Visiting heritage landscapes: creating and using an E-media fieldtrip as an educational resource.

D. Craig Whitehead (Planning),
Lesley A. Gardner (Management Science & Information Systems)
& Simon J. Holdaway (Anthropology)
University of Auckland
New Zealand
c.whitehead@auckland.ac.nz
l.gardner@auckland.ac.nz
sj.holdaway@auckland.ac.nz

Abstract: This session describes the educational advantages of and the practical issues in creating a virtual or E-media fieldtrip. The linkages between this educational tool and its further use in heritage management and tourism planning are also explored.

Field trips and site visits are essential components of many academic programmes. These types of activity are incorporated into courses to enable students to experience a location and to encourage a better understanding of an area by observing its characteristics. They are also mechanisms for introducing fieldwork methods and techniques. This teaching method, used in both secondary and tertiary sectors, is well established. It produces positive educational outcomes and is difficult to substitute any other conventional teaching methods to achieve similar results. The choice of location, however, is often an educational compromise, controlled by many factors such as; travel time, cost, amount of suitable accommodation, and effects upon the social and environmental nature of the location.

The material presented does not attempt to suggest that new technologies can adequately replace the field trip or site visit. It does, though, propose using new and evolving technologies as an adjunct support tool or an alternative when an ideal site is inaccessible. Where access to the field site is limited it is often necessary for students to refer to preparatory materials. Restricted access may be due to, danger at the site, remoteness, cost or the physical abilities of a student. Students with restrictions on their ability to reach the location at the specific time of the visit can also be affected, as are those students who are engaged in following a course of study by distance learning.

The educational mixture of the authors involved in this research brings together a number of relatively new and evolving technologies to create a model, or representation, of an island of archaeological and heritage significance which can be used as a "virtual site" for a "virtual fieldtrip".

The virtual reality (VR) environment created integrates visual material within a three dimensional spatial model of a south pacific island, Motukorea in the Hauraki Gulf. The fieldtrip brings together existing technologies for spatial modelling and VR techniques within a hypermedia data structure designed to allow effective and efficient delivery. The presentation includes examples of the Motukorea prototype comprising of panoramic VR with spatial orientation and virtual "fly throughs" of the landscape. The results of this experiment are shown and discussed to illustrate issues of data collection, modelling and display.

This session discusses aspects of technical and pedagogical issues of virtual field trips as educational support tools; it looks at the island, Motukorea (or Brown's Island) as a fully photographed and modelled experiment in VR techniques. Methods are presented which address a number of digital photography and software issues which arose during the project.

The prototype for this virtual fieldtrip can be viewed at:
www.people.auckland.ac.nz/Craig/Motukorea/