures 40 and 50.

1. In the same excel workbook you calculated the index, return to the data page.
2. Insert Pivot Table. This new pivot table will appear in a different worksheet. Rows = Feature Number, Columns = None,
3. Add Exterior Stem Diameter to the Values field. Left click: Value Field Setting “Count”
4. Drag a second Exterior Stem Diameter to the Values Field. Left Click: Value Field “Average”
4. Filter on the same features:F039A, F039B, F042, F043, F045, F048A/E, F051, F052, F053, F055, F057, F058A, F058B, F058C/E, F058D, F061, F062, F119, F127.
5. Copy fields and paste special into a new table below the Pivot Table.
6. Delete all features with a less than 15.
7. Insert Scatter Plot.
8. Create two series. Series 1: Structure 40. X Axis = Structure, Y Axis = Average. Series 2: Structure 50, X Axis = Structure, Y Axis = Average.
9. Add Labels. <http://people.virginia.edu/~fn9r/arh3604/XYChartLabeler.xlam> Make it look nice. Ta-Da!



Mean Metric Exterior Bore Diameter



# Estimating a Confidence Interval

Sample from a Gaussian distribution (e.g. a mean bore diameter)

$$\bar{x} = \frac{\sum_{i=1}^n x_i}{n}$$

The mean

$$s^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1}$$

The variance  
(standard deviation squared)

$$se = \frac{s}{\sqrt{n}}$$

Standard error

$$\bar{x} \pm se \times t.inv\left(1 - \frac{\alpha}{2}, df\right)$$

The confidence interval

where  $\alpha = .05$

$df = (n-1)$



## Estimating an Confidence Interval

Sample from a binomial distribution (e.g. a proportion)

$$\hat{p} = \# \text{ successes} / N$$

$$p' = (\# \text{ successes} + 2) / (N + 4)$$

$$se = \frac{p'(1 - p')}{\sqrt{(N + 4)}}$$

$$p' \pm se \times 1.96$$

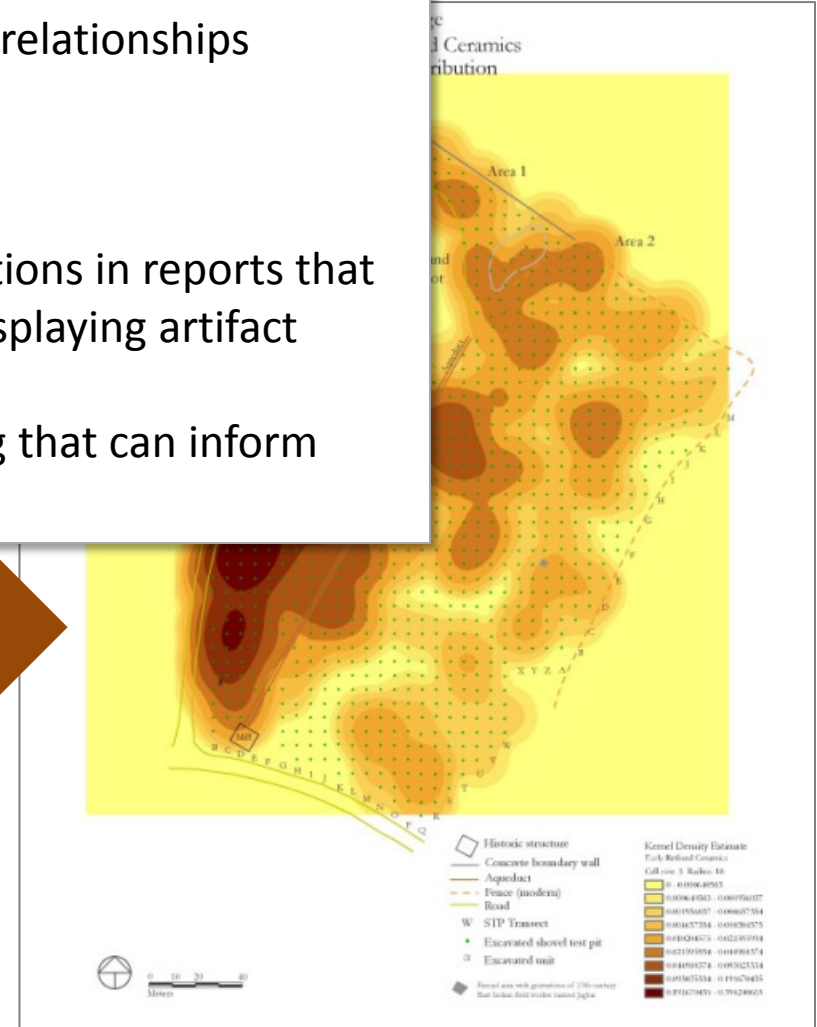
# Creating Artifact Spatial Distribution Maps using DAACS data

Spatial distribution maps are visual aids that can reveal and document spatial relationships and patterns.

Archaeological applications:

- Provide visual representations in reports that serve as a quick way of displaying artifact patterning.
- Aid in predictive modeling that can inform future fieldwork.

ProjectName	Context	UnitType	STPNort		
Papine Village	1-B-01	STP			
Papine Village	1-B-02	STP			
Papine Village	1-B-03	STP			
Papine Village	1-B-04	STP			
Papine Village	1-B-05	STP			
Papine Village	1-B-06	STP			
Papine Village	1-B-07	STP			
Papine Village	1-B-08	STP			
Papine Village	1-B-11	STP			
Papine Village	1-B-12	STP			
Papine Village	1-B-13	STP			
Papine Village	1-BKSIGHT	STP			
Papine Village	1-C-03	STP			
Papine Village	1-C-04	STP			
Papine Village	1-C-05	STP			
Papine Village	1-C-06	STP			
Papine Village	1-C-07	STP			
Papine Village	1-C-08	STP			
Papine Village	1-C-09	STP			
Papine Village	1-C-10	STP			
Papine Village	1-C-11	STP	1991961.989	315089.982	Creamware; Pearlware
Papine Village	1-C-12	STP	1991968.018	315089.9496	Creamware; Pearlware
Papine Village	1-C-13	STP	1991974.079	315089.9792	Creamware; Pearlware
Papine Village	1-C-14	STP	1991979.962	315089.9985	Creamware; Pearlware
Papine Village	1-C-15	STP	1991985.955	315089.9972	Creamware; Pearlware
Papine Village	1-D-03	STP	1991914.023	315095.9497	Creamware; Pearlware
Papine Village	1-D-04	STP	1991919.993	315095.9244	Creamware; Pearlware
Papine Village	1-D-05	STP	1991925.971	315095.9728	Creamware; Pearlware
Papine Village	1-D-06	STP	1991931.936	315096.0061	Creamware; Pearlware
Papine Village	1-D-07	STP	1991938.018	315096.0947	Creamware
Papine Village	1-D-08	STP	1991944.002	315096.007	Creamware; Pearlware
Papine Village	1-D-09	STP	1991950.088	315095.9399	Creamware; Pearlware
Papine Village	1-D-10	STP	1991956.023	315095.982	Creamware; Pearlware
Papine Village	1-D-11	STP	1991962.014	315096.0025	Creamware; Pearlware
Papine Village	1-D-12	STP	1991967.956	315096.0049	Creamware; Pearlware
Papine Village	1-D-13	STP	1991974.014	315095.9077	Creamware; Pearlware
Papine Village	1-D-14	STP	1991979.956	315095.9219	Creamware; Pearlware
Papine Village	1-D-15	STP	1991986.108	315096.0527	Creamware; Pearlware
Papine Village	1-D-16	STP	1991992.06	315096.0618	Creamware; Pearlware
Papine Village	1-DATUM	STP	1991886.79	315147.2	
Papine Village	1-E-05	STP	1991925.987	315102.0556	Pearlware
Papine Village	1-E-06	STP	1991931.999	315101.0876	Creamware; Pearlware
Papine Village	1-E-08	STP	1991944.11	315102.0319	Creamware; Pearlware
Papine Village	1-E-09	STP	1991950.062	315102.0908	Creamware; Pearlware
Papine Village	1-E-10	STP	1991955.89	315102.0888	Creamware; Pearlware
Papine Village	1-E-11	STP	1991961.946	315102.0993	Creamware; Pearlware



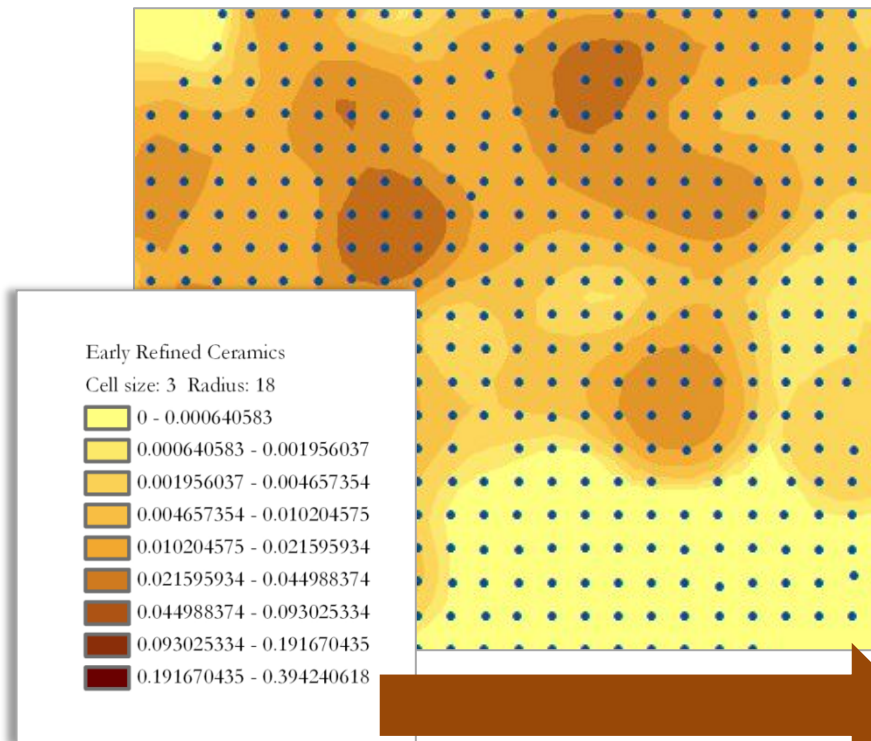
Papine Village site (Jamaica) spatial distribution data  
Pearlware and Creamware, raw counts per STP

Artifact distribution map created in ArcGIS  
using Kernel Density Estimates

## Spatial distribution maps are created using *interpolation*

**Interpolation** is a procedure used to predict the values of cells at locations that lack sampled points. It is based on the principle of *spatial autocorrelation* or spatial dependence, which measures the degree of relationships/dependence between near and distant objects.

*i.e. Cells in close proximity are more alike than cells farther apart*



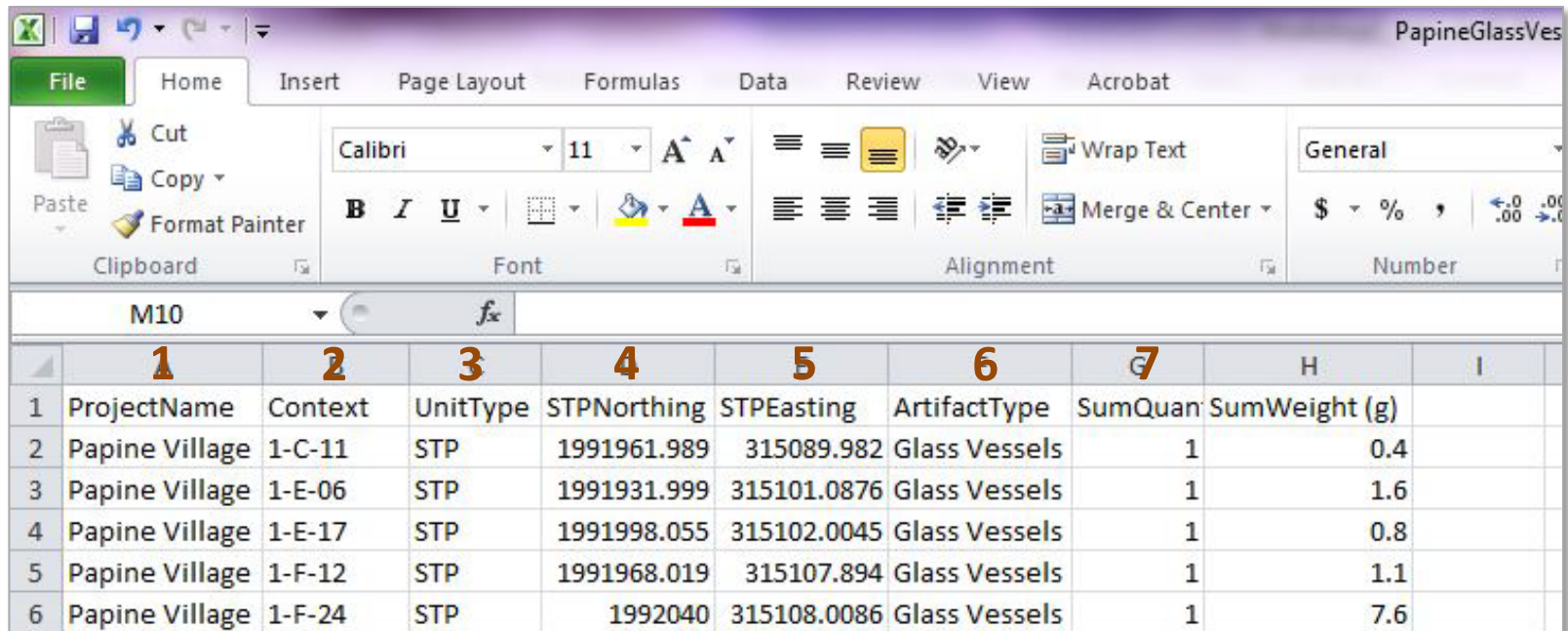
### ***Steps to creating interpolated map***

1. Acquire artifact and spatial data
2. Load data table into ArcGIS
3. Create a feature layer using coordinates (STP centroids) from data table
4. Use Kernel Density tool in ArcToolbox to create interpolated surface

Resulting map is a visual representative of the count of artifacts per area

## Which DAACS data fields do we need to create the table?

1. Site
2. Context
3. Unit Type (e.g. STPs, Quadrats/Units)
4. Northing/"Y" coordinate
5. Easting/"X" coordinate
6. Artifact type
7. Artifact count per context (you could alternatively use weight)



The screenshot shows an Excel spreadsheet with the following data:

	1	2	3	4	5	6	7	H	I
1	ProjectName	Context	UnitType	STPNorthing	STPEasting	ArtifactType	SumQuan	SumWeight (g)	
2	Papine Village	1-C-11	STP	1991961.989	315089.982	Glass Vessels	1	0.4	
3	Papine Village	1-E-06	STP	1991931.999	315101.0876	Glass Vessels	1	1.6	
4	Papine Village	1-E-17	STP	1991998.055	315102.0045	Glass Vessels	1	0.8	
5	Papine Village	1-F-12	STP	1991968.019	315107.894	Glass Vessels	1	1.1	
6	Papine Village	1-F-24	STP	1992040	315108.0086	Glass Vessels	1	7.6	

# Artifact Distribution Query 1 (ADQ1) at www.daacs.org

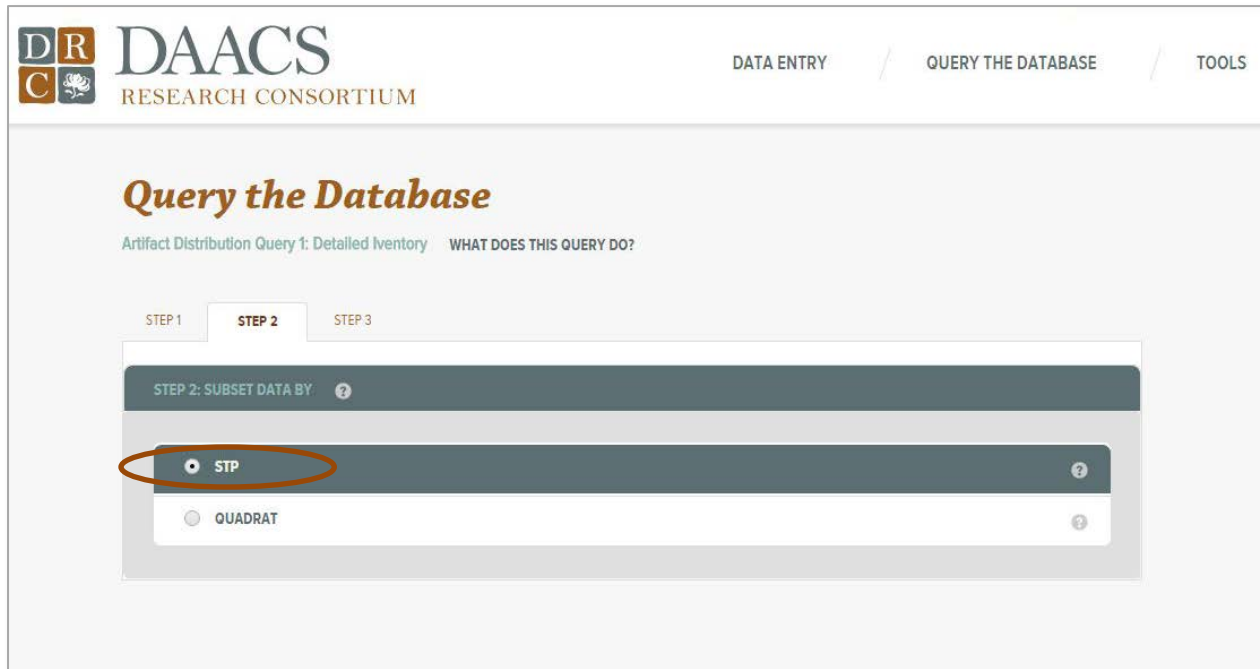
## Step 1: Select artifact type

The screenshot shows the DAACS Research Consortium website. The header includes the logo (DR C) and the text 'DAACS RESEARCH CONSORTIUM'. Navigation links for 'DATA ENTRY', 'QUERY THE DATABASE', and 'TOOLS' are present. The main heading is 'Query the Database'. Below it, there is a sub-heading 'Artifact Distribution Query 1: Detailed Inventory' and a link 'WHAT DOES THIS QUERY DO?'. A progress indicator shows 'STEP 1' as the active step. The main content area is titled 'STEP 1: SELECT ARTIFACT TYPE AND ATTRIBUTES'. A list of artifact types is displayed, with 'GLASS' selected and highlighted by a red circle. Each item has a radio button and a help icon.

STEP 1: SELECT ARTIFACT TYPE AND ATTRIBUTES ?	
<input type="radio"/> BEAD	?
<input type="radio"/> BUCKLE	?
<input type="radio"/> BUTTON	?
<input type="radio"/> CERAMICS	?
<input type="radio"/> FAUNAL	?
<input checked="" type="radio"/> GLASS	?
<input type="radio"/> TOBACCO PIPE	?
<input type="radio"/> UTENSIL	?

# Artifact Distribution Query 1 (ADQ1) at www.daacs.org

## Step 2: Subset data by STP or quadrat/unit



**DR** **DAACS**  
**C** RESEARCH CONSORTIUM

DATA ENTRY / QUERY THE DATABASE / TOOLS

### Query the Database

Artifact Distribution Query 1: Detailed Inventory WHAT DOES THIS QUERY DO?

STEP 1 **STEP 2** STEP 3

STEP 2: SUBSET DATA BY ?

STP ?

QUADRAT ?



# Artifact Distribution Query 1 (ADQ1) at www.daacs.org

## Step 3: Choose site

**Query the Database**  
Artifact Distribution Query 1: Detailed Inventory WHAT DOES THIS QUERY DO?

STEP 1 STEP 2 **STEP 3**

STEP 3: CHOOSE ONE OR MORE SITES

CARIBBEAN NORTH AMERICA UNITED KINGDOM  Select All

Select All in Region

**BARBADOS**

St. Nicholas Abbey Estate

St. Nicholas Abbey

Trents Plantation

Trents Locus 2

Trents Locus 1

**DOMINICA**

Sugarloaf

Sugarloaf

Bois Colette Estate

Bois Colette Estate

Not Associated with a Plantation

Cabrits Garrison Village

Outer Cabrits Soldiers' Barracks

Morne Petate Estate

Morne Petate

**JAMAICA**

Drax Hall Estate

Drax Hall Feature 01

Drax Hall Feature 15

Drax Hall Feature 52

Drax Hall Village

Good Hope Estate

Good Hope Village

Mona Estate

Mona Great House

Mona Village

Montpellier Estate (JA)

Montpellier House 14

Montpellier House 24

Montpellier House 26

Montpellier House 37

Montpellier Yard Contexts

Orange Valley Estate

Orange Valley Village

Papine Estate

Papine Village

Seville Estate

House 15

House 16

Seville House 32

Seville House 35

Seville: Old and New Village Survey

Not Associated with a Plantation

New Street Excavations (unpublished)

Stewart Castle Estate

Stewart Castle Main House

Stewart Castle Village

**MONTSERRAT**

Little Bay Plantation

Little Bay Cattle Mill

Little Bay Structure 1 (Cotton Mill)

Little Bay Structure 5 (Manor House)

Little Bay Worker's Village

**NEVIS**

Jessups Estate

Jessups Village I

Jessups Village II

New River Estate

New River Village I

New River Village II

Not Associated with a Plantation

Upper Rawlins Estate: Testing

**ST. JOHN, USVI**

Estate Bellevue

Estate Bellevue

**ST. KITTS**

The Spring Estate

The Spring Village

**Query Selections**

Step 1: Attributes	Step 2: Subset Data By	Step 3: Sites
Glass:	STP	Papine Village

[Reset](#)

## Summary of query selections

**Query Selections**

Step 1: Attributes	Step 2: Subset Data By	Step 3: Sites
Glass:	STP	Papine Village

[Reset](#)

# Artifact Distribution Query 1 (ADQ1) at www.daacs.org

## Query Results

**DR DAACS**  
RESEARCH CONSORTIUM

DATA ENTRY / QUERY THE DATABASE / TOOLS

### Query Results

Artifact Distribution Query 1:

Artifact Type: Glass    STP    Total Sum Quantity: 5827    Sites: Papine Village

1206 items found    1 2 3 ... Next > Last >    Results per Page: 25

PROJECT NAME	CONTEXT	UNIT TYPE	STP NORTHING	STP EASTING	SUM QUANTITY	SUM WEIGHT
Papine Village	1-B-01	STP	1991908.042	315083.9857	6	11.9
Papine Village	1-B-02	STP	1991914.017	315084.0052	5	5.6
Papine Village	1-B-03	STP	1991919.983	315084.047	3	2.3
Papine Village	1-B-04	STP	1991926.003	315083.987	0	0.0
Papine Village	1-B-05	STP	1991932.003	315086.0353	44	247.6
Papine Village	1-B-06	STP	1991938.013	315084.0322	6	16.7
Papine Village	1-B-07	STP	1991944.031	315083.9787	3	3.1
Papine Village	1-B-08	STP	1991952.012	315084.0821	4	9.1
Papine Village	1-B-11	STP	1991968.623	315083.3693	2	10.6
Papine Village	1-B-12	STP	1991973.971	315083.951	17	43.2
Papine Village	1-B-13	STP	1991980.017	315084.9778	13	42.1
Papine Village	1-BKSIGHT	STP	1991988.83	315093.54	13	46.0
Papine Village	1-C-03	STP	1991913.957	315090.0382	3	8.1
Papine Village	1-C-04	STP	1991920.13	315090.1346	6	19.3
Papine Village	1-C-05	STP	1991926.051	315090.0778	5	6.4
Papine Village	1-C-06	STP	1991931.991	315090.0343	81	325.1
Papine Village	1-C-07	STP	1991937.979	315089.995	6	13.2
Papine Village	1-C-08	STP	1991943.941	315089.9419	8	18.1
Papine Village	1-C-09	STP	1991950.022	315089.9418	12	30.3
Papine Village	1-C-10	STP	1991956.056	315089.9937	7	10.0
Papine Village	1-C-11	STP	1991961.989	315089.982	1	0.4
Papine Village	1-C-12	STP	1991968.018	315089.9496	7	9.0
Papine Village	1-C-13	STP	1991974.079	315089.9792	12	17.1
Papine Village	1-C-14	STP	1991979.962	315089.9985	6	7.5
Papine Village	1-C-15	STP	1991985.955	315089.9972	13	22.5

1 2 3 ... Next > Last >

Data are downloaded as an .xls

# Create a new file in ArcMap

## Load query results Excel file into ArcMap

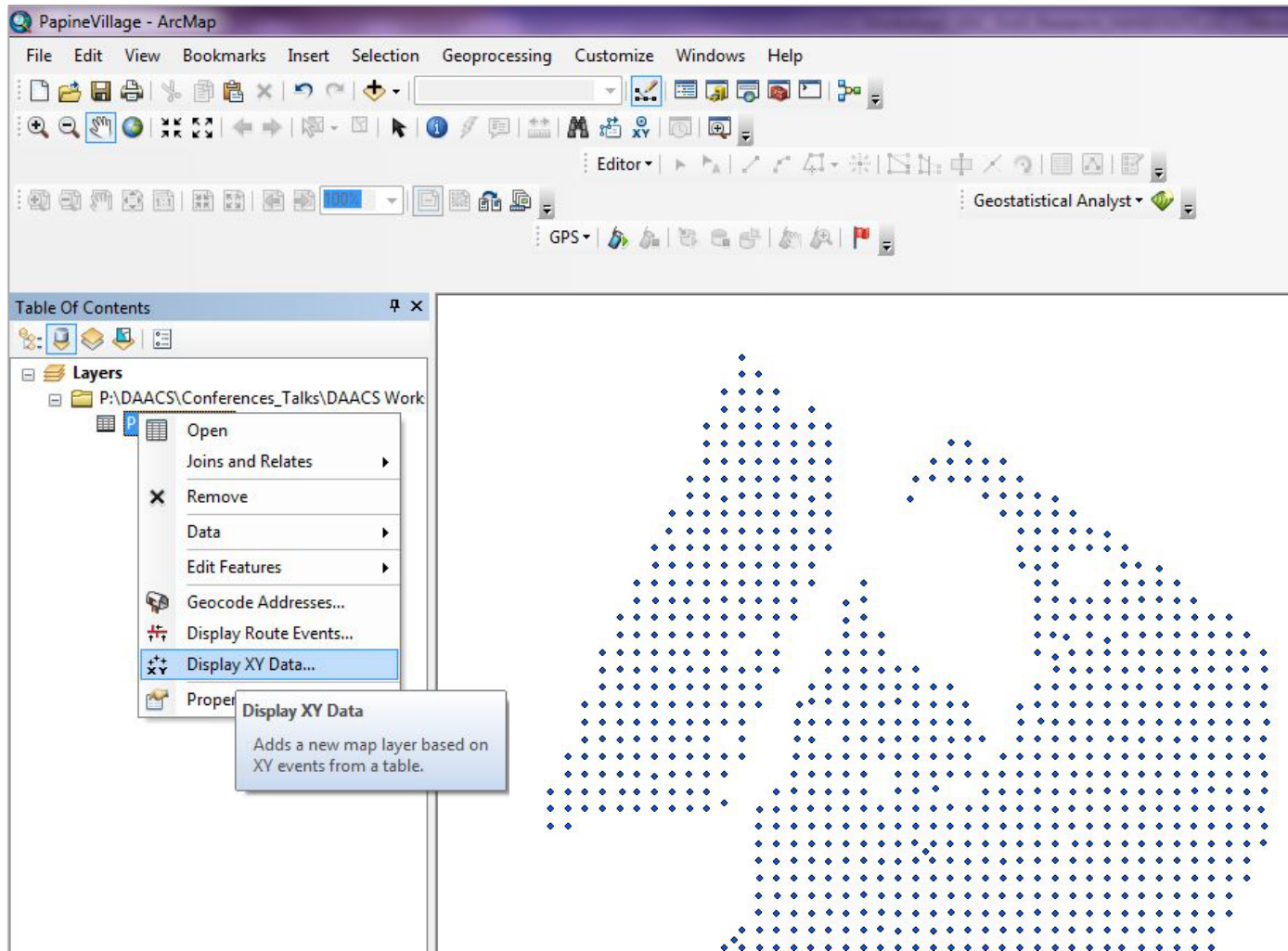
The screenshot shows the ArcMap interface with the 'Table' window open, displaying data from 'PapineGlassVesselsData.txt'. The table contains columns for ProjectName, Context, UnitType, STPNorthing, STPEasting, SumQuantity, SumWeight, and ArtifactType. The data lists various vessels from Papine Village, categorized by context (1-B and 1-C) and unit type (STP).

ProjectName	Context	UnitType	STPNorthing	STPEasting	SumQuantity	SumWeight	ArtifactType
Papine Village	1-B-01	STP	1991908.042	315083.9857	6	11.9	Glass Vessels
Papine Village	1-B-02	STP	1991914.017	315084.0052	5	5.6	Glass Vessels
Papine Village	1-B-03	STP	1991919.983	315084.047	3	2.3	Glass Vessels
Papine Village	1-B-04	STP	1991926.003	315083.987	0	0	Glass Vessels
Papine Village	1-B-05	STP	1991932.003	315086.0353	44	247.6	Glass Vessels
Papine Village	1-B-06	STP	1991938.013	315084.0322	6	16.7	Glass Vessels
Papine Village	1-B-07	STP	1991944.031	315083.9787	3	3.1	Glass Vessels
Papine Village	1-B-08	STP	1991952.012	315084.0821	4	9.1	Glass Vessels
Papine Village	1-B-11	STP	1991968.623	315083.3693	2	10.6	Glass Vessels
Papine Village	1-B-12	STP	1991973.971	315083.951	17	43.2	Glass Vessels
Papine Village	1-B-13	STP	1991980.017	315084.9778	13	42.1	Glass Vessels
Papine Village	1-BKSIGHT	STP	1991988.83	315093.54	13	46	Glass Vessels
Papine Village	1-C-03	STP	1991913.957	315090.0382	3	8.1	Glass Vessels
Papine Village	1-C-04	STP	1991920.13	315090.1346	6	19.3	Glass Vessels
Papine Village	1-C-05	STP	1991926.051	315090.0778	5	6.4	Glass Vessels
Papine Village	1-C-06	STP	1991931.991	315090.0343	81	325.1	Glass Vessels
Papine Village	1-C-07	STP	1991937.979	315089.995	6	13.2	Glass Vessels
Papine Village	1-C-08	STP	1991943.941	315089.9419	8	18.1	Glass Vessels
Papine Village	1-C-09	STP	1991950.022	315089.0418	12	20.2	Glass Vessels

# Create a feature layer using coordinates (STP centroids) from data table



Right click on Papine Data table in Layers  
Choose "Display XY Data"



# Use Kernel Density tool in ArcToolbox to create interpolated surface

(This requires the Spatial Analyst extension for ArcGIS)



Kernel Density

Input point or polyline features  
PapineData.txt Events → “Events” layer created in last step is source layer for interpolation

Population field  
SumQuantity → “Quantity” field is data field used for interpolation

Output raster  
P:\DAACS\Conferences\_Talks\DAACS Worksh

Output cell size (optional)  
1

Search radius (optional) → *Minimum* radius would be the smallest distance between points:  
(STP interval = 6 meters at Papine Village)

Area units (optional)  
SQUARE\_MAP\_UNITS

*Maximum* radius would be the maximum distance over which things are autocorrelated:  
Historical sites like this = approx. 20 meters

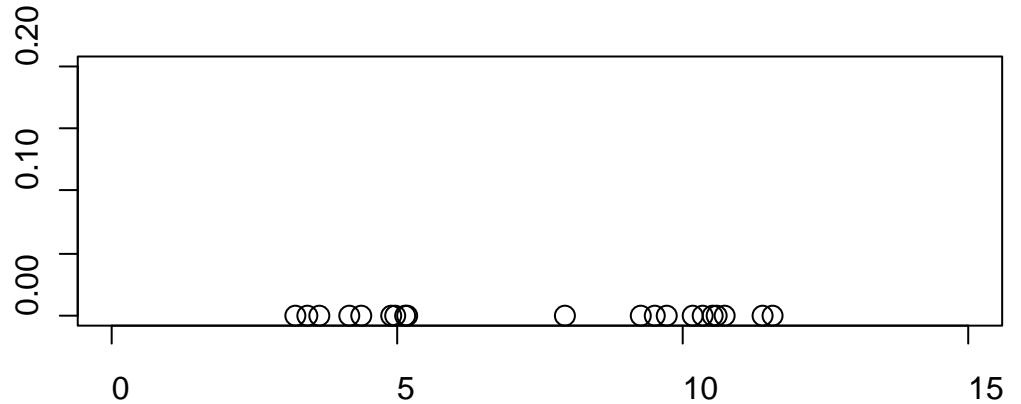
OK Cancel Environments... Show Help >>

# What is Kernel density estimation (KDE)?

The basic idea (in one dimension):

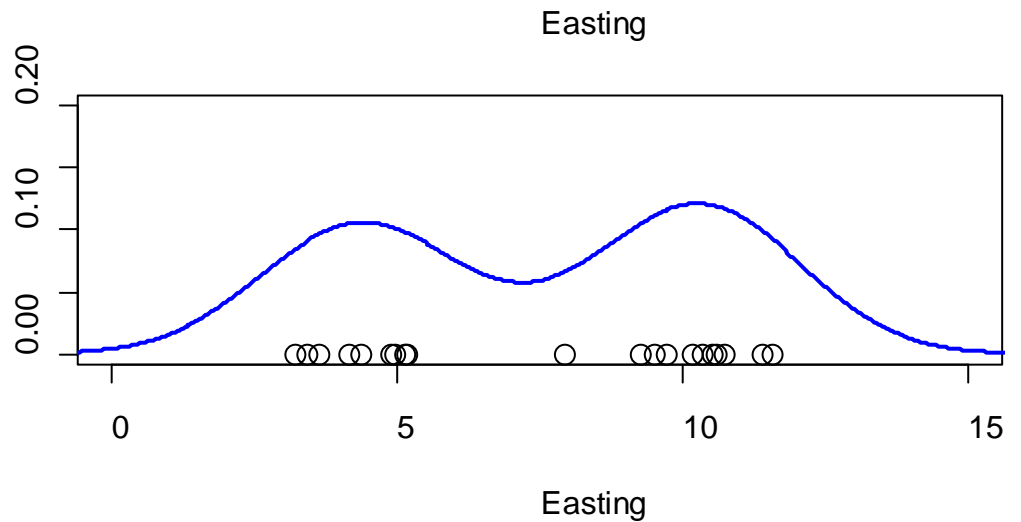
**We want to go from this:**

Where each point is an artifact,  
whose location is plotted in space  
(in this case, the Easting coordinate)



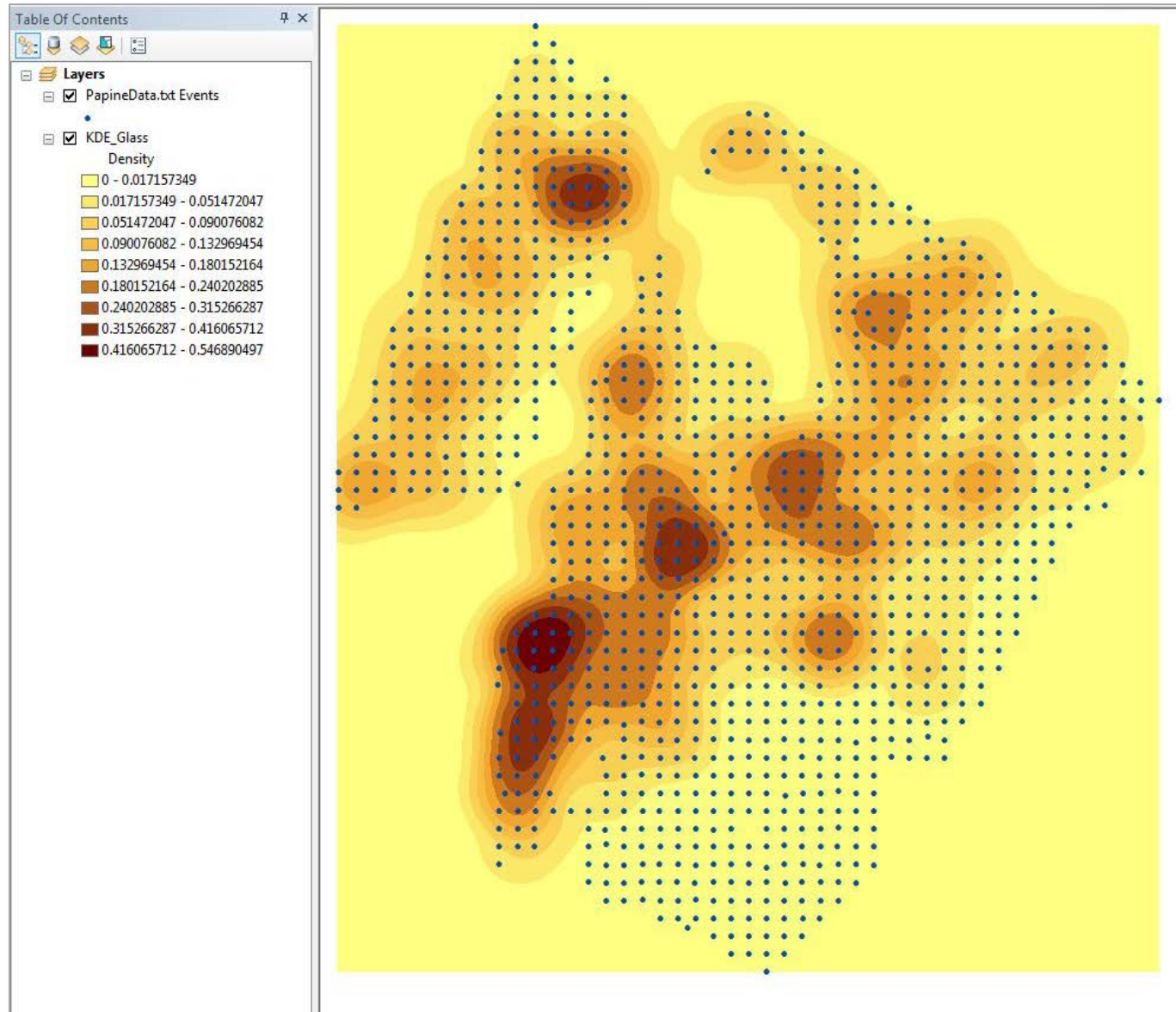
**To this:**

Where the height of the blue line is  
an estimate of the density of artifacts  
at a given point in space (in this case,  
the Easting coordinate)





# Voila! KDE surface is created and added as a layer in ArcMap Table of Contents



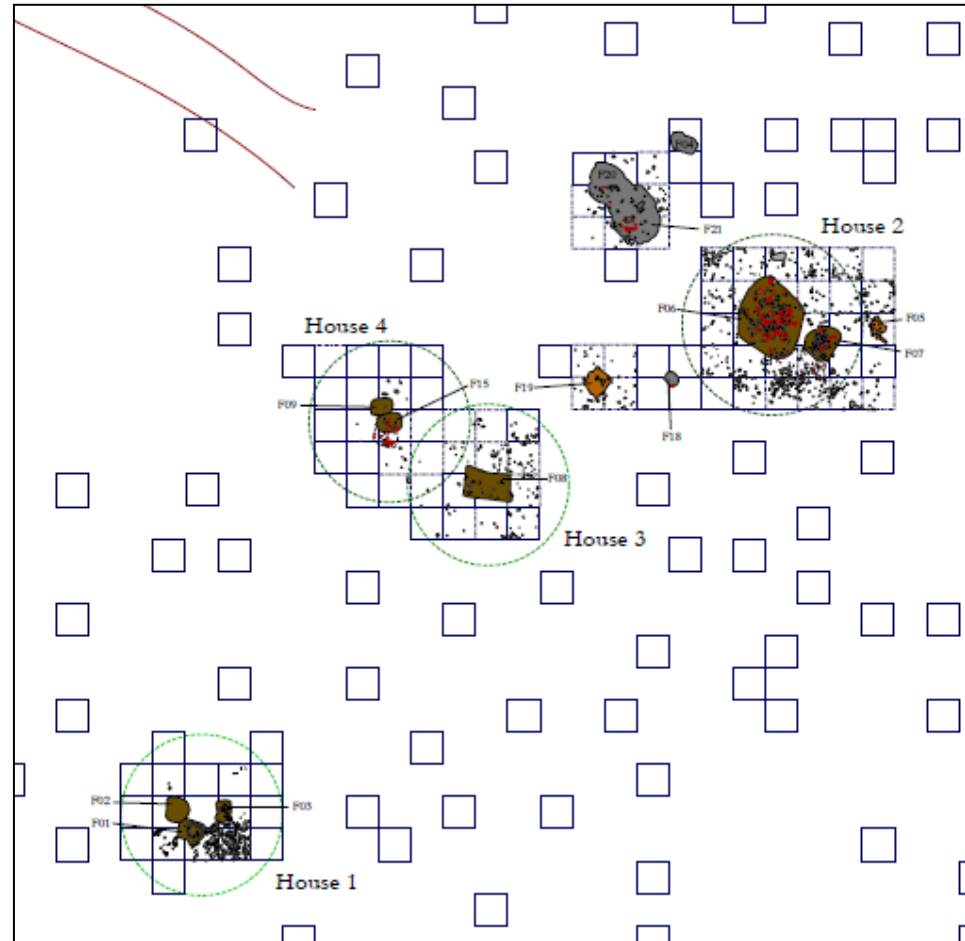
## Site 8 (c. 1770-1800)



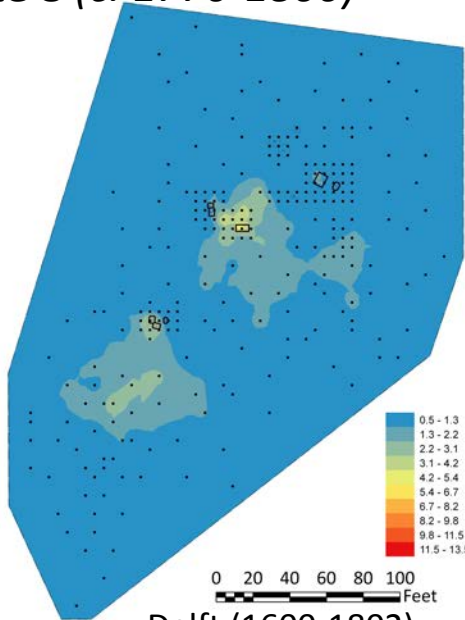
Partially excavated sub-floor pits under Structures 3 and 4



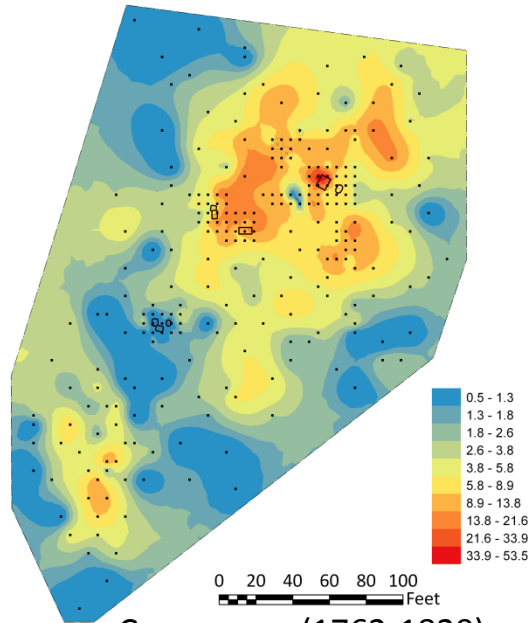
Partially-excavated , brick-lined sub-floor pit under Structure 2



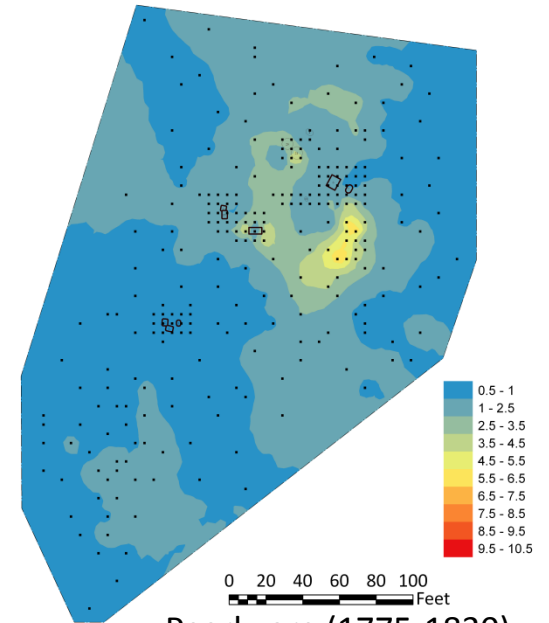
# Site 8 (c. 1770-1800)



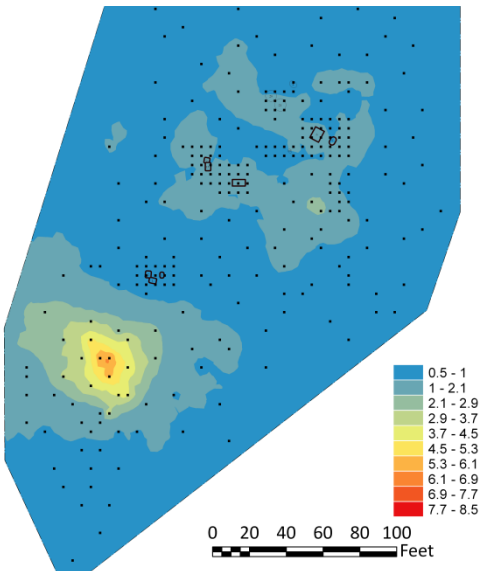
Delft (1600-1802)



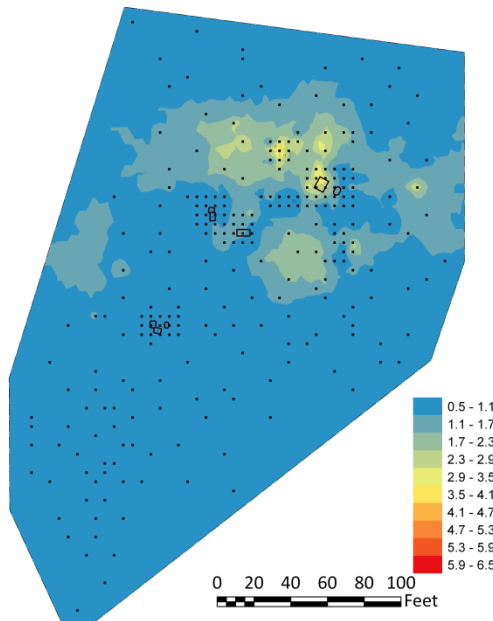
Creamware (1762-1820)



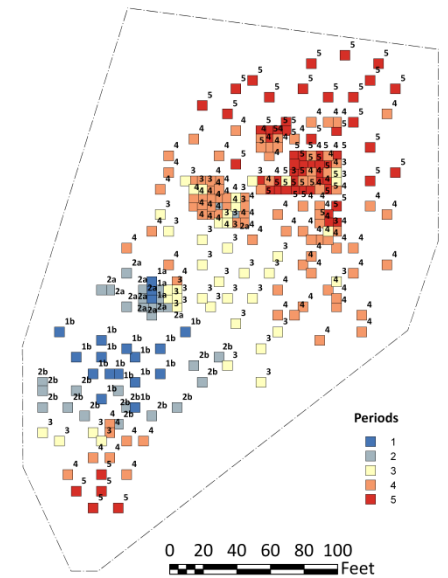
Pearlware (1775-1830)



Redware



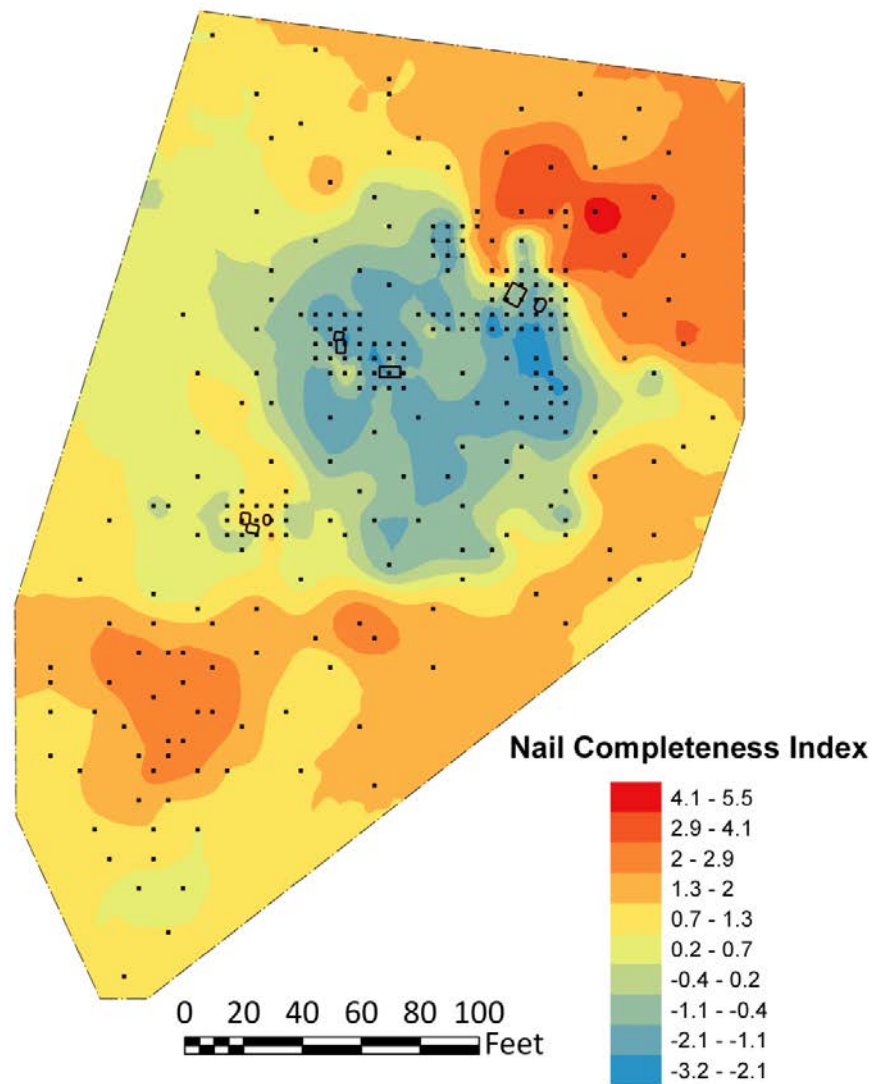
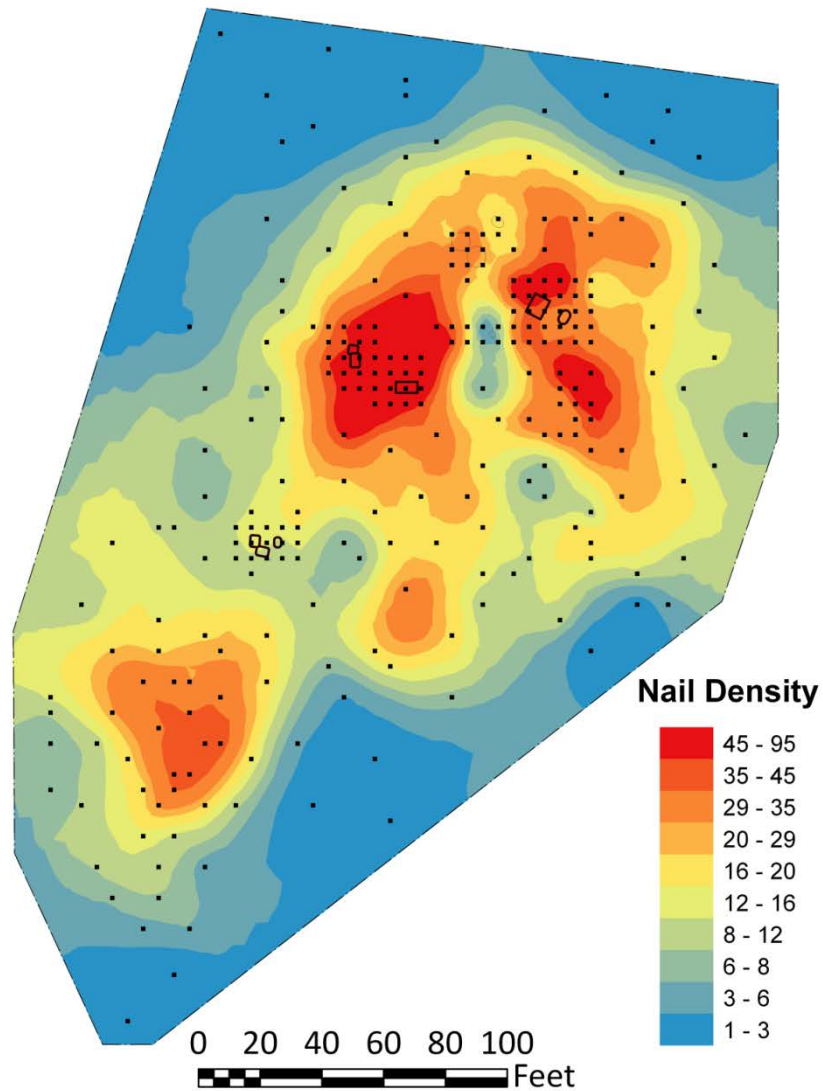
Chinese Porcelain



CA-based Chronology



# Site 8 (c. 1770-1800)





# Monticello

- Virginia Piedmont: One of four adjacent farms in the Charlottesville area owned by Jefferson, nearly 5000 acres in total
- “Mountaintop”: mansion, dependencies, path lined with slave workshops and dwellings known as Mulberry Row
  - Also a number of agricultural fields, domestic quarters, and outbuildings
- Two phases of mansion construction after the mountain was cleared: Monticello I (1770 – 1796) and Monticello II (1796 – the present)
  - This transition also marks Jefferson’s reorganization of the Monticello landscape, including enslaved domestic dwellings and field boundaries, with wheat cultivation



# Monticello Archaeology

- Active in archaeological research of the mountaintop and surrounding areas since 1979
- Since the late 1990s: Research focus on chronology of sites across the landscape and the impact of Jefferson's transition from tobacco to wheat in the 1790s on enslaved people

# Monticello: Four Sites for Comparison



# Building o

- Domestic slave quarter site on Mulberry Row, near Monticello mansion
- Two distinct construction episodes
  - Log cabin constructed c. 1770s (Monticello I)
  - Second wood-frame house built early 1790s (Monticello II); contained one sub-floor pit (Neiman 1997)
- First excavated by William Kelso 1981; part of reassessment initiated by DAACS in 2000

# Elizabeth (Betty) Hemings Site

- Enslaved matriarch of Hemings family at Monticello
- Her final residence, constructed c. 1795, for approximately ten years until her death in 1807
- Lack of subfloor pits suggests that residents had greater control over visitors

# Home Farm Quarter: Site 8

- Enslaved laborer Quarter site dating from c. 1770 to c. 1800, downslope from the Mansion
  - Four structures identified
- Houses with more than two subfloor pits, also brick-lined cellar and borrow pit; maintained yard space between houses
- Buildings demolished for wheat cultivation
- Plowzone site discovered through shovel test pit survey

# Stewart-Watkins

- White skilled laborers hired by Jefferson: William Stewart (blacksmith) until c. 1808; Elisha Watkins (carpenter) less than 2 years in residence
- Two building episodes: Core structure during first phase, eastern addition in second phase; dismantled c. 1810
- Unvaried and worn ceramics, quantity of salvaged industrial materials and tools (Heath 1999)



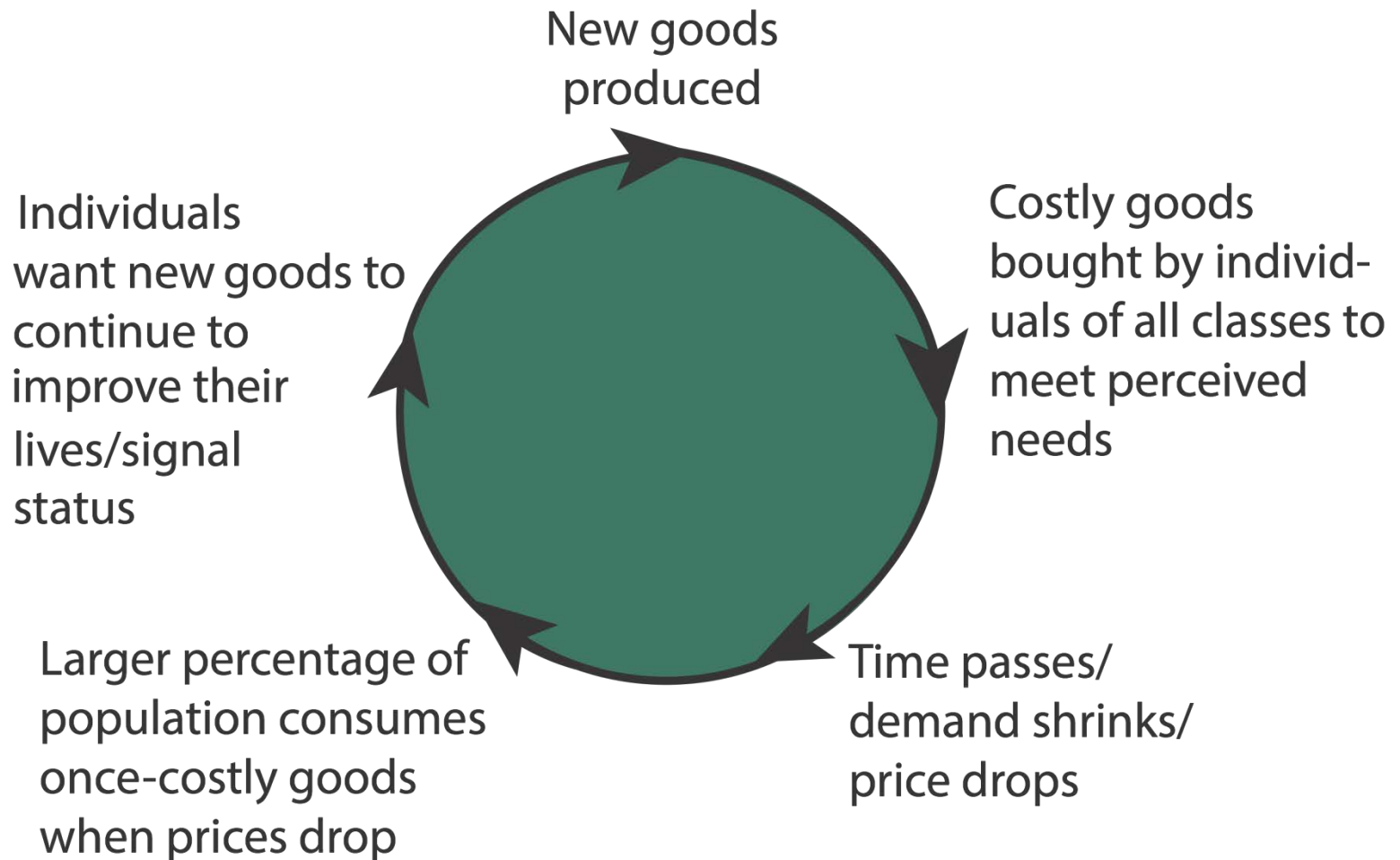
# 17<sup>th</sup> - 18<sup>th</sup> Century Consumer Trends

- A Consumer Revolution started in Europe in the late-17<sup>th</sup> century
- A proliferation of both tangible goods (ceramics, silver, linens, houses) and comestibles (tea, sugar, coffee, chocolate, spices).
- Emphasis on consumption and display
- Consumer goods = status markers
- The name of the game was **differential access to not only costly goods, but also the specialized knowledge required to use them in culturally and socially appropriate settings.**

# Consumer Revolution

- Quickly expanded out of Europe and into the colonies in the New World. The “revolution” was in full force in the British colonies by the beginning of the 18<sup>th</sup>-century.
- A never-ending stream of newcomers, growing populations, and quickly changing demographics reinforced elite’s need for inexpensive, movable, and fashionable objects.
- People at all economic scales, including enslaved individuals, were actively participating and making their own consumer choices

# Consumer Revolution



# Consumer Revolution and Archaeology

## The Upsides:

- The increase in variety and abundance of materials is great for archaeologists!
- Ceramics are ideal artifacts to study consumption patterns, as styles and ware types change quickly in response to consumer demand. They provide insight into consumption patterns and enslaved individuals' differential access to markets. Also great for archaeologists!

## The Downsides:

- Many materials were organic and did not survive in the archaeological record. Luckily, ceramic vessel form can often tell us about many of the foods and drinks consumed, or at least aspirations for consumption.
- Archaeological sites contain thousands of artifacts! Archaeologists have an obligation to develop the methodological (analytical, statistical) skills for effectively analyzing all data from a site, not a handful of artifacts. It is only through the analysis of complete assemblages that statistically significant results are produced.



# Chinese Porcelain





# Delft/Tin-glazed Earthenware



Plate/Charger



Punch bowl<sup>1</sup>



Ointment jar<sup>2</sup>

<sup>1</sup>[www.chipstone.org](http://www.chipstone.org)

<sup>2</sup>[www.jefpat.org/diagnostic/ColonialCeramics/Colonial-LargeImages/Tin%20Glazed/TG\\_PR175\\_2336.htm](http://www.jefpat.org/diagnostic/ColonialCeramics/Colonial-LargeImages/Tin%20Glazed/TG_PR175_2336.htm)

# White Salt Glaze



Chocolate/Coffee Mug



Plate<sup>1</sup>



Coffee Pot<sup>2</sup>



Platter<sup>3</sup>



Teabowl

<sup>1</sup>[www.jefpat.org/diagnostic/ColonialCeramics/Colonial-LargeImages/White%20Salt%20Glazed/18AN39-1-2-1.htm](http://www.jefpat.org/diagnostic/ColonialCeramics/Colonial-LargeImages/White%20Salt%20Glazed/18AN39-1-2-1.htm), <sup>2</sup>[www.chipstone.org](http://www.chipstone.org), <sup>3</sup><http://www.seekersantiques.com/blog?p=6>

# Creamware



From left to right: ovular platters, fruit basket, plates, tureen lid



Close up of fruit basket and tureen lid



Chamberpot



# Pearlware



Platter



Mug



Dinner service



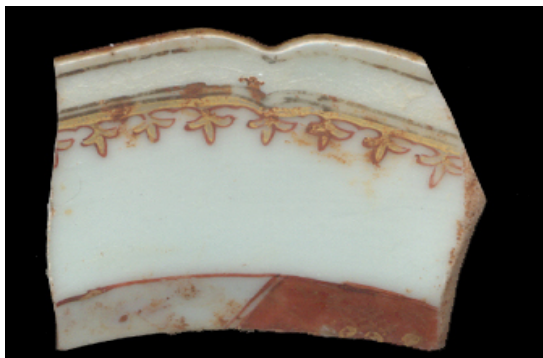
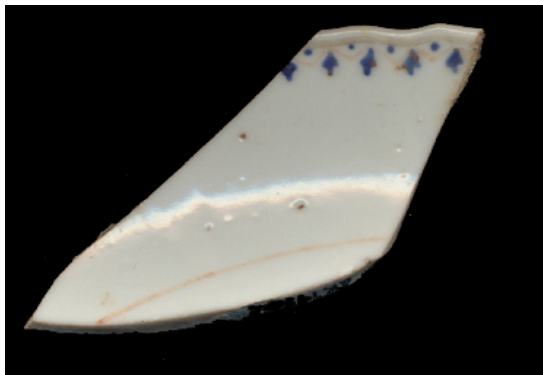
Pitcher<sup>1</sup>



Teabowl

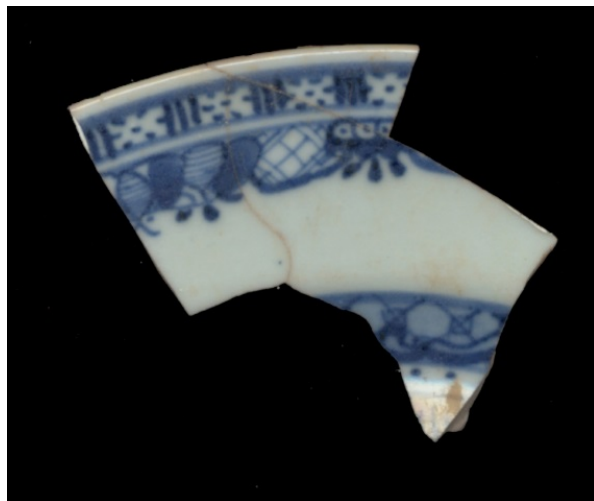
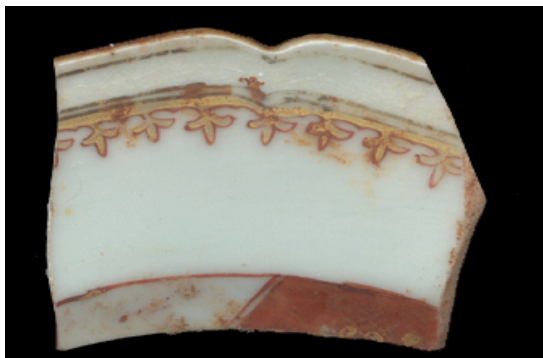
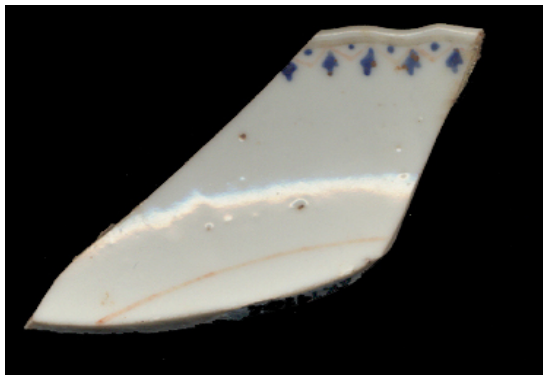
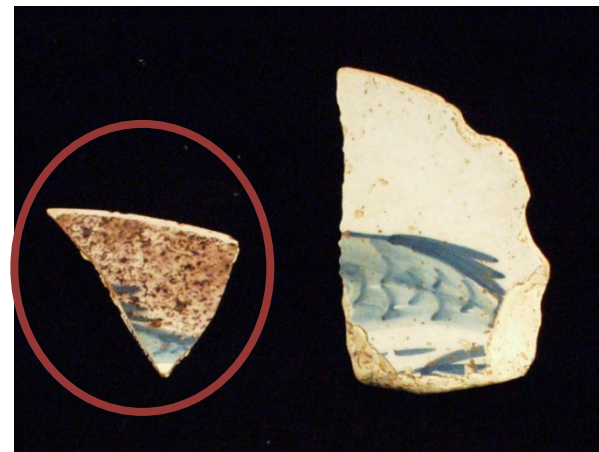
<sup>1</sup>[www.chipstone.org/images.php/9/Ceramics-in-America-2001/Slip-Decoration-in-the-Age-of-Industrialization](http://www.chipstone.org/images.php/9/Ceramics-in-America-2001/Slip-Decoration-in-the-Age-of-Industrialization)

# Handpainted



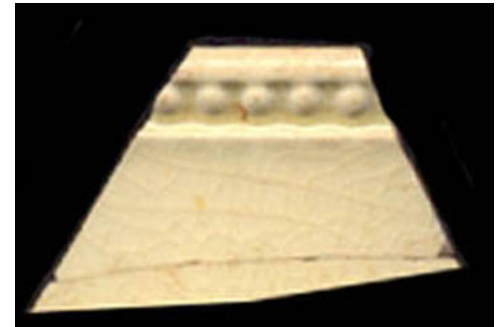


# Handpainted

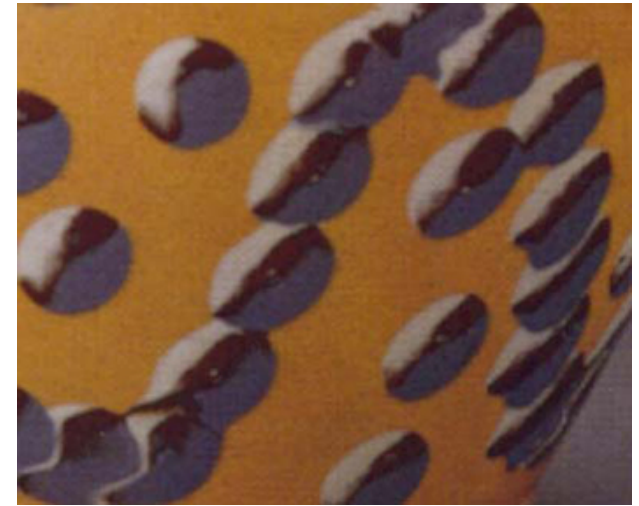
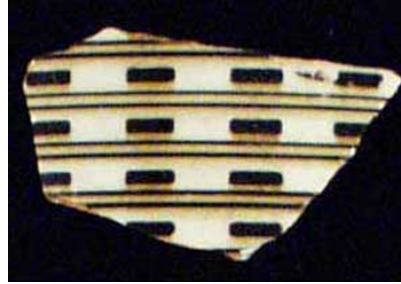




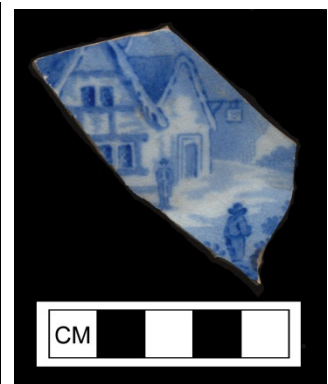
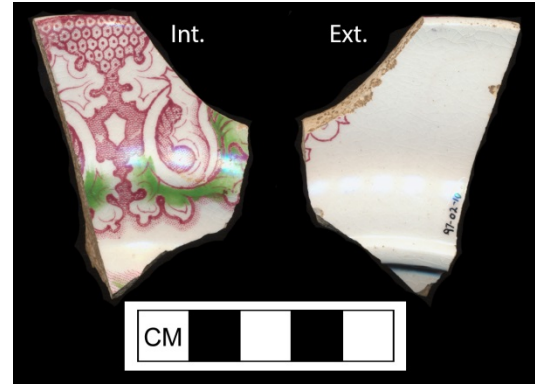
# Molded Edge



# Factory Made Slip



# Handpainted and Transfer Printed



# How to compare sites dug by different people, using different methods?

**Relative Frequencies:** Commonly used. Problematic because they are based on the assumption that the artifact class in the numerator is independent of the denominator. Enslaved households with greater access to costly adornment items, likely had greater access to all goods.

**Artifact Densities:** Provides a good estimate of per capita discard IF population density and occupation among sites are constant. OR if site formation processes don't impact density.

**Abundance Indices:** Provides estimates of discard that are relative to a baseline discard rate, with the assumption that the baseline discard does not change, or if it does, it does so in a predictable manner.



**Abundance Index (AI)=  
Artifact Group 1/(Artifact Group 1 + Artifact Group 2)**

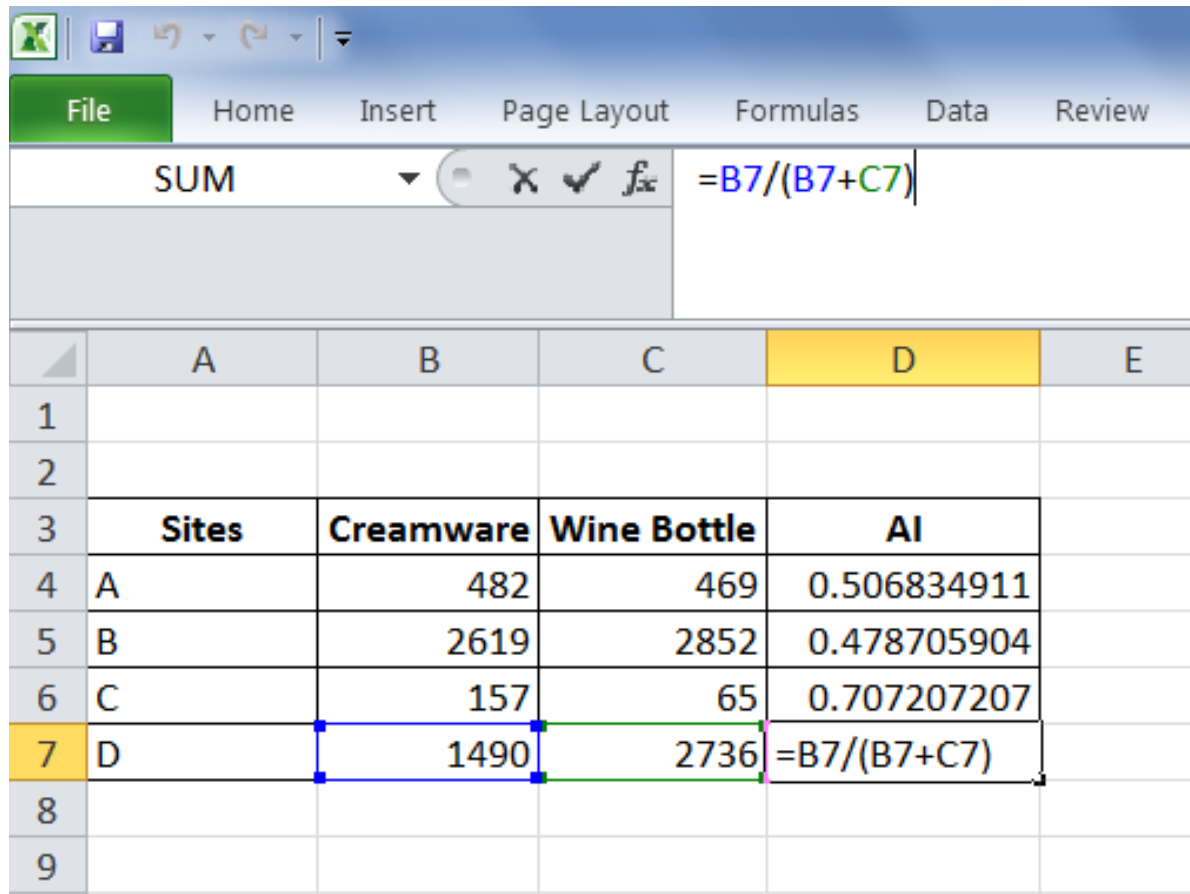
**Artifact Group 1 is the artifact class  
whose discard rate you wish to measure.**

**Artifact Group 2 is the baseline artifact class,  
whose baseline discard does not change  
(or that changes in a predictable manner).**

**Compare this to relative frequencies:  
=Artifact Group 1/Artifact Group 2**

# Excel Formula

$$=A1/(A1+A2)$$



The screenshot shows the Microsoft Excel interface. The ribbon includes File, Home, Insert, Page Layout, Formulas, Data, and Review. The formula bar displays the formula  $=B7/(B7+C7)$ . The spreadsheet grid shows columns A through E and rows 1 through 9. Cell D7 is highlighted in yellow and contains the formula. The formula bar also shows 'SUM' and a dropdown arrow.

	A	B	C	D	E
1					
2					
3	<b>Sites</b>	<b>Creamware</b>	<b>Wine Bottle</b>	<b>AI</b>	
4	A	482	469	0.506834911	
5	B	2619	2852	0.478705904	
6	C	157	65	0.707207207	
7	D	1490	2736	$=B7/(B7+C7)$	
8					
9					



# Plot the Abundance Index By Time

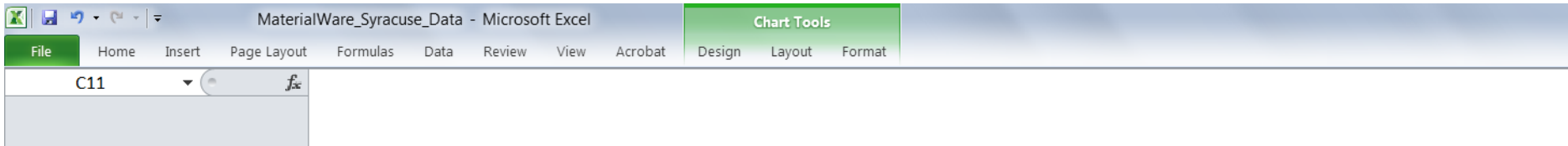
	A	B	C	D	E
1	Sites	Creamware	Wine Bottle	AI	MCD
2	A	482	469	0.506834911	1794
3	B	2619	2852	0.478705904	1790
4	C	157	65	0.707207207	1798
5	D	1490	2736	0.352579271	1785
6					

← Add MCD field.

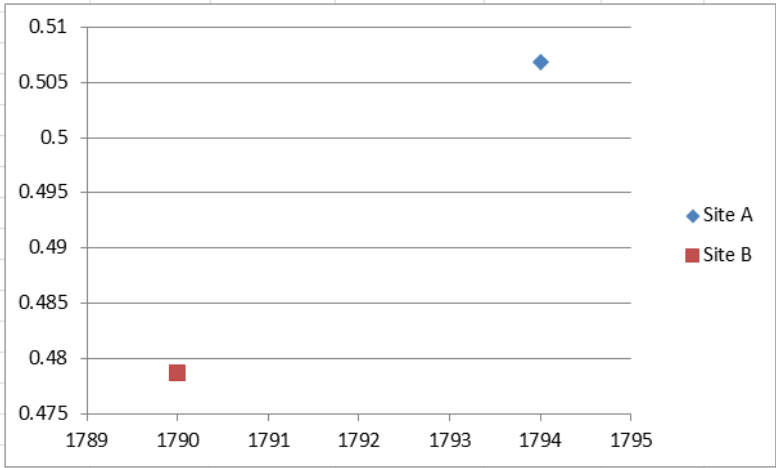
Go to **Insert Tab**, Select **Scatter Plot**

The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'Charts' group on the ribbon has the 'Scatter' icon highlighted. A tooltip for the 'Scatter' chart is displayed, providing instructions on how to use it.

**Scatter**  
Insert a Scatter chart, also known as an X Y chart.  
This type of chart compares pairs of values.  
Use it when the values being charted are not in X-axis order or when they represent separate measurements.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Sites	Creamware	Wine Bottle	AI	MCD												
2	A	482	469	0.506834911	1794												
3	B	2619	2852	0.478705904	1790												
4	C	157	65	0.707207207	1798												
5	D	1490	2736	0.352579271	1785												



Select Data Source

Chart data range:

The data range is too complex to be displayed. If a new range is selected, it will replace all of the series in the Series panel.

Switch Row/Column

Legend Entries (Series)

Add Edit Remove

Site A

Site B

Horizontal (Category) Axis Labels

Edit

1790

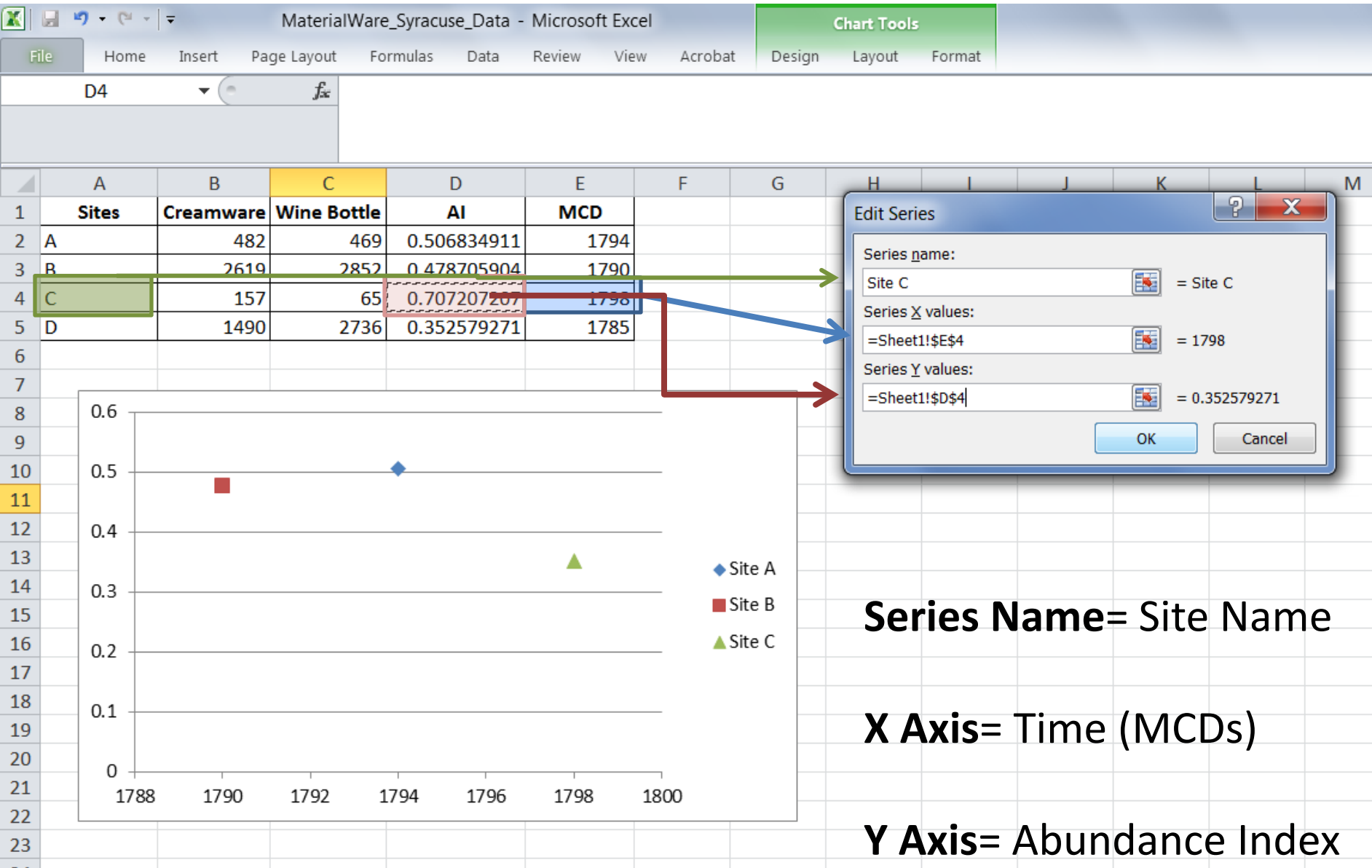
Hidden and Empty Cells

OK Cancel

**X Axis = Time (MCDs)**

**Y Axis = Abundance Index**

# With Scatterplots, you add sites to the plot one at a time.



**Series Name= Site Name**

**X Axis= Time (MCDs)**

**Y Axis= Abundance Index**

**TA-DA!**

