

# Federal Archeology

## REPORT

April 1988

U. S. Department of the Interior • National Park Service • Archeological Assistance Division • Washington, D. C.

### THE Federal Archeology REPORT: INTRODUCTION

*The publication and distribution of the Federal Archeology REPORT is the latest in our attempts to improve communication within Federal archeology and to let those outside the Federal system know about at least some of the activities within it.*

*The Departmental Consulting Archeologist and the Archeological Assistance Division are responsible for carrying out the Secretary of the Interior's responsibility for oversight and coordination of Federal archeological activities. These functions involve us in a wide variety of activities, from regulation writing to training to preparing an annual report on archeological activities of the Federal government. Recently, activities aimed to improve information exchange about Federal archeology, both within the government and with archeologists outside government and the general public, have been a focus of our attention. For the 1988 fiscal year, Congress added \$100,000 to the operating budget of the Departmental Consulting Archeologist in order to bolster the means at his disposal to improve coordination of Federal archeological activities. Our ability to produce and distribute the Federal Archeology REPORT is related directly to this additional funding. The Federal Archeology REPORT responds to many requests that we have had to provide a faster and wider distribution of information to those who are part of the Federal Archeology program and those interested in Federal archeological activities.*

*Our initial mailing list for Federal Archeology REPORT is to Federal Historic Preservation Officers, Federal archeologists in headquarters, regional, state, and local unit offices, State Historic Preservation Officers, State Archeologists, and others with whom our program has interacted in the past. Others may contact us to have their names added to the mailing list.*

*Our plan is to produce the Federal Archeology REPORT several times per year, using it to announce activities and meetings and to distribute information on topics of interest or concern. Readers are encouraged to send us announcements of meetings or activities for inclusion in the REPORT, as well as longer topical pieces that may be appropriate for and of interest to the audience of the REPORT.*

**Dr. Bennie C. Keel**  
Departmental Consulting Archeologist  
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### NATIONAL ARCHEOLOGICAL DATABASE--PROJECT PORTION: PURPOSE AND PLAN

Francis P. McManamon, W. Fredrick Limp, and James A. Farley

#### Introduction

In response to public and Congressional concerns that Federal archeological activities were not well-coordinated, the National Park Service was directed in 1983 to improve the coordination of these activities. One of the proposed means of doing this was through the creation of a national database that would contain information about existing archeological reports, current archeological projects, and existing local, state, or regional archeological databases. The information included in the national database would be summary only, but by providing access to it and directions on how to obtain more complete information, relevant past and current investigations could be identified and duplication of effort avoided.

Planning for the National Archeological Database (NADB) began in 1983. The database has three parts: the Reports portion, the Projects portion, and the Databases portion. The Reports portion has received the greatest attention so far. Software based upon dBASE III Plus, compiled in Clipper, has been developed by the Park Service for data entry, information manipulation and report generation, and data management of reports data. Version 2.0 of this software will be available during the Summer of 1988; for details of this portion of NADB contact Ms. Debra Katz, Archeological Assistance Division, National Park Service (202-343-4101). The database portion of NADB has not been developed formally, however, information about cultural resource databases maintained by States or Federal agencies is kept in a small dBASE III Plus database maintained by Betsy Chittenden, Preservation Assistance Division, National Park Service

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(202-343-9592). The development of the Project portion of NADB is the subject of the remainder of this paper.

### The Goals of the Project Portion of NADB

The Project portion of NADB aims to provide a database management system for a variety of purposes. Public agencies will use it to monitor their archeological projects at the executing office, the regional or state office, and the national office. It will provide summary information about projects for easy project and year-to-year program accounting. The system is being designed for use by Federal agencies, but can be adapted for use by State and local agencies and organizations.

The Projects portion will record the locations where archeological investigations are underway or have been completed recently, as well as the nature of the investigations. Additional summary information about each project also will be recorded. Ultimately, the Projects portion, in conjunction with the Reports portion, will provide a guide to all the archeology done in the United States by or for Federal agencies, in response to Federal regulations, or on Federal lands.

The information summarized by the Projects portion also will be used to describe and analyze archeological activities for the Secretary of the Interior's annual report to Congress about Federal archeology. The database is expected to result in more accurate and detailed descriptions of the Federal archeological program. It will provide a firmer base of knowledge for responses to Congressional, public, and professional questions about agency-specific or government-wide archeological activities. While the Project portion is being designed to improve the tracking of Federal archeological activities, it is recognized that such a tracking system may be useful for non-federal organizations, particularly State Historic Preservation Offices.

### The Definition of "Project"

A wide range of activities are encompassed within the general term "project" as the term is used for the Project portion. Project refers to all traditional archeological activities, such as surveys, testing, and excavations. Nonfield investigations, such as management, collections, or documentary studies also are included within this definition. As a general rule, the term "project" includes any archeological investigation performed as part of a Federal activity, regulation, or management action. Any archeological activity that requires an agency, Antiquities Act, or Archaeological Resources Protection Act permit is considered as a project.

Many archeological projects have a beginning and an end, and may be viewed as discrete entities, while others occur continuously throughout a year. An example of the former is a survey for a specific well pad or the excavation of a site for data recovery. By comparison, some agency staff, eg., Forest Service Forest Archeologists, perform many small, but repeated field studies. Examples of such include brief, repetitious field investigations of road ditching or culvert repairs or the continual quick field checks of small maintenance activities. In the Project portion, these continual archeological activities can be grouped and recorded as single projects for a given fiscal year.

Some archeological projects are large, multiyear investigations. Since one primary purpose of the Project portion is to identify and report on archeological projects on a fiscal year basis, work undertaken each year of multiyear projects will be recorded each fiscal year for the duration of the project. At the end of the project, the entries for the project would appear in the Project portion as a series of individual year records for the multiyear project.

The system design also has been structured to allow for tracking projects without any government connection, such as university-sponsored research projects or the volunteer efforts of avocational archeologists.

### System Design and Data Fields

The Project portion is being designed to run on an IBM Personal Computer, XT, AT, or higher model, or compatible models using MS-DOS, Level 2.1 or above. A hard disk drive is recommended highly for ease of using the system. The Project portion is being designed to provide a direct interface with the spreadsheet program Lotus 1-2-3. The system is being implemented largely utilizing dBASE III Plus programming language. In order to increase system performance, substantial source code also will be written in the C programming language, Clipper compiler, and Clipper extensions.

The Project portion will use a relational format. The structure of the Projects portion is designed to:

- (1) provide rapid access to summary data,
- (2) minimize data redundancy,
- (3) preserve an "open ended" data dictionary,
- (4) maintain linkages to other NADB portions,
- (5) provide "hooks" for extending the Project portion.

The relational structure presented here is a conceptual model that may be modified following discussions, review, and testing. The conceptual version of the

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Projects portion consists of 13 separate tables that can be divided into three functional categories (management data, locational data, and data summarizing project specific activities and results by worktype). In addition, two "hooks," or unused tables, are reserved that allow agencies to record data that may be specific to their needs or applications.

All management related information pertinent to general

project tracking is retained in the main table (**Figure 1**). It should be possible to generate summary reports using only this table. In addition, the main table contains the local and foreign keys needed to associate the information in the main table with information contained in the subsidiary tables (**Figure 2**) within the Projects portion and to link with data contained in the other portions of NADB.

## FIGURE 1: MAIN TABLE FOR PROJECT PORTION

The Main table is designed to hold the categories of information which are needed minimally for overall summaries. Additional specific data can be entered in the subsidiary tables. The "Agency Level" fields are used to allow upward summaries. For example, projects at Minute Man National Historical Park would have the entry MIMA in Level 4, NARO (North Atlantic Region) in Level 3, NPS in Level 2 and DOI in Level 1. The Little Rock District Corps of Engineers would have LRD in Level 4, SWD (Southwestern Division) in Level 3, COE in Level 2 and DOD in Level 1. Thus all projects can be summarized easily using entries in this field. The remaining fields should be self-explanatory.

IDENTIFICATION DATA FIELDS	ACCOUNTING DATA FIELDS	SUMMARY DATA FIELDS
Project Number	Agency Cost Center	Total Project Acreage (if area)
Agency Project Number	Total Federal FTE(s)	Total Project Miles (if linear)
Project Name	Total Dollar Cost	Total Project Acres Surveyed (if survey)
Fiscal Year		Total Project Miles Surveyed (if survey)
Reporting Agency		Total Sites Recorded/Visited
Project Location (State)		Total Sites Evaluated
Agency Level 1 (Department)		Total Sites Subjected to Data Recovery
Agency Level 2 (Agency/Bureau)		Total Sites Determined Eligible
Agency Level 3 (Region/State/Command)		Total Sites Nominated to National Register
Agency Level 4 (District/Forest/Park)		Collection Curated (y/n)
		Location Curated

Four tables are used to record information about project locations, such as township/range/section, UTM, state/county/town, and legislative district. The tables state/county/town, township/range/section, and UTM conform to the structure of tables that exists in the Reports portion of NADB. The UTM table may be modified and/or expanded to include polygon data. In addition to these three tables, a relation has been constructed for legislative district to permit project tracking within Congressional districts.

Six tables have been designed to track project-specific worktypes and information about each of them. A given archeological project may have identification, evaluation, or data recovery components during a single fiscal year. The Project portion design allows specific information to be recorded for each worktype for a single project. The definitions for these tables correspond to the definitions for worktype used in the Reports portion. In addition to

data documenting worktype, these tables contain summary data indicating the results of the project and other data pertinent to the particular type of work, such as area surveyed, sites identified, evaluated, or excavated, etc.

Two tables, one documenting sources of funding for cooperative multiagency projects and another for tracking Section 106 compliance status, are used in conjunction with the main table to monitor these management requirements.

Along with these 13 structured tables, two "hooks" will be included to permit extension of the Project portion definition. These hooks are tables that may be used by agencies for their particular needs. During the design planning meetings, that will be held to discuss the Project portion, the specific data fields that these tables should contain will be considered and recommendations

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sought from meeting participants. The likely data fields will be those that would be useful for recording and tracking detailed financial, personnel, or compliance information. The extent to which these tables and fields should be fixed and integrated with the other tables or left more malleable, but less well integrated with the

other tables, also will be addressed in the design planning meetings.

Some Federal and State agencies already have developed manual or computerized project tracking systems. As far as is possible, the Projects portion will be designed to be compatible with existing systems.

**FIGURE 2: SUBSIDIARY TABLES FOR PROJECT PORTION**

**1. Keyword Table**

Any keywords used to describe this project are entered in this table, multiple entries are possible in this and many of the other tables. The Project Number field in this table (and all other tables) serves to link all the tables together for each record.

**2. UTM Table**

One or a series of UTM points can be entered either indicating the project center point, a rectangle including the project, or the actual project boundaries.

**3. Township Table**

One or more sets of township/range and section(s) are to be entered.

KEYWORDS	UTM	TOWNSHIP
Project Number	Project Number	Project Number
Word	Zone	Meridian
Category	Easting	Range
	Northing	Section

**4. County Table**

One or more sets of state and county are to be entered. Where appropriate, only a state entry is needed.

**5. Legislative District Table**

One or more legislative districts are to be entered.

**6. Funding Source Table**

Where multiple funding sources exist or cost sharing applies, all agencies contributing and their contributions are to be entered.

COUNTY	LEGISLATIVE DISTRICT	FUNDING SOURCE
Project Number	Project Number	Project Number
State	District	Agency
County	State	Agency Funding Contribution (dollars)
Town		Agency Funding Contribution (FTEs)

**7-13. Investigation Type Tables**

One or more entries are possible. A single entry can be used to summarize all identification/evaluation/data recovery efforts or individual entries can be made for each identification/evaluation/data recovery technique used. The Report DOC is the document number of the report for the project in the Reports portion of NADB.

IDENTIFICATION	EVALUATION	DATA RECOVERY
Project Number	Project Number	Project Number
Identification Technique	Evaluation Technique	Data Recovery Techniques
Acres Surveyed	Number Determined Eligible	Report DOC
New Sites Found	Number Not determined Eligible	Total Data Recovery (dollars)
Sites Revisited	Report DOC	Total Data Recovery Federal (FTEs)
Report DOC	Total Evaluation (dollars)	
Total Survey Costs	Total Evaluation Federal (FTEs)	
Total Federal (FTEs)		

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FIGURE 2 (Continued)

OVERVIEW	ARCHEOLOGICAL GENERAL	SECTION 106
Project Number Report DOC Total Overview (dollars) Total Overview (FTEs)	Project Number Description Total General (dollars) Total General (FTEs)	Project Number Data SHPO Comment Requested Data SHPO Comment Received Comment Action Advisory Council Comment Requested Advisory Council Comment Received

It is recognized that Federal agencies, State agencies, and other organizations may have or develop data needs not currently part of the Projects portion. Therefore, the system has been designed to be extendable so that new data fields and reports can be added a qualified programmer. For those authorized cooperating users of NADB who wish to modify the system, the Archeological Assistance Division will provide a copy of the source code and instructions on the necessary software.

### Distribution of the Projects Portion

Once the Project portion design, development, and testing is completed, it will be distributed by the Archeological Assistance Division. Initially distribution will be to Federal and State agencies that agree to use the system as intended and to supply completed records about projects to the Archeological Assistance Division for the national version of the Projects portion. Access to the national system data will be provided to Federal and State agency offices that are participating in the Project portion. It is hoped that the Projects portion will be adopted by many Federal and associated state agencies. The project data in these local systems then can be combined into regional databases and into a national projects database that will be compiled and maintained by the National Park Service. The procedures for the creation and distribution of regional versions of the Projects portion have not yet been developed, but are being considered.

### The Approach to Planning the Project Portion of NADB

The Projects portion of NADB is being developed by the Archeological Assistance Division, National Park Service (contact Francis P. McManamon, (202) 343-4101) and the Arkansas Archeological Survey (contact W. Fredrick

Limp or James Farley (501) 575-3556). Comments about the Projects portion and examples of existing useful manual or computer archeological project management systems are welcomed. Individuals with existing systems should contact one of the individuals listed above with information about their systems. A series of meetings are scheduled to present and discuss the goals and plans for the Project portion. A meeting was held in Washington, D.C. (23 March 1988). **Meetings will be held in San Francisco, CA (10 May 1988) and Denver, CO (12 May 1988).** Additional information about these meetings is available from one of the individuals listed above. **Archeologists in Federal or State agencies are urged to attend one of these meetings. Others with an interest in the system also are welcome. The meetings agendas will permit substantial and detailed discussion of the proposed system.**

Following these meetings the design planning will be completed and a prototype system developed. The prototype will be tested through applications at the national, regional or state, and local levels of Federal archeological programs. Individuals and offices interested in cooperating with the Archeological Assistance Division and Arkansas Archeological Survey in this testing program are urged to contact one of the individuals listed above. Following the prototype testing and evaluation of the results, a final version of the Projects portion software will be developed and distributed to Federal and State agencies interested in participating in the National Archeological Database.



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## WORKSHOPS ANNOUNCEMENT

The dates and locations of the Federal Archeology Program Coordination Workshops have been confirmed. They are as follows:

**September 12 through 16, 1988**  
**Southwest Cultural Resources Center**  
**Santa Fe, New Mexico**

**October 24 through 28, 1988**  
**Mather Training Center**  
**Harper's Ferry, West Virginia**

The objective of each workshop is to bring together experienced cultural resource managers and archeologists concerned with improving national and regional coordination in the Federal archeology program to interact on specific issues and activities planning. This year the Issues Seminars will concentrate on the curation of archeological collections, Federal and State program interaction, public education and the Archaeological Resources Protection Act, and the objectives and current status of the Federal archeology program. The workshops will conclude with the series of working groups designed to produce recommendations about appropriate activities for the Federal archeology program based upon the Issues Seminars.

A copy of the workshop announcement is available upon request. Please submit your application request, with a brief statement about your current position and responsibilities, to Dave Dahlen at the address given below. If you have further questions about the workshops, you may also contact Richard Waldbauer at telephone (202) 343-4113.

Applications to:      Dave Dahlen  
                                  c/o Mather Employee Development Center  
                                  P.O. Box 77  
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