

Enhancing Earth Science Observational Skills, School of Human and Environmental Science

Context

The University of Reading has an excellent collection of minerals, rocks, fossils and artefacts, some of which are unique and potentially of national interest. However the collections are generally underused in teaching and learning, and there is a general lack of awareness of what is available as the collections are not properly catalogued or archived.

The parts of the collections that are in use in undergraduate teaching give students the opportunity to look at and handle fossils, rocks, minerals and artefacts in practical classes. Despite this, students often lack confidence in using their skills to identify unknown materials in the laboratory or field, and modules become more theoretical rather than practical in the latter parts of the degree programme.

Aim

The aim of this project is to enhance the use of the University's mineral, rock and fossil collections in teaching and learning by making a much wider range of specimens available. Increasing the overall use of the collections in teaching should help to move the emphasis back to practical teaching rather than theory-based modules.

These aims will be achieved by the development of an online 'museum', electronic cataloguing and re-organisation of the collections so that they are more accessible to both staff and students.

Resources and Processes

The project was principally delivered by a project officer employed for 9 months within the School, with some additional website support. The project officer's main task was to develop a database of the specimens used currently in teaching, including minerals, igneous and volcanic rocks, sedimentary structures and sedimentary rocks and fossils. This included the digital photographing of around 650-800 specimens, along with key descriptive and locality information.

These data were built in to a database which was then converted to an online 'museum' developed specifically for this project. This required linking the SQL database to the university brand website template. The website was designed to maximise comparison between specimens so that, for example, minerals with similar hardness, crystal structure or chemical composition, can be identified by hyperlinks.

Results

During the project's lifetime, the part of the collection used in teaching was catalogued, and a significant part of the collections in store were cleaned, re-labelled, catalogued and re-boxed. An electronic database was established and an interactive website designed and made live. The main impact on students will take place from AY08/09 onwards, when use of the website by students and the use of more specimens by staff in teaching will be monitored. Staff have already become increasingly interested in the collections as a result of this project.

Sustainability

As planning for new modules takes place, staff will now be able to easily incorporate more specimens in to their teaching, as these materials are now easy to locate, clean and labelled. The website provides an ongoing resource for students to refer to.

The ongoing work to clean, label and catalogue the remainder of the collections will be continued through the use of volunteers. The PI will take over responsibility for the website and the addition of new materials to it.

Further information

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