Meeting of Informatique et Egyptologie Oxford 2006 Abstracts

Burkhard Backes (Bonn)

The computer applications of the Book of the Dead Project

The Book of the Dead Project at the University of Bonn is working with a huge amount of data representing more than 3500 attested Book of the Dead documents. Furthermore, these data need to be made available to the scientific public. Unfortunately, the staff members are not computer experts, but can be described as experienced users.

In my lecture I intend to present briefly the different computer applications of the BD project: databases of different BD sources, data exchange with the Berlin *Wörterbuch*, and internet presence. By this means I want to exemplify how a team with only limited expertise can find rather simple solutions which nevertheless fulfil most of the project's needs.

Some applications however are still too complicated or may confront some users with technical problems. Therefore, advice of more experienced colleagues will be most welcome.

Randa Baligh (Mansoura)

Towards an Integrated Database for Egyptian Antiquities

Egyptology researchers worldwide would greatly benefit from having a worldwide database to support Egyptological research. In fact, it would be even better if it supported Egyptian antiquities of all time periods but we could at least start with an Egyptological database and then include other time periods. A particular body or organization should be chosen to formulate this database. The idea of the database includes having a database for researchers with their institutional affiliation, positions and titles, contact information and the narrow specialization or major areas of interest of each. More importantly, a database linking museum catalogs with Egyptian collections worldwide is becoming almost essential. In addition, it would include specialized bibliographical lists, addresses of Egyptological centers

worldwide, and other useful links. At present there are several sites which may be of use and will be linked to the database. However, something with the scope we are mentioning will require official institutional and governmental backing to be done on this scope and be available for institutions and individuals to use. Ideas on how the database should look like from the point of view of a user or researcher will be presented in the course of the paper.

Hans van den Berg (Utrecht)

The AEB database on the Internet: developments and prospects

The creation of a database of all the published bibliographical material from the Annual Egyptological Bibliography volumes 1947 until 1997 and its subsequent publication as a CD-ROM in 2000 was an important step towards securing the future of the project in the electronic age. It had always been envisioned that the CD-ROMs underlying database should become part of a comprehensive management system that would allow the editor to manage existing and new bibliographical content. The database would not only serve the conventional annual printed volumes, but also new digital editions in the form of CD-ROMs and, more importantly now, the Internet. Since 2000 much has already been done, but due to the AEB's limited financial resources and staff, these developments initially remained rather slow. Grants from the Gratama Foundation in 2004 and the Netherlands Organization for Scientific Research in 2005, however, provided a new impetus for both the finalization of the management system and the creation of a pilot website. It is especially this website with its -today- online experimental database of 45.000 titles from volumes 1947 until 2000 that will be the focus of my paper. I will first be looking at the challenges involved in managing such a large database online with relatively simple means. I will then explore the ways in which practical online technology helps to take the AEB to a whole new and interactive bibliographical level, such as the contribution of new material from remote host editors and the possibility to add annotations. Finally, I will look at the AEB's wider digital prospects with the upcoming competition from Google Books, Google Scholar and the like already on the horizon.

Vincent Euverte (Rosette Project)

Rosette : computer assistance for the beginner, the student, and the epigrapher

Rosette started with a dream: how and to what extent could technology assist the reader of hieroglyphs? The will explore the possibilities offered by the project.

What is the Rosette Project today? Facing unbelievers as well as strong supporters, Rosette is now two-years old, with a promising future.

--a computer assistant to read ancient egyptian texts including a catalogue of 1100+ hieroglyphs, a dictionary, an MdC graphic editor, and a corpus of translated texts

--hieroglyphs are enriched with MdC, transliteration, multi-language translations, and document sources

--a home-made hieroglyph font developed by the project team

How could Rosette contribute? Beforehand, our basic concept is "integration" : from original text capture, to hieroglyph display, to dictionary search, to a text corpus, to a user-friend tool freely available on the Web under GNU-GPL.

--Rosette meets the I&E's expectations: a computer tool to facilitate the knowledge spread of the Ancient Egypt culture

--with features rarely combined: hieroglyph editor, lexical & syntactic analyses, text corpus, tutorials

--compliance to standards: MdC, TTF scalable font, Unicode, XHTML

--based on Wiki interactive approach, it becomes a community-shared knowledge repository.

--universal: so far in french and english, it supports unlimited languages

--benevolent contribution from dozens of Internet surfers: IT experts, mathematicians, graphists, to support epigraphers, grammarians, and many amateurs with their own skills, faith, and availability.

--Other ideas: statistical apparition of hieroglyph by period ; associating genuine image to every document ; cross-text search tools ; OCR ; portable version ; …

Egyptology for tomorrow? All texts are encoded in a unique format, in a single database, with a dictionary collating experts' knowledge, assisted by a syntactic engine, in

multi-language translations. Is not it worth collecting data now, in close coordination with this forum's outcomes, for a future database blessed by the Egyptology Community?

Michael Everson (Evertype) and Bob Richmond (Saqqara Technology)

Towards a proposal to encode Egyptian hieroglyphs in Unicode

Work to Efforts to encode Hieroglyphs in Unicode go back to 1997; in 2001 several prominent Egyptologists suggested that the best way to do this would be to start with "the Gardiner set" since the identity of many other signs as characters might be uncertain, and Gardiner's place in the world of fonts and paedagogical materials of general interest was "safe" enough to begin with.

The authors will present a short discussion of the database used to instantiate by reference to printed materials the characters that are proposed for encoding. Then the presentation will move on to the question "What is 'the Gardiner set'?" The issues involve a number of questions which, it is hoped, are straightforward to answer. Does the set comprise of more than "the Sign-list"? Does the set include everything to which Gardiner gave a catalogue number (even if some are "redundant" or "duplicate")? Should the numbers be encoded by composition or as units (10, 20, 30... vs 10, 10+10, 10+10+10...)? Should rotation and mirroring of characters always be handled by Manuel de Codage or similar markup, or should a subset of high-frequency rotated signs be encoded?

There is probably no "right" answer to these questions, and no such thing as a "perfect" encoding, but the authors seek consensus on a useful set of characters to represent "the Gardiner set" so that the effort to encode Hieroglyphic characters can move forward.

The encoding of Hieroglyphs in Unicode does not oblige Egyptologists to change their way of working to adapt to some new scheme. But Unicode is a well-supported technology that, once available for Ancient Egyptian, will help make for better solutions in some parts of the subject.

Two documents are available to give full specifications of the proposal:

The draft for comment is in a 51-page 2.9 MB file at
http://www.evertype.com/standards/iso10646/pdf/towards-egyptian.pdf

The samples are in a 158-page (large!) 15.5 MB file at
http://www.evertype.com/standards/iso10646/pdf/towards-egyptian-sources.pdf

Svenja A. Gülden (Köln)

"Trismegistos" and other multilingual databases of metadata

The project Multilingualism and Multiculturalism in Graeco-Roman Egypt plans to prepare several online available tools: a database with metadata of Egyptian papyrological texts, including the Demotic and abnormal hieratic ones; an online version of the Demotistische Literaturübersicht, and Trismegistos, a searchable platform connecting the Metadata tools for various languages and genres.

Jochen Hallof (Würzburg)

Encoding lists for hieroglyphs - progress and problems

The subject of this paper arises from the completion of a new version of the Extended Library for the program *Glyph for Windows*. The Extended Library and its enlargement are results of practical work on the publication of large volumes of Egyptian hieroglyphic inscriptions. From this practical point of view the existing encoding lists are described and evaluated and the problems are discussed in connection with the establishment of international standards for encoding Egyptian hieroglyphs.

Regina Hölzl (Wien)

Kunsthistorisches Museum Wien Online – Goals and Challenges

Over the centuries the Habsburg family collected and accumulated large numbers of treasures and art objects, amongst them many objects from Egypt and the Near East. Today the Kunsthistorisches Museum Wien possesses approximately 3 million objects.

In the past, the different collections of the museum used their individual inventory systems and computer databases to organize their objects. It has been the aim of the museum management to implement a central database for all collections which would allow a more effective and easier administration of all museum objects. In the year 2001 the implementation of TMS ('The Museum System') started. The transfer of data into this new central database is still in progress.

Another goal of the museum is to make museum object data accessible through internet. By the end of this year around 39,000 objects with more than 100,000 digital images should be available on the internet. This project is part of an initiative by the Austrian government called 'eFit Austria' which - according to EU educational policy - should strengthen the cooperation between museums and schools for an intensive analysis of art and culture.

Willem Hovestreydt (Leiden)

Towards an online edition of the Annual Egyptological Bibliography

The Annual Egyptological Bibliography is currently working on a web-based version that will offer significant improvements over the existing modes of publication, i.e. in print and on CD-ROM. In the course of this work we are meeting with obstacles as well as opportunities. An overview will be given of developments since the IXth International Congress of Egyptologists at Grenoble (2004)

Edward Loring (CESRAS, Moscow)

Internet Image Rights

The Web has established itself as an important part of our daily lives. It has accelerated the globalization process and revolutionized the methodology of data storage and retrieval. As a universally accessible, open ended repository of information it is the greatest advance in the dissemination of knowledge since the invention of the printed page. It is this aspect, with emphasis on academic research and website publication, which this paper discusses. There is a need for a revision of certain cultural institutions' policies regarding the use of images for scientific, non-commercial purposes on the Web. It is proposed here that such images, once posted on a website, be considered as being in the public domain for the aforementioned purposes. Egyptologists and other cultural researchers should be allowed free use of these images, naturally with the usual credits and web-links when possible.

An important purpose of museums is to provide access to their collections for researchers who in turn produce elucidations of the studied material for the furthering of knowledge.

It is said that "one picture is worth a thousand words". Before the Web, the publication of acceptable images was limited to print, a very costly medium with regard to both production and distribution. Few scholars were able to use images in their publications;

distribution of and access to such material was generally very limited. The Web enables anyone to illustrate their work with any number of images at virtually no expense, while providing universal distribution at no cost or difficulty to the users.

In reality, any material posted on the Web is de facto in the public domain. Anyone can download and use it for any purpose, often in violation of copyright regulations. The "wrong people" are going to do this anyway, while serious scholars who want to use images legally become caught up in a net of red-tape. Some museums have introduced "electronic watermarking" to protect their commercial interests. This is expensive and rather silly. Such "watermarks" can be removed by simply printing and scanning the image. Some museums, the best case being the Petrie Museum of the University College London, have declared their images free for public use. This is also the policy of the Centre for Egyptological Studies of the Russian Academy of Sciences (CESRAS) for the public information site: www.cesras.org.

With this paper we hope to start a discussion between users and owners of images posted on the Web. A website with a discussion module has been set up for this purpose: www.interpixels.org.

Hana Navrátilová – Petra Vlčková (Prague)

The Information System of the Czech Institute of Egyptology – "SAKHMET of Abusir"

The archives of the Czech Institute of Egyptology include two main groups of evidence illustrating its archaeological activities in Egypt – the Nubian campaign and the continuing work at Abusir. So far, a huge amount of this material, especially photography and documentation registers, remained in precarious state and are in some cases hardly accessible. The planned digitalization and a need for excerpting archaeological information contained in them initiated the establishing of a database of the whole documentation material of the Czech Institute of Egyptology. This aim was broadened so as to include the whole archive of the Institute. The authors acknowledge in this their debt to other Egyptological databases, especially to the work of the Griffith Institute and to the Giza Archives Project in Boston.

The Prague database is structured according to ISAD [G] and connected norms for archiving and should enable a search through archaeological documentation, finds and rich photo gallery of the Institute.

In addition, the database can be interconnected eventually with other similar devices and databases. For example, inserted sub-databases, devoted to special archaeological and Egyptological issues, such as stone vessels, or visitors' graffiti, can be in future interconnected to other storage specialized systems dealing with these issues and thus interconnected archaeological databanks can be created.

Mark-Jan Nederhof (University of Tarragona)

Egyptological language resources and interlinear representation

We discuss the design of a corpus of resources on Ancient Egyptian texts as well as new software to visualize these resources in the form of interlinear representations, with a web-based interface allowing much flexibility. The resources may be encoding of hieroglyphic, transliteration, translation or lexical annotation, or a combination of these. For a single text, several versions can be combined. We show how the resources are represented and we demonstrate the workings of the software, on the basis of a number of texts that have presently been added to the corpus.

Linda Pulliam, Lawrence M. Berman/Denise Doxey (Museum of Fine Arts, Boston)

From Sand to Cyberspace: the Egyptian and Nubian Collections of the Museum of Fine Arts, Boston

The Museum of Fine Arts, Boston houses a collection of nearly 70,000 ancient Egyptian and Nubian artifacts, the vast majority of which derive from documented excavations. Between 1885 and 1937 the museum received objects from the work of the Egypt Exploration Fund and from 1905 to 1947 it conducted its own excavations at 21 sites in Egypt and Sudan. At the close of the 20th century, less than one third of the material from these excavations had been catalogued properly, much less photographed or recorded in a museum-wide database. Much of it, in fact, had never been removed from the packaging in which it left the field decades earlier.

In 1999, the MFA identified the need for a centralized collections database as a major priority, and initiated plans to make the database available online to the public. Since 2001, the Departments of Conservation and Collections Management and Art of the Ancient World have been carrying out a project, funded by the National Endowment for the Humanities, to catalogue the entire collection of ancient art. Nearly 60,000 objects have now been catalogued using Gallery System's product The Museum System (TMS) database software. Most of the objects have been or will be digitally photographed and the records, including images, are searchable through the MFA's website, www.mfa.org. Concurrently, the Giza Archives Project digitized the excavation records– object and photo registers, diaries, and photographs on glass plate negatives, as well as other documentation such as, maps, publications, manuscripts, post-excavation photography– of the MFA's excavations at Giza. These, too, are now available online.

This paper will address the background behind the Ancient World cataloguing project and the process through which it has been carried out. Along with describing the technological needs, it will address considerations such as the space, personnel and other resources needed for a project of this scale, and the ways in which problems and pitfalls have been addressed. It will also explore how this project has coordinated with the Giza Archives Project to develop an integrated and interactive system.

Bob Richmond (Saqqara Technology

Hieroglyphs Everywhere?

Use of the personal computer as a tool for working with Ancient Egyptian and hieroglyphs has become commonplace in Egyptology during the last ten to fifteen years. A brief account will be given on some of the current practical applications in traditional publishing, digital/web publishing and database applications. Unfortunately, it seems fair to say that the gap between the potential of digital technology and what is actually done has grown wider over recent years. Some background will be given about why this is so then several key problem areas and opportunities for improvement identified. The roles of standards and collaborative working will be examined.

Looking to the future, if key technical problems can be addressed, it seems likely that Ancient Egyptian will become more prominent outside the domain of scholarly application. In particular the volume of material on the web can be expected to grow dramatically.

Benefits, difficulties and opportunities such a trend might be expected to bring to subject specialists and the wider public form the concluding part of this presentation.

Serge Rosmorduc (Paris)

A Manuel de Codage code repository

There are currently quite a few hieroglyphic editors available. The problem is that there is a lack of coordination between the various software provider, which makes text sharing quite difficult, and might be a problem in the long run as far as data conservation is concerned.

In this respect, there are two issues :

* the first is the description language used (generally the manuel de codage or a variation thereof). In some respects, it's quite unavoidable that we see variations here, as the various softwares have different goals and emphasis. A codification of an common exchange format (with probable, but reasonable, data loss) would be a temporary solution here.

* the second issue and most serious issue is that of signs encoding. The various softwares tend to start their own list of codes, and this will make it very difficult to share texts and to keep them in the long run. In 20 years from now, all current software will probably have been replaced by others. It would be nice to spare our users the task of a complete re-encoding.. The only practical solution would be to have some kind of central sign codes repository. In our view:

- it would have a board of administrators/editors, who can add (after some discussion time) a new code to the list. The organisation of the board is certainly opened to proposals, and should be opened to both people involved in hieroglyphic editors and philologists.

- it would be understood that codes are mainly a technical device, not a definitive classification of the sign.

- a sign would in the list would have a small documentation, in order to make it clear what sign is meant, with references. it would be interesting to provide some further data to help retrieve the sign

- the sign would be published with some facsimile drawing or photo.

Such a project is only interesting if it's supported by the community of hieroglyphic editors writers. Ideally, it would also be hosted by some "neutral" institution, which would also guarantee its continuity.

We will present a demo database to illustrate our proposal.

The JSesh hieroglyphic editor

We will present our new hieroglyphic editor, JSesh. JSesh is a java software, and thus multi-platform (it currently runs well on both Windows XP and Mac OS X), and free software. Parts of it can be used as libraries in other softwares, for such tasks as rendering hieroglyphs on web servers, Manipulating Manuel-de-Codage texts, or writing users interfaces for hieroglyphic texts database.

Helen Strudwick (Cambridge)

Content is King: making museum databases useful

Museums are repositories not only of objects, but also of information about them and related data. Storing this information in such a way as to make it retrievable is an essential part of a curator's job. At the Fitzwilliam Museum, Cambridge, the process of transferring the accumulated information to a computerised database has been on-going for many years; since 2001 the museum has been in the process of establishing a unified system throughout its different departments. Using this as a case study, this paper will look at the experience of creating a useful tool for both subject specialists (Egyptologists) and the man on the street within a mixed collection museum, and within the confines of the 'UK Museum Documentation Standard' (SPECTRUM), and presenting this material via the Internet.

Mladen Tomorad (Zagreb)

Croato-Aegyptica Electronica

In this paper I would like to present history, results and IT models of presentation associated with the first Egyptological project in Croatia - Croato-Aegyptica Electronica - which was started in 2002. The project Croato-Aegyptica Electronica is based on IT and our basic aim is to build up a database with all Egyptian artifacts in Croatian museum and private collections which will be accessible through on-line public access catalogue. In Croatia there are more then 4000 Egyptian objects in various museums and circa 1000 in private

collections. The database as final product will include all Egyptian artifacts in museum and private collections in Croatia from Predynastic periods until the Arab conquest of Egypt in 7th century AD.

The project CAE was started in 2002 by Mladen Tomorad and Igor Uranić. During the period from 2003 to the beginning of 2006 we managed to: analyze and document almost 2000 artifacts from museums without any information system; build up database with these artifacts; we create English and Croatian version of web site related with Egyptological studies (www.croato-aegyptica.hr) and database accessible online.

In this moment several museum collections are in the phase of scientific analysis, photo shooting of digital images etc. As a database we choose M++ museum information system and manage to successful import data from museum that already have documentation in machine-readable form. From July 2004 part of CAE database (more then 100 artifacts with related visual documentation) is accessible on-line through our web portal at http://www.croato-aegyptica.hr.

André J. Veldmeijer (Amsterdam)

www.PalArch.nl and electronic publishing in Egyptology

The electronic, peer reviewed journal PalArch's Journal of Archaeology of Egypt/Egyptology exists almost 2.5 years and is one of the two electronic journals in our scientific discipline. Currently, we have published 14 papers (among which large ones of well over 50 pages) and over 50 book reviews, besides the various more popular articles on Egyptian collections in our Newsletters.

Despite these numerous publications, we have decided to change our website slightly in order to make it more clear and better accessible. One of the major changes is a more distinct lay-out which emphasizes the three journals the PalArch Foundation currently publishes. This decision was accelerated by our co-operation with the National Library (www.kb.nl) to ensure durability and accessibility of the work published with us.

The developments of www.PalArch.nl will be used as an example to discuss the advantages and disadvantages of electronic publishing in general and the relation of electronic publishing and Egyptology more specifically. Compared to some other disciplines, Egyptology seems

disinterested in electronic publishing: what could be reasons for this and what can be done to stimulate electronic publishing? And should electronic publishing be stimulated?

Orell Witthuhn (Marburg), Jörg Grützkau (ACS Berlin)

Generating Automated Synoptic Output. A Program Comparing Hieroglyphic Text Corpora

The SESCH database is a convenient instrument to make the analysis of hieroglyphic texts easier and faster. Its current new version allows automated synoptic output of text variants for on-screen comparing and for printing.

Aim of this paper is to present tasks and functions of the SESCH database and its text editing module exemplary based on several variants of The Book of The Dead, spell 30.

Using SESCH the first step is to define a basic variant which will be encoded by means of an integrated word list. Thanks to this it is possible to generate copies of the original text which synoptically appear on screen. Working with these copies all changes in hieroglyph spelling, contents and order are saved step by step, building a pattern for further evaluation. Changed entries can be highlighted and print options include paper as well as pdf-files or generated html-files.