The Biology Curator

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Complementary initiatives ENHSIN, clearly, should not be seen in isolation. A particularly notable initiative, which is intended to provide access to the wider content of European natural history collections is the BioCISE (the Biological Collection Information Service in Europe (http://www.bgbm.fu-berlin.de/biocise/). BioCISE deals with collections metadata above the level of the specimen. The system enables questions to be asked such as "in which European collections can I find specimens of a particular taxon or from a particular geographic region?". ENHSIN, by contrast, is creating a system to enable users to gain access to unit data - information pertaining to actual specimens such as geographical co-ordinates or observations. Related to these two initiatives is 'Species 2000' (http://www.sp2000.org), the purpose of which is a to enable interoperability across global species databases. If links can be established to other databases, species names are a major means of access to collection metadata (at or above the level of the specimen). There exist many other initiatives from the global to the local, but those mentioned here have a particularly close association.

Hopes, reality and the future

Although there exists a wave of enthusiasm for creating specimen databases, we are far from the goal of access to full, standardized, digitised data of high quality for the vast number of natural history specimens housed in European collections. By developing systems such as BioCISE and ENHSIN, however, a means of gaining remote access to data in collections is, at least, rendered possible. Furthermore, it is hoped that these networks will provide a focus and serve as an encouragement for the digitisation of specimen metadata and encourage ways of improving data standards and systems of access.

Natural history collections are housed largely in what Lorcan Dempsey termed "memory institutions" (museums, libraries and archives) (http://www.ariadne.ac.uk/issue22/dempsey). Such institutions hold a wealth of information on the distribution of organisms through time across vast geographical areas: collections held in many European institutions span the globe in their representation. Although much of the data within these collections is (inevitably) uneven and qualitative, we have nothing to equal it. Modern samples lack the time dimension, are often restricted to one or a few species, and, typically, are focused on narrow geographical areas. Bioinformatics has changed profoundly the science of genomics. Informatics may not have had quite the same impact within biodiversity, but it is making great strides and shows every sign of developing much further.

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Reference

West, J.G. & Nielsen, E.S. 1992. Management and accessibility of biological collections. *Australian Biologist* **5**: 68-75.

The Virtual Store

Natural History Collections at Stoke Museum

Keith Bloor Senior Museum Officer, The Potteries Museum & Art Gallery

Introduction

The award of designation was made because of the strengths of all collections, the Natural History collections are of local and regional importance and is the only major collection of its kind in the County. The designation application identified a number of weaknesses in the section:

1. "most groups of invertebrates are poorly represented except mollusca."
2. "storage space is now greater than 80% utilised"
3. "little time is available to adequately research and document collections at item level, which in turn has decreased oppor-

tunities for publication"

The required amount matching funding to address 1 and 2 above is not available in this financial year but need addressing in future projects. However, item 3 could be addressed by implementing the following project.

The 'virtual store' project

Since 1988 the Natural History section has been the leading light in the computerisation of the 130,000 objects in its care, with now well over 30,000 items computerised and a complete *meta-database* (summary information) of all collection holdings. From the outset, the aim has always been to make this information available to the general public both on-line and in the public galleries, however this ambition has always suffered through lack of access to funds. Indeed, 1994 the section represented one of the first n the Country to pioneer trials in the emerging multimedia and internet Web technologies, and more recently digital mapping (GIS), to deliver the information in galleries and on-line with accompanying images and video. Work on creating a digital library of images on Photo CD was started in 1996 and has been continually developed. However, it has never had access to the funding required to implement the knowledge investment, consequently the wealth of information now digitised is accessible to curatorial staff members only.

Museum management has identified the need to open up museum stores to make them more accessible to the public. This is very difficult to do with the Natural History stores which, as identified above and following further important acquisitions, are now overcrowded and consequently unsafe for the public to occupy. One solution to this, which builds on the past work achieved, is to make the collection available on

Equipment and Costs (first phase 1999/2000)	
Hardware and cabinet already exists specifically for this project.	£0.00
All software required is already available, however the upgrade of one copy of Modes for Windows would be required to integrate data and images.	£75.00
Database design and implementation (£250.00 per day 4 days work)	£1,000.00
Browser/GIS programming	£500.00
GIS development (training already received by curatorial staff for creation of public access point)	£0.00
Total Cost	£1,575.00
Matching funding at 20 % would be available from the sectional budget.	£315.00
Equipment and Costs (second phase 2000/2001)	
Hardware upgrade (PC and touch screen)	£2000
Workstation unit in shape of a 'leaf'	£1000
Image digitisation (20 days) of external staff time	£1137
Matching funding at 20%	£827.40 (To be identified eg COPUS, Curry, Conhological Society) – also see * below)

line in the form of a 'virtual store' both in the galleries and on the existing web site. The project would concentrate on the general collections using existing computerised information, digital images and GIS mapping. More detailed information would be available for two specific, important collections. John Ward (fossil fish) and the William Hill (molluscs), are examples of local collectors who have made important contributions to our understanding of the natural history of the Potteries area. Their collections are already documented to a detailed level on computer but would need complimenting with digital images as part of a second phase. Gallery computer hardware already exists and a customised storage unit is in place to display a selection of the objects from the collection. Upgrading of the hardware and a workstation table (in the form of a leaf) would form the second phase when matching funding has been identified. The project would benefit the rest of the service by acting as a **model and stimulus** in putting collections databases **directly on-line** using what is now tried and tested technology and demonstrate the use of digital map-based information to all disciplines.

Products, Problems, Pictures & Priorities

Using computers to support Natural History Collections in Leeds Museums & Galleries

Adrian Norris and Maggie Pedley
Leeds City Museums

How Leeds Museums have responded to pressures to make information accessible to public through use of IT and look at local and National initiatives which provide opportunities to get collection information

Introduction

Over the last seven years the acquisition and use of ICT to support collections management in Leeds Museums and Galleries has at last started to quicken its pace from a gentle stroll to a steady jog. The races we prepare ourselves for, offer many cash prizes - However our strategy is to ensure that we don't run off in different directions - to coin a phrase "cheque chasing" which at present can be difficult. We are driven by the need to ensure that any investment of time and resources continues to deliver on the aims of the service and the wider objectives of the City Council.

In 1993 like many museums responding to the requirements of MGC Registration, Leeds Museums Service acquired hardware and software to help improve its collections documentation. A Museums Council Grant provided a budget of 15K and three months for the selection process. (January to end March 1993).

The Museum Service documented its collections using a variety of card cataloguing systems including **mda** cards and colour coding. It soon became very apparent that the system would have to accommodate all these differences.

Many of the software products available did not allow for this. Our attraction to Advanced Revelation centred around the fact that we could build the screens to mirror the existing index cards and manual systems– even their colour. We purchased nine PCs and dot matrix printers. In 1995 the Museum Service merged with the Galleries Service and the system was extended to support the documentation of the Galleries collections. Between 1993 and 1996 twenty one data entry screens have been developed using Advanced Revelation. A stand alone DOS based system, it continues to be used for the recording of Biological Material at the Leeds Museum Resource Centre.

Advanced Revelation & Natural History Collections

Many of you may be familiar with Advanced Revelation through Recorder, and has been used for many years by the various Biological Record Centres. The system was adapted for us for museum documentation purposes complete with the species lists found within Recorder, and has been a remarkable success to date.