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Award Number: P14AC01602
Project Number: SUU-45
CFDA #: 15.945
Park/NPS Unit: Zion National Park
Title of Project: Artifact Analysis Work

Administered through the: Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number P14AC00921

CESU Partner: Southern Utah University

PROJECT CONTACTS:

Principal Investigator: Barbara Walling-Frank, Director SUU Archeological Repository, Southern Utah University, 351 West Center Street Cedar City, UT 84720, 435-586-7870, frankb@suu.edu

Administrative Assistant: Karen Wilson, Pre Award Grant Facilitator Sponsored Programs, Agreements, Research & Contracts, Southern Utah University, 351 West Center Street Cedar City, UT 84720, 435-586-7727 (phone), 435-586-7921 (fax), wilsonk@suu.edu

NPS Certified ATR: Fred Armstrong, Chief of Resource Management, Zion National Park, Hwy 9, Springdale, Utah, 84774, 435-772-0188, fax: 435-772-3426, fred_armstrong@nps.gov

NPS Technical Expert (if appropriate): Sarah Horton, Archaeologist and Cultural Resource Program Manager, Zion National Park, Hwy 9, Springdale, Utah 84774, 435-772-0214, sarah_horton@nps.gov

FUNDING INFORMATION:

Amount Funded: \$35,000.00

NPS Account Numbers (amounts in parentheses): [WBS] - PX.P0204938A.00.1, [Cost Center] – PPIMZION00, [Functional Area] – PFE00FEPR.I00000 (\$35,000)

Fund Source (e.g., ONPS, FLREA, CRPP, CESU, etc.):

NPS Funding

Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

PROJECT DATES:

Start Date: September 15, 2014

NOTE: This Task Agreement will become effective on the date of final signature or the effective date of the Award document, whichever is later.

End Date: September 30, 2016

NPS Administrative Contacts

Interim CESU Coordinator (May 18 – September 13, 2014): Todd Chaudhry, National Park Service/CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011, 928-523-6638, Fax: 928-523-2014; todd_chaudhry@nps.gov

Intermountain Region Administrative Contact: Kelly Adams, Grants and Agreements Specialist, National Park Service, 12795 West Alameda Pkwy, Lakewood, CO 80228. Phone: 303-969-2303 Fax: 303-969-2992 Email: Kelly_adams@nps.gov

FEDERAL FINANCIAL REPORTS:

Federal Financial Reports (Check as required for project based on spending plan, period of performance, risk, cooperator history, etc.)

Quarterly Semi-annually Annually Final (required)

PROJECT SCHEDULE AND TECHNICAL REPORT DEADLINES:

List all technical reports and products in sequential order as required in the scope (more lines and milestones can be added as needed):

Project Start Date – September 15, 2014

Technical progress reports – Quarterly Semi-annually Annually
(Check as needed from PI to monitor progress of specific project. Content should be addressed in the scope.)

Investigator’s Annual Report (IAR) – September 30, 2015

Database, Collections/Specimens, Archives, and Maps provided to the NPS ATR or Technical Expert – July 30, 2016

Draft Final Report – July 30, 2016

Final Report – September 30, 2016

Project End Date – September 30, 2016 (project reports/deliverables are due)

Final SF425 FFR must be submitted within 90 days of project end date

PAYMENTS

2 CFR PART 215.22: Cash advance (drawdown) to recipient organization shall be limited to the minimum amounts needed and be timed to be in accordance with the actual immediate cash requirements of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization for direct program or project costs and the proportionate share of any allowable indirect costs.

2 CFR PART 215.25 (8)(e)(1): Incur pre-award costs 90 calendar days prior to award or more than 90 calendar days with the prior approval of the Federal awarding agency. All pre-award costs are incurred at the recipient’s risk. (i.e. the Federal awarding agency is under no obligation to reimburse such costs if for any reason the recipient does not receive an award or if the award is less than anticipated and inadequate to cover such costs.)

CESU REQUIRED PRODUCTS (may be different from those products required by the ATR – See Statement of Work for Products required by the NPS unit):

The Principal Investigator will prepare a brief report abstract suitable for public distribution and two hard copies and an electronic version (in PDF file format) of the final report and mail all to Todd Chaudhry, National Park Service, CPCEU, NAU P.O. Box 5765, Flagstaff, AZ 86011. Please be sure to include the project number (e.g.; NAU-###, UMT-###, UAZDS-###) and the P number on the cover page of the final report.

PROJECT ABSTRACT:

The purpose of this project is to produce one comprehensive database that contains consistent, detailed information on all the artifacts in the collection. All of these artifacts are currently accessioned, cataloged, and physically organized in the Zion Human History Museum curatorial facility. The PI will inventory, analyze, photograph, enter the analysis results and appropriate metadata in the artifact database for approximately 15,000 artifacts (+/- 500 artifacts). These tasks are described in detail below.

As early as the 1930s, researchers and park personnel have committed a range of archaeological objects to the Zion collections. Objects within this collection include prehistoric items of ground stone (manos, metates), flaked stone (projectile points, scrapers), ceramics (bowls, jars), faunal material (bone tools), perishables (basketry, other fibers), and historic glass bottles, china, and numerous other miscellaneous historic objects.

Few of these items have been scientifically identified, analyzed, processed, and properly cataloged and entered into Integrated Catalog Management System (ICMS). The information potential hiding in these collections is enormous and the benefit to the science of archaeology, resource management, and visitor experience is equally vast. These artifacts need to be scientifically identified, AND properly documented and cataloged.

This project will generate badly needed scientific information that will be extremely useful in both the scientific community and of interest to the larger public. It will allow Zion to be at the forefront of interpreting our prehistoric cultural resources to the visiting public. The utility of a comprehensive understanding serves three basic needs. For the scientific community, previously unanswered questions and data gaps can be addressed. For the resource management community, we have a better understanding of who (what cultures), why (function – habitation, resource procurement/processing) and when sites were used, which in turn provides complete information to evaluate the significance of sites in terms of protection and preservation needs. For the visiting public, we can better interpret our cultural resources, offering more in depth and meaningful interpretations of our cultural heritage. And this also has the added, collateral benefit of resource protection – people, the visiting public, the interested public, are more willing and likely to participate in cultural resource protection and preservation when they are aware of the unique value of these fragile resources.

SCOPE OF WORK:

The purpose of this project is to produce one comprehensive database that contains consistent, detailed information on all the artifacts in the collection. All of these artifacts are currently accessioned, cataloged, and physically organized in the Zion Human History Museum curatorial facility. The PI will inventory, analyze, photograph, and enter the analysis results and appropriate metadata in the existing artifact database for approximately 15,000 artifacts (+/- 500 artifacts). Numerous artifact types will be sketched as well. A comprehensive list of artifact types will be provided in the database itself. The process of analysis is as follows.

Classification Standards

The classification system and methodology used for those artifacts already analyzed by Zion National Park will be provided to the PI. The PI will further develop the necessary methods and information sources for artifact types and styles for artifacts to be analyzed during this project. The sources and methods will be compiled in consultation with the Park Archaeologist prior to (and during, as needed) the start of artifact analysis. Based upon artifact classification, type/style values, each object will also be associated with a time period/culture, as possible. All classification and cultural associations will be input into the database provided.

The PI will provide a brief summary of all information sources used for classification, typology, style, and interpretation to the Park Archaeologist as one of the final deliverables.

Photography

All objects are required to have at least one photograph taken and uploaded to the database. Objects such as sherds, ground stone fragments, and flaked stone fragments will only be photographed one time each to provide a representation of the object in the database. In circumstances where an artifact possesses unique attributes, multiple photographs will (at least two) be taken to capture a representation of that unique attribute. For example a decorated sherd will be photographed on both sides – decorated and non-decorated. Each photograph must be a color photograph, taken with a digital camera, and smaller than 500 kb each. Photographs should be 2 megapixels or lower to accommodate the file size requirement. Photographs CANNOT be larger than the 500 kb limit due to the enormous amount of photographs that will be taken and uploaded to the database.

All photographs will be taken from a top-down perspective and have a scale (metric) in the photograph.

Objects such as complete projectile points, complete formal flaked stone tools, complete ground stone tools, complete or nearly complete ceramic vessels, and fragments of perishable artifacts will be required to have multiple photographs (from different perspectives) in lieu of the single photograph.

Illustrations

The following objects are required to be sketched: complete (or nearly complete) projectile points, complete (or nearly complete) drills, complete (or nearly complete) knives, ceramic sherds with painted designs, complete (or nearly complete) ceramic vessels, complete (or nearly complete) basketry objects, basketry objects or fragments with decoration, wooden tools, faunal tools, and ceramic tools (i.e., sherds modified into tools).

Artifact sketches can be sketched from a single perspective, except for projectile points which will be sketched in plan and profile view. The perspective chosen should best represent the artifact's design style, flaking pattern, or other defining attributes. Each sketch will be done to scale, and will include a scale in the sketch.

Metadata

The PI will record the provenience of each artifact and input into the database. All artifact provenience data will be provided by Zion National Park.

Some artifacts have been analyzed in prior legacy projects. These analyses results and reports will be provided to the contractor so that prior artifact analysis data can be entered in the current artifact database format. In other words, the contractor will correlate physical artifacts and previous artifact analysis data and the previous analysis data entered into a newly created record in the current database. In some cases, a direct one-to one match may not be possible, and the artifact must then be reanalyzed.

All artifacts will be weighed in grams or kilograms. An object's weight will be recorded in grams to the nearest 10th of a gram. If an object weighs more than 2000 grams, its weight will be recorded in kilograms to the nearest 10th of a kilogram.

All artifacts will be measured and data collected for height, length, and width. Artifacts that are circular will also be required to have diameter measured and recorded. All measurements will be recorded in centimeters to the nearest 10th of a centimeter (millimeter).

All metadata characteristics categories to be recorded will be provided by Zion National Park. The characteristics for each object will be provided in a blank copy of the artifact database. Zion N.P. staff will provide 40 hours of training at the beginning of the project on data entry and management for the artifact database. Additionally, Zion staff will provide technical support for database related issues as necessary for the entirety of the project.

A value for each characteristic will only be input into the database if the characteristic is present. Example: a sherd is photographed and recorded; metadata collected for it include surface treatment, temper, vessel part, and others. Options will exist for collecting rim eversion, vessel form, and other options, many of these metadata options may not apply to this particular sherd, and therefore do not need to be recorded. While conducting this project, it will be necessary to add a characteristic or attribute to the database to appropriately describe an object. All characteristics and attributes to be added must be discussed with the park archaeologist before implementation into the database.

Locational data for artifacts will also be input into the database consisting of UTM coordinates. These data will be provided by Zion National Park. Approximately 95%+ of the objects will have existing spatial information.

Other Requirements

It is possible that the PI will analyze an object that is not an artifact (estimated at < 1% of objects analyzed). When the PI analyzes an object that they determine is not an artifact the contractor will record the object in a spreadsheet/form (provided by Zion CRM, see Figure 2). Zion CRM will later deaccession the object from the Zion museum collections.

The PI will be required to back up the database on a daily basis on an external hard drive until the scope of work is complete and all deliverables have been provided to Zion National Park. The PI will be required to retain, at the least, the previous 5 business days of backups throughout the duration of the project. These backups are required in the event that a database malfunction occurs. Without the backups, it may not be possible to retrieve prior data in the event of a database malfunction. Zion National Park will not host backups on behalf of the PI. Zion is not responsible for data lost while the PI is executing required work described in this scope of work.

All artifacts will be provided to the PI pre-sorted and grouped by museum accession number and catalog number. Each accession will have multiple catalog numbers and each catalog number may have multiple objects/artifacts. All artifacts must be returned to Zion at the completion of the contract in the same organized manner as they were received.

Due to the sensitive nature and fragility of these artifacts, all artifacts to be analyzed will only be securely delivered to the PI on-site at Zion National Park, no exceptions. Once the project is completed, the PI will transfer possession of the artifacts back to Zion National Park. Artifacts must be returned on-site to Zion National Park at the completion of this scope of work by the contractor and cannot be shipped to the park via common carrier (ie: UPS, FedEx, USPS, etc.).

Due to the number of artifacts, their importance to the understanding of the history of Zion National Park, and their irreplaceable status, the PI is required to keep the artifacts organized and protected in a secure and controlled environment. A secure and controlled environment is defined as the following specifications. The location is not exposed to drastic temperature and humidity changes (must have environmental controls such as an HVAC system, central heating/AC, etc.). It is an enclosed area and access to the area is limited by locked doors. The location must also be protected by a fire detection/prevention system. All objects must be secured nightly. Conducting regular inventory assessments of objects is highly encouraged.

COOPERATIVE AGREEMENTS OR TASK AGREEMENTS INVOLVING COOPERATORS WORKING ON-SITE

Background

In cooperative agreements or task agreements with universities where the university utilizes interns, student employees, research associates (RAs) or cooperators on-site (hereafter called “cooperator personnel”), these cooperator personnel sometimes work on government sites in close proximity to federal employees. It is illegal (without specific statutory authority) for federal employees to directly supervise the cooperator personnel or any university employees or for the students or other university employees to supervise federal employees. When cooperator personnel are working on an NPS site, it is important that there is a clear distinction between students and federal employees.

Office Environment and Vehicles

- The office space of the cooperator personnel and NPS personnel should be clearly labeled (Name and NPS or University affiliation on office or cubicle space).
- Cooperator personnel should be listed separately from NPS personnel in telephone lists, other identification or organizational rosters, and publication credits.
- Cooperator personnel should not receive “all-employee” e-mail or other communications intended for NPS personnel (unless it relates directly to the work the cooperator is doing for the NPS). When the e-mail does relate to the work being done, a copy of the same e-mail message should be sent to the University or cooperator’s supervisor.
- Cooperator personnel may use NPS e-mail systems when the communication relates directly to the work the cooperator is doing for the NPS. The e-mail addresses of the cooperator personnel must include a label associated with their NPS e-mail address that identifies the cooperator’s status (i.e., “Linda Webb, Cooperator” would be the label associated with the e-mail address, linda_webb@contractor.nps.gov). Doing so clearly identifies this individual each time they send an e-mail message using the NPS system, and it identifies their status as a research associate, student intern or student employee in the e-mail directory.
- Unless stipulated in the agreement, cooperator personnel should not drive government vehicles.
- Unless stipulated in the agreement, cooperator personnel should not ride as a passenger in a government vehicle. When this is planned as part of the agreement, an appropriate amount of liability insurance should be negotiated.
- Prior written approval by the Park Superintendent or Center Manager must be obtained in order for a task to allow cooperator personnel to drive or ride in government vehicles.

Supervision and Scheduling

- Each task must specify the university’s/cooperator’s supervisor for the cooperator personnel.
- Unless stipulated in the agreement, NPS staff should not set hours for cooperator personnel, specify where the work should be done, or conduct performance appraisals. National Park Service staff may give performance feedback to the cooperator personnel supervisor.
- Cooperator personnel should report leave, scheduling, and other related issues to the university or cooperator’s supervisor, not to NPS employees. The supervisor of the cooperator personnel should then communicate with the NPS. National Park Service employees cannot directly supervise cooperator personnel on a day-to-day basis. Work should be given to the cooperator personnel (via the cooperator’s supervisor) on a “task basis.” Cooperators should work without NPS supervision to accomplish each task, although technical consultations and cooperation is permissible.

- The Cooperator will be responsible for any disciplinary action needed to correct student employee conduct or performance problems. The NPS agreements technical representative will inform the university/cooperator's supervisor of any conduct or performance problems.
- The Cooperator will remove student employees from their positions if they fail to improve performance or address conduct issues.
- The NPS will review and provide feedback to students or interns regarding work assignments.
- The NPS will inform the cooperator of conduct or performance problems with cooperator personnel so that the university can counsel employees and correct the performance problems.
- The NPS will recommend to the cooperator dismissal of cooperator personnel based on conduct or performance issues.
- The Cooperator will hire students, interns or RAs to work on NPS tasks identified in the agreement. Hiring will be conducted in consultation with the NPS Agreements Technical Representative (ATR).
- The Cooperator will: pay students, interns or RAs for hours they have worked in support of the agreement.

Representation and Communication

- Cooperator personnel cannot in any way represent themselves to the public as NPS employees.
- Cooperator personnel are required to wear visible identification at all times.

Other Issues

- Cooperator personnel should not list an NPS affiliation on publications, but rather should list the cooperative agreement under which the work was performed.
- Cooperator personnel should not be invited to official NPS "social" events.
- Cooperator personnel will follow the local policy of the facility when federal facilities are closed due to early release for holidays, snow days, etc.

PRODUCTS:

- The PI will provide a brief summary of all information sources used for classification, typology, style, and interpretation.
- A completed artifacts database that contains all metadata, photographs, illustrations, and information about artifacts inventoried/analyzed by the PI. Database will be delivered to park on an external hard drive or similar media.
- Associated excel spreadsheet for non-artifacts to be considered for deaccessioning.
- A summary report providing a description of work done, sources used, and any special conditions encountered while conducting the project.

BUDGET: *(You may create your budget in a spreadsheet and attach it as a separate document when you submit your project coversheet and Justification for Use of Financial Assistance.)*

Item	Unit Cost	# of Units	Amount
Hourly Wage			
PI: Barbara Walling-Frank	\$14.20	1104	\$15,677.00
Student Assistant	10	775	\$7,750.00
ERE			
fringes for PI @ 8.5%	0.085	\$15,677.00	\$1,333.00
fringes @ 10.5%	0.1050	\$7,750.00	\$814.00
Consulting			
Expert on organic materials	20.00	65	\$1,300.00
Equipment (Consultant)			
Scanner (HP Office Jet Pro 8600)	\$199.00	1	\$199.00
Computer	\$800.00	1	\$800.00
Computer Monitor	\$200.00	1	\$200.00
Software FileMaker Pro 13	\$290.00	1	\$290.00
External hard drive (2)	\$140.00	1	\$140.00
Digital camera	\$300.00	1	\$300.00
Travel			
mileage 10 trips to Zion	0.410	1160	\$476.00
Consultant Supplies	508.00	1	\$508.00
DC			\$29,787.00
17.50%			\$5,213.00
Total			\$35,000.00