Georgia Standards and Guidelines for Archaeological Investigations

(Revised 2019)

Georgia Council of Professional Archaeologists

Whereas, the Georgia Council of Professional Archaeologists was organized in 1988 as a body of archaeologists who practiced their profession in the State of Georgia and were concerned with the State of Archaeology in Georgia, these proposed standards are intended to improve the state of Archaeology in this State.

Acknowledgments: The Georgia Council of Professional Archaeologists (GCPA) would like to recognize our colleagues in South Carolina, including the Council of South Carolina Professional Archaeologists, whose published standards offered a useful template as this document was developed. Thanks go to the members of the 2001 Research Standards Committee, as appointed by the GCPA. Committee Members include Rob Benson, Paul Brockington, Jr., Daniel T. Elliott, Patrick H. Garrow, Connie Huddleston, Thomas Neumann, William Stanyard, and Brian Thomas. GCPA committee members who worked on the 2013 metal detector revisions included Scott Butler, Daniel T. Elliott, Joe Joseph, Patrick Severts, and Dean Wood.

Likewise, we recognize our colleagues in Virginia Department of Historic Resources, as many revisions made in 2018-2019 were based on the 2009 *Guidelines for Conducting Survey in Virginia*. The 2019 revisions were made by Scott Butler, Bryan Tucker, Daniel T. Elliott, Scot Keith, and Teresa Ingalls, with input from the GCPA membership, and ratified on May 30, 2019.

Table of Contents

I. INTRODUCTION 1
I.A. Definitions 1
I.A.1. Area of Potential Effects 1
I.A.2. Archaeological Site 1
I.A.3. Archaeological Survey (Phase I) 2
I.A.4. Evaluative Testing (Phase II) 2
I.A.5. Data Recovery (Phase III) 2
I.A.6. Isolated Find 2
I.A.7. Reconnaissance Survey 2
I.B. Federal Legislation 3
I.C. State and Local Legislation 3
II. PERSONNEL QUALIFICATIONS 7
II.A Federal Requirements 7
II.B Principal Investigator 7
II.C Project Archaeologist/Field Director 8
II.D Other Investigative Personnel 8
II.E Report Authors 8
III. STANDARDS FOR ARCHAEOLOGICAL INVESTIGATIONS 9
III.A Preliminary Literature Review and Records Search 9
III.A.1. Georgia Archaeological Site File 9
III.A.2. Historic Preservation Division 10
III.A.3. Georgia Department of Archives and History 10
III.A.4. The Georgia Historical Society 10
III.A.5. University of Georgia Libraries 11
III.A.6. Other Resources 12
III.B Archival Research for Testing (Phase II) and Data Recovery (Phase III) Projects 12
III.C Field Methods for Archaeological Survey (Phase I) 13
III.C.1 Survey Strategy for Indeterminate Probability Areas 13
III.C.2 Survey Strategy for Low Probability Areas 14
III.C.3 Survey Strategy for High Probability Areas 14
III.C.4 Record Keeping 19
III.C.5 Defining Sites During Survey 19

III.D Field Methods for Evaluative Testing (Phase II) and Data Recovery (Phase III) 21
III.D.1 Approval and Guidance 21
III.D.2 Field Methods 21
III.D.3 Specialized Methods 22
III.D.4 Record Keeping 22
IV. ARTIFACT PROCESSING, DATA ANALYSIS, AND CURATION 24
IV.A Field Tracking 24
IV.B Processing 24
IV.C Analysis 24
IV.D Curation 25
IV.E Conservation 25
IV.F No Collection and In-Field Analysis 25
V. REPORTING RESULTS 27
V.A Report Content 27
V.B No Finds Reporting 31
VI. BIBLIOGRAPHY 32

I. INTRODUCTION

This document presents the recommended minimum guidelines and standards for all archaeological investigations conducted in Georgia. These recommendations apply to projects in which practitioners are obligated to make a reasonable and good faith effort to identify, evaluate, and study archaeological sites. Although this document is designed to provide guidance for terrestrial archaeological investigations, it does not address the specific needs for submerged sites. For standards regarding underwater excavations contact the Office of the State Archaeologist.

The purpose of these guidelines is to encourage consistent, high-quality archaeological practice in the State of Georgia. They can be used by practitioners as a basis for developing project-specific research designs and by regulators as a means of evaluating work. The overriding goal is to protect the archaeological record by encouraging the use of rigorous, project-appropriate methods among all archaeological professionals.

For background on the development of survey standards and methods in Georgia, refer to Elliott (2000).

I.A. Definitions

The following definitions are provided to ensure a common understanding of the terms and concepts used in this document. Some of the definitions are taken directly from cultural resource legislation and regulations. Others have been agreed upon by the Georgia Council of Professional Archaeologists (GCPA).

I.A.1. Area of Potential Effects

The area of potential effects is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist" (36 CFR Part 800.16[d]). Examples of effect can be direct, indirect, cumulative, visual, atmospheric, audible, or beneficial.

I.A.2. Archaeological Site

An archaeological site is a concentration of artifacts, ecofacts, or modifications to the landscape that are associated with past human activity and retain their context. An archaeological site must be at least 50 years old, and is characterized by any of the following criteria:

- A surface area yielding three or more artifacts from the same broad cultural period (i.e., historic or prehistoric) within a 30-m radius;
- Two or more shovel tests yielding a least one artifact each within 30 meters of each other;
- A shovel test that produces three or more artifacts from the same broad cultural period, as long as the artifacts cannot be fitted together (i.e., they are not two pieces of the same artifact);

- An area with visible or cultural features (e.g., shell midden, graves, rock shelters, petroglyphs, chimney fall, brick walls, rock piles, piers, whiskey stills, prospect pits, military earthworks, etc.);
- Abandoned graves or cemeteries should be recorded as archaeological sites;
- Single artifacts may receive a site designation if the researcher can justify its significance as culturally meaningful (e.g., a Paleo projectile point) and/or associated with specific surface or landscape features.

I.A.3. Archaeological Survey (Phase I)

Archaeological survey, often referred to as a Phase I or intensive survey, is a systematic, detailed examination of an area designed to gather information about archaeological sites. The goal of an archaeological survey is to identify archaeological sites within the area of potential effects. For surveys done for compliance with state or federal regulations, an additional goal of the survey is to evaluate those archaeological sites against the criteria for inclusion in the National Register of Historic Places (NRHP), in accordance with 36 CFR Part 60.

I.A.4. Evaluative Testing (Phase II)

Evaluation, or Phase II testing, is the process of determining whether identified properties meet defined criteria for inclusion on the NRHP, as set forth in 36 CFR Part 60.4. Phase II testing is warranted when a site has been identified that may be eligible for the NRHP, but not enough is yet known about it to make a recommendation about its eligibility.

I.A.5. Data Recovery (Phase III)

Data recovery, often referred to as Phase III, is a term used in a Cultural Resource Management context to describe excavation (usually partial) of a site to retrieve important data from the site before it is impacted or destroyed by an undertaking. When an agency's proposed action will cause an adverse effect to a site included in or eligible for inclusion in the NRHP, the agency consults with the State Historic Preservation Officer (SHPO) to seek agreement, usually through a Memorandum of Agreement (MOA), on ways to avoid, minimize, or mitigate the adverse effect to the site. Data recovery is one possible alternative for such mitigation, although it is considered an adverse effect to the site, since excavation is a destructive activity.

I.A.6. Isolated Find

An isolated find is defined as no more than two historic or prehistoric artifacts found within a 30-meter radius. Isolated finds are not considered eligible for listing on the NRHP. For cases where an isolated find is unique, and potentially may be considered eligible for inclusion in the NRHP, it should be defined as a site (see I.A.2.). Deposits of cultural artifacts that have no integrity, such as road fill, stream gravels, or other situations where artifacts clearly are redeposited, should be considered isolated finds.

I.A.7. Reconnaissance Survey

A reconnaissance survey is defined as "an examination of all or part of an area accomplished in sufficient detail to make generalizations about the types and distributions of historic properties that

may be present" (*Federal Register* 48:44716). Both predictive models and "landform surveys" are considered as specific types of reconnaissance survey.

A reconnaissance survey is not a substitute for a Phase I archaeological survey. Unless otherwise agreed upon by the Georgia State Historic Preservation Office (GASHPO) and the project sponsor, reconnaissance level survey is not appropriate for projects submitted for review pursuant to Section 106 requirements. Reconnaissance surveys are most appropriately used for due diligence purposes. They are also useful when there are multiple alternatives for a project location, or when it is necessary to assess the archaeological potential of areas that will not be immediately affected or subject to Section 106 requirements (see discussion of Section 106 in Section I.B below).

The results of a reconnaissance survey can provide an estimate of the number and types of historic properties expected in a particular area. Reconnaissance findings also can guide management decisions based on an area's sensitivity relative to historic preservation. Areas surveyed in this manner often require a more intensive, archaeological survey or evaluation if additional information is needed about specific properties (e.g., NRHP eligibility decisions) or when a project location is finalized.

I.B. Federal Legislation

Most archaeological surveys conducted in Georgia are done to comply with the National Historic Preservation Act (NHPA) of 1966, as amended. Section 106 of the NHPA requires federal agencies to review the effect their actions may have on archaeological sites and other historic properties that are listed in or eligible for the NRHP. Review procedures are referred to as "the Section 106 process" and are set forth in the regulations issued by the Advisory Council on Historic Preservation (36 CFR 800), as amended. This process is designed to identify historic properties, which are eligible or listed archaeological sites and historic resources that are eligible for listing on the NRHP, and to reduce the adverse effects of federal projects on those properties. Federal undertakings are any project, activity, or program either funded, permitted, licensed, or approved by any federal agency (e.g., a U.S. Army Corps of Engineers [USACE] permit under Section 404 of the Clean Water Act). Emphasis is placed on consultation with the SHPO and interested parties, including (but not limited to) Native American groups.

Archaeological surveys may be completed to comply with other federal laws or mandates, such as Section 110 of the NHPA or the National Environmental Policy Act of 1969. Regardless of the mandate, the standards and methods outlined in this document are applicable.

I.C. State and Local Legislation

Although Georgia currently has no single, overarching law to protect state or local cultural resources, there are several state laws that protect archaeological sites in particular situations, as outlined in the Official Code of Georgia (OCGA). Please refer to the OCGA for specifics regarding each. The guidelines presented in this document are also designed to satisfy the requirements for archaeological investigations when required under state and local laws.

For non-federal projects, notifying the State Archaeologist is required by law (OCGA 12-3-621) when the surface of any archaeological site is disturbed for the purpose of investigating the site or

discovering artifacts. This code section was amended as of July 1, 2007 to provide for notification to be given through a website and/or a telephone hot line that will be available at all times. The Office of the State Archaeologist (OSA)/Georgia State Historic Preservation Office (GASHPO) is in the Georgia Historic Preservation Division (GHPD) of the Department of Natural Resources (DNR) and will receive notification about impacting archaeological sites through this website or by phone. At a minimum, notification should include the following

- Your name and contact information.
- The county in which you will be digging and other information as to the specific tract of land or location.
- The date(s) on which you expect to be there.

In Georgia, city and county governments are responsible for enforcing state laws and local regulations regarding abandoned cemeteries and burial grounds. The primary role of the GASHPO is to offer information and make suggestions about whom to contact to see that cemeteries are protected. If a cemetery could be present, the local government office that has control over the development should be contacted first, such as the development permitting office, board of planning and zoning, the code enforcement office, the county commission or city council, and/or the city or county attorney. Georgia laws favor leaving burials in place, although provisions in the OCGA stipulate the treatment of human remains and burial objects.

- **Protection of Archeological, Aboriginal, Prehistoric, and Historic Sites (2007); 12-3-621**
  Stipulates prohibited acts as to archeological, aboriginal, prehistoric, or historic sites; the need to notify the State Archaeologist before beginning investigation; and outlines the penalties resulting from site disturbance.

- **Office of the State Archaeologist (1969); 12-3-53**
  Establishes the duties of the State Archaeologist to carry out state-mandated archaeology programs.

- **State Archaeologist's Duties (2001); 12-3-621**
  Strengthens state laws for the protection of archaeological sites by clarifying law enforcement provisions and confirming private property owners rights.

- **State Antiquities Act (1969); 12-3-52**
  Provides for the protection of archaeological sites on state-owned lands, except for the Board of Regents; authorizes permits to be issued for approved archaeological investigations.

- **Submerged Cultural Resources (1985); 12-3-80 et seq.**
  Defines submerged cultural resources; establishes state ownership and agency responsibilities; provides for permits for survey and research.

- **Cave Protection, Archaeological Sites (1977); 12-4-140 et seq.**
  Prohibits damage to archaeological sites within caves.

- **Georgia Planning Act (1989); 45-12-200; 50-8-2; 12-2-1; 36-70**
  Requires local governments to prepare comprehensive plans. Historic resources must be addressed.

- **Georgia Environmental Policy Act (1991); 12-16-1 et seq.**
  Requires state agencies to prepare environmental assessments on actions that impact the environment, including historic properties.
- **Georgia Mountains and River Corridor Protection Act (1991); 12-2-1**
  Requires minimum standards to be established for land use development on mountain ridges and along river corridors, including the protection of historic properties, through coordinated planning procedures.
- **Georgia Surface Mining Act (1969, 1992); 12-4-70 et seq.**
  Requires that mining land use plans address properties listed in the National Register.
- **Abandoned Cemeteries and Burial Grounds (1991); 36-72-1 et seq.**
  Strengthens cemetery protection laws by authorizing local governments to preserve and protect abandoned cemeteries, and to issue permits prior to any disturbance of burials. Abandoned cemeteries encountered during archaeological investigations should be defined and recorded as archaeological sites.

  A developer or landowner must get a permit from the local governing authority if the use of cemetery land is to be changed for purposes of development. Extensive permit requirements are stipulated, among which include hiring an archaeologist to delineate graves and cemetery boundary, a land surveyor to map the cemetery, and a genealogist to prepare a plan for contacting descendants before any disinterment occurs. If permitted, an archaeologist must carry out any exhumation of human remains.

- **Grave Protection and Repatriation (1992); 44-12-260/264; 12-3-620 et seq.; 31-21-6; 31-21-44 et seq.**
  Establishes policies for burials, skeletal material, and funerary objects regarding archaeological research, public display, buying/selling artifacts, and repatriation.
- **Council on American Indian Concerns (1992, 2002); 44-12-280 et seq.**
  Creates a Council on American Indian Concerns to advise on Native American issues.

Encountering American Indian Human Remains
On May 15, 2018, the GASHPO/Office of the State Archaeologist (OSA) prepared guidance to inform archaeologists of a change in policy related to Native American burials in Georgia (repeated here).

In the future, once a Native American burial has been excavated from non-Federal land, the GASHPO/OSA will conduct Native American Graves Protection and Repatriation Act (NAGPRA) consultations to determine the disposition of the remains. The exhumation or excavation of Native American human remains are covered by OCGA section 31-21-6 (a), which states:

31-21-6. Notification of law enforcement agency upon disturbance, distraction or debasement of human remains.
(a) Any person who knows or has reason to believe that interred human remains have been or are being disturbed, destroyed, defaced, mutilated, removed, or exposed without a permit issued pursuant to Code Section 36-72-4, 12-3-52, or 12-3-82 or without written permission of the landowner for an archeological excavation on the site by an archeologist or not in compliance with Section 106 of the

National Historic Preservation Act, as amended, and any person who accidentally or inadvertently discovers or exposes human remains shall immediately notify the local law enforcement agency with jurisdiction in the area where the human remains are located.

According to this code section, a professional archaeologist who has the written permission of the landowner and has notified the Georgia DNR for a non-compliance archaeological project (such as a field school) or who is working in compliance with Section 106 does not need to notify local law enforcement of the discovery of human remains. The law was intended to avoid interrupting archaeological excavations by requiring local law enforcement and subsequent parties as spelled out in OCGA 31-21-6 (b) to be notified. Also, notifying local parties could endanger the remains if the site location becomes public knowledge. Although not specified in Georgia code, it is the policy of the GASHPO/OSA that the project archaeologist halt all excavation in the immediate area and notify the State Archaeologist's office as soon as human remains and/or burial items are discovered. The point of contact is;

State Archaeologist Bryan Tucker Bryan.Tucker@dnr.ga.gov (770-389-7863 or 404-295-1090), or Deputy State Archaeologist Rachel Black Rachel.Black@dnr.ga.gov (404-823-3531).

The GASHPO/OSA will coordinate with the archaeologists and the landowner to determine if the remains can be left in situ and if the remains are likely those of a Native American. If the remains are believed to be Native American and are excavated, then the GASHPO/OSA will initiate NAGPRA consultations to determine the disposition of the remains. If the remains are not Native American then the GASHPO/OSA will consult with the landowner and other stakeholders to determine the disposition of the human remains. Human remains that are inadvertently encountered by an archaeologist outside of an archaeological excavation (for example, remains observed eroding out of a creek or road bank) should be reported to local law enforcement pursuant to OCGA 31-21-6(a).

If human remains are found in the course of archaeological investigation on non-Federal land:

1. Halt all work;
2. Do not notify local law enforcement;
3. Notify the Office of the State Archaeologist Bryan.Tucker@dnr.ga.gov (770-389-7863 or 404-295-1090) or Rachel.black@dnr.ga.gov (404-823-3531);
4. If the remains cannot be left in place, GASHPO/OSA will take possession of the remains and conduct NAGPRA consultations

II. PERSONNEL QUALIFICATIONS

Archaeological projects require the services or input of professionals in archaeology and other related disciplines. It is essential that archaeological surveys and evaluations be performed and supervised by qualified professional personnel.

II.A Federal Requirements

Agencies, institutions, corporations, associations, or individuals will be considered "qualified" when they meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR 61 and *Federal Register* 48:44739).

The minimum professional qualifications for an archaeologist are a graduate degree in archaeology, anthropology, or closely related field, plus:

- At least one (1) year of full-time professional experience or equivalent specialized training in archaeological research, administration, or management;
- At least four (4) months of supervised field and analytic experience in general North American archaeology; and
- Demonstrated ability to carry research to completion.

II.B Principal Investigator

The Principal Investigator (PI) is the individual responsible for planning and investigating cultural resources and for ensuring the validity of the material presented in cultural resource reports. All archaeological investigations must be carried out under the direction of the PI, who minimally will meet the qualifications as an Archaeologist outlined by the Secretary of the Interior (above) and:

- Have at least one (1) year of full-time supervisory experience in the study of related resources (e.g., historic archaeology, prehistoric archaeology or underwater archaeology);
- Have at least six (6) months hands-on field experience and training with specialized methods (e.g, metal detecting, ground penetrating radar (GPR), magnetometry, electrical resistivity, and electromagnetic conductivity (EM), etc.) when those applications are the primary factors of a specialized archaeological investigation;
- Have at least six (6) months of archaeological experience in Georgia and/or the southeastern United States;
- Be certified by the Register of Professional Archaeologists (RPA).

II.C Project Archaeologist/Field Director

If the PI is not directing the project in the field, fieldwork should be supervised on the ground by a Project Archaeologist/Field Director who meets the following minimal qualifications:

- Graduate training in archaeology (or at least three-year professional archaeological experience);
- At least one (1) year of full-time archaeological experience/training in the Southeast;
- Proven ability to complete satisfactory archaeological field work.

II.D Other Investigative Personnel

The skills of all other investigative personnel must be appropriate to the requested task(s), the nature of the project, and to the goals and specifications delineated in the research design. Faunal, floral, geomorphological, mineralogical, and other specialized analyses should be conducted by personnel with the relevant training and experience.

II.E Report Authors

Among the report author(s) should be the individual(s) who supervised the bulk of the field work, whether they be Principal Investigators or Project Archaeologists/Field Directors. The report author should be familiar with the area investigated and identified cultural resources.

III. STANDARDS FOR ARCHAEOLOGICAL INVESTIGATIONS

The following guidelines describe suggested methods, staffing, and minimum levels of effort for various aspects of archaeological investigations in Georgia. They are based on a working knowledge of Georgia's archaeological resources and environments. These guidelines are specifically useful to field archaeologists, agency personnel, and the contracting agent (as appropriate). They can be used as a measure to ensure compliance with federal and state regulations, comparability of research results, and evaluation of research designs and project reports.

III.A Preliminary Literature Review and Records Search

All archaeological studies (whether reconnaissance, Phase I archaeological survey, Phase II testing, or Phase III data recovery) should be preceded by a literature review and records search. This search will include a review of the Georgia Archaeological Site File (GASF) to identify previously recorded sites and previous archaeological investigations in and within one km (0.62 mile) of the project area. The review should include relevant sources to provide the prehistoric and historic context for the study and should be conducted prior to any fieldwork. Researchers should examine pertinent holdings at some or all the following institutions:

III.A.1. Georgia Archaeological Site File

The GASF is the official repository for information about known archaeological sites of all periods in the state of Georgia. The GASF is housed at the University of Georgia (UGA) in Athens. Site locations are recorded on hardcopy U.S. Geological Survey (USGS) 7.5-minute quadrangle maps, which cover all areas of the state. Other hardcopy information is available in reports, original notes and records, photographs, and other files. Georgia Civil War battlefield boundaries, previously identified by the National Park Service (NPS) Civil War Sites Advisory Commission (CWSAC), are available on separate hardcopy USGS quadrangle maps at the GASF (CWSAC 1992). Contact GASF for current pricing to access the site files.

The Georgia Archaeological Site File
UGA Laboratory of Archaeology
1125 East Whitehall Road
Athens, GA 30602-4702
phone: (706) 542-8737
fax: (706) 542-8920
gasf@uga.edu

This information is also recorded in Georgia's Natural, Archaeological, and Historic Resources Geographical Information System (GNAHRGIS) available online. Qualified archaeologists can make appointments to conduct research in person, or request access to site files available online via GNAHRGIS.

GNAHRGIS is an interactive web-based registry and geographical information system designed to catalog information about the natural, archaeological, and historic resources of Georgia. In the GNAHRGIS system, archaeological resources are defined as archaeological sites recorded in the GASF. For registered users, scanned archeological site forms, areas previously surveyed for archaeological resources, and associated digitized archaeological reports are available for download on GNAHRGIS. It is important to note that shape files depicting site boundaries should be compared with site forms or hardcopy USGS quadrangle maps as discrepancies are sometimes identified. Please notify GASF when any discrepancies arise.

General (public) users have "read-only" access to all *unrestricted* historic surveys including data about surveyed historic properties and their mapped locations. General users also have database and GIS query capabilities for unrestricted surveys. General users cannot create new surveys, nor can they add or edit survey data.

Registered users have "read-only" access to all *restricted* surveys including data about surveyed archaeological sites and historic properties, their mapped locations, previously surveyed areas, and associated archaeological reports. Registered users also have database and GIS query capabilities for unrestricted surveys. Access to restricted surveys is limited to the agencies which created them and GASF staff who manage GNAHRGIS.

III.A.2. Historic Preservation Division

The Georgia State Historic Preservation Office (GASHPO), also known as the Georgia Historic Preservation Division (GHPD), Georgia Department of Natural Resources, maintains a library of Section 106 environmental review documents and National Register of Historic Places (NRHP) files on identified sites and listed properties on the NRHP. Although NRHP listings are available in published and electronic form, these lists only include those sites already listed and not properties determined eligible or listings that may be pending.

Jewett Center for Historic Preservation
2610 GA Hwy 155, SW
Strockbridge, GA 302810
phone: 770 389 7844
fax: 770 389 7878
www.gashpo.org

III.A.3. Georgia Department of Archives and History

The Georgia Department of Archives and History and the Surveyor General's Office in Clayton County contain a wealth of historical information about the state. These sources include original deeds, plats, photographs, and maps, and copies of courthouse records from every county in Georgia. Robert S. Davis, Jr. (1991) and George K. Schweitzer (1995) have published useful guides for conducting historical research in Georgia, which details records that survived for each county.

III.A.4. The Georgia Historical Society

The Georgia Historical Society (GHS) Research Center Located in historic Hodgson Hall in Savannah, preserves an unparalleled collection of Georgia history, including more than 4 million manuscripts, 100,000 photographs, 30,000 architectural drawings, 15,000 rare and non-rare books,

and thousands of maps, portraits, and artifacts. The manuscript collection includes family papers, military records of every Georgia war, papers of Georgia's major political leaders, colonial account books, diaries, plantation records, papers of social and cultural organizations, and business records ranging from the eighteenth through the twentieth century.

The GHS has administered Georgia's statewide marker program since 1998, when they assumed responsibility from the Georgia Department of Natural Resources (DNR). Since then they have erected over 200 new historical markers across Georgia. Information for those markers and over 2000 others are available through their online searchable database.

http://georgiahistory.com/education-outreach/historical-markers/marker-index/

Many of these historical markers represent significant locations and events in Georgia history not defined as archaeological sites. Roadside historical markers capture Georgia history in a format readily understood by travelers and residents alike. These easily identifiable markers give readers a unique insight into the stories of our shared past. Archaeologists should include information for historical markers in their records search when located within one km of their study area. Many Georgia historic markers are now over 50 years old and are themselves potentially significant historic objects, worthy of consideration under NRHP criteria.

III.A.5. University of Georgia Libraries

The libraries in the university system of Georgia house a variety of documents that are useful in locating archaeological sites.

The Map and Government Information Library maintains the largest collection of aerial photography of the State of Georgia outside of the National Archives. The paper collection consists of over 230,000 photos from the late 1930s through the mid-1990s. The aerial photographs in the Map and Government Information Library were produced by a variety of state and federal agencies, including the U.S. Department of Agriculture (USDA) and the USGS, as well as for projects completed by academics and private companies. These photographs are a ready source of information on early twentieth century house and farmstead locations, and for studies on previous land use (areas in cultivation, timber, road routes). The same Library contains early soil survey maps, obsolete county road maps, and early topographic maps that often show the location of buildings, houses, and other structures.

http://hmap.libs.uga.edu/hmap/search

Researchers studying Georgia urban areas should consult the available Sanborn Fire Insurance Maps, also available at the Map and Government Information Library at UGA.

http://www.libs.uga.edu/magil/collections/sanborn.html

Other early Georgia maps are contained in the Hargrett Rare Book and Manuscript Collection at the University of Georgia Libraries Russell Special Collections Building in Athens. The Hargrett Library focuses on Georgia history and culture, holding rare books and Georgiana, historical manuscripts, photographs, maps, broadsides, and UGA archives and records. Other areas of emphasis include performing arts and natural history. Many rare maps are also available online.

http://www.libs.uga.edu/hargrett/

III.A.6. Other Resources

Other institutions or resources that can be consulted include:

- Regional Commissions (Historic Preservation)
- County historical societies, local historians, local museums, and local libraries
- County courthouses and agencies
- Archives and museums in other states
- Federal Archives (Southeastern Archaeological Center, Tallahassee)
- National Archives, Southeast Regional Center, Morrow, Georgia
- Smithsonian Institution, Washington D.C. and College Park, Maryland

III.B Archival Research for Testing (Phase II) and Data Recovery (Phase III) Projects

In addition to the literature search and archival research necessary for all archaeological investigations, additional historical information may be required for site evaluation testing (Phase II) and data recovery (Phase III) projects.

Phase II testing of historic sites should include a title search. For Phase III data recovery of historic sites, additional historical research may include:

- Census data, such as agricultural, population, and industrial censuses
- Slave schedules
- Family papers, wills, probate inventories, daybooks, etc.
- Informant interviews (particularly for twentieth century sites)
- Tax Records

III.C Field Methods for Archaeological Survey (Phase I)

When planning for archaeological investigations prior to fieldwork, spatial data for previously recorded sites and cemeteries (obtainable from GNAHRGIS and/or the GASF in Athens) should be mapped in GIS. For larger projects, it is recommended that aerial and topographic imagery and data regarding soil types, drainages, slope and elevation, and georeferenced historic maps and aerial photographs be added in GIS to better model and predict archaeological site locations.

When available, Light Detecting and Ranging (LiDAR) maps may be examined prior to fieldwork to allow field investigators the opportunity to examine and assess surface archaeological features. Examining these high-resolution elevational data is useful for identifying roads, agricultural terraces, earthworks, ditches, canals, mounds, caves, quarries, rockpiles, and other landscape elements often not easily discernible on the ground.

Archaeologists should not omit parcels from an archaeological survey simply because they have been classified as "poorly drained" by the USDA Soil Conservation Service, and areas should not be automatically excluded because of plowing or forestry activities. Similarly, areas depicted as wetlands or slopes on USGS maps should be examined on the ground to determine their suitability for survey.

A preliminary inspection of the project area and review of maps and documentary records may allow investigators to stratify the project area into three general categories: *Indeterminate Probability*, *Low Probability*, and *High Probability*.

For all categories, all land within the project boundaries requires inspection. Global Positioning Systems (GPS) receivers should be used to record survey areas and site locations. At a minimum, all archaeological sites and isolates should be recorded with a sub-meter accurate GPS receiver. A site's datum and boundaries should be recorded. At the completion of the survey, site centroids and boundaries should be imported into GIS. When features are found at the survey level, sampling may be necessary to determine feature age and potential function, but features should not be fully excavated in order to preserve their research potential.

III.C.1 Survey Strategy for Indeterminate Probability Areas

Indeterminate Probability areas are permanently or seasonally inundated; dredge spoil disposal areas; tidal areas; and active floodplains (or other active depositional environments) where deposits are so deep that finding sites using conventional methods is unlikely.

An alternative method of fieldwork may be necessary in areas of indeterminate probability (e.g., deep testing with a backhoe or auger). Such work should, whenever possible, rely on guidance from a professional geomorphologist who can assess the potential for deeply buried cultural deposits within a given tract. Because it is difficult to apply standard archaeological survey methods to an entire tract with the potential for deeply buried sites, alternative methods in such areas may be necessary during the undertaking to ensure that no sites are destroyed. Construction monitoring is generally not considered an acceptable survey method, though it can be useful to ensure deeply buried deposits/features are not inadvertently impacted. Proposed alternative fieldwork methods for indeterminate areas should be reviewed by relevant federal agencies and GASHPO staff prior to fieldwork initiation.

III.C.2 Survey Strategy for Low Probability Areas

Low Probability areas have slopes greater than 10 percent; areas of very poorly drained soil (as determined by subsurface inspection); and areas that have been previously disturbed to such a degree that archaeological materials, if present, are no longer in context. Documentation of disturbance can include recent aerial photographs, ground views, or maps showing the disturbance (e.g., recent construction). However, surveyors should be aware of small landforms with high site potential that may be within areas that otherwise are characterized by 10 percent or greater slope. Likewise, rock shelters and battlefields are often in these areas.

Field investigation of low probability areas should include a surface inspection of all areas where the slope is greater than 10 percent to identify potential sites such as rock shelters, caves, military earthworks, mines, quarries, whiskey distilleries, and/or petroglyphs. In disturbed areas or in very poorly drained areas or hydric soils, subsurface inspection (i.e., shovel testing, coring, or augering) should be used to verify soil conditions at intervals no greater than 90 meters. In hydric areas of direct subsurface impact, subsurface inspection using coring or augering techniques may be particularly important. Representative subsurface tests should be deep enough to confirm actual sterile soils instead of a sterile soil lens.

III.C.3 Survey Strategy for High Probability Areas

High Probability areas do not meet the other criteria outlined above. Generally, survey of high probability areas should follow these guidelines:

III.C.3.a Pedestrian Surface Survey

A pedestrian surface survey is the visual inspection of the ground surface for isolated finds and sites. In general, a surface survey should be systematic and undertaken by walking regularly spaced parallel transects which cover the project area. The maximum interval between survey transects should not normally exceed 30 meters. Low-lying areas that are rain flooded and inaccessible during fieldwork, but are normally dry, may need to be subsequently reexamined by pedestrian survey to determine the presence/absence of archaeological sites. When surface survey locates a site, close interval subsurface shovel testing is necessary to determine the site's stratigraphy, assess artifact density, and help to determine boundaries as follows:

- Surface survey may be used in conjunction with shovel tests in areas where surface visibility exceeds 25 percent. Areas with less than 25 percent surface visibility need subsurface investigation. Highly eroded areas, where subsoil is visible at or just below the surface, and recently plowed fields are the most common instances where such high visibility exists. The archaeologist's judgment concerning visibility is especially critical in fallow or dry fields, where standard interval (30 m) subsurface testing is required.

- If an area has greater than 25 percent surface visibility, but is in a dynamic depositional environment (e.g., the foot of a slope or adjacent to an aggrading waterway), then 30-meter interval subsurface testing is recommended.

III.C.3.b Subsurface Survey

In most instances some type of subsurface investigation will be necessary to discover archaeological sites. Survey methods will depend on field conditions and the types of anticipated sites. Under most conditions, 30-meter interval shovel testing is the preferred method. However, rigid adherence to systematic sampling at fixed intervals may fail to yield optimal survey results, since fixed intervals may not uncover sites that would have been located using a judgmental technique. Thus, a combination of methods – systematic and intuitive shovel testing along with careful scrutiny for surface artifact scatters and surface features, is probably the most efficient method for site discovery.

- Shovel tests will be 30 × 30 centimeters (cm) or larger and placed at intervals no greater than 30 meters. All fill should be screened through quarter-inch screen. Tests are to be excavated to at least 80 cm below surface (cmbs), or until impenetrable substrate (i.e., bedrock or clay), a known sterile subsoil, or the water table is reached.

- Mechanical augers, while not generally recommended, can be used in areas that have impregnable ground cover (e.g., urban areas with concrete, brick rubble, etc.). They are to be placed at intervals not greater than 30 meters. Fill should be screened. Auger tests should be documented in the same manner as shovel tests.

- Mechanical deep testing (e.g., backhoe trenches or coring) may be necessary in active depositional environments or in certain urban settings where the ground surface is otherwise inaccessible. All deep testing should comply with Occupational Safety and Health Administration (OSHA) *Standards for Excavation Safety* (29 CFR 1926 Subpart P and appendices).

III.C.3.c Specialized Surveys

In some circumstances, standard archaeological survey methods (e.g., pedestrian surface survey and shovel testing) may not be effective. In situations described below, research designs and proposed methodologies are to be discussed in advance with GASHPO staff:

III.C.3.c.i Military Sites

Conventional shovel testing has been proven not effective in identifying military battlefields and encampments (Grier and Potter 2000). Battlefields may contain unmarked burials and should be considered as sensitive resources. A thorough visual observation of the ground surface is necessary to identify and document surface features (e.g., trenches, skirmish pits, field batteries) and/or evidence of previous relic hunting. Areas of steep slopes (>10%), sometimes excluded from standard survey areas, should be carefully examined, as slopes were often key defensive terrain (e.g., rifle pits, trenches). Avocationalists familiar with the study area should be interviewed, whether or not they participate in fieldwork.

At the survey level, metal detecting should be used to identify metal artifact scatters within known military battlefields and/or encampments. Coverage should be systematic, along 1.5-meter wide lanes spaced at no more than 30-meter intervals. It may be necessary to remove ground vegetation and/or leaf litter along detection lanes for metal detecting to be effective.

A system of interpreting battlefield landscapes known as the KOCOA system has been adopted by the NPS and endorsed by the American Battlefield Protection Program for the evaluation of historic battlefields (Lowe 2000). It encompasses key landscape features that may have affected the military action at a given location, and keeps the evaluator from focusing solely upon archaeological artifacts or surface features such as earthworks:

K: Key terrain (terrain that must be taken or held to obtain victory),

O: Observation and fields of fire (terrain that permits observation of enemy movements and avenues of approach),

C: Cover/concealment (terrain that provides troops with cover or protection from enemy fire),

O: Obstacles (features that stand in the way of seizing key terrain – these can be natural, such as heavy woods or deep swamp, or man-made such as fencelines, ditches, or earthworks),

A: Avenues of approach (terrain by which the enemy may be approached – this can be anything from an established roadway to an open field.

The KOCOA approach should be used by archaeologists when defining military battlefields, while keeping in mind that battlefield landscapes are historic properties distinct from (but often containing) archaeological sites.

III.C.3.c.ii Deep Sediments

If colluvial, alluvial, or aeolian deposits are known to be present in the survey area from background research or field inspection, deep survey methods are needed to identify buried sites or potential for such sites. Subsurface investigations could include geophysical methods such as coring, hand excavation of deep shovel tests or 1 x 1 meter units, power augering, or mechanical trenching. The choice of technique will depend on the depth of deposits. A geomorphologist should be employed to develop a sampling program that identifies soils suitable for the preservation or formation of cultural deposits.

Deep investigations with heavy machinery are destructive, and care should be taken to avoid excessive damage to archaeological sites. Trenching with heavy equipment such as a backhoe (preferably toothless) is to be used in situations where deep sediments cannot be reached through hand excavation. Trenches should be placed in a manner suitable to reconstruct the depositional history of the floodplain. In special circumstances where the terrain limits access of heavy equipment and hand excavation is not feasible, coring or augering may be implemented. Soils from the cores are to be extracted in a controlled manner and sifted when appropriate.

After excavation, the trench profile will be troweled to inspect for stratigraphy and cultural features, if troweling can be completed safely. All deep testing should comply with OSHA Standards for Excavation Safety (29 CFR 1926 Subpart P and appendices). A detailed profile drawing and description shall be completed. If a geomorphologist is used, he or she is to assist in the placement of trenches, evaluation, and interpretation of excavation profiles. The evaluation may include tests for soil type and texture, standardized color descriptions, and grain size distributions. The geomorphologist will submit a detailed interpretive analysis that will be included as an appendix to the full technical report of investigations. This analysis will address the issues of site depositional

processes, their effects on archaeological preservation, visibility of archaeological sites, and landform evolution over time. A summary and discussion of the results should be presented in the body of the technical report.

III.C.3.c.iii Urban Locations

Urban locations have a high potential to contain historic archaeological sites and may also contain prehistoric remains. Mid- and rear domestic spaces should be targeted for features such as privies, cisterns, wells, trashpits, and cellars. Phase I field survey techniques often need greater effort in urban locations. Rather than shovel tests, urban areas may require extensive background research followed by remote sensing and/or excavation of test units to evaluate site stratigraphy and the presence/absence of cultural features. Prior to hand excavation, it may be necessary to use heavy machinery to remove overlying rubble, modern fill, or sterile overburden.

It should be recognized that many urban locations will contain archaeological sites and deposits that were originally dumped as garbage fill, which may have archaeological significance on their own. It is also important to recognize that deeply buried prehistoric sites often exist in historically occupied locations.

III.C.3.c.iv Metal Detecting

Metal detecting is usually necessary to identify artifact scatters at military battlefields and encampments, and for delineating historic sites. Conventional methods (e.g., shovel testing) have proven to be unsuccessful at effectively identifying military sites (Geier and Potter 2000).

Metal detection is required during archaeological investigations under the following conditions:

- Phase I (and all phases) when working in previously identified battlefields, and/or known military encampments;
- Phase II during delineation/evaluation of historic sites;
- Historic grave removals;
- Research designs and proposed methodologies for metal detecting should be discussed in advance with GASHPO staff, and/or relevant Federal agencies;
- Avocationalists should be interviewed regarding their knowledge of the area;

Coverage:

- When required during Phase I, metal detector coverage should be systematic along 1.5 meter lanes on transects at a maximum 30 meter interval, though closer or even overlapping coverage may be necessary to meet specific research objectives;
- When required during Phase II, metal detector coverage should be along 1.5 meter lanes on transects at maximum a 10 meter interval;
- Removal of ground vegetation and/or leaf litter along detection lanes may be needed for metal detecting to be effective.
- At military sites, it is not always necessary (or desirable) to collect every metal artifact older than 50 years – especially if the site identification effort is research focused.

Reporting:

- Equipment, personnel, and time spent should be clearly stated in the methods section;
- Coverage, mapping, and artifact collection strategies should likewise be clearly stated and justified.

Detecting Equipment

- No equipment requirements based on costs, though its suggested that devices be recent models and professional grade, as technology is always improving;

Personnel Experience

- Although recommended, no specific metal detecting training course is required;
- For Principal Investigators/Field Directors: have at least 100 hours hands-on field experience and/or equivalent training with remote sensing applications, when those applications are the primary focus of the archaeological investigation;
- Other investigative personnel: the skills of all other investigative personnel must be appropriate to the requested task(s), the nature of the project, and to the goals and specifications delineated in the research design.

III.C.3.c.v Other Remote Sensing

Other geophysical methods such as ground penetrating radar (GPR), magnetometry, electrical resistivity, and electromagnetic conductivity (EM) all have specific applications and may be useful or necessary for identification of subsurface features such as grave shafts, buried foundation walls, storage pits, hearths, and underwater sites. GPR in particular is also a technique for surveying urban locations where paved or impermeable surfaces may prevent the use of standard field methods. In situations where geophysical survey is used, subsurface ground-truth testing using hand excavation, core augering, or heavy machinery scraping, is recommended to verify the presence and type of archaeological deposits.

A professional archaeologist with training in geophysical methods should conduct a survey using any of the geophysical methods listed above in a cemetery or archaeological site. Experience using these methods to map utilities or study deeper geologic deposits, is not applicable for identifying and interpreting more ephemeral cultural features including graves. While the operation of geophysical equipment is mostly standard across disciplines, processing, interpretation, ground-truthing, and reporting of the data varies based on training and experience. Considerable expertise is necessary to effectively design, conduct, and interpret geophysical surveys of cemeteries and archaeological sites. Reporting should include which post-processing software was used and relevant data (e.g., depth, slices).

When remote sensing is the primary survey method, a research design should be reviewed and approved by relevant federal agencies and the GASHPO, prior to undertaking fieldwork.

III.C.4 Record Keeping

The Principal Investigator or Project Archaeologist is responsible for maintaining daily notes and survey data.

- Each shovel test or test unit location should be recorded, noting its location, depth, soil profile, artifact yield, general conditions, and other pertinent information. For sterile shovel tests not within site boundaries, information on location and depth are required. Notes should be taken for representative soil profiles within individual soil units within the project area. This should be one shovel test showing the general range of typical conditions and depths of each soil type for the area.

- Each shovel test should be given a unique field designation, and materials recovered from it are to be analyzed and cataloged by discrete provenience.

- Site boundaries are to be accurately located on USGS 7.5-minute topographic quadrangles and a site sketch map. Areas where the site boundary is undetermined should be depicted on maps with a dotted or dashed line, and definitive boundaries should be depicted with a solid line.

  If possible, the boundaries (perimeter) and center of all sites and undocumented cemeteries (i.e., those not located on USGS topographic maps) should be recorded using a GPS receiver capable of submeter or better accuracy. For sites less than one-fourth acre (1,000 m^2) in size, a single set of coordinates taken at the site's center will suffice. Site sketch maps should be drawn using a scale and an arrow showing true or magnetic north (as well as grid north if that is used) and should depict the location of all positive and negative shovel tests located within the site, as well as the site boundary. It is recommended that landmarks useful for relocating a site be mapped, such as large trees, road right-of-way markers, roads and road intersections, buildings, creeks, ponds/wetlands, telephone poles, etc. Features on the surface should be mapped, such as structural foundations, wells, terracing, fence lines, and historic vegetation (such as large shade trees). Any archaeological excavations, no matter what type (metal detection, augering, test unit) should be mapped.

  Photographs are to be taken of representative project environments and areas where different survey strategies were used. Photographs also should be taken of all sites identified during the survey. Digital photographs should be used for visual documentation. A minimum 300 dpi quality (when printed at 5 x 7-inch size) and .TIFF file format is in keeping with most curation repositories.

III.C.5 Defining Sites During Survey

When defining a site, investigations should address physical integrity, horizontal and vertical boundaries, and the quantity and type of cultural materials present.

III.C.5.a Establishing Boundaries

Systematic subsurface testing, alone or in combination with surface inspection, is necessary to establish both the horizontal and vertical extent of a site. All discovered sites, structural remains, and cultural features will be recorded as to width, length, depth, and nature of fill within the site area.

Site boundaries are to be established by excavating radial shovel tests in no less than four directions. Thirty-meter interval shovel tests can be used to establish the general boundaries, with two consecutive negative shovel tests establishing the edge of the site. Thus, the interval between two distinct sites will usually be at least 60 meters, unless other physical boundaries are apparent. A 10 or 15-meter testing interval is recommended at the outer limits of sites to establish more accurate boundaries. Site boundaries are established when at least two consecutive negative shovel tests are excavated using 10 or 15 meter intervals.

Minimal "cruciform" shovel testing is not sufficient to delineate site boundaries. Ideally, the investigation will clearly delineate site boundaries with close 10- or 15-meter interval shovel tests, depending on topography. Each outside positive shovel test will be delineated when two consecutive negative shovel tests are recorded beyond each outermost positive shovel test within the limits of the site or isolated find.

III.C.5.b Materials Present

The primary goal of recovering artifacts during an archaeological survey is to collect information about the spatial extent of the site, the period during which it was occupied, and what types of activities were carried out there. This goal should guide the sampling and collection strategy employed, regardless of the specific methods used to explore a site.

At the survey level, a complete surface artifact collection should not normally be made unless the site contains few artifacts or is subject to active looting or vandalism. If a surface collection is made, an appropriate sampling method should be based on the investigator's assessment of field conditions as well as the type and density of visible artifacts. An investigator's collection strategy should be specified in field notes, for example all diagnostics and a representative sample of other materials, or measured dog-leash samples of every surface artifact in designated locations, or a minimum number of each type of historic ceramic and glass plus other diagnostic items.

At military sites, it is not always necessary (or desirable) to collect every metal artifact older than 50 years – especially if the site identification effort is research focused. However, the artifact collection strategy should be clearly described and justified.

III.D Field Methods for Evaluative Testing (Phase II) and Data Recovery (Phase III)

Sometimes it is difficult to make definitive site eligibility assessments using standard archaeological survey methods. In this case, sites are considered "potentially eligible" or "unassessed" or "unknown" for inclusion in the NRHP, and additional Phase II site testing is usually necessary. Site testing strategies should be designed to provide not only information about site eligibility, but also information that will help in mitigation planning (if ultimately necessary). However, site testing methods should be designed to minimize site destruction.

III.D.1 Approval and Guidance

Before data recovery is carried out, a data recovery plan must be developed and approved by the agency, the GASHPO, or involved parties. For further guidance in developing a data recovery plan, see *Treatment of Archaeological Properties: A Handbook* (Advisory Council on Historic Preservation 1980) and *Consulting About Archaeology Under Section 106* (Advisory Council on Historic Preservation 1990). See also the Advisory Council on Historic Preservation's "Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites," in the *Federal Register* (65(95):27085–27087), which contains a model Memorandum of Agreement (MOA).

III.D.2 Field Methods

- Controlled Surface Collection: Where possible, a controlled surface collection can provide valuable information to guide subsurface testing. If a complete collection of surface artifacts is impractical or inappropriate, a systematic sampling scheme should be considered. Any such collections are to be provenienced according to some type of coordinate system.

- Heavy Machinery: Site areas should not be stripped before a controlled surface collection is made and/or shovel tests and test units are excavated. A smooth bladed bucket should always be used when stripping plow zone to search for features. Heavy machinery should not be used to remove sub-plow zone cultural deposits. However, the use of heavy machinery for limited stripping of surface deposits is encouraged, since this can often indicate whether or not cultural features are present.

- Shovel Tests: If additional shovel tests are necessary at this stage to guide the placement of test units, they are to be at least 30 × 30 cm and screened through quarter-inch (or smaller) mesh. Shovel test placement will depend on the research design.

- Test Units: Site characteristics and conditions will govern test unit size. Unit placement will depend on the results of shovel testing and, if applicable, the results of surface collection. Test units should be excavated by natural or cultural strata but can include 10 cm arbitrary levels within strata. Although the plow zone or construction debris may be excavated as a single vertical level, regardless of thickness, it is usually advisable to excavate the interface between plow zone and unplowed soils as a separate level.

- Features: Features identified during excavation are to be mapped, drawn to scale, and photographed. A representative sample of features should be bisected to reveal profiles and recover cultural materials.

- Screening: Soil will be screened through hardware cloth mesh no larger than a quarter-inch. Flotation or soil samples, often processed in the laboratory, will require finer screens, typically at least one-eighth inch. Because recovery rates for all classes of materials, particularly faunal and botanical, increase as screen size decreases, investigators are encouraged to estimate relative recovery rates by systematically using finer mesh to sample soils. The choice of dry screening, water screening, and mechanical screening depends on the research design and the specific factors at each site.

- Disposition of Artifacts: Artifacts are to be bagged by discrete provenience (i.e., unit and level). Typically, all artifacts are collected. However, any material not collected, such as brick, mortar, shell, or fire cracked rock, may be counted, measured (when appropriate), weighed, sampled by provenience, and discarded in the field.

III.D.3 Specialized Methods

- Specialized Studies: If flotation, soil, radiocarbon, or other samples are to be obtained, consultation with a specialist on the proper methodology should be conducted prior to retrieval.

- Metal Detecting: In addition to military site identification, metal detectors are useful in the delineation/evaluation of historic house sites, any site(s) with a Contact Period or Historic Indian component, whiskey stills, and tar/charcoal kilns. Coverage, mapping, and collection strategies should be illustrated and discussed in the research design. Phase II coverage should be along 1.5-meter lanes on transects at maximum a 10-meter interval. Removal of ground vegetation and/or leaf litter along detection lanes may be needed for metal detecting to be effective.

- Geoarchaeological Studies: Consultation with a geomorphologist is recommended during evaluative testing to interpret site formation processes and help identify areas likely to contain intact archaeological deposits.

III.D.4 Record Keeping

- Site Map and Permanent Datum: The site map should depict site boundaries, datum, surface features, excavation units, and topography. An easy-to-relocate, permanent datum should be established and clearly identified with the state site number. The Universal Transverse Mercator (UTM) of the datum should be established using a GPS unit with sub-meter accuracy.

- Documentation: All above- and below-ground features and subsurface tests are to be mapped, drawn to scale, and photographed. Appropriate notes and forms will be maintained for all field investigations, a Munsell chart will be used to record soil colors, and USDA soil texture

classifications will be used to characterize soil texture. Artifact depth and location, and excavation size should be included in field notes

- Photographs: Digital photographs should be used for visual documentation. A minimum 300 dpi quality (when printed at 5 x 7-inch size) and .TIFF file format is in keeping with most curation repositories.

IV. ARTIFACT PROCESSING, DATA ANALYSIS, AND CURATION

While minimum standards for artifact processing, analyses, and curation are outlined below, investigators should tailor their activities to the unique aspects of each project. Overall, it is advisable to consult with Georgia State Historic Preservation Office (GASHPO)/Georgia Historic Preservation Division (GHPD) staff, the curatorial facility, and specialists early in the planning process. Laboratory staff should be aware of curation policies of the various repositories. Additionally, all artifacts should be handled to the standards of Society for Historical Archaeology (SHA)/Society for American Archaeology (SAA)/Archaeological Institute of America (AIA) and 36 CFR Part 79.

Processing, analyzing, and curating artifacts must occur in secure and safe environments to prevent loss of significant data. The Principal Investigator (PI) and Project Archaeologist are ultimately responsible for ensuring that artifact data and integrity are preserved. The laboratory staff responsible for basic artifact processing and analysis must have sufficient knowledge to do the job, have access to appropriate comparative collections, and have access to experts when needed. Additionally, laboratory staff and/or the Project Archaeologist should have training in basic curatorial procedures.

IV.A Field Tracking

The choice of a system for tracking artifacts in the field is at the discretion of the investigator. However, the tracking system should be consistently applied throughout the project. During fieldwork, the recorder will enter a preliminary description of the artifacts in field notes and forms before placing them in labeled containers that fully protect them from damage. Artifacts can then be brought back to the laboratory for cleaning and analysis.

IV.B Processing

Before cleaning each artifact, the recorder will check its condition (e.g., for friability) and analyze its surface for easily lost information (e.g., pseudomorphs, organic materials, pigments, etc.). Material with residues, chemicals, or elements which could be examined with innovative technology or potentially useful for future studies should be left uncleaned and protected. All other artifacts should then be cleaned in a gentle manner which preserves the information they contain. Before photographing, selected diagnostic artifacts are usually labeled to record site number, provenience, and catalog number. Care should be taken to ensure that important features like edge wear are not obscured during labeling.

IV.C Analysis

If detailed analysis of certain archaeological materials is planned, it is advisable to include appropriate specialists as early in the project as possible. Because most archaeological sites are valuable primarily because of their research potential, artifact analysis generally should follow well-established classification schemes and typologies. The choice of a specific system will depend

on the investigator's goals and should be fully defined and referenced in the project report. Regardless of which classification system is used, certain basic descriptions and analyses must be included in the report:

- Artifact identification number or provenience
- Material (e.g., lithic, ceramic, glass)
- Class (e.g., projectile point, sherd, bead)
- Count and/or weight, as appropriate
- Dimensions, if appropriate
- Type (e.g., Clovis, Creamware, etc.)
- Noteworthy attributes (e.g., form, decoration, method of use, internal or external dating)
- Analyst observations

IV.D Curation

Federally required projects stipulate that facilities used for permanent curation should meet standards outlined in 36 CFR Part 79. Curation facilities in Georgia which meet these standards and offer fee-based curatorial services include University of Georgia's Laboratory of Archaeology in Athens, University of West Georgia's Antonio J. Waring, Jr. Archaeological Laboratory in Carrollton, and the Georgia Southern University Laboratory of Archaeology in Statesboro. The selection of a facility is best made early in the project and, minimally, before the laboratory analysis has begun. The designated curation facility should be identified in the project report. All artifacts and pertinent field notes and maps, laboratory analysis notes, and report documentation should be archivally prepared according to the curation facility's guidelines and remitted to the curation facility. For projects where no artifacts were recovered, notes and other project materials should be prepared for curation. This should include photographic material and electronic media including artifact and project databases, along with their metadata. Electronic media should be submitted on archival, 100-year disks and archival hard copies should be printed and prepared for long-term storage.

IV.E Conservation

Archaeological collections are unique and destructible cultural resources which may be studied by future generations. Bone, wood, shell, leather, textiles, and other organic artifacts often require specialized preservation treatment(s). Conservation should be undertaken in consultation with the permanent curation repository. Items in particularly fragile condition should be handled by an experienced conservator. When mending ceramic or glass vessels, all work should be reversible in both the short term and long term. Electrolysis should be considered for selected iron/ferrous artifacts that could continue to oxidize in long term storage. Conservation treatment records should be maintained as part of the documentation report.

IV.F No Collection and In-Field Analysis

It is recognized that no-collection and in-field analysis practices are increasing in some areas, particularly in western states. Key drivers of this trend include limited availability of collections storage space, increasing costs of curation, cultural patrimony issues, and pressure by government

agencies and other groups to reduce overall project costs. Few publications have focused on these topics since Butler's article on no-collection surveys (Butler 1979).

The Archaeological Collections Consortium (ACC) is a group of representatives from the SAA, the SHA, and the American Cultural Resources Association (ACRA) who are focused on the use, preservation, and management of archaeological collections. The ACC has recently published online best practices for no-collection strategies and in-field artifact analysis (ACC 2019). https://acra-crm.org/collections The effectiveness and reproducibility of these practices and their impacts on the archaeological record and future research should be carefully considered by archaeologists involved in Georgia investigations.

Except for reconnaissance surveys, no-collection strategies and in-field artifact analysis are not considered sufficient for archaeological investigations in Georgia. Exceptions, especially for no-collection, might be if a site contains hazardous materials; burials, grave goods, or funerary objects; particularly large and/or heavy artifacts; large quantities of architectural materials (brick, mortar, shell, tabby, concrete); nail concentrations; and non-battle related artifacts identified during metal detector surveys at military sites. For metal detecting, include information such as the use of discrimination for particular metals and specifics on any sampling strategy, such as percentage of recovery rate for all metal detector hits. All artifact collection strategies should be clearly described in the research design and subsequent archaeological report, particularly if no-collection and/or in-field analyses are employed.

V. REPORTING RESULTS

A summary of the minimum standards for archaeological survey reports appears below. For in-depth treatment of reporting standards, see Secretary of the Interior's "Standards and Guidelines," *Federal Register*, 48:44734–44737; McGimsey and Davis 1977; and Bense et al. 1986. For matters of style refer to the "Style Guide" for *American Antiquity* (1988). Timeliness of reporting is important for the preservation and dissemination of archaeological data and knowledge. Accordingly, reports for all archaeological studies conducted in Georgia should be completed within 10 years of completion of field studies.

A Georgia Archaeological Site Form should be completed for all sites found within the project area. Only official site numbers can be reported in drafts and final reports. If a site has been previously recorded, a revisit form will be completed noting the current site conditions and any new information. All site forms must be submitted to the Georgia Archaeological Site Files (GASF) before completion of the final report.

V.A Report Content

Although the exact format and content of the report is usually a decision reached by the agency, client/applicant, and consultant, reports should minimally contain the following information:

- Title Page
    - Report title (including type of investigation and project location)
    - Author(s)
    - Principal Investigator(s)'s name, affiliation, address, telephone number, and signature
    - Name and address of client for whom report was prepared
    - Name of lead state and/or federal agency, as well as contract number, permit or State Clearinghouse number
    - Report date
    - Report status (e.g., Draft, Revised Draft, or Final)
- Management Summary
    - Brief description of project and its purpose
    - Concise summary of findings, evaluations, and management recommendations
    - A clear presentation of the number of sites located, the component(s) associated with the sites, and recommendations on their eligibility for the National Register of Historic Places (NRHP). A summary table can be used to provide this information.
- Table of Contents
- List of Figures and/or Tables
- Introduction
    - Purpose of report and nature of the undertaking
    - Legislation or regulations governing the work
    - Name(s) of project sponsors, contract/permit numbers, and other appropriate agency-specific information
    - Description of undertaking, including area of potential effect (APE), project footprint, and nature and extent of anticipated disturbance. Identify and describe undertaking's

features or facilities. Give size of undertaking in acres/hectares or linear distance and width (e.g., road corridor). If the size of an area surveyed is different from the total undertaking, state the survey area in acres/hectares. The entire undertaking area should always be described and depicted on relevant project maps, especially for Section 106 projects. Reasoning should be stated for discrepancies between the total undertaking and actual surveyed area(s).
    - U.S. Geological Survey (USGS) 7.5-minute quadrangle that clearly delineates undertaking and project area boundaries, as well as type of work done in each area (i.e., pedestrian survey, shovel testing, etc.). Figures should include quad name, bar scale, legend, and north arrow.
    - Dates when work was conducted and a list of personnel
- Environmental Setting
    - Include physiographic province, landform type, nearby drainages and water sources, roads, dominant soil association, and current land use. If limiting factors affected the survey, describe and discuss them. Include representative photographs of the general project area. The paleoenvironmental also should be discussed.
- Cultural Context and Previous Archaeological Investigations
    - This section includes an overview of the cultural history of the project area. Length and detail of discussion should be appropriate to the level of investigation and materials recovered. This section should also include a review of previous archaeological investigations in the project area and its vicinity (e.g., drainage or county as appropriate), as well as a description of all archaeological sites within a reasonable distance from the project area. Author(s) also should describe their historical research, including a list or description of all resources reviewed, repositories and specific collections consulted, and a list of persons interviewed.
- Research Design
    - Research designs present explicit statements of theoretical and methodological approaches followed in a particular cultural resource study, and, therefore, are to be included in most reports. The nature and level of detail will be consistent with the undertaking and type of investigation.
    - If a research design has previously been developed for a specific geographic region, type of investigation, or type of resource, the author(s) should reference and discuss it.
- Field Methods
    - Field methods should be described in a way that lets reviewers and future researchers easily reconstruct what was done and why.
    - Maps should depict pedestrian survey areas, subsurface tests and/or excavations, and any relevant field descriptions (e.g., vegetative cover, disturbed areas, etc.). Explanation should be given when shovel tests are not excavated, and “no-dig” locations shown on project maps. For projects where different survey coverage was applied, maps should indicate where each was employed. All maps should include a north arrow (magnetic north, true north, or grid north), a map scale (e.g., 1:24,000), and a bar scale. For sites located using Global Positioning Systems (GPS), the type of equipment and its error range should be indicated.
    - Surface survey techniques should be described and justified for both the general project area and for each individual site (if different from the general methodology).

Note locations examined, intervals between transects, surface visibility, and methods of collection.
    - Subsurface survey techniques should be described, including shovel test and test unit dimensions, depths, transect intervals, and method of artifact recovery. The total number of excavated shovel tests should be included in the report.
    - Specialized techniques (such as remote sensing) will be described and evaluated when used, including personnel, equipment, collection strategies, and coverage. They must also be depicted on appropriate maps. Post-processing methods and software should be described.
    - Discuss constraints on fieldwork, if not already described, such as limited access, poor ground visibility, and adverse weather conditions. Note which areas of the project area were not examined or received limited examination.
    - When field methods deviate from the recommended standards, explicitly discuss how and why such was the case. Likewise, if archaeological site definition criteria deviate from recommended standards, these should be explicitly stated and discussed.
    - Disposition of field notes, artifacts, and other records.
- Artifact Description and Analysis
    - Describe classification scheme. If a previously defined typology is being used, provide a brief description along with a reference.
    - Describe assemblage. Provide a complete description of recovered artifacts by provenience in the text. If the site is large, a summary table should be provided, with specific information on each shovel test possibly placed in an appendix. Detailed artifact descriptions, measurements, and attributes can be provided in tabular form as an appendix, but also should include provenience information. Typically, artifact descriptions should include material, class, and type of artifacts recovered, along with counts, weights, and any measured attributes of diagnostic material (e.g., projectile points, ceramics, beads, etc.).
    - Provide illustrations and/or photographs of representative or important artifacts.
    - Present results of special studies. Describe any special analytical methods used. For radiocarbon dates the following information should be included:
        - Site number and provenience
        - Laboratory number
        - Material dated
        - Method of dating (e.g., extended counting, Accelerator Mass Spectrometry (AMS), etc.)
        - Conventional C-14 age expressed in radiocarbon years before present plus or minus one sigma error (e.g. 2420 ± 60 BP).
        - Calibrated C-14 age expressed in calendar years (range) within one sigma of error. NOTE: Please include all intercepts (e.g., cal b.c.755–685 and cal b.c. 540–400).
        - Calibrated C-14 age expressed in calendar years (range) within two sigmas of error (e.g., cal b.c. 780–380).
        - Citation for calibrated results (e.g., Stuiver et al. 1993)
        - Associated artifacts, particularly diagnostic artifacts
        - Comments
- Results and Site Descriptions
    - Describe all isolated finds and include locations on a project map.

- Site Description
  - Describe each site in narrative form including dimensions, stratigraphy, present conditions, quantity of artifacts, and features. Include discussion of shovel tests, soil cores, and test units, as appropriate. For test units, include drawings and photographs of representative wall profiles. A written description of soil stratigraphy (including color Munsell Soil Color Chart) should be provided for a representative sample of shovel tests and for each test unit.
  - Sketch maps for each site must be included in the report. The sketch maps should depict general topographic characteristics, placement of subsurface tests, and features. These maps must include a north arrow, date, bar scale, legend, and site number.
  - Photographs if, for example, the site contains structural remains, significant disturbance, etc.
  - Enumerate, describe, and interpret artifacts. Describe and interpret features, including those above ground. Include drawings and photographs of representative features.
  - For historic archaeological sites, summarize results of the archival research. For larger projects, most of the archival research can be included as a separate background section, and only site-specific information needs to be presented in this section. All archival and oral history should be referenced in a systematic manner that lends itself to source relocation.
- Site Significance
  - A statement of significance must be presented for each identified site, with reference to specific NRHP criteria listed at 36 CFR 60.4. Most archaeological sites are recommended as eligible under Criterion D; however, investigators should also consider eligibility under Criteria A, B, and C. Sites should be evaluated for their potential to contribute information about specific research objectives. This process should be documented in sufficient detail for the reader to judge how the investigator reached these conclusions.
  - If a site is recommended as not eligible, state the rationale.
  - If a site is recommended as eligible or potentially eligible, present supporting evidence, including research topics that might be addressed. Discuss types of data known to be or thought to be present and indicate information that can be inferred from these data.
  - If there is not enough information to evaluate a site's eligibility, state this explicitly.
- Site Integrity - Identify and explain any factors that have or may have affected site integrity.
- Project Impacts - If known, identify and describe potential project impacts for each site.

- Summary and Recommendations
  - Summarize and list sites recommended as eligible or potentially eligible for the NRHP. Outline the nature and extent of any recommended additional work. If site eligibility is indeterminate and the archaeological work was conducted at a survey level, appropriate recommendations for further work might include site testing to determine NRHP eligibility. For evaluative testing, recommendations might include

site avoidance, or mitigation of adverse effects through data recovery, public exhibits or interpretive panels, or other creative mitigation. Summarize and list sites that are recommended as not eligible for the NRHP. A recommendation of no further work at such sites is appropriate.
    - State whether additional work may be necessary in portions of the project area not adequately surveyed during your fieldwork.
    - Evaluate your survey and/or testing in reference to the research design. Discuss how constraints on the investigation may have influenced the reliability and value of the information.
    - List the location of the curation facility.
- References Cited
- Appendices and Attachments
    - Vitae of key staff should be included in the draft report that is to undergo review. Vitae may be removed from the final report.
    - Site forms for archaeological sites should be included in the draft report that is to undergo review. The forms can be removed from the final report.
    - Artifact Catalog, if not presented elsewhere in the report.
    - Specialist Analyses, including radiocarbon and oxidizable carbon ratio (OCR), if not presented elsewhere in the report.

V.B No Finds Reporting

This abbreviated report format is approved for use on Phase I archaeological surveys that result in Negative Findings. A full Phase I archaeological report must be submitted for all projects that identify new and previously identified archaeological sites *or other historic properties* within the project survey APE. Any questions regarding the applicability of the Archaeological Short Report to a specific project should be directed to Georgia State Historic Preservation Office (GASHPO) staff archaeologists.

VI. BIBLIOGRAPHY

The Archaeological Collections Consortium (ACC)
2019 Best Practices for No-Collection Projects and In-field Analysis. Online at https://acra-crm.org/collections.

Advisory Council on Historic Preservation
1980 Treatment of Archaeological Properties: A Handbook.

1990 *Consulting About Archaeology Under Section 106*.

Bense, J. A., H.A. Davis, L. Heartfield, and K. Deagan
1986 Standards and Guidelines for Quality Control in Archaeological Resource Management in the Southeastern United States. *Southeastern Archaeology* 5(1):52–62.

Butler, William
1979 The No-Collection Strategy in Archaeology. *American Antiquity* 44:795–799.

Civil War Sites Advisory Commission (CWSAC)
1992 Civil War Sites Advisory Commission Report on the Nation's Civil War Battlefields Report on the Nation's Civil War Battlefields. Three volumes. Revised and reprinted 1998. National Park Service, U.S. Department of the Interior. Washington, DC.

Davis, Robert S., Jr., compiler
1991 *Research in Georgia*. Southern Historical Press, Greenville, South Carolina.

Elliott, Daniel T.
2000 Comments on Archaeological Survey in Georgia. Georgia Council of Professional Archaeologists. http://www.georgia-archaeology.org.

Geier, Clarence R. and Steph R. Potter, editors
2000 *Archaeological Perspectives on the American Civil War*. University Press of Florida.

Lowe, David W.
2000 *Battlefield Survey*. American Battlefield Protection Program. National Park Service. Washington DC.

McGimsey, Charles, and Hester Davis
1977 The Management of Archaeological Resources: The Airlie House Report. Society for American Archaeology, Washington, DC.

Schweitzer, George K.
1995 *Georgia Genealogical Research*. Self-published, Knoxville, Tennessee.