

patrimonio arqueológico se beneficiaría, según el autor, de las posibilidades que ofrece el contacto con públicos de distintas edades, y permitiría la inclusión del patrimonio arqueológico como contenido a aprender a lo largo de la vida. En definitiva, Martos nos propone una nueva forma de ver a los públicos destinatarios de la acción didáctica, y una nueva manera de interactuar entre ellos y con el patrimonio arqueológico.

En el campo de la educación formal, unos de los protagonistas suelen ser los libros de texto, presentes en todas las escuelas y en todos los niveles educativos obligatorios. Es por ello que, si apostamos por la potencialidad educativa del patrimonio en el ámbito educativo formal, debemos prestar atención al tratamiento que se da de la arqueología y la prehistoria en los libros de texto. Alejandra Galmés y David Javaloyas nos proporcionan una síntesis y un análisis completo de diferentes libros de texto de las últimas décadas, ofreciendo una mirada crítica sobre qué tipo de pasado remoto se está enseñando a los niños de nuestro país desde hace años. Datos desactualizados, errores, prejuicios, estereotipos y visiones actualistas llenan los contenidos y las actividades propuestas en los libros de texto de nuestro país en relación con la prehistoria y la arqueología.

Finalmente, nos trasladamos al campo de la formación de profesores y maestros de educación primaria e

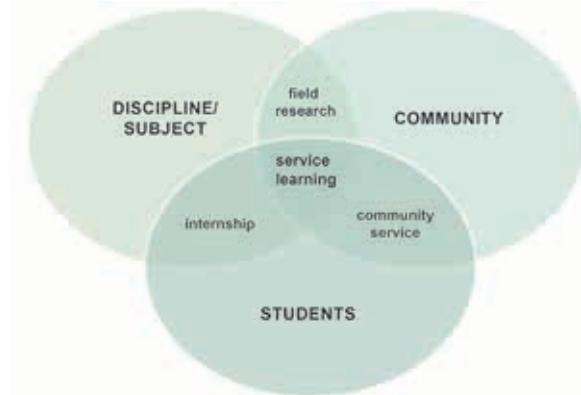
infantil, en especial con su formación en cómo utilizar los recursos patrimoniales en sus aulas. Lorena Jiménez e Irene Palomero nos exponen una experiencia educativa con alumnos de Grado en relación con las posibilidades educativas para niños y niñas de educación infantil en el Museo Arqueológico Nacional (MAN). Las autoras, después de perfilar las posibilidades educativas del patrimonio arqueológico en la educación en general, pero también en la formación de maestros en particular, analizan la escasa oferta educativa del MAN para público infantil, y las opciones que quedan a los (futuros) maestros para poder traer el pasado más remoto, desde su materialidad, a las aulas de educación infantil. Una reflexión y un análisis que permiten poner sobre la mesa cuestiones relacionadas con los recursos y actividades ofrecidas desde instituciones patrimoniales. ¿Son realmente actividades y acciones que respondan a una necesidad educativa? ¿O, algunas, se ofrecen simplemente para "cumplir expediente"?

El campo de la didáctica de la arqueología es amplio, puesto que depende en parte de qué se considere arqueología y qué se considere educación o didáctica. Por ello, en este artículo se pretenden exponer distintas visiones sobre qué es la didáctica de la arqueología, cómo puede llevarse a cabo, y qué problemáticas pueden surgir en el proceso de intentar acercar, de forma educativa, el pasado y su materialidad a distintos públicos.

MANUS MANUM LAVAT – THE IDEA OF SERVICE-LEARNING AND RESEARCH-BASED LEARNING IN ARCHAEOLOGY

MICHAEL REMMY

In didactics the method of service-learning seems to become a trend in teaching at universities. Service-learning is a course-based experiential learning strategy that engages students in meaningful and relevant service with a community partner. It facilitates a connection between classroom learning and direct experience and establishes a context in which students may deepen their understanding of course materials through involvement in, and exchange with, the community by participating in agreed upon projects. This concept is a reaction to the discussion which demands a more practical approach to teaching at universities.



1. Differentiation service learning (Mutter and Rohr, 2015, p. 11).

However, there might be the problem that students cannot transfer the theoretical knowledge into real life projects or their everyday work life (Neuweg, 2007).

Experience-oriented theories might present a solution for this particular problem (e.g. Dewey, 1938), emphasizing on 'experience' and 'inquiry' as the key words of his theory. One aspect of the experience-oriented theory is 'problem-based learning'. In archaeology solving problems is one of the main tasks scientists have to deal with while working in the different fields of the subject, either in excavations or in museums. When dealing with service-learning you have to keep in mind how the three involved parties subject, community and students are dependent on each other (figure 1).

Despite different approaches in definitions of service-learning all have one aspect in common: «Es wird als Lernen durch Handeln und reflektierte Erfahrung bezeichnet, bei dem ehrenamtliche Tätigkeiten mit Lehr-tätigkeit einer Bildungseinrichtung verbunden werden» (Jaeger et al., 2009, p. 35).

In theory a service-learning-project can be divided into four phases (figure 2) (Mutter-Rohr, 2015, p. 11-12):

1. Ideally a project begins with a research phase. Problems or challenges within a community have to be identified and registered. An active cooperation of the students is desirable.

2. The next step is the theoretical solution of the problems by teams of students.
3. In the third phase the focus lies on the practical realization.

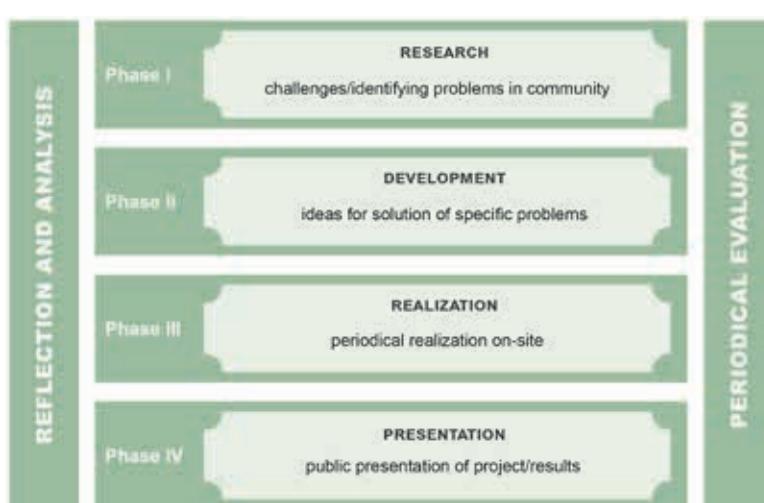
4. The project should conclude with a public presentation. Other than in private-public partnerships no private companies are involved. Now, how can this method of teaching have an impact on archaeology? And what advantages can service- and research-based learning have in comparison to traditional teaching methods? The following example of a service-learning/research-based learning project at the University of Cologne will show how valuable this kind of didactic setting can be for all participants: teachers, students and project partners.

Nettersheim is a small village in the western part of Germany. It is situated alongside the Via Agrippa, a Roman road from Cologne to Trier (Kunow, 2007). It is assumed that the Roman settlement 1 km south of the modern village is identical with the vicus Marcomagus (Hepa *et al.*, 2009, p. 91) which is depicted on the late antique roadmap Tabula Peutingeriana (Talbert, 2010). A sanctuary of the Matronae and settlements along the Roman road were also discovered next to the vicus (Ortisi y Ristow, 2012).

After several archaeological campaigns led by Prof. Salvatore Ortisi of the University of Cologne, the mayor of Nettersheim/Germany asked for assistance with crea-

ting a sustainable information-strategy for this area. Together with local authorities (Landschaftsverband Rheinland / Gemeinde Nettersheim) a group of students helped to design an archaeological walk. Along the circular route that connects different excavation sites, several information panels were created giving the students who were part of the excavation campaigns an opportunity to display their research results. During the whole process of working on these panels the students had to operate on-site as well as in the Archaeological Institute in Cologne (figures 3 and 4). Regular evaluation with the local authorities was crucial for the smooth progress of the project. In May 2014 the archaeological park in Nettersheim was festively opened. Since its finalization the walk has attracted a lot of tourists and interested people and also has been incorporated in a larger network of hiking routes (Via, 2016).

It is obvious that these service-learning or research-based learning strategies need a lot of preparation before and structure during the realizing process. The goals of the undertaking as well as the evaluation process have to be agreed on in advance. Bearing these preparations in mind these new approaches of teaching and learning are sure to turn out as successful as the described case study which shows the win-win-situation of a creative interaction between science and society.



2. Phases of a service learning project (Jaeger *et al.*, 2009, p. 35). Produced by S. Moshfegnia.



3. Information sign at the entrance of the Archaeological Park Nettersheim designed with the help of students.



4. On-site inspection in Nettersheim by students.