DAACS Open Academy

Digital Data Collection in Archaeology Short Course

Workshop 1

Creating a Digital Dataset…
that meets your research needs

Jillian Galle, Director, DAACS
Beth Bollwerk, Project Manager for DAACS

DAACS | DIGITAL ARCHAEOLOGICAL ARCHIVE OF COMPARATIVE SLAVERY

MONTICELLO

Digital Data Collection in Archaeology
Short Course Goals

:

These workshops will focus on archaeological data collection, management and analysis.

- We believe that historical and archaeological data are critical tools for understanding the past.

- But we acknowledge that historical and archaeological data have also been used to create and perpetuate inaccurate and harmful theories about how enslaved African and Indigenous communities subsisted that continue to impact communities in the present.

- One of our goals is to empower archaeologists -- especially archaeologists from communities underrepresented in the discipline -- to use data effectively to guide and inform their research and to counter inaccurate interpretations.

Digital Data Collection in Archaeology
Short Course Goals

:

We recognize that:

- There are many sources that should guide and inform the process of creating a research question.
  - Theoretical models from a variety of disciplines
  - Community partner's interests
  - Documents, oral history, the historical record

- We could easily dedicate an individual workshop, or an entire series, to these and to many of the topics we discuss on this evening. Our focus, however, remains on the material we archaeologically recover.

- Our hope is to inspire you to think hard about how and why collect data and to inspire you to engage deeply with the archaeological record.

Goals for Today's Workshop

You will learn:

1. How to refine research objectives and link them directly linked to the field and artifact data you collect.
2. How to develop and refine research questions that can be answered with archaeological evidence/data.
3. How to identify and collect the data you need to answer your research questions.

Road Map

First Hour: Lecture and case studies

Five Minute Stretch Break

Second Hour: Three group exercises

Historical Archaeology

- We are, first and foremost, archaeologists.

- We are scholars whose primary means of accessing the past is the material record and the archaeological contexts from which that record is generated.

- We train for an advanced degree in Anthropology, with an archaeological focus.

- If we excavate, we are ethically obligated to conduct those excavations using methods guided by research questions that are answerable using archaeological data.

- If your research question is better answered by documents, ethnography, oral history, or a variety of other sources, you may want to reconsider doing destructive archaeological fieldwork.

- If you are looking to add materiality to your non-archaeological sources, legacy collection research is a good approach. Non-destructive data collection options - GPR, LIDAR, Catch-and-Release Surface Survey - maybe better approaches.

Excavation is one form of data collection

How we sample the sediment is another form of data collection.

COURTESY HISTORIC MOUNT VERNON

How we select what we record about the materials coming from those sediments is another form of data collection.

Nearly every decision we make in the field and lab has a direct impact on the arguments that can be made with the data collected.

We are ethically obligated, as archaeologists, to understand how our field and lab impact the depth and rigor of our ability to wring understanding from the archaeological record.

In the ideal world,

1. Hypotheses and research questions are developed before data collection begins. They are critical to shaping data collection in the field and lab.

1. Primary research questions is should ideally be shaped by a hypothesis. The hypothesis should be developed _before_ the primary research question.

1. This should be the case for all academically-driven field work. If you are initiating field work-- for dissertation research, field school, or other research project, before you put a shovel in the ground, you should have tight hypotheses and research questions prepared.

1. Understandably, this is difficult for those working in government, CRM, or museum-based contexts where projects are determined by contracts and mitigation needs.

A couple quick field case studies:

1. Monticello's Plantation Archaeological Survey
   -- A 24+ year initiative
   --The first attempt to provide a complete inventory of the unique archaeological resources located on the 2000-acre tract currently owned by the Thomas Jefferson Foundation.
   --Goal to identify and chart cultural and environmental interactions and change.

1. Stewart Castle Jamaica
   -- One three-week excavation season

Both projects used STPs and targeted quadrat excavation

References to B. Hems
and Overseer at what we now
call Site 7.

N209, Jefferson plat of Monticello Mountain (c. 1809)

4

Begun in 1997, goal was to make a complete inventory of all archaeological resources owned by Thomas Jefferson Foundation.

The Monticello home farm, on the southeast slopes of Monticello Mountain (shown above) has been the focus of survey fieldwork to date, with smaller excavation campaigns at Tufton and Shadwell.

To Date:

Excavated @ 28,000 shovel-test-pits every 40 feet.

Close down to 20 foot intervals when there is a positive STP.

Monticello Plantation Archaeological Survey

Rivanna River

Home Farm

Tufton

Legend
● Shovel Test Pits
— Jefferson Roads
— Modern Roads
■ Buildings

0   500   1,000   2,000
Feet

N
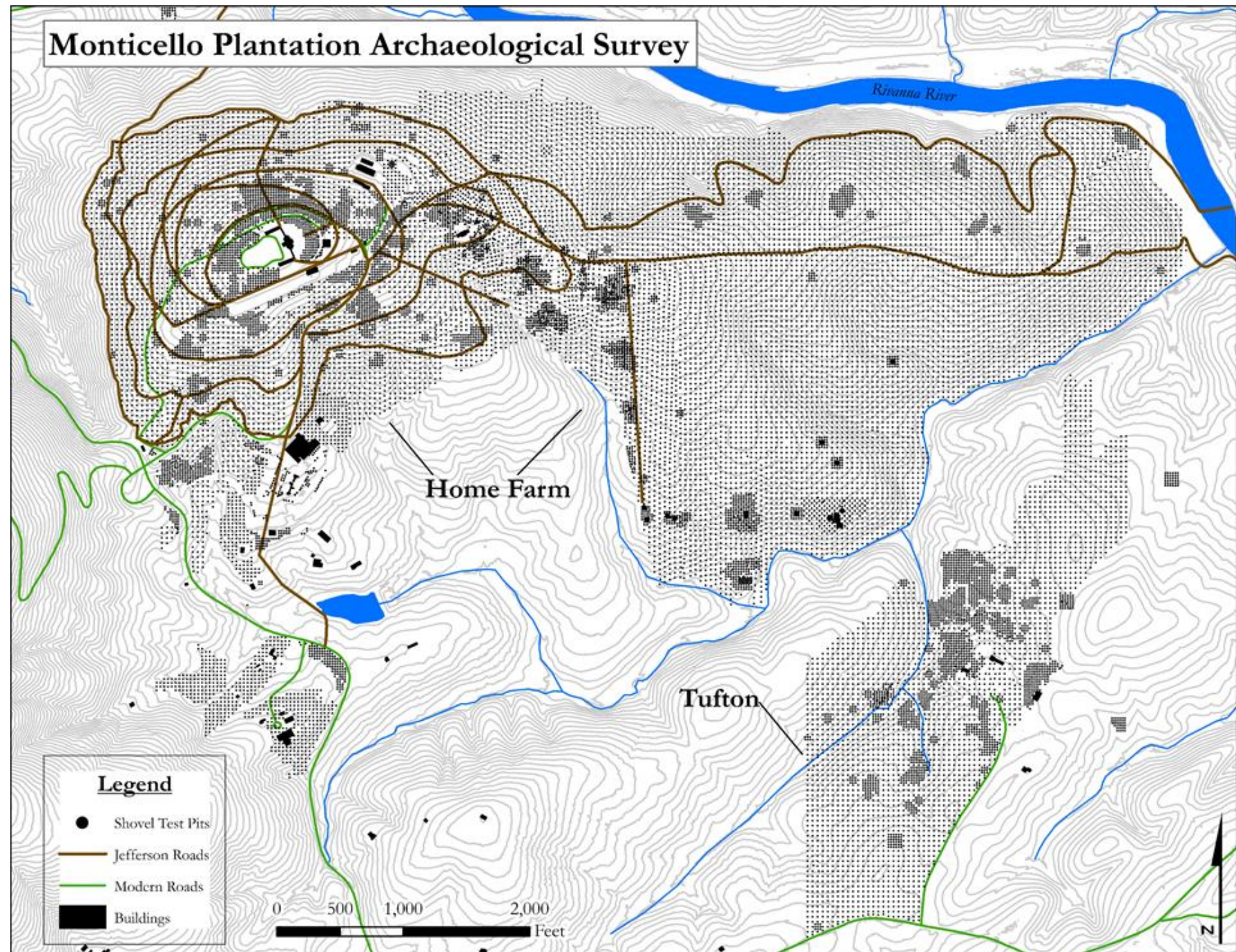
Dozens of previously unknown sites have been found, radically reshaping our understanding of cultural interaction and environmental changes on the mountain top.

Monticello Plantation Archaeological Survey
The Home Farm
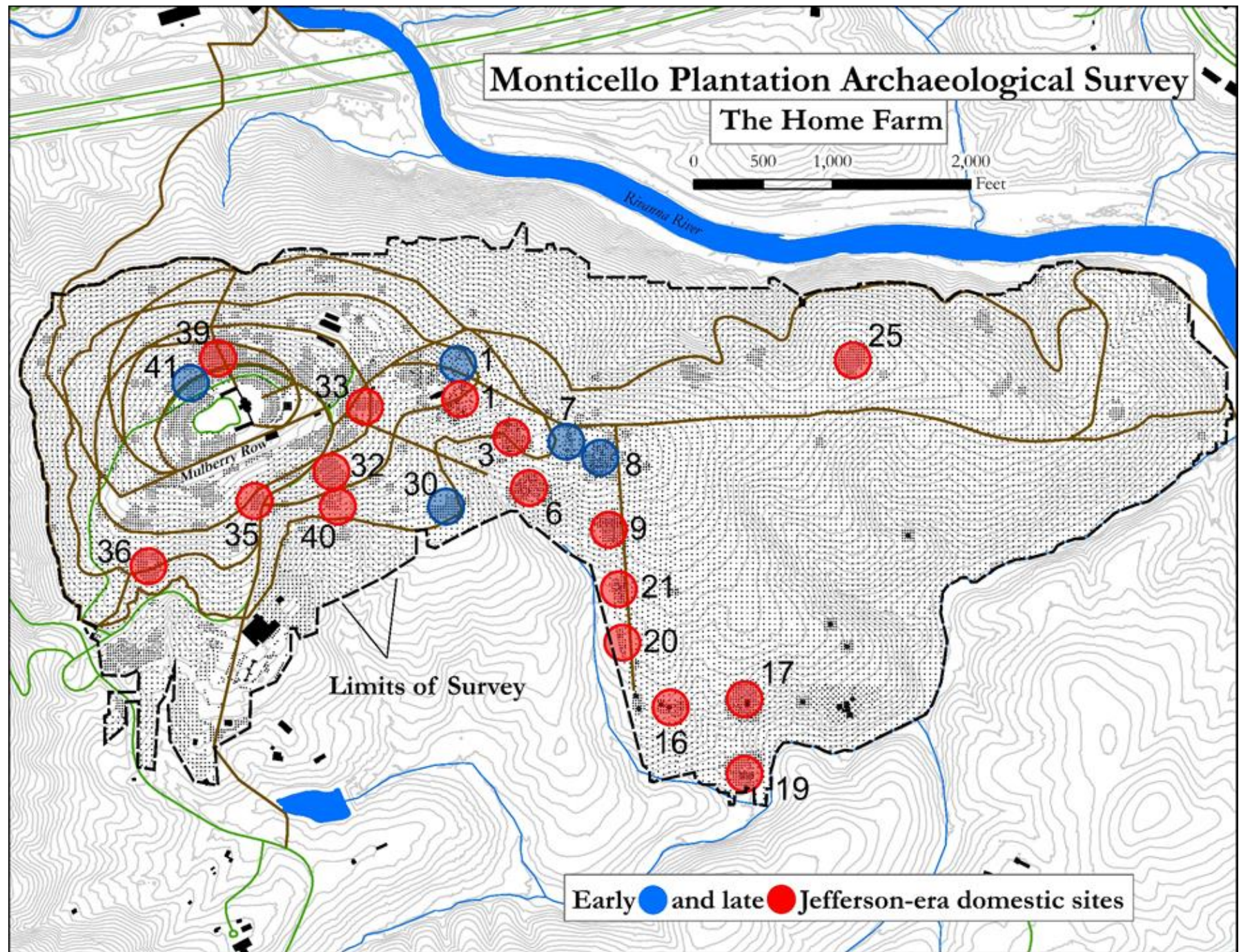
Stratified Random Sampling

Once sites were identified, 5 x 5 foot quadrats were randomly placed within 20 x 20 foot grids until coverage revealed site details and edges.

Read more about Sites 7 and 8, the Monticello Home Farm Quarters, at www.daacs.org

Site 7

Str. #5

Site 8

Str. #4

Str. #2

Str. #3

Str. #1

N

0   100 feet

Subfloor Pit

Other Feature

Site 6 *(c. 1800-1830)*

Wrought and Cut Nails
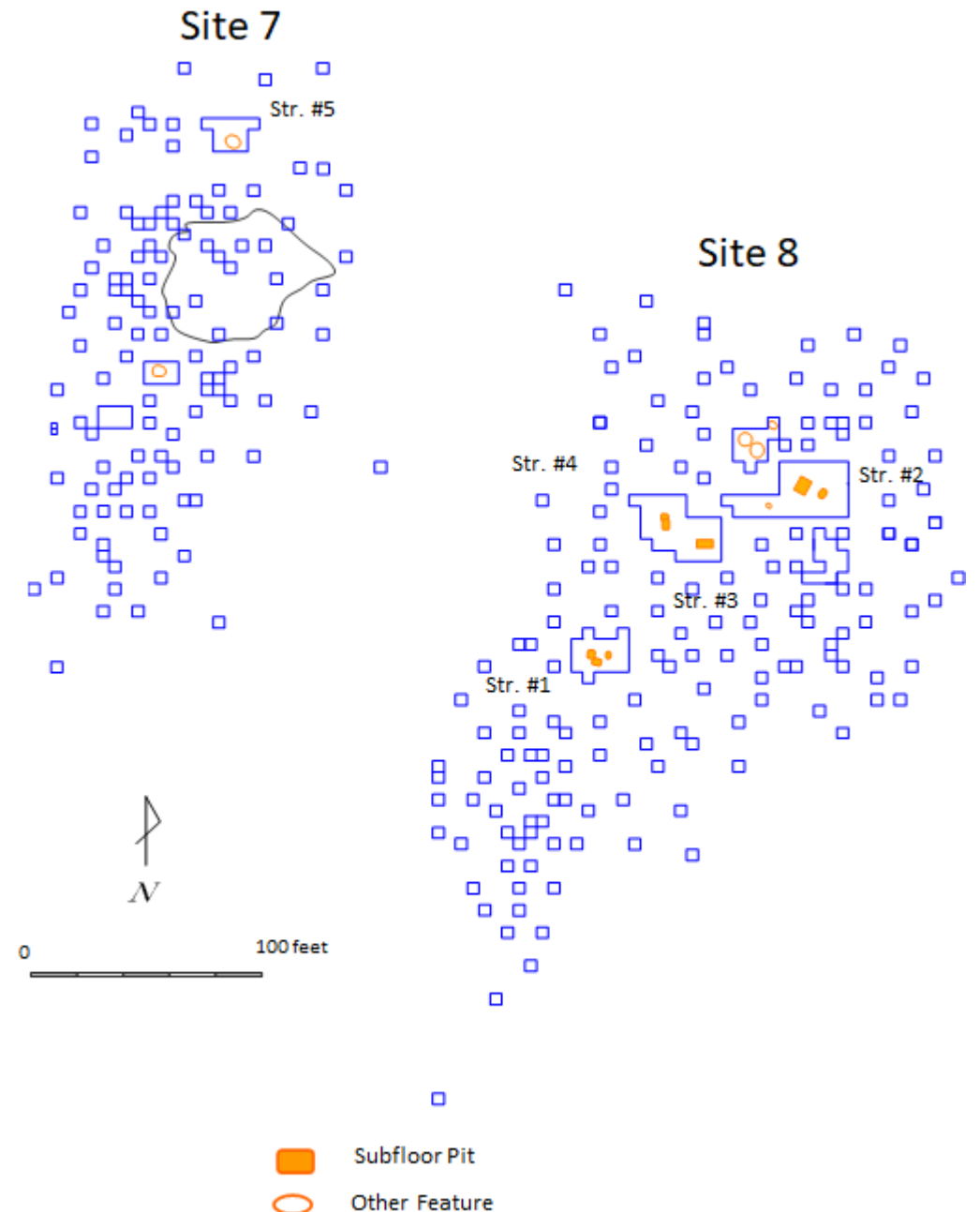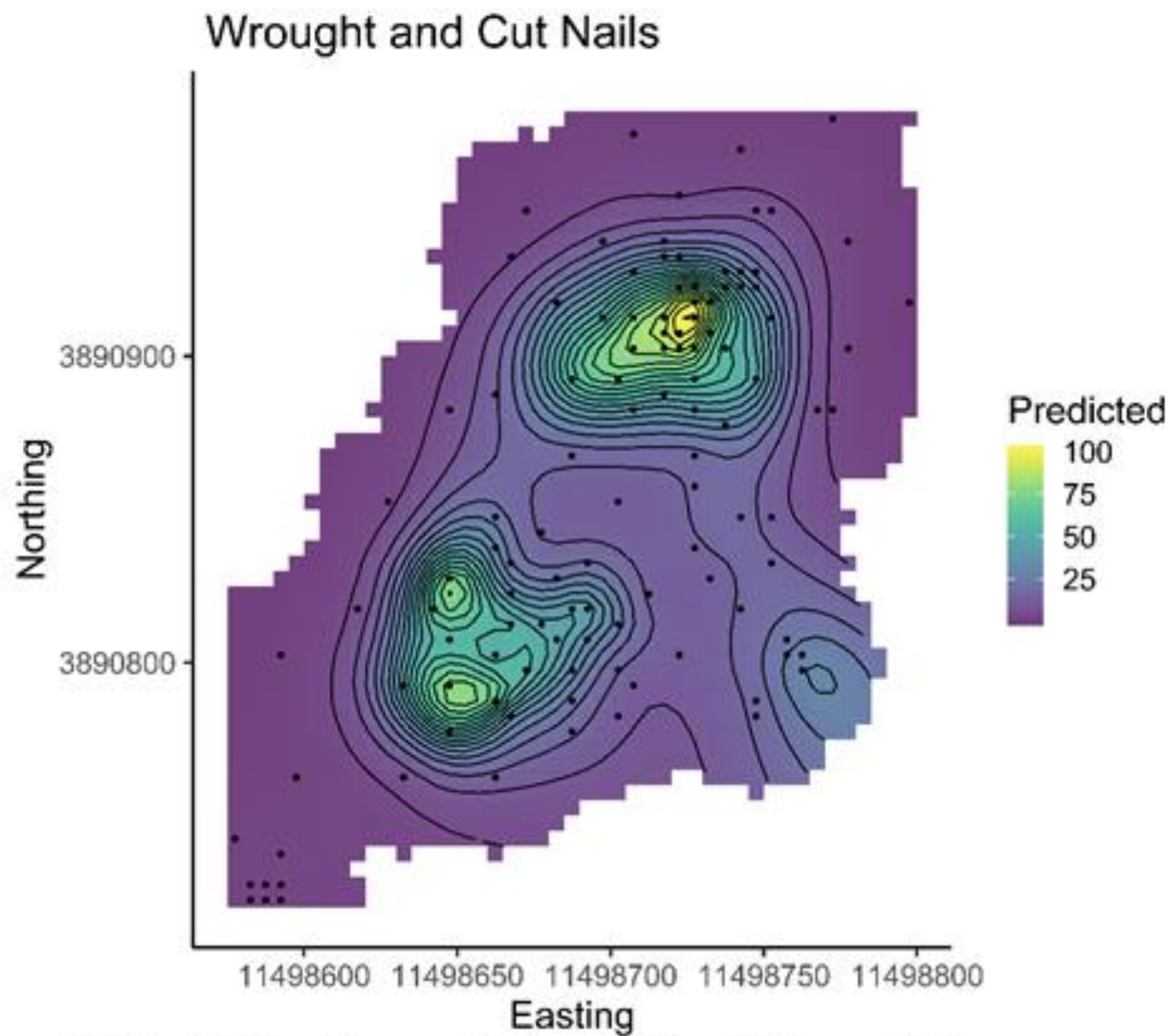
GAM, log link, Tweedie errors. Deviance explained: 94%. p < .0001

Stewart Castle Plat, 1799
Munroe, Innes, Stevenson, surveyors

Stewart Castle Village for Enslaved Laborers and Main House

--173 STPS
--3 1 x 1 meter units investigating three temporally different areas
--Over 12,000 artifacts

Area 1

Area 2

Area 3

Privy

Main
House Courtyard

Existing road

- Excavated shovel test pits
- Projected shovel test grid
- Excavated quadrats

0   25   50

Meters

Prediction Map

Total Count: All Ceramics (Raw)

- 0.000000 - 0.797686
- 0.797686 - 1.301395
- 1.301395 - 2.099082
- 2.099082 - 3.362319
- 3.362319 - 5.362815
- 5.362815 - 8.530853
- 8.530853 - 13.547844
- 13.547844 - 21.492880
- 21.492880 - 34.074856
- 34.074856 - 54.000000

0   5   10   20

Meters

Proportion of Taxon Biomass by Temporal Phase

Ceramic Genre Abundance

Want more information on Stewart Castle? Check out www.daacs.org and talks by Jilian Galle (DAACS Conversations with Dr. Jillian Galle, Project Director, DAACS on Vimeo) and Sean Devlin (DAACS Conversations with Sean Dean Devlin. March 9, 2021 on Vimeo

The FINER Method adapted for archaeologists

F Feasible

I Interesting

N Novel

Numeric (Jillian's addition)

E Ethical

R Relevant

Reproducible (Jillian's addition)

F   Feasible

- Adequate and Appropriate Data. This impacts collection decisions and/or the legacy collections you work with.

- Appropriate archaeological and material culture training. If you don't have it, make a plan to get it.

- Affordable in time and money

- Manageable in scope

I Interesting

- The answer will be of interest to not only investigator but peers and the public.

- Has the potential to contribute important and novel information about the past.

Inspired by:
 Hulley S, Cummings S, Browner W, et al. Designing clinical research. 3rd ed. Philadelphia (PA): Lippincott Williams and Wilkins; 2007.

See also:
https://writingcenter.gmu.edu/guides/how-to-write-a-research-question and https://cirt.gcu.edu/research/developmentresources/tutorials/question

N **Novel**

Numeric (Jillian's addition.

Ideally Numeric would be **Measurable** but M does not fit with the FINER acronym 😎)

- Tests and/or extends previous research.

- Is Measurable. Your questions should produce data that is measurable, quantifiable, and can be supported or refuted.

- Has the potential to contribute important and novel information about the past.

E   Ethical

- Will you be dealing with sensitive data?
- Make sure you know what you can/cannot excavate and include in your dataset.
- Identify and work with community members.
- Research questions and data collection should be approvable by institutional review boards.

R   Relevant
Reproducible
(Jillian's addition)

- Relevant to Archaeological Knowledge
- Relevant to Scientific Knowledge
- Relevant to Community Knowledge

Note: scientific and community knowledge are not mutually exclusive.

- Reproducible: You produce data that is open and available to the public.
- Reproducible: You use research methods that can be reproduced so that your hypotheses and research questions can be tested and refined by you and others.

Inspired by:
 Hulley S, Cummings S, Browner W, et al. Designing clinical research. 3rd ed. Philadelphia (PA): Lippincott Williams and Wilkins; 2007.

See also:
https://writingcenter.gmu.edu/guides/how-to-write-a-research-question and https://cirt.gcu.edu/research/developmentresources/tutorials/question

Case Study #1

Anna Agbe-Davies -- University of North Carolina, Chapel Hill (Dissertation -- 2004, Book -- 2015)

1. **General Topic/Interest:** How local pipes were made in Virginia and how they are a part or product of social life in Virginia
2. **Tighter Question:** Does the power of Virginian elites extend to the production and exchange of locally-made tobacco pipes? OR does the distribution of these artifacts more closely reflect the social relationships and choices of the artisans who produced the pipes [in the seventeenth century]?
3. **Hypothesis/Expectations:**
   a. Material analysis will demonstrate which pipes are the "same" and which are "different".
   b. By looking at which sites have the "same" pipes and associating those sites with known social relationships can identify whose networks determined their distribution

Tobacco, Pipes, and Race IN COLONIAL VIRGINIA

Little Tubes of Mighty Power

Anna S. Agbe-Davies
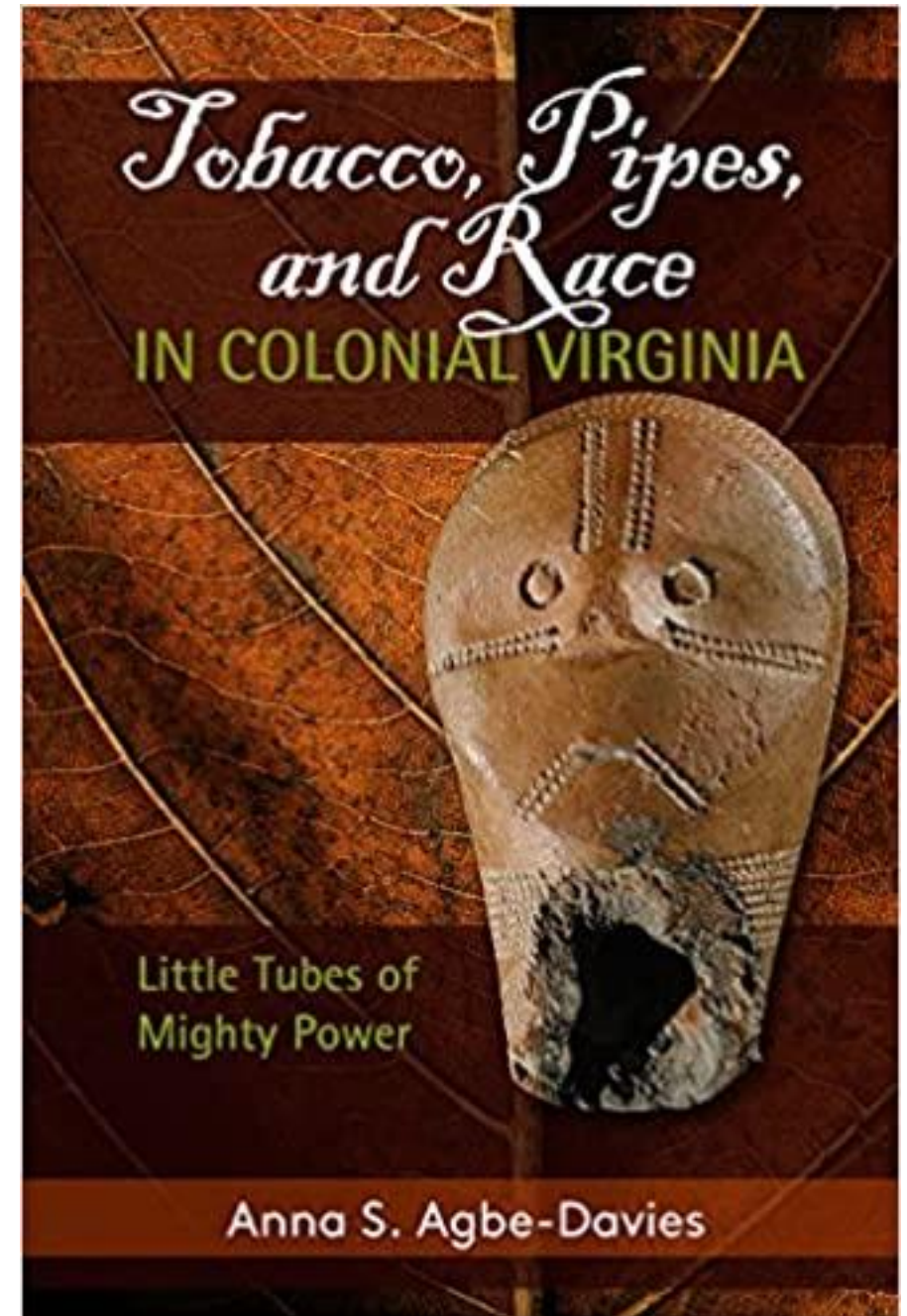
4. Material Evidence

- Categorical attributes -- bowl shape, fabric texture, surface texture, inclusions, color, core appearance, firing cloud, striation type, mouthpiece, bowl base, painted/slipped, presence of mold scar Y/N
- Metric attributes -- Stem bore diameter, distance between various areas of pipe, volume, thickness of bowl, angle of stem to bowl

5. Analysis Methods

a. Uses coefficient of variability to look at variation in metric attributes between pipes categorized by nominal variables (e.g.. with or without mold scars) to determine which pipes are the "same"

b. Analyzes distributions of attributes across sites where owners are known to have positive and negative relationships

6. Conclusions

a. Specialists produced the locally-made pipes found at sites on and around Jamestown Island.

b. Elites, despite their domination of many sectors of life in 17th-century Virginia, do not seem to have had a hand in the production and distribution of locally-made tobacco pipes.

Measurement	CV (%) all fragments	CV (%) mold scar absent	CV (%) mold scar present
angle	41.4	47.2	27.8
thickness	27.1	23.5	31.7
volume	20.9	23.4	11.7
stem diameter (indeterminate location)	16.4	16.6	14.3
bore diameter	15.8	16.1	13
mouthpiece diameter	12.7	12.8	10
heel length	11.6	12.7	10.4
bowl diameter (juncture)	11.2	10	6.9
stem height	9	9.6	7.5
bowl diameter (interior)	7.9	7.9	7.7
bowl diameter (exterior)	6.2	6.4	5

Table 3.3 A comparison of the CVs of all of the dimensions in one batch (leftmost column) shows that the difference between the scarred and not scarred fragments is significant. The chances of the scarred pipes having lower CVs for so many measurements at random are less than 1 percent.

Case Study #2

Bollwerk, Smith, Cooper, Neiman, Galle 2008 - in Progress

1. **General Interest/Topic:** How was colonoware used?
2. **Tighter Question:** Did colonoware serve different functions in domestic lives of enslaved individuals living on plantations?
3. **Hypothesis/Expectations**

Colonoware produced for tablewares

Thinner on average
Burnished
Fewer Inclusions/Finer paste
Presence of decoration/elaboration
European forms, tablewares, but utilitarian wares also possible

Photo Credit: Karen E. Price, Mount Vernon Preservation

Photo Credit: Karen E. Price, Mount Vernon Preservation

Colonoware produced for processing/cooking

Unburnished
Larger inclusions/less refined paste
More likely to be utilitarian wares, but tableswares/European forms also possible
More likely to have evidence of residue

4. Material Evidence

Infer intended function by looking at associations of different attributes:

- **shape** - related to ability to withstand certain uses and access contents
- **thickness** - related to whether a vessel can conduct heat and withstand mechanical stress and thermal shock)
- **surface treatment** - related to surface permeability and/or decorative aesthetic
- **residue -** related to cooking

4. Methods

- Dating sites using MCDs and Tobacco pipes
- Comparing relationships between different attributes -- such as thickness and burnishing

5. Conclusions

- Significant differences in patterning of attributes between South Carolina and Virginia colonoware
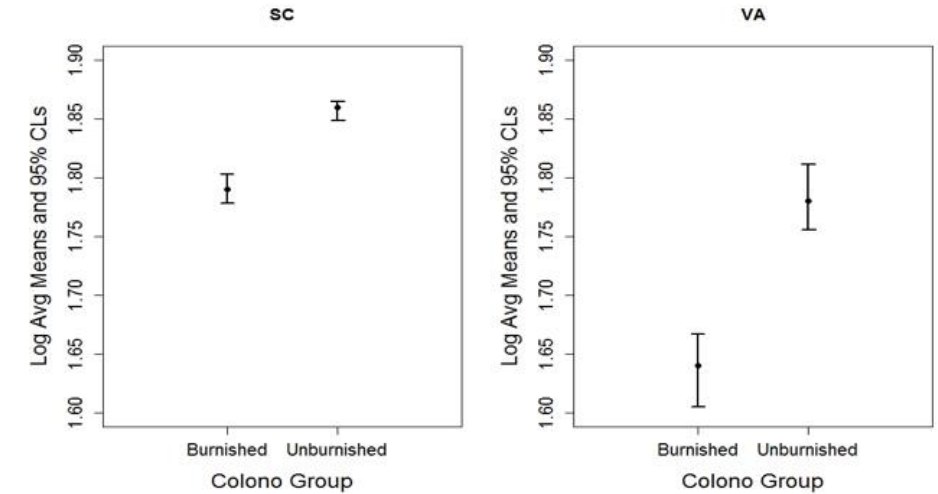
How did they get their data for their projects?

www.daacs.org

DAACS Offers

1. We offer scholars and the public free easy access to archaeological data, from artifacts, contexts, maps, and images, from archaeological sites of slavery across the Atlantic World.

2. With a steering committee of over 50 archaeologists and historians working on issues of slavery through the Atlantic World, we developed a massive open source (SQL) relational database (200+ tables), into which all data is entered and from which the data is delivered via the DAACS website.

3. Perhaps most critically, **artifact, context, image, and spatial data delivered by the website conform to a single set of classification and measurement protocols**, developed by DAACS staff and archaeologists working on the archaeology of slavery.
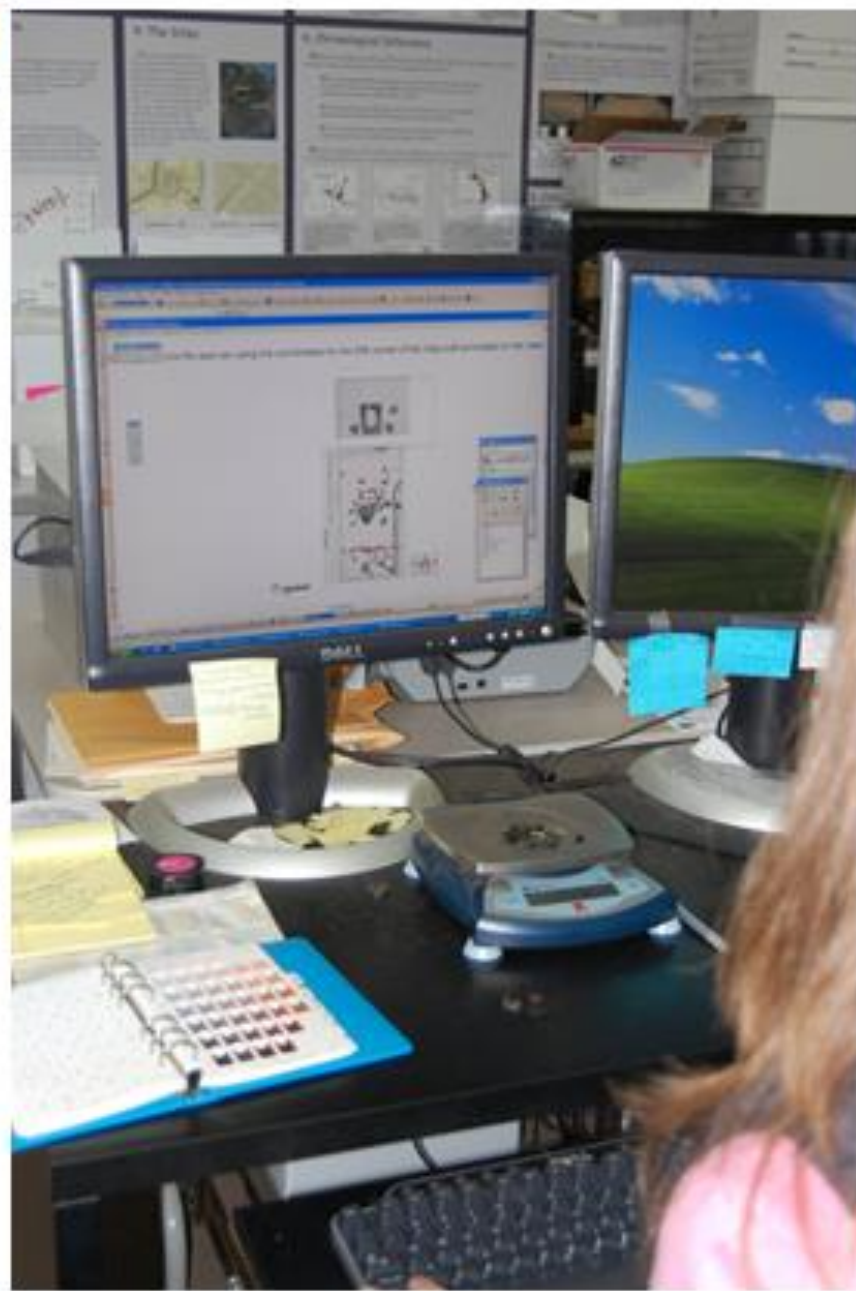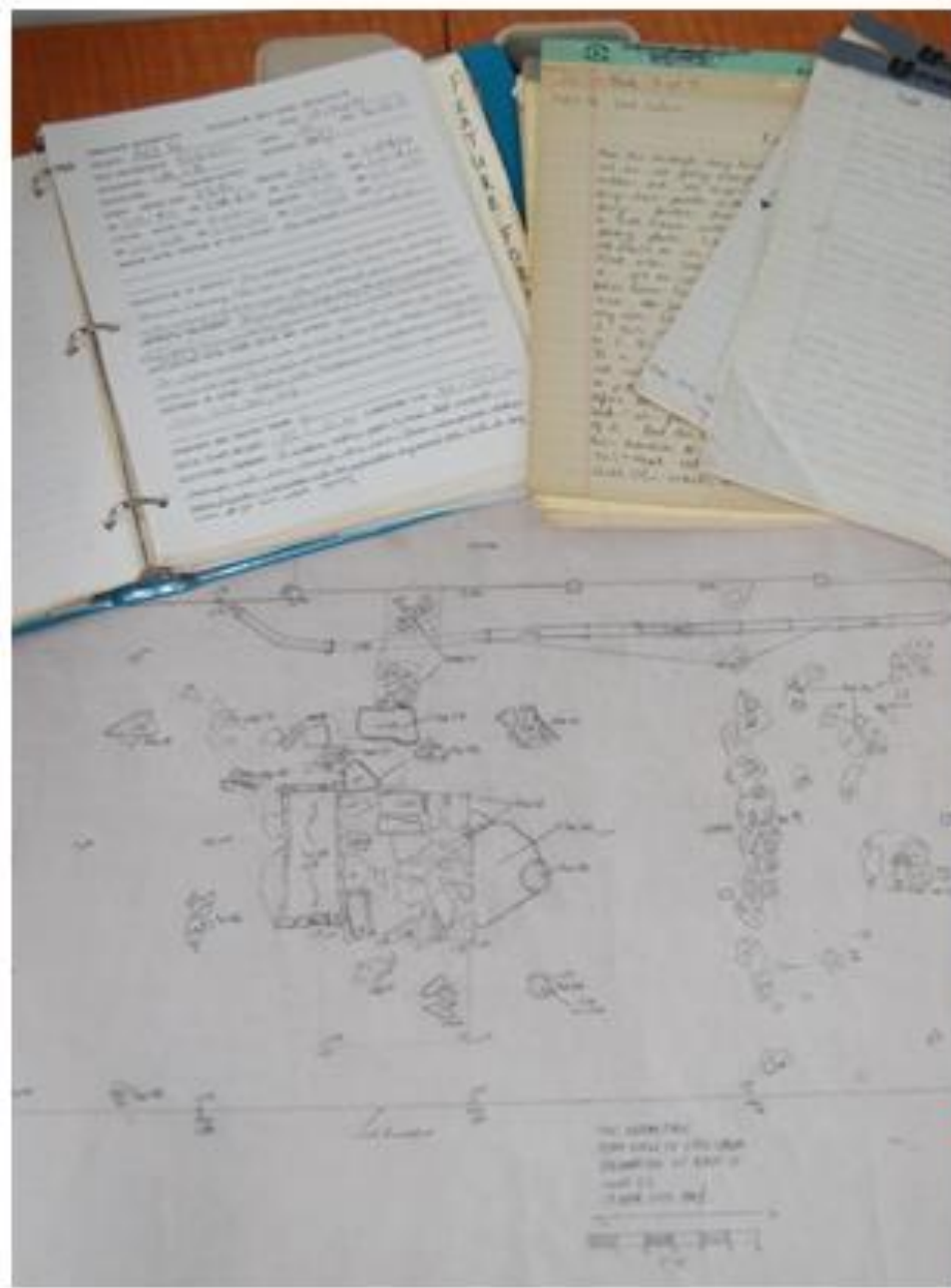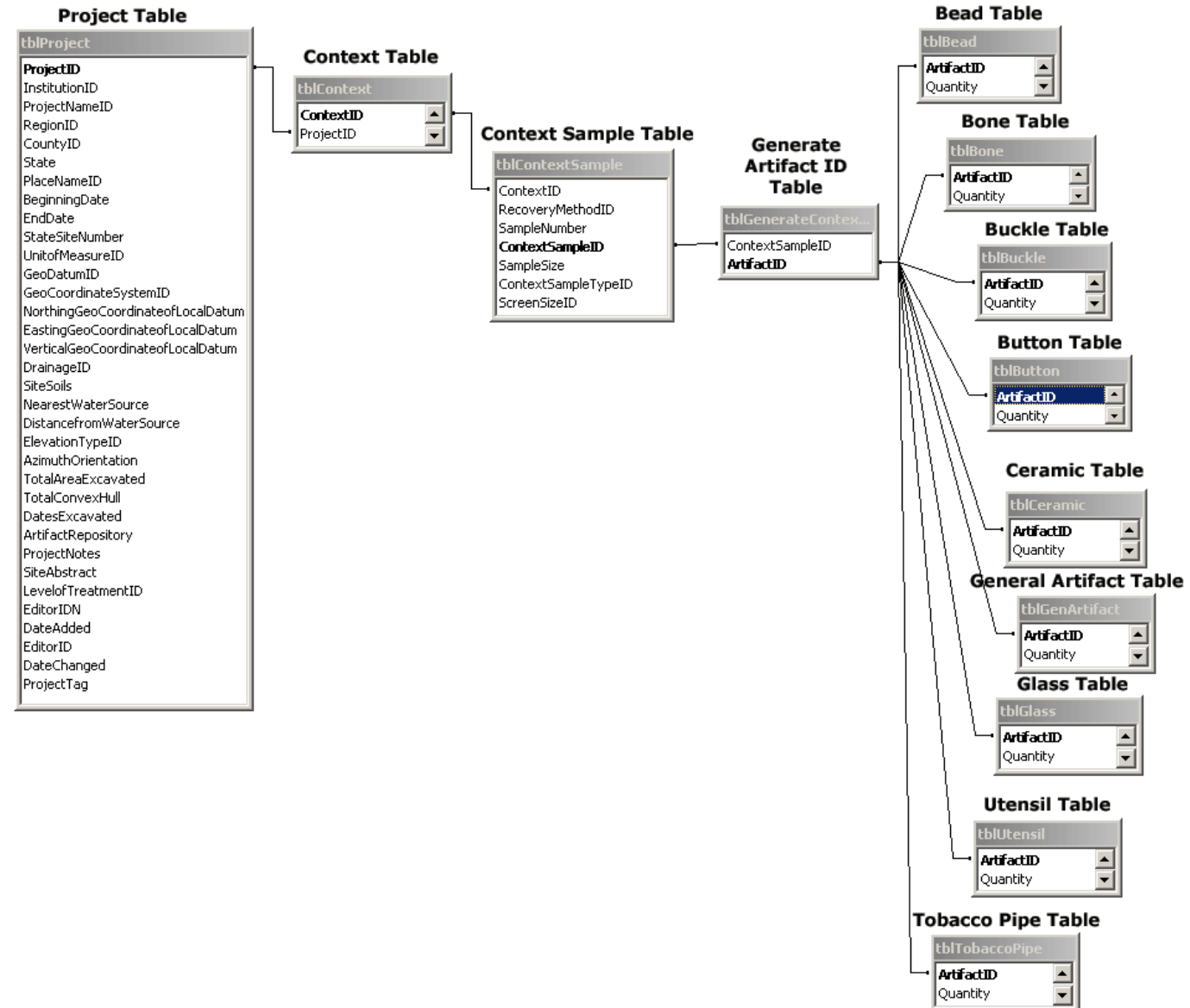
Things to consider when developing your Spreadsheet/Database

- Focusing here on higher level framework
- **Field information must not be divorced from the artifact data.** Must have field information linked to variables whether it is in a spreadsheet or a linked context table in a database.

Things to consider when developing your Spreadsheet/Database

- Datasets can be broken down into rows, columns, and cells
- Columns represent variables -- our attributes (e.g. a measurement or single observation)
- Rows are observations are sets of data (e.g. an artifact, or a context)
- Cells hold individual values (e.g. a button diameter, measurement).

Things to consider when developing your Spreadsheet/Database

1) Be consistent
2) Be thoughtful about your terms/values
3) No empty cells
4) One piece of info per cell
5) Create manuals/dictionaries for your data (known as Metadata)
6) No calculations in raw data files
7) Do not use font or color infill as data
8) BACK UP YOUR DATA

Past Me

Ugh, so much work to do... I'll do it later.

Present Me

Why didn't Past Me already do this? Oh well, I'm sure Future Me will get it done.

Future Me

Damn it! Why are you two such lazy bums? Stop leaving me all the work!

Work passes forward

Complaints pass backward

WellingtonGrey.net
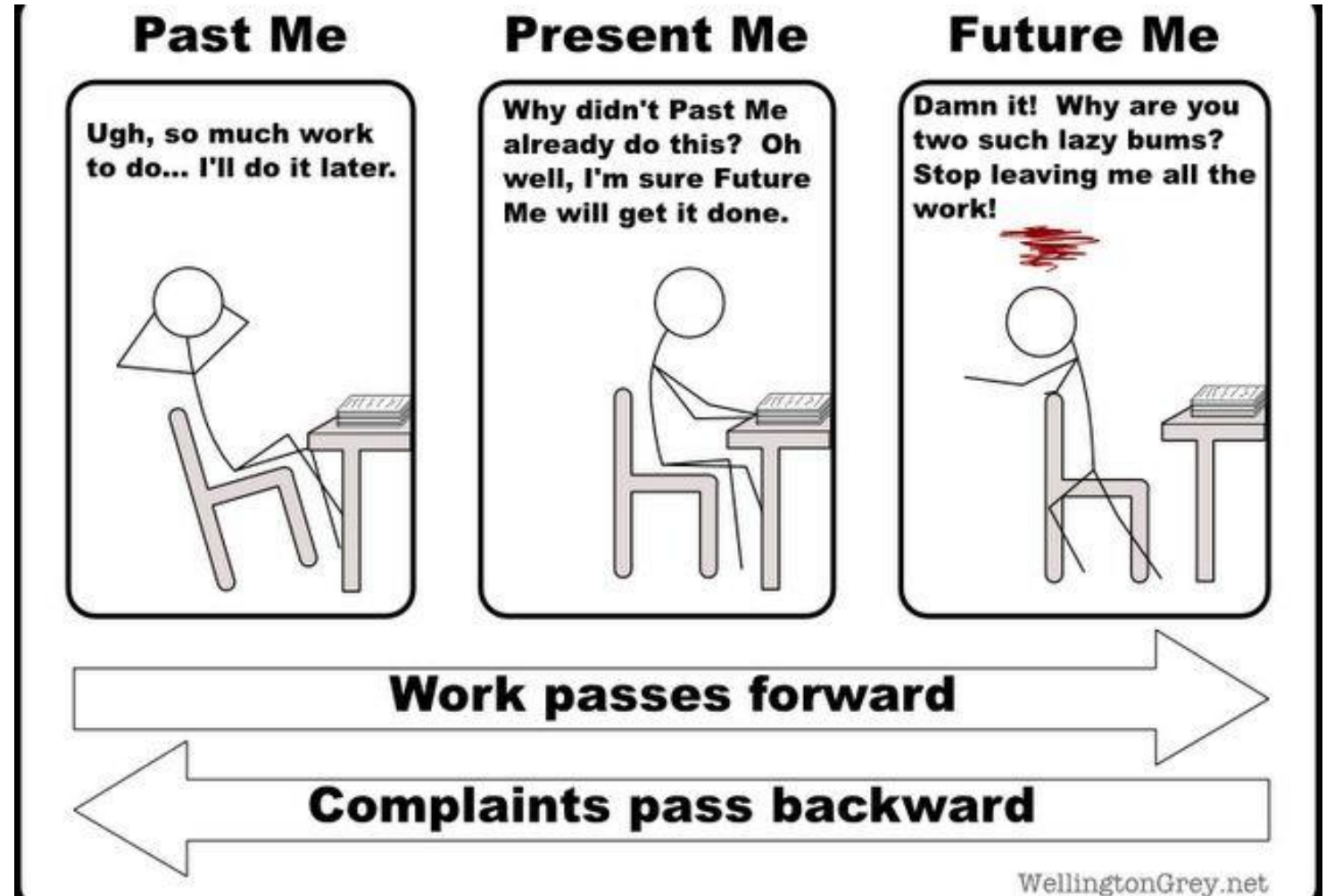
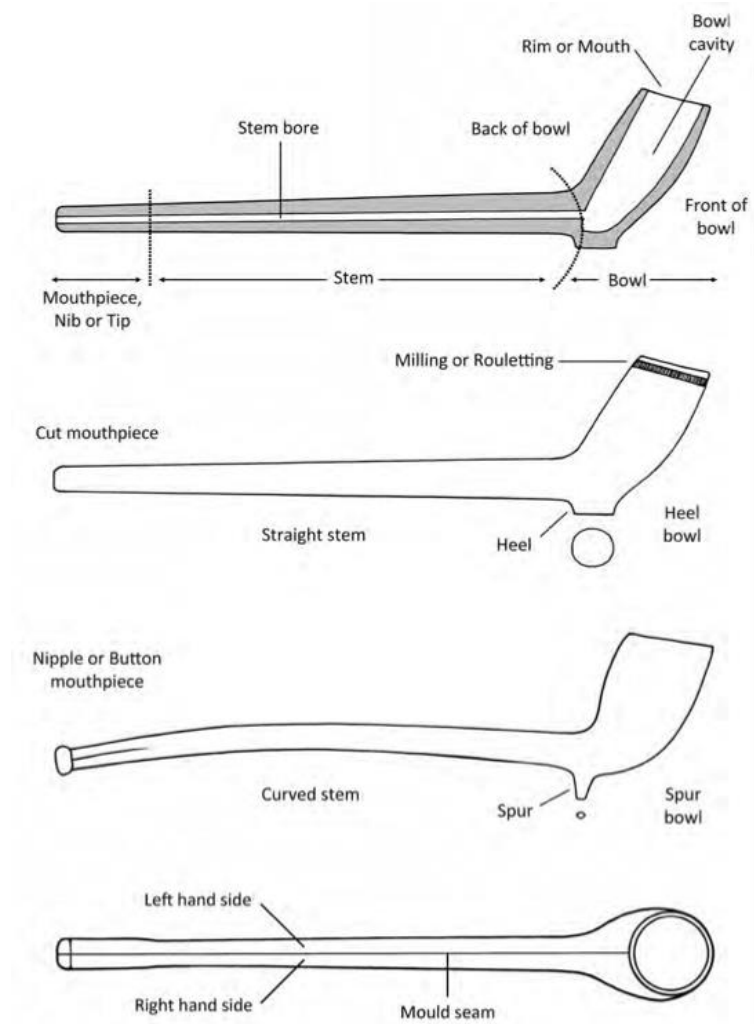# Tobacco Pipes:

Tobacco Pipes:

Material

Form

Completeness
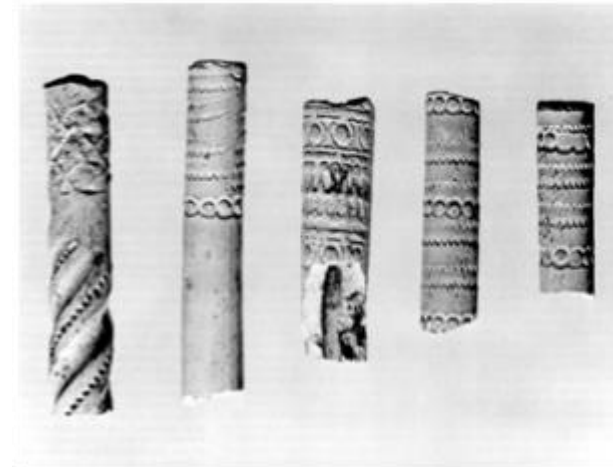
Tobacco Pipes:

Bore diameter
Stem length

Maker's Marks
Decorations

(1640 - 1660)   (1640 - 1660)

Data Fields Recorded by DAACS for Tobacco Pipes

45 Possible Attributes to Record

Count: Numeric

Completeness: Controlled Vocabulary

Material: Controlled Vocabulary

Manufacturing Technique: Controlled Vocabulary

Paste Color: Controlled Vocabulary

Non-Plastic Paste Inclusions: Controlled Vocabulary

Glaze Type: Controlled Vocabulary

Glaze Color: Controlled Vocabulary

Bowl Form: Controlled Vocabulary

Bowl Base Type: Controlled Vocabulary

Mouthpiece Form: Controlled Vocabulary

Decorative Motif: Controlled Vocabulary

Motif Manufacturing Method: Controlled Vocabulary

Motif Location: Controlled Vocabulary

Motif Notes: Open Text

Text Mark?: Controlled Vocabulary

Type of Marks: Controlled Vocabulary

Text Location: Controlled Vocabulary

Text Frame Motif: Controlled Vocabulary

First Name: Open Text

Last Name: Open Text

Place Name: Open Text

Slogan/Other: Open Text

Mark Notes: Open Text

Mark Description: Open Text

Pipe Maker: Open Text

Production Dates: Open Text

Manufacture Location: Open Text

Stem Length: Numeric

Exterior Stem Diameter: Numeric

Metric Bore Diameter: Numeric

64ths Bore Diameter: Numeric

Weight: Numeric

Bowl Height: Numeric

Maximum Bowl Diameter: Numeric

Bowl Rim Diameter: Numeric

Bowl Volume: Numeric

Maximum Sherd Measurement: Numeric

Mended: Controlled Vocabulary

Decoration: Controlled Vocabulary

Post-Manufacturing Modification: Controlled Vocabulary

Conservation: Open Text

Notes: Open Text

Data Fields Recorded by DAACS for Tobacco Pipes

22 Controlled Vocabulary Fields

Count: Numeric

Completeness: Controlled Vocabulary

Material: Controlled Vocabulary

Manufacturing Technique: Controlled Vocabulary

Pipe Form: Controlled Vocabulary

Stem Form: Controlled Vocabulary

Paste Color: Controlled Vocabulary

Non-Plastic Paste Inclusions: Controlled Vocabulary

Glaze Type: Controlled Vocabulary

Glaze Color: Controlled Vocabulary

Bowl Form: Controlled Vocabulary

Bowl Base Type: Controlled Vocabulary

Mouthpiece Form: Controlled Vocabulary

Decorative Motif: Controlled Vocabulary

Motif Manufacturing Method: Controlled Vocabulary

Motif Location: Controlled Vocabulary

Motif Notes: Open Text

Text Mark?: Controlled Vocabulary

Type of Marks: Controlled Vocabulary

Text Location: Controlled Vocabulary

Text Frame Motif: Controlled Vocabulary

First Name: Open Text

Last Name: Open Text

Place Name: Open Text

Slogan/Other: Open Text

Mark Notes: Open Text

Mark Description: Open Text

Pipe Maker: Open Text

Production Dates: Open Text

Manufacture Location: Open Text

Stem Length: Numeric

Exterior Stem Diameter: Numeric

Metric Bore Diameter: Numeric

64ths Bore Diameter: Numeric

Weight: Numeric

Bowl Height: Numeric

Maximum Bowl Diameter: Numeric

Bowl Rim Diameter: Numeric

Bowl Volume: Numeric

Maximum Sherd Measurement: Numeric

Mended: Controlled Vocabulary

Decoration: Controlled Vocabulary

Post-Manufacturing Modification: Controlled Vocabulary

Conservation: Open Text

Notes: Open Text

Data Fields Recorded by DAACS for Tobacco Pipes

11 Numeric Attributes to Record

Count: Numeric
Completeness: Controlled Vocabulary
Material: Controlled Vocabulary
Manufacturing Technique: Controlled Vocabulary
Pipe Form: Controlled Vocabulary
Stem Form: Controlled Vocabulary
Paste Color: Controlled Vocabulary
Non-Plastic Paste Inclusions: Controlled Vocabulary
Glaze Type: Controlled Vocabulary
Glaze Color: Controlled Vocabulary
Bowl Form: Controlled Vocabulary
Bowl Base Type: Controlled Vocabulary
Mouthpiece Form: Controlled Vocabulary
Decorative Motif: Controlled Vocabulary
Motif Manufacturing Method: Controlled Vocabulary
Motif Location: Controlled Vocabulary
Motif Notes: Open Text
Text Mark?: Controlled Vocabulary
Type of Marks: Controlled Vocabulary
Text Location: Controlled Vocabulary
Text Frame Motif: Controlled Vocabulary
First Name: Open Text
Last Name: Open Text

Place Name: Open Text
Slogan/Other: Open Text
Mark Notes: Open Text
Mark Description: Open Text
Pipe Maker: Open Text
Production Dates: Open Text
Manufacture Location: Open Text
Stem Length: Numeric
Exterior Stem Diameter: Numeric
Metric Bore Diameter: Numeric
64ths Bore Diameter: Numeric
Weight: Numeric
Bowl Height: Numeric
Maximum Bowl Diameter: Numeric
Bowl Rim Diameter: Numeric
Bowl Volume: Numeric
Maximum Sherd Measurement: Numeric
Mended: Controlled Vocabulary
Decoration: Controlled Vocabulary
Post-Manufacturing Modification: Controlled Vocabulary
Conservation: Open Text
Notes: Open Text

Data Fields Recorded by DAACS for Tobacco Pipes
12 Open Text Attributes to Record

Count: Numeric
Completeness: Controlled Vocabulary
Material: Controlled Vocabulary
Manufacturing Technique: Controlled Vocabulary
Pipe Form: Controlled Vocabulary
Stem Form: Controlled Vocabulary
Paste Color: Controlled Vocabulary
Non-Plastic Paste Inclusions: Controlled Vocabulary
Glaze Type: Controlled Vocabulary
Glaze Color: Controlled Vocabulary
Bowl Form: Controlled Vocabulary
Bowl Base Type: Controlled Vocabulary
Mouthpiece Form: Controlled Vocabulary
Decorative Motif: Controlled Vocabulary
Motif Manufacturing Method: Controlled Vocabulary
Motif Location: Controlled Vocabulary
Motif Notes: Open Text
Text Mark?: Controlled Vocabulary
Type of Marks: Controlled Vocabulary
Text Location: Controlled Vocabulary
Text Frame Motif: Controlled Vocabulary
First Name: Open Text
Last Name: Open Text

Place Name: Open Text
Slogan/Other: Open Text
Mark Notes: Open Text
Mark Description: Open Text
Pipe Maker: Open Text
Production Dates: Open Text
Manufacture Location: Open Text
Stem Length: Numeric
Exterior Stem Diameter: Numeric
Metric Bore Diameter: Numeric
64ths Bore Diameter: Numeric
Weight: Numeric
Bowl Height: Numeric
Maximum Bowl Diameter: Numeric
Bowl Rim Diameter: Numeric
Bowl Volume: Numeric
Maximum Sherd Measurement: Numeric
Mended: Controlled Vocabulary
Decoration: Controlled Vocabulary
Post-Manufacturing Modification: Controlled Vocabulary
Conservation: Open Text
Notes: Open Text

Screenshot of Tobacco Pipe Data Entry Form from DAACS Database

Material
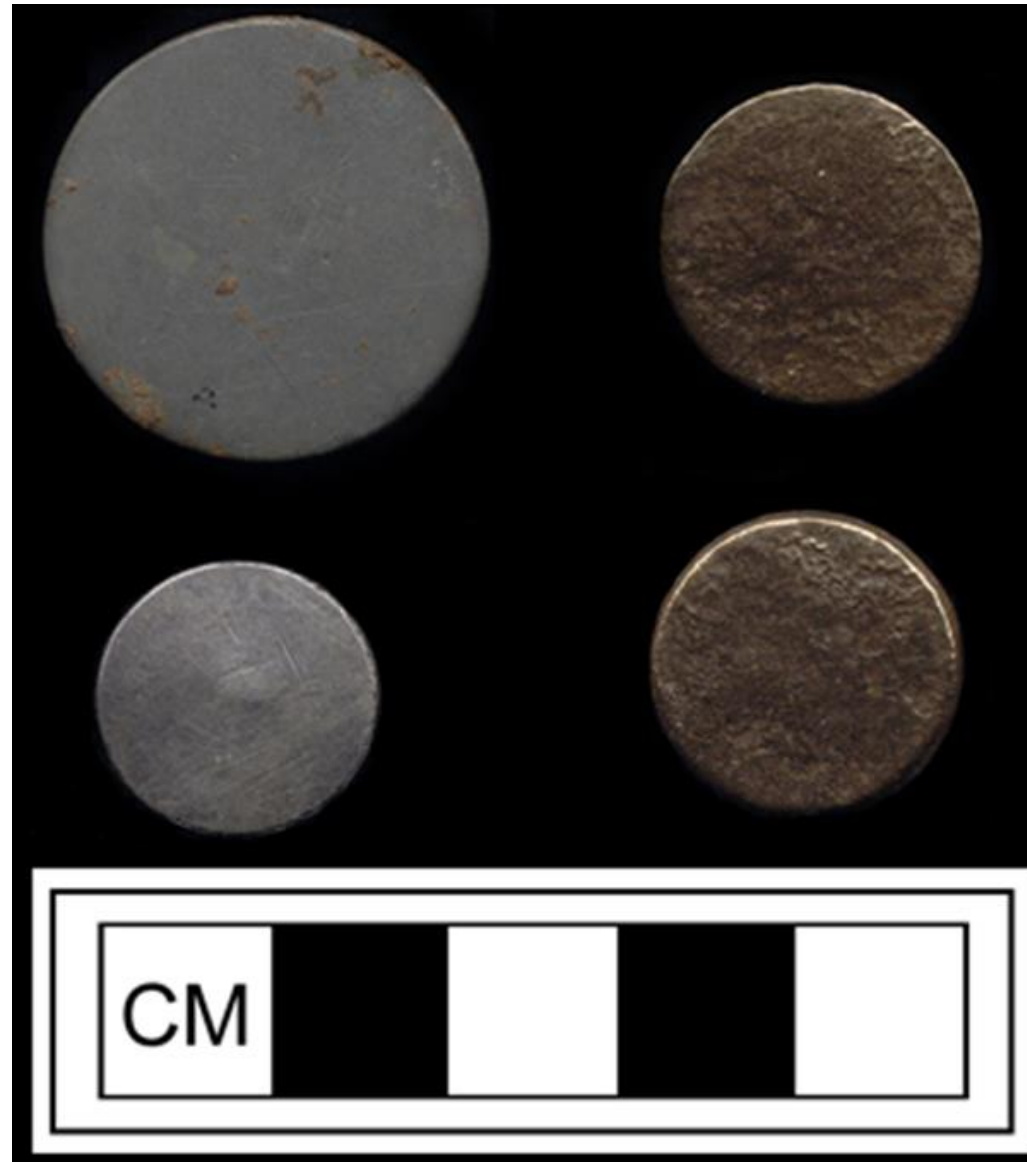

Tombac

Copper Alloy

Copper Alloy

Metal Color Appearance

White

White

Yellow

Diameter

Data Fields Recorded by DAACS for Buttons

31 Possible Attributes to Record

Count: Numeric
Completeness: Controlled Vocabulary
Material: Controlled Vocabulary
Manufacturing Technique: Controlled Vocabulary
Type: Controlled Vocabulary
Form: Controlled Vocabulary
Button Color: Controlled Vocabulary
Button Metal Color: Controlled Vocabulary
Eye: Controlled Vocabulary
Shank Material: Controlled Vocabulary
Shank Style: Controlled Vocabulary
Shank Condition: Controlled Vocabulary
Weight: Numeric
Height: Numeric
Length: Numeric

Width: Numeric
Diameter: Numeric
Back Stamp: Controlled Vocabulary
Decorative Technique: Open Text
Applied Color: Controlled Vocabulary
Jewel/Inlay Material: Controlled Vocabulary
Decorative Motif: Controlled Vocabulary
Button Face Material: Controlled Vocabulary
Button Face Manufacturing Technique: Controlled Vocabulary
Button Join Method: Controlled Vocabulary
Mended: Controlled Vocabulary
Decoration: Controlled Vocabulary
Burned: Controlled Vocabulary
Post-Manufacturing Modification: Controlled Vocabulary
Conservation: Open Text
Notes: Open Text

Data Fields Recorded by DAACS for Buttons

22 Controlled Vocabulary Fields

Count: Numeric

Completeness: Controlled Vocabulary

Material: Controlled Vocabulary

Manufacturing Technique: Controlled Vocabulary

Type: Controlled Vocabulary

Form: Controlled Vocabulary

Button Color: Controlled Vocabulary

Button Metal Color: Controlled Vocabulary

Eye: Controlled Vocabulary

Shank Material: Controlled Vocabulary

Shank Style: Controlled Vocabulary

Shank Condition: Controlled Vocabulary

Weight: Numeric

Height: Numeric

Length: Numeric

Width: Numeric

Diameter: Numeric

Back Stamp: Controlled Vocabulary

Decorative Technique: Open Text

Applied Color: Controlled Vocabulary

Jewel/Inlay Material: Controlled Vocabulary

Decorative Motif: Controlled Vocabulary

Button Face Material: Controlled Vocabulary

Button Face Manufacturing Technique: Controlled Vocabulary

Button Join Method: Controlled Vocabulary

Mended: Controlled Vocabulary

Decoration: Controlled Vocabulary

Burned: Controlled Vocabulary

Post-Manufacturing Modification: Controlled Vocabulary

Conservation: Open Text

Notes: Open Text

Data Fields Recorded by DAACS for Buttons

6 Numeric Attributes to Record

Count: Numeric
Completeness: Controlled Vocabulary
Material: Controlled Vocabulary
Manufacturing Technique: Controlled Vocabulary
Type: Controlled Vocabulary
Form: Controlled Vocabulary
Button Color: Controlled Vocabulary
Button Metal Color: Controlled Vocabulary
Eye: Controlled Vocabulary
Shank Material: Controlled Vocabulary
Shank Style: Controlled Vocabulary
Shank Condition: Controlled Vocabulary
Weight: Numeric
Height: Numeric
Length: Numeric

Width: Numeric
Diameter: Numeric
Back Stamp: Controlled Vocabulary
Decorative Technique: Open Text
Applied Color: Controlled Vocabulary
Jewel/Inlay Material: Controlled Vocabulary
Decorative Motif: Controlled Vocabulary
Button Face Material: Controlled Vocabulary
Button Face Manufacturing Technique: Controlled Vocabulary
Button Join Method: Controlled Vocabulary
Mended: Controlled Vocabulary
Decoration: Controlled Vocabulary
Burned: Controlled Vocabulary
Post-Manufacturing Modification: Controlled Vocabulary
Conservation: Open Text
Notes: Open Text

Data Fields Recorded by DAACS for Buttons

Only 3 Open Text Attributes to Record

Count: Numeric
Completeness: Controlled Vocabulary
Material: Controlled Vocabulary
Manufacturing Technique: Controlled Vocabulary
Type: Controlled Vocabulary
Form: Controlled Vocabulary
Button Color: Controlled Vocabulary
Button Metal Color: Controlled Vocabulary
Eye: Controlled Vocabulary
Shank Material: Controlled Vocabulary
Shank Style: Controlled Vocabulary
Shank Condition: Controlled Vocabulary
Weight: Numeric
Height: Numeric
Length: Numeric

Width: Numeric
Diameter: Numeric
Back Stamp: Controlled Vocabulary
Decorative Technique: Open Text
Applied Color: Controlled Vocabulary
Jewel/Inlay Material: Controlled Vocabulary
Decorative Motif: Controlled Vocabulary
Button Face Material: Controlled Vocabulary
Button Face Manufacturing Technique: Controlled Vocabulary
Button Join Method: Controlled Vocabulary
Mended: Controlled Vocabulary
Decoration: Controlled Vocabulary
Burned: Controlled Vocabulary
Post-Manufacturing Modification: Controlled Vocabulary
Conservation: Open Text
Notes: Open Text

Screenshot of Button Data Entry Form from DAACS Database

Let's Practice

https://bit.ly/DAACSAcademyWorkshops

Exercise 1 (10 mins)

1. With your group, choose one of the three general research ideas.

1. Break the idea into a series of clear questions answerable by archaeological data.

1. Form hypotheses (bring your own theoretical leanings to your group!).

1. Return to the classroom and share ideas.

Choose One:

1. You are interested in enslaved African and African American identity and agency in North America and the Caribbean between 1700-1865.

1. You would like to study European and Native American interactions in 17th-century North America.

1. You want to study local and regional craft production and trade in the American Southeast.

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Exercise 2 (10 mins)

Objective: Identify the material culture attributes and field data types that will serve as variables to answer your hypotheses and research questions.

To do:

1. With your group, choose the material culture and field data types that would help you answer the questions you developed in Exercise 1.
2. Identify what archaeological materials you will need to answer those hypotheses (will you need more than one artifact type?)
3. Identify what attributes you will need to record.
4. Your questions may change or evolve as you think through material culture specifics.
5. Explain your choices.
6. Return to the classroom and share ideas.

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Exercise 3 (15ish minutes)

Objective: Create a sample spreadsheet with the fields you deem essential for collecting the variables that you will use to test your hypotheses and answer your research questions.

To do:

1. Identify your variable fields (columns). These are the essential attribute fields for each material type that will help you answer your questions.
2. Identify what data types will go in each field (Controlled Vocabulary? Open Text? Numeric?)
3. Why have you chosen these variables and data types?
4. It is perfectly valid to say you need to know more about specific artifact types. If so, what do you need to know more about?
5. Return to the classroom and share ideas.

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Next Week!

Defining and Choosing Digital Tools for Archaeological Research

While DAACS runs on open source PostgreSQL, this class explores the pros and cons of digital tools that most students and scholars are using: Google sheets, Excel, and Access.

Students will:

1. Delve into the details of good, clean data practices.
2. Learn about different digital tools and recognize when to apply them. i.e. when do you use a spreadsheet, when do you use a database, when do you use a stats package, when you use a tool to manipulate data.
3. How to create a digital dataset that meets your research needs while also conforming to best practices for doing Open Science.

Resources

Github Link: https://bit.ly/DAACSAcademyWorkshops

Link to workshop recording
Exercises
PDF of Powerpoint
Bibliography