**2015 Technology Grant Request**

**Archaeology Field School Program**

**Executive Summary**

The Archaeological Field School is a cornerstone of the anthropology program. It has two goals:

1. To educate students in the basic procedures of archaeological research to the level that they are prepared to find work on archaeological field crews; Some archaeological projects still use traditional paper-and-pencil techniques for recording sites and excavation activities. However, a few more progressive projects are beginning to use technology to speed up the recording of findings and to be able to retrieve data more efficiently. Thus, we are obligated to prepare students to be able to use the traditional methods as well as the newer technological methods. There is a gap in educational institutions teaching the appropriate use of technology for field archaeology. Recent graduates are facing the harsh reality in the profession that they are not ready as they aren’t being taught the technological tools and methods being used in the field

2. Conduct significant archaeological research within the San Luis Valley. During any field season, we collect vast amounts of data. This data must be retrieved, analyzed, organized, and stored once the field season is completed. Ultimately, it must be written up for use by the archaeological profession and the public. Modern technology clearly has vast advantages in these kinds of operations.

We propose to acquire four tablet type computers and the appropriate peripherals and software to allow us to do nearly paperless recording of data in the field and to manipulate the data once we are back from the field. This will facilitate both the student training aspects and the research aspects of this program. Any of the sciences or social sciences that collect data in the field could make use of this approach. We are open to sharing our experiences with other departments and making the equipment available to other departments whenever we are not employing it.

**Principal Investigator Contact**

Dr. Richard A. Goddard

Department of HAPPSS

368 McDaniel Hall

Adams State University

* + 1. dick\_goddard.adams.edu

1. **Description of Technology**

**1 Griffin Multidock**

**4 Ipad Air 2 Tablets**

**4 Bluetooth GPS units**

**4 Pen Stylus for tablets**

**4 Rugged Otterbox Cases for tablets**

The field school this years will run from June 15, 2015 to July 22, 2015 for field training and data collection. Subsequent research will continue through academic year. The training and research is anticipated to be conducted for six weeks each summer, indefinitely.

1. **Project Description**

The Adams State University Archaeological Field School has been in operation since 2003. It has been working in the field every year, except one, since that time. Our current research focuses on Fort Massachusetts, about 30 miles from Alamosa. The field school has achieved international recognition for the quality of the training and research opportunities it provides for its students. In January 2015, at the annual meeting of the Society for Historical Archaeology, it received special recognition for its gender and minority diversity, both in student training and research. Many of our students have gone on to present professional papers in the field. Five recent students presented papers at the 2015 meetings. Three former field school students have gone on to complete Master’s degrees. We train 15 to 20 students each year. From 25% to 50% of our students are ASU students and the remainder are drawn from institutions across the United States and, occasionally, foreign countries.

The standards for archaeological research are constantly improving. In recent years the pace of the improvement has speeded up with advancements in technology. Because we are responsible for training the next generation of archaeologists, we are constantly seeking to upgrade our research techniques. There are only a handful of academic institutions in the United States and a select few in the world who have integrated the systematic use of tablet computers. Despite the small size of ASU and our rural demographics, we are in a position to become a leader in the application of computers to every phase of the archaeological process.

The acquisition of the tablets and associated items would allow four teams of students to master the use of technology in data collection in the field. The students would be trained in teams of 3 to 5 people, under the direction of a trained staff member and operating under the overall direction of the Principal Investigator, Assistant Principal Investigator, and the Field Supervisor. Furthermore the technology would permit the data collected by the various teams to be compiled in a central computer for final analysis in the archaeology laboratory on campus.

We are attempting to work with a small business in the area that is among the leading companies in developing field ready software for tablets to aide in the collection and management of archaeological data. This company Field Tech Designs, LLC is willing to design our forms using their software and serve as a case study for his company and providing the university with gratis copies of the software. This is a chance to be on the cutting edge of technology and help local business interests as well.

1. **Project Evaluation**

A number of leading institutions are cutting back on their archaeological field programs, often because they cannot fill them. Our program however, is usually filled to the maximum and sometimes has to turn students away. Doing archaeology is a data-driven process. Increases in speed and efficiency from excavation to report production will be the primary measure of the success of this project. Archaeological research for this project is conducted under an antiquities permit from the State Historic Preservation Office. All research must come up to professional standards as set by this office. That we are providing a high level of training is evidenced by student satisfaction as reflected in evaluations, by the number of return students, by the number of students who subsequently are hired in archaeological positions, and the number of professional papers presented by students and staff. We make a concerted effort to monitor all of these measures. Another evaluation is the continued grant support that makes this project possible. Each year, the bulk of the funding for the project has come through grant sources. This has allowed us to operate one of the lowest cost field schools in the country.

Unlike many research-based academic fields, Archaeology is a field where individuals without advanced degrees can be employed in entry level positions. Even students who have not completed a bachelor’s degree can find summer employment as field archaeologists, if they have completed a field school. This is especially true if they have had training in the applications of technology to archaeology, exactly the type of training this grant would allow us to provide. To our knowledge, no student who has completed our program and sought work in the field has not been able to find a job, but it is becoming more difficult. This additional technological training would give them an additional edge. Several students who have completed our program have gone on for graduate study. To our knowledge, all have been accepted into their first choice of graduate schools. Again, in order to maintain this level of success, we need to include more experience with the latest technological applications.

We know of no students who have come to ASU specifically because of the archaeology program, although we are beginning to get some inquiries from high school students. However, we can point to a number of ASU students who have discovered the archaeology program after they were already here, and it has given them the purpose and focus they needed to complete their education.

1. **Project Sustainability**

The summer of 2015 will begin our 12th year of operation. The program is a central part of the Anthropology minor and the Anthropology emphasis in the History-Government major. We anticipate continuing it indefinitely. Thus, it is important that we constantly upgrade our methods and technology to keep up with the professional demands of the discipline.

1. **Budget**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** |  | **Qty** | **Price** | **total** |
| Griffin Multidock |  | 1 | 700.00 | 700.00 |
| Ipad WiFI 64GB WiFi model |  | 4 | 549.99 | 2199.96 |
| Otterbox Defender Case for Apple® iPad Air 2 |  | 4 | 89.99 | 359.96 |
| Adonit Jot aTouch pixelpoint stylus |  | 4 | 99.99 | 399.96 |
| DUAL XGPA 160 GPS |  | 4 | 149.99 | 599.96 |
| AppleCare+ |  | 4 | 99.00 | 396.00 |
|  |  |  |  |  |
|  |  | **Grand Total** | | **4655.84** |

Budget Notes: Any amount in actual purchase prices over the grant total will be covered in the field school budget.

Equipment and software would be maintained and upgraded as necessary by personnel and budgets of the Field School and Three Bears Consulting.

1. **Population Groups Served**

The addition of this technology to the program would serve all ASU students with an interest in an anthropology degree. It also would serve students in other fields that require efficient data collection in the field. Each season we have a number of students from related fields such as geology, history, and sociology that attend the field school.

Throughout the academic year, the increasing use of technology in the field of anthropology is stressed in the anthropology classes. This equipment would allow us to provide real world demonstrations of these kinds of applications.

An adjunct to the anthropology program is Three Bears Consulting. This program provides actual archaeological experience for students who have completed the Field School or archaeology classes. This technology would also be employed in this program as students continue to develop their skill sets.

In a more general sense, the acquisition of this technology would serve the State of Colorado and the San Luis Valley in contributing to a greater understanding of the rich heritage of the area. Furthermore, it would serve the entire ASU community in establishing the institution as a serious researcher in this field. Lastly, it would serve the general public with an interest in heritage. Each year, we have visitors to our project. Project participants are instructed to interact with the visitors and explain what we are doing and the importance of archaeology. The technology proposed here would enhance this interaction by allowing the staff and students to add to their verbal descriptions the drawings, pictures, and maps that are generated as part of the on-going work.

1. **Faculty and Staff members**

Dr. Richard Goddard, ASC Professor, Principal Investigator

Timothy Goddard, ABD, Assistant Principal Investigator

The Assistant Principal Investigator is responsible for a variety of technological applications used in the project such as land surveying, LIDAR, remote sensing, GIS, and database management. He is also responsible for teaching these applications to the students.

Delfin Weis, MA, Field Supervisor

4 additional Crew Leaders to be hired.

1. **Results Dissemination Plan**

At the end of each field season, a summary report is produced describing the scope of the work, methods used, and results for that year. This report goes out to the project sponsors, the Colorado Office of Archaeology and Historic Preservation, and to any other interested parties. Ultimately, a site monograph will be produced for use by the professional community and interested members of the public.

Each year, the Principal Investigator, several staff members, and several students attend the national meeting of the Society for Historical Archaeology (SHA) and a variety of regional meetings. Typically, they present one or more professional papers at these meetings. At the 2015 annual meeting 5 individuals associated with the field school program presented papers that were partially based on their work at the Field School. These papers include discussions of our data recovery methods. Several of these have been published. Furthermore, Tim Goddard is a member of the standing Technology Committee of the SHA. The purpose of this committee is to further technological applications in archaeology.

Most of the staff are graduate students. Much of the research is used for graduate research papers.

Throughout the year, Dr. Goddard gives public presentations on campus as well as at local and regional venues.