



AFRICAN BURYING GROUND STEWARDSHIP COMMITTEE

Wednesday, October 2, 2019

11:00 a.m.

Portsmouth City Hall Complex,
Seybolt Building – School Department Conference Room

DRAFT MEETING MINUTES

Members Present: Councilor Chris Dwyer, Vernis Jackson, Valerie Cunningham, Towny Manfull, Dr. Jan Nisbet

Invited Guests: Dr. Meghan Howey, Dr. Amy Michael, JerriAnne Boggis, Dr. Kathleen Wheeler

- 1. *Introduction of Dr. Nisbet as a new member of the committee.*** Attorney Woodland introduced Dr. Nisbet.
- 2. *Acceptance of draft minutes of July 2, 2019 meeting***

Motion was made by Vernis Jackson to accept the minutes of the meeting of July 2, 2019, seconded by Counselor Dwyer. Approved (Jan Nisbet abstaining).

3. *Maintenance update by Department of Public Works (DPW)*

Parks and Greeneries Foreman Corin Hallowell described the recent work undertaken at the Memorial Park and the plan for future maintenance. He reported that Piscataqua Landscaping with the assistance of the original artists Jerome Meadows, had been engaged to provide maintenance assistance. Among the work items performed/in process:

- The vault cover (with Sankofa figure in tile) was deteriorated and had to be rebuilt. Mr. Meadows with assistance removed the tile and it will be rebuilt and reinstalled before end of October.
- The 8 metal figures have been reconditioned by DPW staff under the tutelage of Jerome Meadows. They will be recoated every year. The process has been documented.
- One metal fence piece was reset.

- Letters engraved in stone on Court Street will be repainted later in the month.
- Sika-Flex sealant has been applied to all granite work joints.
- Informative signs mounted on houses are being redone by DPW.

4. Research opportunities and long-term curation

a. Review and update by City staff

- i. Review of the minutes from past African Burying Ground minutes reveal no clear direction regarding disposition of the teeth and other bone samples other than not to reinter. We proceed with a blank slate as to giving voice to the descendent community – framing issues.
- ii. Dr. Owsley remains interested in stable isotope testing, willing to discuss with this committee. Testing would be destructive. No interest in the soil samples. Potential coordination with Harvard researcher regarding DNA testing.

b. Introduction of Dr. Meghan Howey and Dr. Amy Michael

c. Discussion

Drs. Howey and Michael assisted the Committee with evaluating the options for future analysis; indicating that they were not making recommendations but providing information based on the information available to them.

The Committee members and invited guests discussed how to evaluate any analysis opportunities with what wants to be learned, why and for who should benefit and how any analysis can be translated to stakeholders such as the descendent communities and/or the broader public.

The topics covered are as set forth below.

Smithsonian Request

Dr. Owsley proposes stable isotope analyses (e.g., carbon, nitrogen, and oxygen) to answer questions about diet and origin in historic African populations. The request does not include targeting the population for strontium isotope analysis. Strontium is an indicator of migration and locality. Complete, unaltered teeth are not necessary for isotope analyses. It may be possible to send the previously pulverized samples. Only a small fragment of enamel is necessary for various isotope analyses. Generally it is not recommended that complete samples be submitted unless there is satisfactory agreement that the remaining unused portion of each tooth is returned for subsequent study and/or curation. This would be important if the committee wants to conduct multiple analyses and/or to have materials available for future analyses when technologies advance.

No action taken by the Committee on this request by Dr. Owsley.

Other Possible Analyses

An initial analysis conducted soon after the discovery of the remains was undertaken by Dr. Marcella Sorg and Dr. Thomas Crist and completed. Visible traits were examined and interpreted via known population frequencies. The following analyses, not performed by Drs. Sorg and Crist, may give further insight into the individuals and their life histories. Some of these are non-destructive and some are destructive.

Dental metrics

Dental metric methods are based on the principle that various ancestry groups have patterned tooth sizes. This is a non-destructive method and simply provides another line of evidence corroborating African ancestry. Cost: free (analysis could be done by Dr. Michael)

Dental calculus

Analyzing dental calculus (plaque) on the teeth is a non-destructive method that can reveal information about pathogens and the oral microbiome. Calculus is removed from the teeth by simply scraping the surface. Dietary sources and shifts in diet may also be discovered from analysis of calculus. Cost: likely free (analysis could be done by Dr. Michael and Dr. Blatt at Idaho State University)

Dental histology

Dental histology is a destructive method that requires sectioning the tooth in the midline and creating a thin section using a wafering saw. The thin section is analyzed using a light transmitted microscope. Cost: likely free (analysis could be done by Dr. Michael and Dr. Blatt at Idaho State University)

Laser Induced Breakdown Spectroscopy (LIBS)

LIBS is a relatively new application. A mostly non-destructive technique that can reveal information about dietary patterns. Additionally, there is evidence that LIBS has some forensic application. In particular, African American remains analyzed using LIBS methods have shown higher rates of titanium and other elements. Cost: TBA (dependent on laboratory involvement)

Forensic genealogy

In previous analyses, African ancestry was confirmed using mtDNA. Whole genome sequencing which is now available could be used to create autosomal profiles that could be referenced by genealogists and researchers studying lines of descent, as well as providing detailed data on the admixture, family lines and possibly even identity of these individuals.

African American genealogy is a challenge that has been helped greatly by the use of autosomal DNA for consumers. Without DNA, many African Americans are only able to trace their ancestry back to the mid-1800s at the earliest, and often this early ancestor comes without a name or a story. The people interred in the cemetery likely have descendants or relatives, and in connecting this site to

living family lines, they could help tell the story of the early African people of historical Portsmouth.

Cost of DNA sequencing and forensic genealogy work

The preferable way to handle the DNA extraction and sequencing would be in a lab capable of whole genome sequencing as well as minimally destructive extraction techniques to provide enough material to sequence. Even under the best conditions, DNA in storage is constantly degrading, and will one day be gone entirely. Whole genome sequencing captures genetic content across the genome, effectively digitizing it, protecting it from further degradation. Experienced forensic genealogists can work with profiles even when the DNA is degraded, and bioinformatics specialists can work with genealogists to improve upon the profile to produce more family matches.

An analysis package with complete laboratory and genealogical services may be in the range of \$2800. Typically a quality control check is done at the beginning stages and if the sample does not pass QC, work will stop and no further charges will be incurred past a base cost of approximately \$400 per sample. Any unused material will be returned. If a quality sample is obtained and sequenced, researchers will proceed with analysis via GEDmatch, initially marking the kits as research-only, meaning that the information will be protected and not visible to the public. All data collected will be considered private and sensitive, and returned upon completion of the project.

The Committee discussed the options for maintaining the genetic information private or alternatively making the information in whole or in part available for ancestry purposes. The Committee decided these questions could be the subject of a later discussion when further is understood about the viability of the samples we currently have.

Soil Samples

It is possible these samples contain phytoliths or starch grains related to the diet of the interred individuals. To actualize such a study, however, one would need control samples from outside the burial site to be able to establish whether such phytoliths and starch grains are naturally occurring or if they are actually related to the interred individuals. If such control samples could be collected through minimally invasive methods, like coring, then such analyses of soil samples would be potentially worth considering. Without such controls, the suggestion is curate the soil samples for the future; advances in technology are ongoing.

Long Term Curation

Drs. Howey and Michael, committee members and guests also discussed and considered best practices for long-term curation for the samples. The environment should be secure and climate controlled. Location should be publically accessible and a clear set of procedures established for any person/group seeking to access these samples. Requiring a clear proposal explaining the aim of accessing these samples should be a minimum requirement and such proposals should be vetted and approved by the

stewardship committee. Anyone accessing the samples should be required to sign an agreement of responsible conduct while accessing the sample and if analyses are done, a clear MOU should be established that lays out the purpose, procedures, and final disposition of the data produced from the analyses and the samples. Access to them should be supervised by a responsible party. This is standard protocol for archaeological collections at universities/museums.

The Committee Members were generally in accord with these recommendations for long-term curation. There was discussion as to the possibility of UNH providing for the long-term curation. Attorney Woodland is to follow-up with the University of New Hampshire to further explore long-term archival / curation of the materials. Dr. Wheeler will continue to hold the remains and samples on an interim basis until further curation decisions are made.

Attorney Woodland will follow-up with the Department of Public Works relative to the possibility of taking a core soil sample near but not impacting a burial site.

Councilor Dwyer and other Committee members discussed opportunities for connecting the activities of this committee to the celebration of Portsmouth's 400th Anniversary.

Motion by Counselor Dwyer and seconded by Mr. Manfull to proceed with the performance of dental metrics and dental calculus on the remaining eight (8) teeth; the work to be performed by Dr. Michael and coordinated with Dr. Wheeler and subject to approval by the State Archeologist. All concurred.

Motion by Ms. Cunningham and seconded by Counselor Dwyer to analyze for viability of genome sequencing one set of the pulverized remains by a forensic genealogy firm. Such investigation subject to approval of the State Archeologist and approval of funds to conduct the test. All concurred.

The Committee members discussed the value of knowing whether the pulverized remains that have been studied previously are usable for genome sequencing. This will inform the Committee's options as to the other remains and future discussions with the descendant community and other stakeholders.

5. ***Status of pledges and trust balance*** - The amount remaining in the trust was reviewed. There was discussion about outstanding pledges. Individual committee members volunteered to follow up with regard to some of those original pledges to see if additional funding can be obtained.
6. ***Other business*** – Valerie Cunningham asked if the City had a record of the middle school art students who prepared the tiles incorporated into the Memorial Park. Attorney Woodland offered to follow-up to determine whether that information was available/retained.

Attorney Woodland to continue as Chair.

7. Next Steps/Next Meeting Date

Next Agenda will include a discussion of signage.

Next Meeting to be held on Monday, November 18th at 11:00 AM at a location to be determined.

Submitted by Suzanne Woodland