

AUTOMATED MANAGEMENT OF DATA AND RESEARCH RESULTS ON ARCHEOLOGICAL SURVEYS

A PROPOSAL FOR DISCUSSION

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The use of automated data processing (ADP) for storage and retrieval of site inventory data has been widely discussed, and occasionally implemented in historic preservation. While this is obviously useful, we believe that for data on archeological resources, at least, it may be more important for planning purposes to keep track of a more general class of information—data on the level and quality of archeological surveys in particular areas, and on the locations of information sources.

It will be many years before the National Register is complete (if it can ever be said to be complete). Only then will it be usable as the sole documentary base for historic preservation planning in advance of land-modifying projects. In the interim, supplemental bodies of data are needed to facilitate application of the processes for compliance with Executive Order 11593, the National Historic Preservation Act, and the National Environmental Policy Act. The most frequently discussed form of supplemental data is the "inventory," which is usually defined as a body of information on properties known to the State Historic Preservation Office (or some other inventory-keeping body), but not yet evaluated for National Register eligibility. The inventory contains all sorts of data on historic properties, ranging from dots on a map to detailed reports, collected by private, local, state, and federal entities.

If a property listed in the inventory is endangered, then this triggers an evaluation response leading to a determination of eligibility and compliance with the procedures of the Advisory Council on Historic Preservation. Inventories, however, suffer from the same problems as the National Register—they are incomplete. Many areas of the country have never been "inventoried," and even where inventory data are available these data are not necessarily reliable. An inventory listing by itself provides no basis for considering the reliability or availability of the data. Even more important, the lack of an identified property in a given area does not necessarily mean that there is nothing there. The inventory provides no way of differentiating between areas that have been closely surveyed and found wanting and areas that have simply never been inspected.

Regarding archeological resources, at least, we believe the most useful interim planning tool that could be developed would be a body of consistent, com-

prehensible, updatable information on the quality of survey work that has been done in each part of the country, and on the disposition and availability of survey data and other useful information. Such a data base would supplement the National Register and the state inventories. This would permit an agency planning a project in a given location not only to find out what known archeological properties exist in the vicinity, but also to find out:

the level and intensity of archeological surveys that have been conducted in the vicinity;

what areas in the vicinity have actually been subjected to survey;

bibliographic citations to and locations of all reports of archeological fieldwork conducted in the vicinity; and

locations of all collections of primary archeological data, artifacts, etc., from surveys and excavations in the vicinity.

Using such a system would enable State Historic Preservation Officers and federal agencies to clearly determine the need for archeological surveys prior to particular projects, and to mobilize the necessary data to guide, supplement, or take the place of field surveys. Such a system would also permit SHPOs to more effectively plan their comprehensive statewide surveys. The following points might be useful in organizing such a system.

Design. The Nation should be subdivided into geographical units of some convenient size, but not so small as to make the task of data input unnecessarily difficult, or so large as to render them too general for use in planning. Quadrangles matching 7.5-minute USGS maps might be appropriate, or squares 10,000 meters on a side designated by UTM references. In consultation with the SHPOs, OAHF should develop a method of classifying archeological surveys regarding intensity, comprehensiveness, and reliability, and develop systems for coding the nature of survey coverage in each designated unit. The system should be capable of storing and providing information such as:

"Entire unit has been subjected to surface survey."

"Shovel testing has been done in about 1/16 of the unit."

"Three cursory surveys have been done but none has covered the entire unit."

It should also be possible to assign each unit a numerical rank based on the extent and quality of the survey work.

Input. Having established the system, OAHF and the SHPOs should arrange for compiling the data for input, as a part of the statewide planning process in each state. This would involve locating and

recording the nature of surveys in each unit, in accordance with the classification system, and providing information for each unit as follows:

Bibliographic references on all publications of archeological work within the unit.

Full references and locations on all unpublished reports of archeological work within the unit. If feasible, a copy of each report should be provided to OAHF for placement in the microfiche series maintained by the National Technical Information Service (NTIS). The NTIS designator would then be entered into the system. If access to a document must be limited in some way, this fact would also be noted.

Names and standardized descriptions of all archeological collections from the area, with notes about their locations and availability for study.

The SHPOs in adjacent states should be encouraged to pool their efforts; federal agencies should be encouraged to assist SHPOs as part of their responsibilities under Executive Order 11593, sections 2(a) and 1(3). It would no doubt take several years before a fairly comprehensive data base could be compiled; it would be appropriate to give first priority to units in areas of high development pressure or other potential adverse impacts.

Output. The system should be capable of:

printing out brief summaries of the level and nature of survey(s), and the location and availability of documentation and collections for any given unit, and

printing maps or map overlay sheets of states or other large regions showing the level and nature of survey in terms of numerical ratings for all units within the region.

We believe that developing such a system should be given high priority by OAHF and the states in connection with comprehensive state plan development. Initially, it seems most feasible to centralize the system in OAHF, using existing computer facilities and programming to maintain data input by the states, then providing output to the states and federal agencies on request. Eventually regional data collection centers might be developed.

We solicit comments, criticisms, and counter-proposals. Address comments to Thomas F. King, Archeologist, Interagency Archeological Services, Office of Archeology and Historic Preservation, National Park Service U.S. Department of the Interior, Washington, D.C. 20240.