

**QEP Project Final Report**

**Field Methods in Forensic Anthropology:  
Mapping Component**

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## **Introduction**

In February 2009 the author was awarded a \$5,000 QEP grant to enhance delivery of the summer Forensic Field Methods course at UWF, with particular emphasis on the development of project management skills. The goal of the field school is to train biological anthropology undergraduate and graduate students in standard forensic anthropological field methods for the discovery, documentation, and recovery of human skeletal remains from both surface and buried contexts. Forensic field recoveries require solid project management skills. Each forensic case is unique, so responders must be able to assess each scene, make an informed decision as to whether skeletal elements are human or not, devise an efficient strategy for locating, recording and recovering remains, work collaboratively as team members with other anthropology students, and with professionals from other fields (forensic investigators from the ME's office, crime scene specialists from law enforcement, dog handlers, etc.). The data collected must be accurate and meet contemporary evidence standards. Finally, responders must be able to communicate the results of their investigations clearly and unambiguously.

The grant was used to support the mapping component of the field school, in which students learn how to generate accurate maps of surface and buried skeletal material. The funds were used to purchase an optical survey instrument (Total Station) and application software to create computer-generated maps.

## **2009 Forensic Field School**

The Forensic Field Methods course (ANT 4990/ANG 5990) ran for five weeks from May 11 to June 12, 2009. Class met Monday through Friday from 8 am until 4 pm. The first three weeks were spent on the UWF Pensacola campus, where students received classroom instruction in

survey methods, documentation procedures, and recovery techniques, and then applied what they had learned to several simulated forensic cases involving surface and buried human remains. The final two weeks of the field school were spent at St. Michael's Cemetery in downtown Pensacola, where students conducted test excavations ("ground truthing") at the site of a large sub-surface anomaly suspected to be a mass grave.

Student grades were based on mastery of technical skills (mapping, survey, and excavation), two formal written assignments ("case reports" for a recovery of surface remains, and for the recovery of a buried body), quality and completeness of daily field journal, and such intangibles as leadership and teamwork. After final grades were submitted, students were asked to critically evaluate each individual component of the field school experience (survey, surface scatter exercises, clandestine grave exercise, and St. Michael's cemetery excavation) and were encouraged to offer suggestions for improving student engagement in future field schools.

### **Assessment of Total Station Mapping Component**

The QEP grant was used specifically to purchase a Total Station survey instrument with which to train students in more complex mapping procedures than the compass-and-tape methods used in the 2008 field school. While perfectly feasible for mapping small, concentrated bone scatters, compass-and-tape methods tend to be less accurate and less efficient for mapping large or widely dispersed material. The large-scatter maps generated by students last year using the compass-and-tape method were very time-consuming to generate, considerably less accurate than the small-scatter maps, and students reported a high degree of anxiety and frustration during that exercise. It was expected that use of a Total Station in a large-scatter context would improve

accuracy and efficiency, reduce student frustration, and more closely mirror actual real-life forensic situations.

These expectations were only partially realized on the 2009 field school. The method of instruction in the use of the Total Station which we adopted proved to be inefficient in terms of time and labor. The students were given instruction as a group, and then took it in turns to practice setting up the instrument, shooting points, and capturing points. Only two students at a time received actual hands-on experience with the instrument while the rest of the class waited and watched. The end result was a high degree of boredom among the unengaged students, and a general consensus that they individually had insufficient “hands-on” time to feel really comfortable using the instrument.

Based on student feedback, it was decided to modify the Total Station training on subsequent field schools. Instead of group instruction, students will receive individual, one-on-one instruction with ample practice opportunities, while the rest of the class is engaged in other training exercises. This would necessitate the employment of at least one graduate teaching assistant, to permit simultaneous instruction in two different course components.

### **Dissemination and Institutionalization**

A professional presentation of the field school methods and outcomes was made at annual meeting of the American Academy of Forensic Sciences in Seattle, WA, in February of 2010.

<..\Presentations\AAFS 2010\AAFS 2010.pdf>

The conference presentation served two important functions:

- It stimulated substantive discussion with three other forensic anthropologists who offer similar forensic field methods courses at their institutions. In particular, the possibility of future collaborative efforts between institutions has been raised, specifically between Western Carolina University and UWF. Whether or not these tentative plans are ever realized, shared information on alternative methods of instruction can only help improve future course offerings at UWF.
- It has generated significant interest in our field school from students outside UWF. So far this year, students from as far away as Boston, Connecticut, Virginia, Montreal, Georgia, and South Florida have expressed interest in participating in the next iteration of the course, scheduled for Summer 2011. A positive field experience could serve to attract future graduate students to our program.

## **Conclusion**

The QEP grant has allowed us to significantly improve the delivery of our summer forensic field methods course through the purchase of state-of-the-art optical survey equipment to supplement more traditional, low-tech mapping tools. Training in this equipment will provide students with a valuable and marketable skill after graduation. Student feedback on the Total Station component of the field school has resulted in modifications of our initial methods of instruction to improve skill acquisition, and national dissemination of project results has opened a dialogue with other institutions on instructional methods that can only benefit our future course offerings.