CHICAGO DEMOTIC DICTIONARY (CDD)

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Although the Chicago Demotic Dictionary is "done," there is still work to do! We have two short-term goals and one major, long-term goal. For the short term, we want to replace the old PDFs on the Oriental Institute Publications website with new, up-to-date PDFs, and we want to publish a hard-copy version of the dictionary for use by libraries and so on. The long-term goal is to move from a text-based format for the dictionary to a web-based, database format. But both of these goals require a fair amount of "make-over" before they can be implemented. That's what we've been working on this year. "We" includes me, Brian Muhs, the Associate Director of the CDD, three advanced graduate students in Egyptology, Kate Lockhart (who, unfortunately, stepped down from working on the Dictionary in May; we shall miss her careful work and her always friendly presence in the CDD office), Ariel Singer, and Jonathan Winnerman, from all of whom you heard in last year's *Annual Report*. Ariel technically works for the OI Publications Office, which provides an excellent lead-in to the other people who need to be mentioned and thanked in this report, Tom Urban and Leslie Schramer, our great Publications Office duo, Knut Boehmer, the OI's IT Specialist, and Sandy Schloen and Miller Prosser of Ochre Data Service, all of whom provide excellent IT assistance for us.

From Jonathan: When the final letter file of the Chicago Demotic Dictionary was completed last year, work on the dictionary proper was finally finished, at least until the next phase of the project. Yet, a few additional files remained to be edited before the dictionary is fully up and running. These are the bibliographic appendices, files which do not contain any Demotic but provide crucial textual and bibliographic information about each citation used by the dictionary. There are three such files: the Bibliography, Bibliographic Abbreviations, and New Text Information. In the following paragraphs, I provide a brief outline of each of these appendices and explain how these can be used in conjunction with the letter files to provide users with a wealth of information and avenues for future research.

The Bibliography file, as its name suggests, provides basic bibliographic references for all works cited by the dictionary. Since the letter files contain only the most basic information about a publication in the interest of conciseness, the Bibliography provides complete publication information for each work. This includes, for example, the complete title of the work, the abbreviated name of any journal or series in which the work was published, the place and date of publication, and the inclusive page numbers, if applicable. This file is organized by author's last name and the date of publication. If there are two publications by the same author from the same year, the entries are listed alphabetically by the abbreviated title selected by the CDD. To demonstrate how this works, the dictionary's entry for *hnm* "to be friendly" > "propitious" can serve as a good example.

The information provided in the letter file supplies the basic information that most users might desire: the basic definition of the word, its equivalencies in other Egyptian dictionaries and language phases, its variants, and, in this case, related words in Biblical Hebrew and other Northwest Semitic languages. The Bibliography can be used in conjunction with the entry

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## V.it. "to be friendly" > "propitious"

## EG 362 as var. of nm "to smell"

## To be friendly "> 3, 29210-14

## for discussion, see Parker, Omina (1959) pp. 20-21, n. to l. 8

## Var.

## To be friendly "

## so Hotfmann, Kampf (1996) p. 321, n. 1846

## or =? $rm "to sue for peace; to lay down one's arms" \( \bar{W} b \) 4, 528/8-10, as Bresciani, \( Kampf \) (1964)

## see Galán, Z/$1 24 (1997) 37-44

## BH □ $\frac{17}{1000}$ 1 be in covenant, peace" BDB 1023b

## NWS $\frac{31}{1000}$ 1 144-1152

## see Vittmann, \( WZKM 86 (1996) 441 \)

## NWS $\frac{31}{1000}$ 1 144-1152

## see Vittmann, \( WZKM 86 (1996) 441 \)

## R P Omina A, 4/8

## R P
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Figure 1. Sample from CDD Bibliography

to find out more about the publications cited here. For example (fig. 1), the first publication giving an author's last name listed in this entry is the discussion of the word in Parker, *Omina* (1959) pp. 20–21, n. to l. 8. If users wanted to consult the discussion of this word in this work but were unable to locate the work without the full title, they could consult the Bibliography first under Parker and then by year, 1959.

Figure 2. Sample from CDD Bibliography

There are two works by Parker published in 1959 (fig. 2), but the bold section of the entry, which indicates the abbreviation used in the letter files, indicates that the work in question is the second one: Parker, R. A., A Vienna Demotic Papyrus on Eclipse- and Lunar-Omina, Brown Egyptological Studies 2 (Providence, 1959). Here, users can see the full title, the series to which the book belongs, Brown Egyptological Studies, and its volume number within that series, 2. Notice also that all bolded information in the Bibliography is the abbreviated information provided by the letter file.

Yet, as can also be seen in this entry for hnm, other abbreviations are used that do not conform to the pattern of author's name, abbreviated title, and date. These abbreviations, such as EG 362 and Wb 3, 292/10-14, represent those works cited more often in the dictionary and those with which an Egyptological audience will be more familiar. These abbreviations can be found in the second appendix, Bibliographic Abbreviations. This file lists all abbreviations that consist of a mix of letters and/or numbers and titles not preceded by an author's last name, such as dictionary names, titles of edited volumes, and the names of journals and series. The first of these in the entry for hnm is EG 362. Checking the Bibliographic Abbreviations file reveals that this corresponds to Erichsen, W., Demotisches Glossar (Copenhagen, 1954).

Since this work is cited so often in the dictionary, it is abbreviated to EG instead of Erichsen, Glossar (1954). Note that this information can also be found under Erichsen in the

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EG Erichsen, W., Demotisches Glossar (Copenhagen: 1954)
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Figure 3. Sample from CDD Bibliographic Abbreviations

Bibliography. While each of these appendices contains some of the same information, they can be used together to quickly find all bibliographic information available for a citation.

The final appendix, New Text Information, is not a bibliographic file in the traditional sense but one that provides a bibliography for each Demotic text cited in the dictionary. This file is arranged alphabetically first by collection name, then material on which the text is written, and finally by inventory number. For example, P BM (papyrus from the British Museum) would be listed after P Berlin (papyrus from Berlin) since Berlin is alphabetized before British Museum, but O BM or O Berlin (ostracon from these museums) would be alphabetized before the papyri from the same museum since O precedes P. Each entry provides not only the basic publications for the text, but it also lists additional information like provenance, date, and how these have been determined. It also states whether the staff of the CDD had access to a photograph of the text or whether we relied on an author's hand copy. To again use the entry for *hnm* as an example, the first text cited is P Omina A, 4/8 (column four, line eight).

There is a great deal of information to be found about this particular text in New Text Information. First, the user can see that its pieces have been given individual inventory numbers, P Vienna 6278–6289, 6698, 10111, and other fragments, which are also cross-listed to this entry in New Text Information. Next, the publication information, Parker, *Omina* (1959) is provided. The provenance of the text follows, but in this case one can see that it has been somewhat debated. Parker gives the provenance as Arsinoe without further explanation, but Reymond, *Medical* (1976) p. 26, argues instead that the text comes from Dimē (Soknopaiou Nesos) based on paleography (abbreviated pal.; for a full list of such non-bibliographic abbreviations, see the prologue to the dictionary). The date is also contested. Quack, *Enchoria* 26 (2000), and Reymond, op. cit., agree that the text should be dated to the first century AD based on paleography. Parker, op. cit., however, prefers a date of late second or early third century AD, also based on paleography. By including vs., versus, here, the dictionary staff indicate that we favor the conclusions of Quack and Reymond. All this information is followed

P. Qmina A & B (= P. Vienna 6278-6289, 6698, 10111 & fragments)

Parker, Omina (1959): Fayurm (Arsinoe)(?)(sg ed.) gr (Dimè)(pal.)(sg Reymond, Medical [1976] p. 26); Roman

(late 1st century A.D.)(pal.)(sg Quack, Enchoria 26 [2000] 85, n. 10, & so Reymond, Medical (1976] p. 26

vs. Parker, who said late 2nd or early 3rd century A.D. (pal.))(composition dated to 6th century B.C.)(sg
ed.): photo: TM 55992

Figure 4. Sample from CDD New Text Information

by a note that the original composition on which the papyrus currently under discussion is based was composed in the sixth century BC. Then the entry notes that dictionary staff had access to a photograph of the text. Finally, the entry gives the number assigned this text in the Trismegistos online database, so that the text can easily be found in this database as well. This small entry thus provides users with a very wide range of information and the appropriate sources to pursue, should they wish to know more or conduct further research. In this way, these three appendices greatly contribute to the richness and utility of the dictionary.

From Jan: We now need to convert all our Microsoft Word documents (one document per letter of the alphabet plus documents for the Prologue/Introduction, Bibliography and Abbreviations, Text Information, and appendices on Numbers, Months, and Days of the Month) to Adobe InDesign, which is better able to handle our detailed formatting and the extensive graphics we have incorporated. This involves converting from the so-called "Diacritics" font we designed many years ago to present all the diacritics (e.g., h and s in the sample/example

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provided above by Jonathan) needed to transliterate Demotic and Egyptian in general, to a Unicode font which can handle all the diacritics but also handle all the other scripts we cite in the dictionary, especially Greek, Hebrew and other Northwest Semitic languages, Akkadian, Persian, and even Meroitic. Tom Urban has been working to add all the signs/letters that we need for the Demotic Dictionary (including a basic core of Egyptian hieroglyphs) to a Unicode font called Gentium Plus. But he's also adding all the other signs/letters that the Publications Office needs for all its publishing responsibilities. Once this is done, we shall begin to convert our extensive files to this font (this will be done electronically, but it will have to be checked by human, Demotic-reading eyes). Preparation for the conversion has begun with Sandy and Miller taking the old Word files (stripped of much of their background formatting) and writing a program to convert them from the old series of fonts to the new Unicode font. We have prepared PDFs of all the files before this conversion so that when the files have been converted to Gentium Plus, we will be able to compare the new files to the old PDFs to make sure everything, including the detailed foreground formatting, has been converted properly.

At the same time, we have to begin handling the extensive graphics (the thousands of scans of words and hand copies which illustrate all the vocabulary) in a more precise fashion. Currently, and for years, we have simply cut a scan of the word in question from a photo of the text itself, converted it from a photo-scan to a line art black-and-white line drawing of the scan, and pasted both the photo and the line art on the pages of the appropriate Word document. But Word now requires that all photos be better identified (preferably uploaded from an independent, unique Word file saved on the computer alongside the file into which it is being pasted). But we have found many of our graphics are not legible (or are legible only in very low resolution) in the newer versions of Word due to Word's automatic image file compression. This is another reason for converting to Adobe InDesign. In preparation for this, we are going through all the Word files and saving every image, image by image, to be uploaded into InDesign. These saved individual images will also serve as the core to be uploaded for the online searchable database eCDD, which we hope to prepare in the years to come.

From Ariel: The first step in this has been to extract the images of the Demotic words from the old Word files. This is necessary as the new files have a degraded version of the images — in some cases these are so pixelated that they are unreadable. We have also had a few instances where the images in the file appear to be corrupted, either showing up as large red X-s, or simply not appearing at all. The actual process of extracting the images is quite easy; however the files that result are named only by the word "image" and a number, representing where it falls in the sequence of the document. This is not useful in the long run because without knowing what the transliteration and the name and line number of the original text are, there is no way to correctly associate that image with the file from which it came. This is problematic both if the files are changed or additions are made to them in the future, and also if we want to move on to the next step of creating an interactive searchable database.

Once the images are extracted as individual files, they need to be given unique and readily identifiable names that also conform to system-readable standards in the context of coding. Thus, each file begins with the letter of the entry in which it is found, then a number (which increases by one for each new image). This is followed by the transliteration of the word or phrase, as it appears in the dictionary (although using the upper-lowercase system of transliteration, since the diacritics are problematic in a file name). Then comes the name of the papyrus, ostracon, etc. and the appropriate line number. An example would appear: n00141_nyAt_P_BM_10507_2-6_5-21.png. This means it is the 141st image in the "n" file, transliterated

ny3.t, and found in lines 2/6 and 5/21 of P BM 10507. If the image is a hand copy we add "hc" at the end. In order to make this system expandable, i.e., if we want to add more examples in the future, an option to add dashed lowercase letters to the number allows for infinite growth.

This process, while thorough, requires a great deal of time, since there are perhaps as many as 40,000 images in the files. We have looked into creating a more automated method; however, given the complexity of the naming system, that does not appear to be possible. So far we have completed extracting and naming the images from all the files we had already edited. Those have been passed along to the Publication Office, where they are converted into higher resolution JPEGs, and then will be added to the InDesign files. After much discussion we decided that it made more sense to complete the image naming project and get all of the documents into InDesign before continuing with more editing. We are now beginning to work on the letters that have yet to be edited, and in total we have completed 24 of the 42 files. (Although the number of images in each of these can vary considerably, and we still have some of the largest files to process!) Although we know that this process is time-consuming, we strongly feel that it adds to the long-term utility and stability of the CDD.

In the Fall, Brian and I had the opportunity to discuss the current status and future plans of the CDD at the Institute's outreach presentation on Oriental Institute Projects for members of the Breasted Society. We were also delighted to sponsor the two-month spring visit of Dr. Roman Gundacker, Fellow of the Austrian Academy of Sciences at the Institute for Oriental and European Archaeology, Department of Egypt and the Levant, and Director of the project "Studies on Ancient Egyptian Compound Nouns." He spent his two months with us going through the files of the CDD looking for entries of compound nouns; he also took the opportunity to discuss with many of us various problems in the attested compound nouns in Demotic and in the historical development through Demotic of these forms. While he was here, he gave two public lectures aimed at students and faculty, one on the restoration of an important Old Kingdom tomb inscription and one summarizing his work on compound nouns throughout the history of the Egyptian language.

In summary, for the short-term, we are converting fonts and we are extracting, naming, and saving images. Both will allow us to produce high-quality PDFs to replace the sometimes ten or more year-old PDFs that are currently online. Both will contribute to the quality of the hard-back publication of the Dictionary. Both will also allow us to incorporate all this data directly into an online database, which is our long-term goal.

Note

¹ http://www.trismegistos.org/, self-described as "An interdisciplinary portal of papyrological and epigraphical resources formerly Egypt and the Nile valley (800 BC-AD 800), now expanding to the Ancient World in general." This marvelous resource, overseen by Mark Depauw, Research Professor, Department of Ancient History, University of Leuven, can be searched by text, collection, archive, people, network, place, (ancient) author, or (modern) editor, and includes (or will eventually include) all Egyptian texts dating within their time range.

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