



Physical Anthropology Section – 2007

H79 The Problem-Based Learning Approach to Forensic Anthropology at Butrint National Park, Albania: The International Student Perspective.

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After attending this presentation, attendees will understand the value of a problem-based learning approach to teaching forensic anthropology and how this approach could lead to increased rate and quality of learning for students studying forensic anthropology.

This presentation will impact the forensic community and/or humanity by demonstrating from the perspective of four participating students from four different universities and three nationalities how a problem-based learning approach can be effectively applied to the study of forensic anthropology in an international field school setting.

The problem-based learning (PBL) format is finding increasing acceptance throughout all levels of education and various disciplines, including the forensic sciences. This presentation illustrates the benefits gained by four undergraduates who received the majority of their instruction through this teaching approach while attending the Utica College forensic anthropology field school in 2006 at Butrint National Park in southwestern Albania. Located near Albania's border with Greece, Butrint is a UNESCO World Heritage Site first inhabited in the 7th century BCE.

The PBL model focuses on encouraging students to use their existing knowledge and exploring pertinent references to solve a problem through group discussion and teamwork, facilitated by an instructor. In contrast to traditional didactic lectures, the approach generally involves presenting the students with a problem that requires them to use their accumulated knowledge, acquire new skills and information, and reach consensus to find the best solution. In forensic anthropology, the problem case usually involves determining the biological profile and personal identity for an unknown skeletonized individual as well as documenting the cause of death and potential postmortem insults.

During the summer of 2006, four undergraduates from four different universities in the United States and Canada participated together with nine other students in a forensic anthropology field school offered annually by Utica College at Butrint National Park. All four students had previously completed at least one undergraduate course in human osteology or forensic anthropology at their respective schools. As part of the field school experience, the four students were presented with the problem of sorting and assessing commingled human remains excavated the previous year from a medieval burial vault at Butrint. Dating from ca. 1100-1300 AD, the well-preserved remains comprised at least five adults – a single primary burial subsequently mixed with at least four others.

Employing the PBL approach, the field school instructors provided guidance but no specific instructions on how to sort and differentiate the remains of the commingled individuals. Consequently, the four students used textbooks and other sources of data to determine the sequence of procedures that were required to effectively sort the remains and reassemble the five individuals within the two-week period allowed for the exercise.

Following the case-based discussion format that underlies PBL, the instructors were available for consultation and monitored the students' progress daily. To ensure consistency and accuracy, the instructors performed all cranial and postcranial measurements that were initially taken by the students and evaluated their morphological analyses. The students used the multi-factorial approach to determine the age, sex, and ancestry of the five individuals from the vault, a task made more difficult because all five individuals were young women who had died around 20-35 years. No evidence for specific causes of death was observed. The student team documented markers of occupational stress including squatting facets as well as evidence of infection and nutritional deficiency amongst all of the individuals.

The key benefits of the PBL model for the students enrolled in this field school were the opportunities to learn and proactively employ the skills necessary for the practice of forensic anthropology in a setting where their decisions were a product of their own experiences and discussion. This approach allowed the students to concentrate in areas of their choice and to strengthen their expertise in specific aspects of forensic anthropology by actively sharing their knowledge with the others, garnering immediate feedback. It also served to foster a sense of accomplishment among the students and raise their levels of confidence in their own abilities once the separation and analyses of the remains were completed.

In summary, the PBL model ensured that the four participating international students, working



Physical Anthropology Section – 2007

together in an international setting, acquired the practical skills necessary to work effectively in a group dynamic, solve logistical difficulties quickly, and reach a consensus resolving the problem of the commingled remains from the medieval burial vault. These results indicate that use of the PBL model for teaching forensic anthropology represents an effective approach for students to learn and value the crucial elements required in mass disaster responses as well as daily forensic settings. As such, the PBL approach should be considered for use in a broader range of educational settings within forensic anthropology.

Albania, Student Perspectives, Problem-Based Learning