DIGITAL RESOURCES IN DAOIST STUDIES

Fabrizio Pregadio ARC/China, Stanford University

Compared to Buddhist studies, digital materials for Daoist studies are, at present, almost nonexistent. The scarcity of resources in this area results from the combination of several factors, none of which seems to predominate over the others. Daoist studies, for instance, is a field much younger and—at least in theory—more focused than Buddhist studies; the amount of scholarly materials in digital form (including websites) related to Buddhist and Daoist studies is, to some extent, proportional to the range of the two fields and to the number of respective participants. As a whole, moreover, the field of Daoist studies has not yet attained a recognition in the academia comparable to the one enjoyed by Buddhist studies; this makes it harder to justify projects that involve the creation and use of digital resources. Even the lack of a precise correlation in Daoism to the Buddhist notion of "spreading the Dharma" may account for the scarcity of digital resources in Daoist studies; this is true if one considers not only the role played by lay donors in sponsoring Buddhist digital projects, but also the fact that Buddhist monks have contributed, especially in the previous decade, to the digitalization of Buddhist texts, considering this to be an aspect of their religious practice. Lastly, and perhaps most regrettably, the field of Daoist studies—in spite of its youth and current limitations has been showing a few splits and cracks, which have not favored the creation of a sense of community comparable to that which seems to exist among Buddhist scholars. A mailing list devoted to the academic study of Daoism (which, by the way, does not exist at present) would probably occupy itself with endless and useless discussions on whether Daoism begins with Laozi or the Celestial Masters. The lack of a sense of community does not help to promote the large-scale cooperation and exchange of resources that have supported the successful completion of digital projects in Buddhist studies.

In this paper, I will briefly survey some of the main existing digital resources for Daoist studies, present two database projects on which I have been working, and—more importantly—focus attention to what I consider the main priority in this area, namely the creation of reliable digital versions of Daoist texts. I would like to add that I will talk as a user of digital resources, and that from this point of view I consider these resources essentially as tools that make some research tasks easier, but sometimes also open new perspectives to one's own work.

WEBSITES ON DAOISM

Most websites in English and other Western languages equate Daoism with *taiji quan*, other martial arts, or medicine. In China (both Mainland and Taiwan), on the other hand, many websites concerning Daoism are the expression of temples or other local realities, including tourist attractions. None of these websites—especially those in Western languages—is likely to offer much for the serious study of Daoism.

Other websites, in Chinese, Japanese, or English, are managed by academic groups, or by individuals with an academic background, or by Chinese groups of devotees and practitioners who sometimes label themselves as "Quanzhen" and define their practice as *neidan*. These websites offer some useful materials for the study of Daoism, which I survey below according to their type. (An annotated list of selected websites on Daoism is found in the Appendix.)

Indexes to Daoist collections

Indexes to collections of Daoist texts include those to the *Daozang 道藏*, the *Daozang jiyao* 道藏輯要, and the *Zangwai daoshu* 藏外道書, all available from the Daojiao wenhua 道教文化 website (www.daoist.org), and the index to the *Daozang*, available from the ARC/China website (www.stanford.edu/group/scbs/ARC).

Digital texts

Digital versions of Daoist texts are found on several websites. Two of the more extended archives are Daoism.cn (www.daoism.cn), managed by the Sichuan daxue Daojiao yu zongjiao wenhua yanjiusuo 四川大学道教与宗教文化研究所; and Jindan dadao 金丹大道 (www.dandao.org), a website that houses texts related to Quanzhen 全真 Daoism and to neidan 內丹. Other websites offering Daoist digital texts include Laozi wenhua gang 老子文化冈 (www.laozi.net), which contains texts variously associated with Laozi and the Laozi; Daojiao Quanzhen pai gangye 道教全真派綱頁 (members.tripod.com/realdao), mainly concerned with Quanzhen Daoism and neidan; and The Golden Elixir (venus.unive.it/dsao/pregadio), with a few texts on neidan and waidan 外丹. The Tôyôgaku kenkyûsha no tame no dennô shihô 東洋學研究者のための電腦四寶 website (www.zinbun.kyoto-u.ac.jp/~dokisha) includes a searchable index to about two dozen Daoist

sources. PDF files with several collections of Daoist texts are available from the Daojiao xueshu zixun gangzhan 道教學術資訊綱站 website (www.taoism.org.hk).

Encyclopedias, dictionaries, text abstracts

Daojiao wenhua ziliao ku (www.taoism.org.hk) offers an online encyclopedia of Daoism, also partly translated into English. The encyclopedia is similar in many respects to the major dictionaries of Daoism published in the People's Republic of China, such as *Zhonghua daojiao dacidian* 中华道教大辞典 (Great dictionary of Chinese Daoism; 1995) and *Daojiao dacidian* 道教大辭典 (Great dictionary of Daoism; 1994). The latter dictionary is available online from the Daojiao xueshu zixun gangzhan website (www.ctcwri.idv.tw). A comparable, and in some respects more valuable resource is the collections of abstracts of all *Daozang* texts available from Zhongguo chuantong wenhua gang 中國傳統文化鋼 (www.enweiculture.com).

Bibliographies

An extensive bibliography of Chinese studies on Daoism and Chinese religion is found in the Daojiao wenhua website (www.daoist.org). The Daoist Studies website (www.daoiststudies.org) contains a bibliographic database largely based on the lists of works quoted in *Daoism Handbook* (L. Kohn, ed., 2000). An annotated bibliography of Western-language studies of Chinese alchemy is found in the Golden Elixir website (venus.unive.it/dsao/pregadio). Finally, the Center for Daoist Studies website (www.daoistcenter.org) offers a bibliography of Daoist texts translated into Western languages.

Journal articles and indexes

The only journal devoted to Daoism to offer online versions of its articles is Zhongguo daojiao 中國道教, available from the Zhongguo daojiao website (www.chinataoism.org). Other websites offer complete or partial indexes to relevant journals. These include Tôhô shûkyô 東方宗教, from the website of the Nippon Dôkyô Gakkai 日本道教学会 (wwwsoc.nii.ac.jp/dokyo), as well as Journal of Chinese Religions and Taoist Resources, from the website of the Society for the Study of Chinese Religions (www.indiana.edu/~sscr).

A BIBLIOGRAPHIC DATABASE ON THE DAOIST CANON

As far as I have been able to ascertain, and with one major exception that I will mention in the next section of this paper, not many projects focused on the creation of digital resources in Daoist studies are currently in progress. I have not been able to procure information on a project announced in the past by Peter Bumbacher, who was planning to produce digital versions, critical editions, and concordances of Daoist hagiographic texts. On the other hand, a project led by Paul R. Katz in the last couple of years that focused on a Taiwanese temple was posted to the World Wide Web some time ago, but the website is currently offline.

Among smaller-scale projects that are currently in progress I would like to introduce a bibliographic database on the Daoist Canon, on which I have been working from time to time in the past years and which I have used, until some time ago, as a tool for personal research. The project has recently become an activity of ARC/China (ARC is a unit of the School of Humanities and Sciences at Stanford University; see the web pages at www.stanford.edu/group/scbs/ARC), which has made it possible to amend part of its content and to expand its data with the help of Dominic Steavu, a graduate student of the Department of Religious Studies at Stanford.

The Daozang Database (DDB) contains bibliographic data on all texts found in the Daoist Canon (Daozang 道藏). It is based on the numbering system in K. Schipper's catalogue of the Canon (Concordance du Tao-tsang, 1975), but also provides references to the numbering systems in the Harvard-Yenching catalogue (Daozang zimu yinde 道藏子目引得; Weng Dujian 翁獨健, 1935) and in Daozang tiyao 道藏提要 (ed. Ren Jiyu 任繼愈 and Zhong Zhaopeng 鍾肇鵬, 1991).

Basic bibliographic data

In addition to volume and page numbers in three reprints of the *Daozang* (Hanfenlou, Yiwen chubanshe, and Xinwenfeng chubanshe), basic bibliographic data in the DDB include references to the classification of each text in the traditional subdivisions of the Canon (Three Caverns or *sandong* 三洞, Four Supplements or *sifu* 四輔, and Twelve Divisions or *shi'er bu* 十二部), and to the modern classification system found in one of the appendixes to *Daozang tiyao*. For works also included in the *Daozang jiyao* 道藏輯要, the DDB indicates the title under which the text appears in that collection, and the corresponding volume and page numbers in the Xinwenfeng reprint. References are also provided to quotations from the text in two major Daoist encyclopedias, the *Wushang biyao* 無上祕要 (by way of references to J. Lagerwey, *Wu-shang pi-yao*, 1981) and the *Yunji qiqian* 雲笈七籤

(based on J. Lagerwey, "Le Yun-ji qi-qian: Structure et sources", in K. Schipper, *Index du Yunji qiqian*, 1981). Mentions of the text in premodern library catalogues are accessible through references to P. van der Loon's *Taoist Books in the Libraries of the Sung Period* (1984).

Dates, attributions, and corpora

Details on date, attribution, and association with a particular corpus are available for several texts (in particular, those belonging to the Shangqing 上清 or the Lingbao 靈寶 corpora), but have not yet been systematically entered into the DDB.

Secondary studies and reference works

For each text, the DDB provides references to notices found in Daoism Handbook (ed. L. Kohn, 2000), the Encyclopedia of Taoism (ed. F. Pregadio, forthcoming), A Survey of Taoist Literature (J. M. Boltz, 1987), La révélation du Shangqing dans l'histoire du taoisme (I. Robinet, 1984), and several other shorter but systematic surveys. As far as reference works are concerned, the DDB refers to the reproductions and discussions of Dunhuang mss. found in Tonkô dôkyô 敦煌道經 (Ôfuchi Ninji 大淵忍爾, 1978), and to indexes and concordances, including those to single texts and those found in Dôkyô kyôten shiron 道教經典史論 (Yoshioka Yoshitoyo 吉岡義豊, 1955) and in Rikuchô Tô Sô no kobunken shôin Dôzô tenseki mokuroku, sakuin 六朝唐宋の古文献所引道藏典籍目録〆索引 (Ôfuchi Ninji 大淵忍爾 and Ishii Masako 石井昌子, 1988). Finally, the DDB provides references to full or partial translations of each text into English and French.

Other features

Besides the data outlined above, the format of the DDB makes it possible to integrate it with materials found elsewhere. In particular, the DDB is linked with another database that contains, at present, about 850 scans of illustrations found in *Daozang* texts; these illustrations can be consulted directly within the DDB. To give other examples of the possibilities of expansion, relevant materials from the forthcoming *Encyclopedia of Taoism* and from *Daoism Handbook* have been added to some records.

The DDB can also be expanded with the addition of data found on the Internet. This data can either be linked to the DDB or directly imported into it. To illustrate these further possibilities, abstracts of *Daozang* texts found in the Zhongguo chuantong wenhua gang (www.enweiculture.com)

and the Daojiao wenhua ziliao ku (www.taoism.org.hk) websites have been imported into the DDB, also providing links to the original web pages. Moreover, texts available in digital versions from several major websites can be accessed directly from the DDB, which contains active links to the relevant web pages.

The entire DDB, or any subset based on particular search criteria, can be exported to a PDF file, where the data are arranged in catalogue format.

DAOIST DIGITAL TEXTS

In the first part of this paper, I mentioned several websites that offer digital versions of Daoist texts. Despite their certain usefulness, none of these texts appears to offer the necessary prerequisites of accuracy and reliability. As far as textual sources are concerned, no real progress in the area of digital resources for Daoist studies will be possible until reliable digital versions of Daoist primary sources are available.

This situation is bound to change within the next few years, when the project of digitalizing the entire Daoist Canon, directed by Professor Li Fengmao at Academia Sinica, will be concluded. Undoubtedly, this is the most important project currently in progress as far as digital resources in Daoist studies are concerned. It is not clear to me whether the new edition of the Canon published in 2003 by Huaxia chubanshe under the title *Zhonghua Daozang* 中華道藏 will also be available in digital format. It is certain, however, that the availability of the entire Canon in text-only format will not only provide Daoist scholars with a new major research tool, but also stimulate some of them to produce and make available their own resources and research tools.

Besides the texts in the Daoist Canon, though, many other sources found elsewhere are of significant importance to scholars who work on particular Daoist traditions, such as neidan, or on particular literary genres, such as hagiography. Rare editions of Daoist texts (i.e., the editions typically classified as shanben or zenbon 善本 in Chinese and Japanese library catalogues) are another example of texts that might be reproduced in text-only digital versions, in order to make them more easily available to researchers.

In this connection, I would like to take the present opportunity in order to propose the launch of an initiative aiming to produce digital versions of major Daoist texts not found in the Daoist Canon. This initiative ideally should be supported by institutions and groups of researchers operating autonomously in different countries, but working in cooperation and coordination with each other in order to share experiences and resources and to avoid duplication of efforts. The

CBETA archive of Buddhist texts (Chinese Buddhist Electronic Texts Association, ccbs.ntu.edu.tw/cbeta), as well as the earlier IRIZ project hosted by Hanazono University (International Research Institute for Zen Buddhism, iriz.hanazono.ac.jp), offer valuable models as far as the format of the digital texts is concerned. The only addition I would suggest to the format of digital texts in these archives is support for a critical apparatus in order to annotate the text and to account for variants or errors.

It is to be hoped that this Conference may be an opportunity to lay out the foundations for future international cooperation in this area, and I suggest that all interested persons hold an informal meeting at the end of the conference for a preliminary discussion on this topic and an exchange of views on possible approaches.

A LEXICAL DATABASE ON CHINESE ALCHEMY

As an example of the possibilities that open up once digital texts are available, I would like to introduce another ARC/China project on which I have been working for some time, and which is open to contributions by any interested scholar based on the principle of the exchange of data. The Jindan Database (JDB) is a result of discussions held in the past years with Isabelle Robinet and Monica Esposito. Its purpose is to provide an environment to enter, edit, select, and export lexicographical data concerned with Chinese alchemy in both of its main forms, *waidan* and *neidan*. The selected records can be exported to a PDF file, where they are arranged in dictionary format.

Contents

The JDB currently contains all relevant terms and examples found in three Daozang works dealing with alchemical terminology: the "Jindan wenda" 金丹問答 (Xinzhen shishi 修真十書, CT 263, 10.1a-14b; ca. 140 records), the "Jindan faxiang" 金丹法象 (Ziyang zhenren wuzhen zhizhi xiangshuo sansheng biyao 悟真直指詳說三乘祕要, CT 143, 25a-33a; ca. 580 records), and the Shiyao erya 石藥 爾雅 (CT 901; ca. 500 records). The input of data from Chen Zhixu's 陳致虛 commentary to the Zhouyi cantong qi 周易參同契 and from the Huangting neijing jing 黃庭內景經 (with notes from the commentary attributed to Wucheng zi 務成子) is currently in progress. The remaining ca. 1,500 records have been drawn from the Daojiao dacidian 道教大辭典 (Great dictionary of Daoism, 1994). They concern the following sources, as well as other relevant sources quoted in the respective entries: Daoshu 道樞, Jindan dayao 金丹大要, Jindan sibai zi 金丹四百字, Wuzhen pian 悟真篇 (with notes

by various commentators), Xingming guizhi 性命圭旨, Zhonghe ji 中和集, and Zhouyi cantong qi 周易參同契 (with notes by various commentators).

Terms

The three main elements in each JDB record are the term, the source, and the example. The Term area in each record includes four fields, respectively assigned to the term in Chinese characters, the term in *pinyin* transcription, an English translation, and a definition. The last two fields make it possible to distinguish the literal meaning of a term (i.e., its translation into English) from its referent as a technical term (i.e., its definition). Each term has a single translation, but may have multiple definitions. For instance, the term *qian* $\frac{\partial U}{\partial H}$ is translated into English as "lead", but its definitions include "Yin" and "Real Yang". This and similar distinctions are essential for the study of the alchemical terminology.

The JDB makes it possible to select all occurrences of a term, including those in which it occurs as part of another term. This facilitates the input and editing of data related to that term. Moreover, any Chinese character that occurs in the database as part of a term can be selected and displayed in a separate window, which lists all terms containing that character. The relevant records in the database can be accessed from this list. Terms can also be assigned to one of several categories, such as "Cosmology", "Human body", "Mineral or metal", and so forth. All terms assigned to one category can be selected and displayed in list form, and sorted according to various criteria.

To facilitate the choice and input of definitions, the JDB provides two main functions. First, a Current Definitions table displays a list of records concerned with the same term, as well as the definitions currently entered for that term. Second, an existing definition shown in the Current Definitions table can be automatically copied to the present record. This helps to avoid the entering of single definitions into the database in slightly varying forms, such as "Real Yang" or "Authentic Yang".

Sources and examples

An "example" is a sentence or a passage found in a primary source that illustrates the use of a term. This may also include any note found in a traditional commentary to an earlier text. The Example area of each JDB record, accordingly, contains four fields, respectively assigned to the example and the note in both Chinese characters and English translation.

In order to work with examples drawn from a single source, all relevant records can be selected, and optionally be displayed in a separate window which lists all terms found in that source. Here too, the relevant records in the database can be accessed from this list. Moreover, data concerning *Daozang* texts are drawn from the Daozang Database (DDB), and the relevant DDB record can be opened from within the JDB.

Other functions

The JDB provides three ways to create new records. Records can be created manually (in a dedicated Input layout); or they can be imported from an existing word-processor file; or they can be imported from an existing external database containing a layout and scripts to support this function.

The JDB supports the input and display of several types of reference materials, including data drawn from the *Daojiao dacidian*. Each record, moreover, contains a field to enter notes on the term (these notes are visible in all records concerned with the same term), and a field to enter notes on the example (each record hosts a different note).

Export to a PDF file

Any number of JDB records can be selected for export. The selected records can be printed to a PDF file, where they are arranged in dictionary format. Each entry in this file includes a heading showing the term in *pinyin* transcription, Chinese characters, and English translation. The examples are arranged according to the definitions assigned to the term; they include the Chinese text and English translation of both the example and the traditional commentary.

CONCLUSION

The lexical database that I have introduced above shows how digital texts facilitate the creation of tools and reference works that support the study of particular Daoist traditions, such as *waidan* and *neidan*. A database such as the one I have described relies essentially on digital texts. Once again, I would like to emphasize the importance of having access to digital versions of Daoist sources as the main priority in this area. Once Daoist primary sources are available in digital versions that offer the required degrees of accuracy and reliability, scholars can profit from them in a variety of ways. The same is true for other materials produced and distributed in digital form that are not particularly related to textual sources.

Catching up with the progress made in this area by Buddhist projects will probably be impossible, at least for some time, but the creation and use of digital resources will certainly offer new tools for expanding and, possibly, enhancing the field of Daoist studies.

Appendix

SELECTED WEBSITES ON DAOISM

1. Websites in Chinese

(1) Daoism.cn (Sichuan daxue Daojiao yu zongjiao wenhua yanjiusuo 四川大学道教与宗教文化研究所)

www.daoism.cn

Digital texts and online publications.

(2) Daojiao wenhua 道教文化

www.daoist.org

A Kowloon, HK, based website containing indexes to the *Daozang* and other collections of Daoist texts, and extensive bibliographies on Daoism and Chinese religion.

(3) Daojiao wenhua ziliao ku 道教文化資料庫 (Fung Ying Seen Koon 蓬瀛仙館, Hong Kong)

www.taoism.org.hk

An online encyclopedia of Daoism, partially also translated into English.

(4) Daojiao xueshu zixun gangzhan 道教學術資訊綱站 (Minglong gong 明龍宮, Taipei) www.ctcwri.idv.tw

An online version of the *Daojiao dacidian* 道教大辭典 (Great dictionary of Daoism; Huaxia chubanshe, 1994), and PDF files with several collections of Daoist texts.

(5) Jindan dadao 金丹大道

www.dandao.org

Digital texts on neidan 內丹 and Quanzhen 全真 Daoism.

(6) Laozi wenhua gang 老子文化冈 (Luyi Laozi guli wenhua yanjiuhui 鹿邑老子故里文化研究会)

www.laozi.net

Digital texts and other materials related to Laozi and Daoism.

(7) Daojiao Quanzhen pai gangye 道教全真派綱頁

members.tripod.com/realdao

Digital texts, mainly related to Quanzhen 全真 Daoism.

(8) Zhongguo chuantong wenhua gang 中國傳統文化鋼 (Enwei Group)

www.enweiculture.com

A Chengdu, Sichuan, based website containing abstracts of texts in the *Daozang*, and digital texts.

(9) Zhongguo daojiao 中國道教 (Zhongguo Daojiao xiehui 中國道教協會)

www.chinataoism.org

Online articles from the journal Zhongguo daojiao 中國道教.

2. Websites in Japanese

(1) Nippon Dôkyô Gakkai 日本道教学会

wwwsoc.nii.ac.jp/dokyo

Indexes to recent issues of the journal *Tôhô shûkyô* 東方宗教, and information on the Nippon Dôkyô Gakkai.

(2) Tôyôgaku kenkyûsha no tame no dennô shihô 東洋學研究者のための電腦四寶 (Mugitani Kunio)

www.zinbun.kyoto-u.ac.jp/~dokisha

Digital texts, a searchable index to about two dozen Daoist sources, and links to relevant resources.

3. Websites in English

(1) Center for Daoist Studies (Louis Komjathy)

www.daoistcenter.org

A bibliography of Daoist texts translated into Western languages.

(2) Daoist Studies (James Miller)

www.daoiststudies.org

A bibliographic database (largely based on the bibliographies in L. Kohn, ed., *Daoism Handbook*), notes on conferences concerning Daoism, and book reviews. According to recent information, this website plans to give online access to PDF files of the entire *Daozang* based on the Beijing, 1988 reprint. These seem to be the same files posted at www.ctcwri.idv.tw, and available from that website on a CD-ROM for sale.

(3) Society for the Study of Chinese Religions

www.indiana.edu/~sscr

Indexes to English-language journals concerning Daoism and Chinese religion, and information on the SSCR.

(4) Taoist Studies in the World Wide Web (Fabrizio Pregadio)

venus.unive.it/pregadio

Digital texts and other materials on waidan 外丹 and neidan 內丹.