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I noticed that there was an evening of short ballets by 20th century choreographers at the Paris Opera just down the road from the hotel. Despite having to pay 'extra' from the ticket touts (which raised the cost to London prices) it proved to be a most enjoyable evening set in the splendid baroque/rococo decor of the building. A stentorian-voiced programme seller whose cry echoed round the building during the interval combined to create an atmosphere worthy of the famous 'phantom'.

Next day was an early start (for some) to the Natural History Museum to view the newly opened Grande Galerie: an imposing early 19th century building whose vertices have been put to good use to display arboreal and flying species of animals. The basement area follows the current trend for museum lighting - quite atmospheric for the oceanic exhibits that it houses but hard on the visitor who has to squint at the (back-lit and unobtrusive) labels and avoid treading on children. A large plastic, walk round model of sand grains could amuse visitors, making them aware of the ways that meiofauna might intercommunicate with imagined squeaks and scrapes. Film loops showed life at bathyscape levels, shores and tides. Dried marine algae were mounted between sheets of perspex and fluid preserved specimens were suspended in their jars on saucers that clipped onto perspex mounts. The public were obviously tempted to touch the real specimens, as shown by the occasionally ruffled fur or feather, but were politely asked not to do so by the *gardiens*.

Upstairs the African gallery was better lit but the standard of taxidermy was only average; areas of shrinkage seen on birds were less noticeable on the mammal specimens which were arranged as if to process through the gallery to some imaginary ark. The see-thru lifts treated visitors to birds in flight and arboreal primates. The café served excellent drinking chocolate.

While a group of us was waiting to see the *Zoothèque*, or underground store, we were asked to visit the meteor gallery, showing fascinating clips of video/film footage of heavenly bodies coming to earth and the subsequent damage they caused.

The *Zoothèque* itself is a recently built (1994) labyrinth of dry and spirit storerooms utilising manual compactor systems. The maze of doors, corridors and staircases even disoriented our guides, adding a surreal touch - one wondered whether specimens might be beamed from one store to another! The spirit store, as its name implied, held largely spirit-preserved material, only a little was preserved in formalin. Many specimens were suspended in jars using glass balloon floats. Despite its great size many units were overcrowded and there was much conservation work needed to bring the specimens back to a stable and presentable state. The store holds about 1 million fish, 10K mammals, 4.5k birds, several million invertebrates and about 1,000 types. RH was a problem, the store

being on the same level as the Seine (about ½ mile away); nonetheless the store was maintained at 55% RH and 15°C, guarded by a halon extinguisher system.

Keenies (or those who were officially funded for the trip) then visited the micro-zoo but your correspondent's stomach sought sustenance from a nearby couscous restaurant - the only good value meal of the whole trip. Prices in Paris have risen substantially and with the rate of exchange of 8F to the £, a hot chocolate in the Café Kleber cost £3. I noticed that at surrounding tables several students were sharing one (small) bottle of mineral water! Even a light meal in a brasserie included a 0.4 litre of ordinary beer at 45 francs (£5.50) and a plate of chips at 28 (£3.50)! The Eurostar is a quick ride to the heart of Paris but fails to tell you to find the scruffiest bars which still offer a *café-calva* at a reasonable price. At least such beverages can still warm the heart even if shared with some specimens of *Blatella germanica*!

The return journey came all too soon; the Eurostar was again quick but having to wait 40 minutes in a short queue for sandwiches (all that they had despite the tasty menu) reminded me of previous encounters on British Railways back in the 1960's.

Simon Moore

Are we relying too heavily on computers - a reply.

Enquiry: fish spears from the Yukon

Answer: 22

Time taken: 1 minute 30 seconds to answer enquiry, 10 minute to retrieve objects and 8 minutes to print out full records

Enquiry: documents relating to John Player

Answer: 12

Time taken: 4 1/2 hours to search indexes and record cards and to retrieve objects.

One of these enquiries was answered using a computer the other using manual indexes and card systems. No prizes for guessing which one is which.

Museum collections are made up of anything from 100 to 100's of thousands of unique objects. The larger and more varied the collections the greater the amount of paperwork, record cards, manual indexes needed to make sense of it. Handling

huge quantities of data and putting it into a meaningful form is something computers do very well. Type the data in once and hey presto, record cards come out the other end, indexes of any fields, answer's to queries straight from the screen. Add new records and all the indexes are automatically updated so you do not have to spend an age updating all your manual systems. Museums and their collections were institutions waiting for computers to come along!

Computers are not however the be-all and end-all. Of course objects need labels using proven materials and perhaps at present they are not yet able to replace the trusty old Rotring and Rapidograph pens. What they can do however is crunch huge amounts of data in a fraction of the time taken it would take to do it manually. The computer database is much more versatile in extracting information than any manual system. This is of course assuming that the information has been input properly. The quality of your data output is only as good as the data you input. One of the biggest problems with computer database inputting is to know in advance what sort of data will be required in the future. Often not enough thought goes into what sort of data you want to get out of the database to be able to then decide how you are going to put your data in.

Another problem is the complexity of the database. Not everyone is a computer buff who can happily spend hours talking about 'stacked RAM memory' and other such deeply uninteresting things. Much of the ambivalence and indeed outright hostility towards computer databases stems from their perceived complexity and difficulty in extracting useful information. Most people want to sit down, press a button and watch the required data whirl out of the printer. They do not want to have to go through 10 - 20 commands to print things out often in a clunky typeface with little control over page formatting unless you can write your own outputs (yes MODES I mean you). Until data can be accessed by the average non-computer buff then the real benefits of computerisation will not be realised.

Onto the main bone of contention, and the bane of any major computer users' life, viruses. Yes they are a major problem but like the threat of *Anthrenus* the responsible curator/systems manager takes precautions and preventative measures to avoid infection/infestation. No curator ever said 'sorry I cannot accept that material into the collections because there is a risk they may at some stage become infected with *Anthrenus/Attagenus* etc.', rather they freeze/fumigate the material before placing it in the store, monitor the store and inspect the material at regular intervals. If any problem becomes apparent then action is taken. So it is with computers. No software should be loaded into computers without first being virus checked, though admittedly virus checkers are only as good as the latest version in use and viruses can still slip through the net. The majority of viruses are transferred between computers by executable commands such as .exe files so transfer of data files has not been a problem, though some of the new breed of

viruses are being spread in document files. If the only software running is the database then you run no risk of infection. In an ideal world you would run the database on a separate computer or network; if there is free access to the system then anyone can load anything such as free software from computer magazines, often a major source of viruses particularly in the past. The vast majority of museums will be running small scale databases often on one PC so there should be no worries about viruses. All computers should of course have their data backed up at regular intervals, this goes without saying. If you find you have a time delay virus could you not reload your data from a backup first setting the computers date and time to a time before the virus reared its ugly head and extract the data in an uncorrupted form? I have never heard of anyone doing this but it may work!(I have also to date never come across anyone with a virus problem).

The biggest problem with using computers is protecting the integrity of the data. Damaged files and old or faulty equipment present much greater threats than a virus but protecting your data integrity doesn't make as good a news story as a good virus threat story.

As for chucking specimens once they are on computer and a DNA fingerprint taken, does this really need comment?

Computing is becoming easier and faster, and though computerisation of collections data is a daunting prospect once tackled the benefits are enormous. Yes there are still problems to be ironed out, particularly with long term stability of computer papers and inks, but they will be solved. Till then I will still write basic data labels with my trusty Rotring, type the data into my trusty computer, print out its A5 record card, generate indexes and answer all enquiries via the computer. Once the backlog is tackled that is!

Nick Gordon, Saffron Walden Museum

The Ten Agents of Deterioration

Next issue:
Flood

Articles, information, experiences, anecdotes, preventative measures?
Please send any contributions, no matter how small, to the Editor