HISTORIC PRESERVATION SERIES #17

LITERATURE REVIEW

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The Office of History and Archaeology (OHA) is the State of Alaska's primary office with knowledge and expertise in historic preservation and is dedicated to preserving and interpreting Alaska's past. The Office serves as Alaska's State Historic Preservation Office (SHPO) pursuant to the National Historic Preservation Act of 1966 (NHPA), and administers programs authorized by both the NHPA[1] and the Alaska Historic Preservation Act of 1971 [(AHPA) AS 41.35].[2] Both laws authorize the office to carry out numerous responsibilities, including providing advice and technical assistance to federal and state agencies, project proponents, local governments, Tribes, other consulting parties, and the public. To assist with providing consistent guidance and address issues encountered in project implementation, OHA/SHPO developed the Historic Preservation Series as a reference and mechanism to connect people with answers to common questions and/or concerns.

The Historic Preservation series (HPS) is intended to provide guidance on best practices for cultural resource professionals in Alaska. The HPS is not intended to serve as a new level of regulation, but aims to ensure that investigations meet existing state and federal regulations, SCRIP stipulations, and current practices of the discipline by promoting consistency in methods and submittals.

Literature reviews

Research designs should include background information pertinent to the investigation area, forming a literature review, also known as a data gap analysis. A literature review considers all *relevant*, previously collected information, including environmental and cultural overviews for the project area (local watershed) and larger region (shared biome, broad culture area), see example literature review scope on page 3. A literature review is conducted prior to fieldwork and should be more substantial than the background section of the final report, which should be more *concise* and focused on information relevant to the findings of the project.

The scale of a literature review should be proportional to the scope and scale of the project. In Section 106 terms, the purpose is to create a general 'historic context' for the project: previously

[1] For any project, activity, or program funded by or under the jurisdiction of a Federal agency; any project receiving Federal financial assistance; and those requiring a Federal permit, license, or approval.
[2] For projects with any kind of state involvement. This includes any public construction or public improvement project undertaken by the state, or by a governmental agency of the state or by a private person under contract with or licensed by the state or agency of the state.

identified sites, both in the project area and larger region, inform expectations for the types of cultural resources that might be encountered during Phase I survey, and therefore directly inform survey methodology.

> Apparent and predicted patterns of past human activity resulting from the literature review should be addressed and discussed in the research design, as this makes explicit what the Principal Investigator and Field Supervisor will consider "high probability" areas where testing will be the most thorough (see HPS 18, Field Survey Methods).

A literature review should include, *as relevant*:

- Environmental data, including modern and past flora and fauna.
- Geological data relevant to past human occupation, including glacial history, sea-level history, and the geomorphology of late Pleistocene and younger landforms such as lake and river terraces, dune fields, and glacial features (kame and kettle topography, moraines, eskers).
- Previous archaeological survey in the project area, including where and when it occurred.
- Previously identified sites in the area, including whether they have been evaluated for the National Register.
- General culture history of the region.
- Regional ethnographic overviews, known trails, and Placenames.
- Interviews with local knowledge-bearers.
- Inspection of museum collections.
- Archival research, such as tax and property records, historic maps, photographs, periodicals, or construction plans.

Previously identified sites:

Reviewing known sites relevant to the project area should not only be to consider the effects of the project on existing sites. A review of known sites in the general vicinity allows the investigator to develop expectations for what kinds of sites might be expected within the project area based on past human activity in the same landscape context. This can include common site locations (e.g., ridges suitable for hunting overlook sites, beaches with ideal characteristics for village coastal village sites, etc.), likely site function or seasonality (locations of seasonal aggregations of hunted/fished species like salmon or caribou), expected depths of subsurface cultural horizons, and anticipated material culture. The types of material culture expected may inform screening methodology: for instance, more ephemeral sites with a microblade industry may be difficult to identify if testing relies on a 1/4 inch or larger screen size. Large screen sizes will also fail to capture smaller pieces of debitage and faunal material, particularly fish bone, which may all be necessary to address site function where preservation of such material is expected.

As the survey coverage of Alaska is so limited, there may not be known sites in the AHRS database within or immediately adjacent to the project area. Likewise, a handful of known sites within a few square miles are not likely to represent the full range of potential landscape contexts for past human

activity in the area. To inform survey methods adequately, the review of known sites should not be limited to the project area or APE. This step may require consideration of known sites within several miles of the project area in order to piece together an adequate picture of previous patterns of human activity. For work in remote areas with very limited previous archaeological survey, this may require consideration of other areas within the broader region that *have* received more thorough survey coverage and share similar landscape/environmental characteristics.

Pre-field landscape reviews (desktop aerial survey):

Reviews of the general landscape/topography of the project area need not be limited to USGS topographic maps. Elevation Data at 5m resolution (Ifsar) is now publicly available for the entire state of Alaska via the AK Division of Geological and Geophysical Survey (https://elevation.alaska.gov/) for use in a Geographic Information System (GIS). Higher-resolution datasets such as LiDAR are becoming increasingly available for specific parts of the state. Other datasets pertaining to local environment and infrastructure are available at the State of Alaska Open Data Geoportal (https://statewide-geoportal-1-soa-dnr.hub.arcgis.com/) and many other relevant datasets exist online. There are other free resources that can facilitate pre-field evaluation of the project area landscape, such as Google Earth, that do not require training in GIS.

Post-Pleistocene landscape evolution:

A thorough archaeological survey requires an awareness of how landforms and environments have changed since the late Pleistocene, another key part of the literature review process. Some landscape features can easily be missed, such as lake terraces from now-drained proglacial lakes or uplifted paleo shorelines stranded far from the modern intertidal zone. Ancient lakeshores, relict river terraces, and coastal beach terraces represent areas that would have been attractive for human settlement when adjacent to water in the deeper past, but are not immediately obvious in modern environmental contexts, i.e. when forested and no longer water-adjacent.

Other features may be inadequately tested if their depositional context is not considered. When proglacial lakes drained and coastlines (or glaciers) receded in the late Pleistocene/early Holocene, those locations became active sources for aeolian sediment transport until they were vegetated. Areas that then experienced periods of high (often aeolian) sediment deposition, such as the loess dunes of the Interior or coastal dune fields, therefore require Deep Testing to identify deeply buried cultural horizons. See HPS 18, Field Survey Methods, for further guidance on deep testing.

Existing survey biases:

Finally, survey and/or research biases skewing the extant archaeological record should be considered during the literature review process. This may include previous infrastructure or development projects that resulted in an oversampling of certain parts of the region, advances in the understanding of regional paleoenvironmental/geological/cultural history, preservation biases, and other processes allowing for the ease of identification of only certain types of sites (e.g., hunting overlooks on deflated ridgelines), presence or absence of previous collaborative research with Native Alaskans and other local community

members, or the narrow focus or shortcomings of previous survey/research projects in the area (e.g., a lack of subsurface testing, no screening, or use of aerial survey methods without pedestrian ground-truthing).

Literature Review Scope: Example A

Project: Road construction is planned in the Interior near a historic mining community to allow access to recreational cabins by a large river. The proposed road will traverse a dune field, with a large scenic overlook atop the highest dune planned to allow travelers to take in the view of the surrounding river valley and nearby mountains.

Example Literature Review Scope:
Identifies no known AHRS sites within a 2-mile buffer of the project area, beyond those within the historic town.
Includes a one-page, general culture history narrative of Alaska from the late Pleistocene to the present.
Devotes several pages to the history of the Alaska gold rush area and identifies the types of sites likely to be identified in association with the historic mining town.

Strengths: The review has developed a solid context to aid in the identification of anticipated mining-related sites.
Weaknesses: Due to the absence of known prehistoric sites in the area, the review has neglected the possibility for significant older cultural resources. Instead, the researcher should have considered what is known about common archaeological site locations in similar environments elsewhere in Alaska – such as the cluster of deeply buried late Pleistocene and early Holocene archaeological sites in the middle Tanana Valley.

Literature Review Scope: Example B

Project: A remote railroad bridge will be replaced.

Example Literature Review Scope:
Includes a comprehensive culture history of Alaska, spanning Holocene archaeology, historic-era Russian contact, gold rush, and the development of road and rail systems in AK.
Includes specific history of the railroad section and bridge, including historic photographs of the bridge itself.

Strengths: The review includes relevant AK railway history with historical documentation and photographs to complement survey around and documentation of the bridge
Weakness: The review was not concise, and could have been more tightly focused on information directly relevant to the project.