

AFTER THE DIG

by Silas Hurry, Laboratory Director and Curator of Collections

We finished digging so the archaeology is done, right?

The past few years of excavations in St. Mary's City have been unusually artifact-rich. From the current campaign at St. Johns we recovered more than 800,000 artifacts while the Print House excavations have yielded over one million. The Van Sweringen artifacts are still being processed, but this too was an incredibly artifact-rich site. What do we do with all that stuff?

One of the great misconceptions many people have about archaeology is that it is all about digging. Actually, digging up the past is often the easiest job in the process. The great public perception is that all the discoveries are made in the field while the rest of the process is ignored and often poorly funded. The rule of thumb for planning budgets for projects is that for every person-day one spends in the field one plans on at least two person-days in the laboratory processing and analyzing the artifacts and writing a report which documents all the field and laboratory findings.

What do we do with the artifacts after they are dug up? We have a set series of processes we follow and in spite of budget restraints we endeavor to cut no corners since any corner cut now will come back as a problem in the future which will cost even more to ameliorate.

The Desperate Lives of Artifacts

When the artifacts enter the laboratory, the first step in the process is to record the information on how many bags of what we have from each excavation location. Where things are found is the most important information we have for any material that is discovered. Without this locational information, the artifacts are what they were when originally discarded, trash. So most of the steps in the artifact processing are planned around the idea of keeping this locational information, what archaeologists call provenience, related to the artifacts. The artifacts arrive for processing in brown paper bags which are stamped on the outside with a form which records where the artifacts were found, both horizontally and vertically, who dug them up, and when they were excavated. All of this information matches similar information recorded in the field. We then remove the artifacts from the brown paper bag and cut the bag label out so that it will travel with the artifacts as they work their way through the lab. On the back of the bag label we stamp a second tracking form which will record who does what when to the objects.



Washing artifacts

The first process that the actual artifacts go through is cleaning. Most artifacts can tolerate washing in water with the high tech tool called a toothbrush used to remove the adhering soils. Pottery, glass fragments, bones, oyster shell and pipestems are all cleaned in water. Special care must be taken when washing some of these artifacts since delicate overglaze decoration on pottery, for instance, can be easily scrubbed away. We also must also give special attention to cleaning out the holes in pipestems since we need to measure the holes later in the process to help date deposits. Some artifacts should not be washed in water since the process of immersion could accelerate the decay of the material. Such artifacts include all metal artifacts, mortar, plaster and charcoal. These things are carefully dry brushed to remove the soil but the process has to be done gently since one can clean artifact to the point where they either no longer exist or are broken into pieces. Care and judgment are the rule. As the artifacts are dry brushed or washed, they are put in a screen bottomed tray which goes into a rack. Attached to the tray is the brown paper bag label with all the provenience information. The artifacts are allowed to dry for at least 24 hours or until they are totally dry.

Once the artifacts are clean and dry, they are put into polyethylene zip lock bags on which all the provenience information has been written with a permanent black marker. Each general material type is bagged together so that all the pipestems are in one labeled bag, all the pottery in another labeled bag and so on though all the various types of artifacts. Then all the bags from one provenience are put together in a larger, labeled heavy duty zip lock bag along with the brown paper bag label. All of the bags have holes punched in them so as to avoid trapping any moisture or creating deleterious micro-environment. After this step, the artifacts head on to the next steps, labeling and cataloguing.

You write little numbers on trash?

All artifacts that are going to be manipulated with artifacts from other proveniences need to have permanent labels applied directly to the objects. This way we will always know exactly where the artifact was found. All the pottery, pipestems, and stone tools have permanent labels written on them with black ink. The label not only tells where the object was found, but also allows for the addition of two letters at the end of the provenience which serves as a unique identifier for that specific fragment. This way, when we catalogue the objects, we can link the unique label to a specific description of a specific artifact. The label is coated with a stable acrylic resin which has been developed for use by archaeologists. The acrylic is designed to not interact with the artifact yet remain stable and transparent for centuries while it is removable with relatively safe solvents. All artifacts which are not directly labeled (generally things with corroded or unstable surfaces) are placed in individual zip lock bags which are labeled with the provenience information and a paper label on acid-free paper is placed inside the bag.



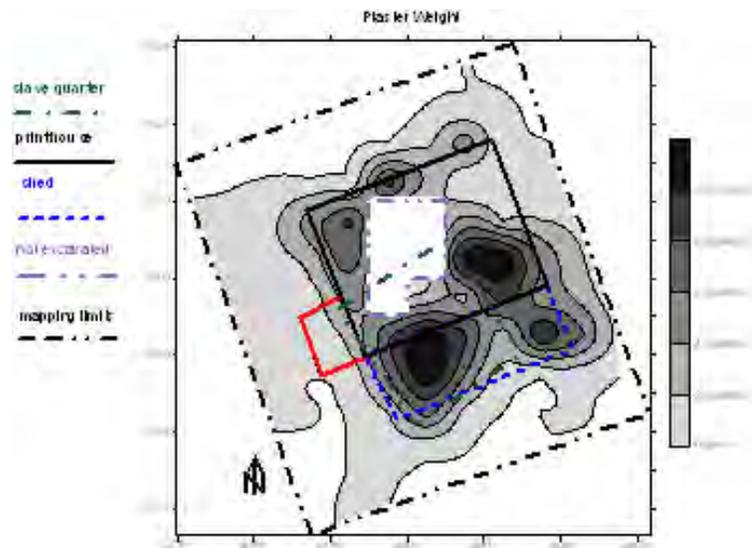
Labeling an artifact

Count them all and count them again

The cataloguing process involves the careful description of each artifact found. Some require much greater detail than others. Pottery probably gets the greatest amount of information recorded, but every artifact class has certain data sets that are collected. The holes on all the pipestems are measured using a set of graduated drill bits and any complete nails are measured to the nearest tenth of an inch. All the information collected is summarized on a standard form that includes most of the varieties of material we usually encounter. The more detailed information goes on to other forms where we relate the unique label information to a description of the artifact.

Following the labeling and cataloguing, the artifacts are packed for storage or study. The artifacts are placed in acid-free paper boxes and organized by provenience. The brown paper bag labels finally part company with their associated artifacts and are filed separately. The artifactual material is divided at this point so that the proper storage environment can be maintained. Metals are packaged separately and have a desiccant (silica gel) added to an unpierced zip lock bag in which the pierced bags of artifacts are placed. This will create a very dry environment and help preserve the metals for future study.

All of the information in the artifact catalogue is entered into a relational data base which allows us to aggregate information into meaningful categories so we can see trends across the site. The information from the data base can be used to create distributional maps which show the concentrations of artifacts across a site and, by inference, the location of various activities across the site. Much of this type of data can feed directly into the reconstructions we undertake in our effort to bring the city up from the ground. The



Distributional Map

location of long abandoned pathways and trash piles can be identified and explained. The artifacts in individual deposits can be used to date when that deposit was formed. Oddly, the artifact that tells you the most about any given layer or level is the most recent artifact since it tells you when the layer was last disturbed. By identifying and dating the various layers and other deposits, the sequence of human activity on a site can be explicated.

Trash is the most democratic record of our past

In addition to the analyses which can be undertaken directly from the catalogue in the computer, additional hands-on analysis of some artifact classes are essential to better understand the story of human behaviors on the site. Ceramics need to be sorted not just into similar types but into actual ceramic vessels- individual cups, plates, bowls and other forms, since people use whole pots, not just fragments. By undertaking such a vessel analysis much insight into how people ate and drank on a site becomes obvious. The preferred styles of food and manner of cooking and consumption can be identified. This type of vessel analysis can be used to compare a given site collection to other excavated collections to identify the function of a site and the relative status of the site's occupants. An ordinary serving to the common man had a very different collection of pots than the home of the Governor. Similar vessel analyses can be used to explore table glassware and glass bottles.

Guilt – the gift that keeps on giving

All of these analyses and many more are incorporated into a narrative report which also includes the actual observations of the field archaeologist. This formal report is the archaeologists' professional responsibility to the archaeological resource and the discipline. However, even with the completion of the report, our professional responsibility is not fully discharged. We have the duty to preserve the artifacts and their related information for future study. An archaeological site can be fully excavated only once. The artifacts and the paper record are all that remain, and even after the report is written new questions can arise which can be answered by re-examination of old collections. We have a vital responsibility to keep the artifacts in good condition so that they will be preserved to help answer the questions of yet to be born archaeologists. We regularly turn to collections that have been out of the ground for twenty or more years to ask new questions as new advances in the field of archaeology emerge. A perfect example of this is the study of oyster shells. We kept oyster shell from well dated contexts for years when other archaeologists were regularly recording and discarding the shell in the field. When a biologist interested in studying the archaeological utility of oyster shells arrived on the scene we were the only archaeological research group working in the greater Chesapeake region who had systematically kept oyster shell. With these collections, Bretton Kent was able to develop a series of analytical techniques which allow oyster shell to be a window into the changing environment of the Chesapeake Bay and observe the effects of humans on this environment over a span of hundreds of years. Without these carefully stored and documented collections, insights into what we have done to this signature estuary could not have been obtained. Archaeological curation is about the responsible maintenance of our shared material patrimony for the ever evolving study of our past.