Publications and Research   York College

2016

The Issues of Chronology in Cataloging Chinese Archaeological Reports and Related Materials: An Investigation of the Cultural Bias in the Library of Congress Classification and Subject Headings

Junli Diao
CUNY York College

Haiyun Cao
York University

The Issues of Chronology in Cataloging Chinese Archaeological Reports and Related Materials: An Investigation of the Cultural Bias in the Library of Congress Classification and Subject Headings

INTRODUCTION

The 2008 Beijing Olympic Games Opening Ceremony drew the world's attention not only to China's rapid economic growth and prosperity, but also to its past through the avatar-like media presentation of China's cultural icons: prehistoric potteries, Chinese characters, the Four Great Inventions, calligraphy, Beijing Opera opera, and the Silk Road. These antiquities, inventions, and cultural concepts illustrated the evolution of Chinese civilization or witnessed its communication and connection with other cultures in ancient time. China's past increasingly attracts the international interests of contemporary research institutes of archaeology and history. ISAW (The Institute for the Study of the Ancient World) at New York University is one of these academic and research organizations that emerged in the past few years. The archaeology of China has become a part of ISAW research focus; to support this research field, the ISAW Library designated Chinese archaeological reports and related materials[1] as one of its core collections. Therefore, its recent and abundant acquisition of Chinese archaeological reports and related materials gives the ISAW cataloger a great opportunity to gain carry out an in-depth, although possibly not exhaustive, probe into the art of cataloging them.

This article presents a preliminary discussion about one significant aspect of cataloging Chinese archaeological reports and related materials: the issues of Chinese chronology in the LCC (Library of Congress Classification) and the LCSH (Library of Congress Subject Headings Manual) Manual H1225. This article examines the challenge delivered to catalogers by the clash between the specificity and uniqueness of Chinese chronology and the cultural bias and ambiguity manifested in the application of the LCC and the LCSH Subject Headings Manual H1225. Recommended solutions subject to discussion and criticism, will be offered, which demonstrates how catalogers' subjectivity and creativity should be utilized on the basis of the sound understanding of cataloging principals and rules with the consideration of users' needs and expectations.

Before discussing issues of chronology in cataloging Chinese archaeological reports and related materials, it is worthwhile to have a brief review of the history of Chinese archaeology and the development of archaeological reports so as to give readers who know less about these specific materials some background and cultural information.

AN OVERVIEW OF CHINESE ARCHAEOLOGY AND ARCHAEOLOGICAL REPORTS

Archaeology in China

China has a long history, while Chinese archaeology, as a knowledge discipline, is relatively young. Kwang-Chih Chang divided the evolution of Chinese archaeology into three stages: traditional antiquarianism (1092-1920); introduction of modern archaeology (1920-1949), and Chinese archaeology after 1949.[2] Traditional antiquarianism is connected with archaeology, but it focuses on collecting and classifying ancient Chinese artifacts, such as bronze, jade, and stone objects decorated with artistic designs or inscriptions.

Modern Chinese archaeology began with two significant excavations: the prehistoric site Yangshao Cun 仰韶村 by Swedish geologist and archaeologist Johan Gunnar Andersson (1874-1960) and the historic site Yinxu 殷墟 by Li Ji 李济 (1895-1979), the founding father of modern Chinese archaeology. Andersson introduced modern archaeological techniques into China, such as data collecting and analyzing, stratigraphy and index. He also presented native Chinese scholars with a fresh and profoundly significant perspective of looking at Chinese civilization in a global setting. Li graduated from Harvard University with a Ph.D. in Anthropology and directed the excavation of Yinxu from 1928 to 1937, which was the first archaeological site excavated by native researchers. The excavation was stopped by the World War II but it ~~began the fostering of~~ inspired native Chinese scholars to study their own history and civilization from empirical evidence rather than solely relying on the interpretation and re-interpretation of Chinese classic texts. Quite a number of young archaeologists who participated in this excavation later grew into prominent figures in modern Chinese archaeology.

Chinese archaeology after 1949 entered a new era in which "archaeology has become a state-directed enterprise, bureaucratically, financially, and ideologically."[3] At the national level, the IA CASS (Institute of Archaeology, Chinese Academy of Social Sciences) was established in 1950, supervising and managing the excavation of major archaeological sites. The IA CASS also conducts joint-excavation projects with archaeologists from Japan, South Korea, Sweden, Israel, Germany, the United States and other countries around the world. At the provincial level, each province has its archaeology institute responsible for excavations and many local counties have built their own archaeology working teams. Since the 1990s, the fast economic growth turned China into a massive construction field and the construction projects, such as the Three Gorges Dam, are always accompanied with rescuing historic sites and preservation type of archaeological excavations. Archaeology research institutes at the provincial and local levels and archaeology departments in universities also undertake the responsibility of excavations.

Chinese Archaeological Reports

The heritage of traditional antiquarianism inherited to modern Chinese archaeology is the terminologies used to categorize and describe those bronze and stone objects. In the history of Chinese libraries, traditional antiquarianism contributed quite a number of beautifully illustrated woodblock printed Chinese rare books. For instance, *Kao gu tu* 考古图, probably published in

the Ming dynasty (1368-1644), is the earliest catalog of inscribed bronze and jade objects in China. Modern archaeologists before 1937 compiled the excavation results of Yinxu into a series titled *Zhongguo kao gu bao gao ji* 中國考古報告集 (Chinese archaeological report series).

The standardized format of Chinese archaeological reports came into being during this post-1949 period when Chinese archaeology became a flourishing academic discipline. A formal archaeological report usually begins with an introduction which describes the geographical location, history and physical environment of the site, methodology and procedure of previous and/or current excavation, and team(s) and stakeholder(s). The main body has the systematic data presentations which require an enormous detail-oriented and time-consuming effort from archaeologists and researchers. That is why, before the formal report is completed, sometimes a brief report is produced and published as a placeholder to keep archaeologists and researchers informed with the most recent and crucial information of the site. The conclusion usually defines cultural stratigraphy, periodization of the cultural remains or tombs, and identification of the owner(s) and other related issues.

Archaeological reports are formal publications that describe the excavation results in an objective, scientific, detailed, and comprehensive manner. Some archaeological reports do have a focus on the site's distinct features, such as tomb architecture, brick reliefs, or mural paintings. Chinese archaeological reports in the 1950s and 1960s tended to include an added title page and an abstract in either Russian or English. Contemporary Chinese archaeological reports tend to include the added title page and abstract in English or they might be published in different languages if the excavation is done through an international joint effort.

ISSUES OF CHINESE CHRONOLOGY IN THE LCC

Eurocentric Classification

Archaeological reports are neither news reports of archaeological discoveries which are intended to grab the attention of the general public through instant media coverage, nor travel guides with practical information about interesting places and historic sites to facilitate visitors or tourists sightseeing and exploration. Archaeological reports fill gaps in the serious and formal publications that study the past or the evolution of humans through investigating archaeological materials and data. The English word "archaeology" is originally derived from two Greek words "archaios," which means "ancient or old" and "logos," meaning "discourse."[4] As a knowledge discipline, archaeology is the scientific study of how we learn about our past by investigating materials and data left by human beings, which means that archaeology crosses the knowledge discipline of both anthropology and history. This complexity is reflected in how archaeology is treated in the LCC. For instance, prehistoric Chinese archaeological reports are classified under Anthropology GN700-875 and historic Chinese archaeological reports under History DS781-797.

Prehistoric archaeology in the LCC has three successive categories: Stone Age, Bronze Age, and Iron Age, which is a faithful reflection of the Three Age System proposed by Christian Jurgensen Thomsen (1788-1865), the first curator of the National Museum of Denmark. This system was initially designed to classify the museum's prehistoric collections and later was verified and strengthened by the excavations conducted in Europe and surrounding areas, as well

as in the stratigraphy studies by European archaeologists. As a relative chronology based on the development of humanity's material culture, this Eurocentric system overlooks the cultural complexity and sophistication of other continents, such as Africa and Asia. For instance, The Bronze Age does not exist in the sub-Saharan Africa area.[5] In the case of China, numerous excavations of Neolithic jade products show that the jade industry in the early state formation period of China demonstrated "an exponential increase in social, cultural, and economic complexity,"[6] and played a significant role in "the construction of a complex sociopolitical hierarchy."[7] Therefore, a number of Chinese archaeologists and historians argued that a Jade Age in between late Neolithic and Bronze Age can be a better relative chronology fitting in China's situation.[8]

Prehistoric vs. Historic

Bronze Age is a tricky or "ubiquitous"[9] term. Because of its highly frequent occurrence in social media coverage nowadays, it becomes an expression too familiar to the general public, which makes it run the risk of being misunderstood or understood in a fairly superficial way. Things belonging to the Bronze Age cannot be automatically labeled as prehistoric. Conventionally, it is the invention of writing that marks the dividing line between the prehistoric and historic periods of human beings. Before the appearance of writing human beings were not able to record the history they created, hence the name prehistoric; with the invention of writing, human beings developed the capability of documenting concepts and recording events.

When catalogers have a Chinese archaeological report in hand, the first crucially important thing to classify this work is to determine which period it will fall into: prehistoric or historic period. To answer this question, a cataloger has to decide whether this work is about a particular culture that existed before the invention of Chinese writing or this is a work about a site that existed after the occurrence of Chinese written records. The earliest form of Chinese writing is the oracle bone inscriptions appearing in the late Shang dynasty (ca.1200-1245BCE), which marks the beginning of Chinese history with the concrete support of archaeological discoveries.[10] If it is evaluated by using the Eurocentric Three Age System in the LCC, the abundant use of bronzes will classify the Shang dynasty into the Bronze Age. However, the advent of Chinese writing qualifies the Shang dynasty as a historic period or at least "protohistoric" due to its fragmentary written records. Moreover, though the Shang dynasty is the first Chinese dynasty proven by the existing archaeological evidences, it was actually documented as the second historical dynasty based on the description in the Chinese classic chronological book of history *Shi Ji* 史记(The Records of Grand Historian). Therefore, classifying the archaeological reports of the Shang dynasty into "Anthropology, Prehistoric Archaeology, Bronze Age, Asia GN778.3.A5-Z by special cultures, peoples, etc." or "Asia GN778.32.A-Z by region or country" would not be a good idea. The ambiguity or imprecision on the classification schedule would make catalogers feel like fitting a pair of ten-size feet into a pair of eight-size shoes.

Recommended Cataloging Solution

However, this article does not have any intent to encourage catalogers to modify the current classification schedule or insert a new class number as the designation for "Jade Age" in Chinese chronology. Nor does it encourage that all publications on the bronzes should be entered into the category of Anthropology, Bronze Age. This article does take advantage of the opportunity here to invite catalogers' attention to the limitations of the LCC schedule generated by existing cultural bias, which may not necessarily be found on Chinese language materials only. As Jack Goody pointed out in his book *The Theft of History*, the construction of world past is conceptualized and presented according to what happened in Europe and then imposed upon the rest of the world.[11] When this conceptual model of Western view about the evolution of world history is adopted to classify world knowledge, the cultural bias became unavoidable and obvious as more and more non-Western materials enter into Western libraries. With this bias or limitation keeping in mind while handling archaeological materials, catalogers can make up for it through the execution of their own sensitivity and creativity and choose wise options accordingly.

A solution recommended as an alternative is to apply separate treatment to archaeological reports and related materials about the Bronze China based on the cultural background of the author(s). Specifically speaking, if an archaeological report or related materials about the Bronze China is written in English by a Western author, the reasonable option is to classify it under "Anthropology, Prehistoric Archaeology, Bronze Age, Asia GN778.32 A-Z by region or country." For instance, the title of *Archaeology of the Chinese Bronze Age: from Erlitou to Anyang* (See example 1) by American archaeologist Roderick Campbell is entered in the class GN778.32.C5. Communication with the author also suggested that such classification perfectly fits his own expectation where his book should be classified on the stacks. Archaeological reports and related works on Bronze China by native Chinese authors are classified in local history of China "DS781-797" with the specific and applicable class number representing individual province, city and town. For instance, *Sichuan Pendi de qing tong shi dai* 四川盆地的青铜时代 (See example 2) means "Sichuan Basin's bronze age" in English. As is suggested by this title, this is an archaeological publication by Chinese archaeologist that investigates the Bronze Age remains in Sichuan Basin in China. This work is classified as DS793.S8 "History of China, Local history and description, by province Sichuan" and the archaeological sites mentioned in this work are mostly equivalent to the Shang dynasty in the historic period. Therefore, separate treatment of archaeological reports and related works on Bronze China will be marked by cultural identities of authors, which facilitates either casual stacks browsing or online searching by users of different cultural background.

ISSUES OF CHINESE CHROLOLOGY IN THE LC~~SH~~ SUBJECT HEADINGS MANUAL H1225

If Historic, Should Chinese Dynasties Be Recorded in the Subject Headings?

In the LCC, DS781-797 are the class numbers designated for materials on the history of China. The class numbers are first alphabetically arranged by Chinese provinces and regions and then sub-arranged by cities, towns, and prefectures under individual province or region. If the Chinese

archaeological reports are precisely classified under individual given class numbers, is it necessary for catalogers to assign the chronological heading to specify the dynastic period that the site falls in? To answer this question, first let us will have a look at the LCSH Subject Headings Manual H1225[12] for archaeological works and then compare this manual with title patterns of Chinese archaeological reports.

To achieve the uniform and consistent treatment of archaeological works, including archaeological reports, what subject headings should be given and how they should be formatted are described in the LCSH Subject Headings Manual H1225. The LCSH Manual H1225 lists five pattern headings for catalogers to consider and follow when they are cataloging archaeological reports. These five pattern headings are:

651 0 Site name.
651 0 Place name $x Antiquities.
650 0 Antiquities, Prehistoric $z Place name.
650 0 Name of people, prehistoric culture or period, etc.
650 0 Excavations (Archaeology) $z Place name.

The LCSH Subject Headings Manual H1225 also states that an additional subject heading should be added if a site is related to a particular subject, such as pottery, burial sites, or agriculture. This manual mainly provides general guidelines with certain flexibility and grey area, which leaves much room for catalogers to exercise their judgment based on the specific archaeological report in hand. To further understand this manual, an investigation of the supplied pattern headings by using faceted approach has been conducted. Facets embedded in these headings include:

1. What (Antiquities, people, prehistoric culture, and archaeological excavations)
2. Where (Site name and place name)
3. When (Period)

From the list above, it is apparent to see that these three facets answer the questions of what the archaeological site is about, where it is located, and what time frame/period it covers. The combination of these facets in subject headings gives users a holistic representation of the site from three different perspectives: nature, place, and time. It has been observed in OCLC bibliographic records that Chinese prehistoric archaeological reports bear the heading of Paleolithic/Neolithic period or specific prehistoric culture in China, such as Yangshao culture, Longshan culture or Xiajiadian culture, which conforms very well to the instruction of the LCSH Subject Headings Manual H1225. However, for Chinese archaeological reports in the historic time, it is observed that OCLC bibliographic records, for instance OCLC #192078713, tend not to include the subject heading that can express the "When" facet. It is unnecessary to statistically calculate and analyze the total number here; however, a substantial number of bibliographic records in OCLC do not have the specific dynastic period as part of an access point to define and specify the chronological time frame that the archaeological site reflects.

What Do the Titles of Chinese Archaeological Reports Tell?

To further decide whether the "When" is a significant facet or whether this facet should be reflected in the subject headings in bibliographic records, it is better to have a thorough investigation of the title characteristics of Chinese archaeological reports. The reason is twofold. First, the title of a publication is considered as one of the major access points in its bibliographic record; second, compared with summary/abstract, table of contents, and introduction/preface/forward, title proper comes to the fore when a cataloger needs to conduct subject analysis to decide the publication's aboutness.

338 Chinese archaeological reports are collected and analyzed. It is discovered that titles of Chinese archaeological reports tend to have distinctive patterns to follow, which could be constructed by Chinese archaeologists on purpose. These patterns are summarized and categorized in the Table 1 based on statistic calculations.

Among the 338 Chinese archaeological reports analyzed, it is strikingly noticeable that 169 have the pattern of "Geographic Name + Dynasty + Site" (See example 3) and 21 with "Dynasty + Personal Name + Site" (See example 4). That is to say, 190 of the reports, equal to 56.2% of the all, bear the name of dynasty in their titles. Titles that have a statement of specific kingdom are considered as this category, too. The remainder of the 148 don't have the name of the dynasty or kingdom in their titles; however, usually such information can be found in table of content or in the chapter of summary/conclusion. A further investigation of archaeological reports shows that the name of the dynasty is not included in the title when the report covers multiple dynastic periods. Such dynastic information is usually explicitly summarized in the chapter of conclusion (See example 5). While the report is a compilation of multiple sites excavated in one province or region with a span of several dynasties, dynastic information will not be included in the title, either.

The titles in Chinese archaeological reports given by archaeologists are concise and specific, whereas fairly informative. They contain essential faceted information: geographic names, dynasty/kingdom, and subject, which are real keywords used to represent the content of archaeological reports. Chinese archaeology plays a powerful role in the shaping the direction of Chinese historiography.[13] The descriptive data in Chinese archaeological reports is most likely used to determine the boundaries of "absolute stages or levels of social development."[14] Rather than anthropology, Chinese archaeology is more intimately connected with the history of China, which has a systematic recording of successive dynasties. Therefore, there is no reason to leave out "When" facet in the subject headings in Chinese archaeological reports, which could offer users an additional access point that corresponds to the dynastic information displayed in the titles.

Recommended Solution for Historic Archaeological Reports

In the LCSH Subject Headings Manual H1225, the only one pattern heading that suggests chronological information to users is "Name of people, prehistoric culture or period, etc."[15] The problem with this heading pattern is that it doesn't specify whether "period" belongs to a prehistoric or historic period. On the contrary, "man" and "culture" are the common vocabularies used in the LCSH to define Stone Age peoples and cultures in China, for instance "Peking man" and "Yangshao culture." It may not be absolutely true but perfectly possible that the information

suggested by the vocabularies in this pattern heading could misguide catalogers that "Name of people, prehistoric culture or period, etc." is the pattern heading designated for prehistoric archaeological materials only. That could explain the reason why only a few bibliographic records of Chinese archaeological reports on historic sites in OCLC bear the specific dynasty as part of the subject heading while a big number of records don't include such dynastic information. The disparity in numbers does suggest catalogers' hesitation in determining whether chronological information should be included or not in subject headings to explicitly express the content.

To sum up, the LC~~SH~~ Subject Headings Manual H1225 was created on the basis how Western archaeological reports should be represented in the construction and assignment of subject headings, which run the risk of overlooking the specificity and uniqueness of archaeological reports in other cultures around the world. The LC~~SH~~ Subject Headings Manual H1225 might need an update with much clearer and more specific instruction. Without such instruction, catalogers demonstrate different understandings and interpretations of this manual, which leads to arbitrary and inconsistent cataloging practice. In the case of cataloging Chinese archaeological reports, to further concrete the interpretation of the ~~LCSH~~ LC Subject Headings Manual H1225 and eliminate catalogers' hesitation, a suggested pattern heading for Chinese archaeological reports is proposed, which covers historic and dynastic period, as shown below:

651 0 Site name.
651 0 Place name $x Antiquities.
651 0 China $x History $y Dynastic period(s), starting year-ending year.
650 0 Excavations (Archaeology) $z Place name.

Chinese dynasties, for instance, "Song dynasty, 960-1279," are chronological subdivisions and cannot be used independently as the main subject headings in constructing LCSH pattern headings. Therefore, this pattern has an insertion of the subject heading string "China $x History $y Dynastic period(s), starting year-ending year" as an alternative interpretation of "Name of people, prehistoric culture or period, etc." in the LC~~SH~~ Subject Headings Manual H1225. On the one hand, this heading string corresponds to the fact that archaeology in China is usually seen as the scientific means to discover and enrich the history of China. On the other hand, the issue of chronology or periodization related to a particular site is not only an important conclusion by Chinese archaeologists and researchers while writing archaeological reports, but also a crucially important factor that users will take advantage of in retrieving information either through Online Public Access Catalogs (OPACs) or by browsing stacks.

Up to now, this article has discussed the issues of chronology in cataloging Chinese archaeological reports and brought these issues forth to a better understanding of the complexity of Chinese archaeology and history, the cultural bias of the LCC and ambiguity of the LC~~SH~~ Subject Headings Manual H1225. The significance of the chronological issue will be further elaborated from three different perspectives in library systems: FAST headings, local library users' need, and next-generation catalogs.

ISSUES OF CHINESE CHRONOLOGY: WHY DOES IT MATTER?

Chinese Chronology in FAST Headings

As a collaborative project of OCLC Research and the Library of Congress, FAST (Faceted Application of Subject Terminology) is constructed on the foundation of the LCSH terminology; however, embodies a simpler yet more friendly syntax to both catalogers and users in terms of subject application.[16] OCLC has finished the project of building the whole FAST thesaurus. ~~started to implement the project of converting the existing subject headings into FAST headings. Once the LC subject headings for Chinese archaeological reports are converted into FAST headings,~~ If the FAST headings are added in subject headings to describe the characteristics Chinese archaeological reports, they would look like what is displayed in Table 2, based on our previous discussion.

Generally speaking, after being converted into FAST headings, chronological headings in the LCSH are presented in a specific numeric date or a date range that reflects the exact temporal coverage for the resource.[17] For instance, "19th century" in the LCSH will be expressed as "1800-1899" in FAST. In the view of FAST initiative, chronological headings that have an expression of topical components will be treated as topical headings,[18] for instance Bronze Age and Neolithic Period, and the corresponding authority files will be established in FAST as topical.

China's individual dynasties have both a specific time span as chronology and a distinctive characteristic as historic topic, which are commonly accepted by academia and general public. Accordingly they will be entered as topical headings in FAST. For instance, "Song dynasty, 960-1279" as a chronological subdivision in the LCSH will become a topical heading "Song dynasty (China)". The date range for individual dynasty drops out in the authorized heading. Those dynasties that have different Chinese characters but share the identical Romanization require a date range as the qualifier for the purpose of specification and differentiation, for instance "Jin Dynasty (China : 265-419)" and "Jin Dynasty (China : 1115-1234)" for "晋朝 (China : 265-419)" and "金朝 (China : 1115-1234)" respectively.

FAST enables assigning subject headings by nonprofessional catalogers an easy task. All they need to do is to select appropriate headings based on the resource in hand and FAST authority files. There is no necessity of investing time and effort to comprehend the complex rules and manuals so as to coordinate appropriate headings. Selecting chronology for archaeological materials becomes a straightforward issue. What is seen in the archaeological reports is what should be transcribed in the corresponding bibliographic records. When FAST terminology is applied to an institutional database that specifically hosts the digitized documents, such as archaeological reports or related materials, simplicity of single-concept descriptors and flexibility of heading construction make it an instrument ~~best~~ better fitting online environment, which can be fully taken advantage of by both information professionals and library users.[19] Since FAST headings do not require pre-coordination by well-trained experts, generating FAST headings in an automatic approach might also become possible in digitization projects or online environment if archaeological reports and related materials share the same chronological period.

.

Chinese Chronology and Local Library Users' Needs

Gretchen L. Hoffman's case study suggested that catalogers have the limited capability of creating user-centered bibliographic records because they neither have a full and specific understanding of whom their users are, nor what their needs will be.[20] Hoffman suggested that cataloging should be focused on defining users' domain since individual users can not be identified.[21] This argument could be fairly true when cataloging is taking place in large-scale university or research libraries where users and catalogers are segregated by the distance between walls and buildings. Catalogers and users may never know each other, nor have the opportunity to discuss their needs. However, if cataloging is done inside of a research institute or a historical society where catalogers are working intimately with faculty, students, and research scholars under the same roof, they will know exactly not only whom their users are, but also what they really expect from the catalogers' work through instant and convenient communications.[22]

Under such circumstances, cataloging Chinese archaeology reports means catalogers should arrange them based on both the principals of cataloging standards and expectations of archaeologists and historians. By so doing, cataloging can also turn into a process of building and strengthening the mutual understanding and trust between users and catalogers. Users will know what will be displayed in the bibliographic records and how their materials will be classified on the shelves; catalogers will know what their users expect and they should try to fulfill the users' searching needs by providing an enriched description of the resources or by assigning appropriate subject headings and classification numbers to materials alike. The intimate working environment gives both users and catalogers an opportunity to gain a better understanding to each other's work. Users may find themselves in a situation that they do not need to find an archaeological report through searching library's catalog, since physical browsing built on the foundation of mutual understanding and trust will probably direct them to the right spot where similar archaeological reports are systematically classified according to chronological sequences or geographical names.

Chinese Chronology in Next-Generation Catalogs

The other aspect that reflects the ~~significant~~ significance of chronology in Chinese archaeological reports is next-generation catalogs. The migration from traditional catalogs to next-generation catalogs is driven not only by the advance of information technology, but also an updated philosophy in the treatment of library users from passive borrowers to active explorers and contributors. Traditional catalogs are strongly influenced by the belief that libraries assist users in finding a book through the known author, title, or subject and show them what the library has collected. The next-generation catalogs reverse the procedure and do not necessarily assume that library users have already had a known item in their minds. On the contrary, they offer users a platform where they have more freedom and control to discover, select, obtain, and even comment on library resources.

Faceted navigation, as one of the distinctive features of the next-generation catalogs, plays an incredible role in giving users more freedom of browsing and refining the searching results. Next-generation catalogs of large-scale and comprehensive academic or research libraries run the risk of being accompanied with a cluttered interface, abundance of results and ambiguity of facets, which may inevitably cause users exhaustion and frustration. It is a risk to generalize this

point of view; however, the catalogers' personal observations suggest in the small-scale but forward-thinking and innovative research institute or historical society where next-generation catalog is operating independently, such drawbacks may not possibly exist. The simple and neat interface and easy-to-use faceted navigation will offer users a refreshed way of retrieving information in library setting. In subject facet, either chronological terms as independent headings or as part of the whole heading strings will enable users to experience the intuitiveness of categorization and increase of searching precision.

CONCLUSION

The increasing number of Chinese language materials in American libraries brings not only changes to the landscape of library collection, but also challenges to library standards to classify and catalog them. Such library standards have been long and deeply rooted in the Western civilization and developed on the Western model, based on which the world knowledge is perceived and organized. When the Eurocentric LCC and LCSH Subject Headings Manual H1225 are applied to classify and describe Chinese archaeological reports and related materials, their limitation, such as cultural bias and ambiguity, become quite apparent. Catalogers equipped with strong service mentality and creativity will compensate such limitations through the application of their sound judgment and background knowledge.

With the advance of information technology, library systems are growing larger and more intuitive and sophisticated. Enhancing the discoverability and accessibility of library materials, including Chinese archaeological reports and related materials, in next-generation catalogs may be still intimately correlated with the quality of bibliographic records, which usually contain accurate and specific subject headings that are carefully crafted by catalogers. Tina Gross, Arlene G. Taylor & Daniel N. Joudrey's research in 2015 demonstrated that "subject headings in English are, indeed, helpful in locating materials in other languages"[23] and "controlled vocabulary continues to be an essential tool for assisting users to find the resources that they seek."[24] To sum up, the relationship between the discoverability of library resources and the quality of bibliographic records can be compared to that between a horse and its chariot. Some times what matters is not only how hard the horse runs, but also how good the chariot's quality is. Bibliographic records of Chinese archaeological reports and related materials are part of that chariot.

Notes:

---

[1] Archaeological reports refer to the formal publications that present the results of field excavations by archaeologists. Related materials in this article are defined as the publications that are not archaeological reports, but archaeological works with an intensive usage of archaeological reports for interpretive purpose.
[2] Kwang-Chih, Chang, "Archaeology and Chinese historiography," *World Archaeology* 13, no. 2 (1981), 156-169.
[3] Ibid., 166.

[4] *Concise English Dictionary*, new ed. (Ware: Wordsworth Editions Ltd., 2007), 44.

[5] David W. Phillipson, *African Archaeology* (Cambridge: Cambridge University Press, 1993), 158-160.

[6] Paola Demattè, "The Chinese jade age: between antiquarianism and archaeology," *Journal of Social Archaeology* 6, no. 2 (2006), 220.

[7] Li Liu, "The Products of minds as well as of hands: production of prestige goods in the Neolithic and early state periods of China," *Asian Perspectives* 42, no. 1 (2003), 29.

[8] Qu Shi 曲石, "Zhongguo yu qi shi dai ji she hui xing zhi de kao gu xue guan cha," 中国玉器时代及社会性质的考古学观察, *Jiang Han Kao Gu 江汉考古*, 1 (1992), 41-55 ; Zhang Guangzhi 张光直, "Tan cong ji qi zai Zhongguo gu shi shang de yi yi," 谈琮及其在中国古史上的意义, in *Wen Wu Yu Kao Guo Lun ji 文物与考古论集* (Beijing 北京: Wen wu chu ban she 文物出版社, 1986), 260.

[9] Roderick B. Campbell, *Archaeology of the Chinese Bronze Age: From Erlitou to Anyang* (Los Angeles: Cotsen Institute of Archaeology Press, 2014), 14.

[10] David N. Keightley, "The Shang: China's first historical dynasty," in *The Cambridge History of China: From the Origins to Civilization to 221 BC* (Cambridge: Cambridge University Press, 2008), 232.

[11] Jack Goody, *The Theft of History* (Cambridge: Cambridge University Press, 2006), 1.

[12] Archaeological Work H 1225, available at http://www.loc.gov/aba/publications/FreeSHM/H1225.pdf

[13] Kwang-Chih, Chang, "Archaeology and Chinese historiography," *World Archaeology* 13, no. 2 (1981), 156.

[14] John W. Olsen, "The practice of archaeology in China today," *Antiquity* 61, no. 232 (1987), 286.

[15] Archaeological Work H 1225, available at http://www.loc.gov/aba/publications/FreeSHM/H1225.pdf

[16] Edward T. O'Neill and Lois Mai Chan, "FAST (Faceted Application of Subject Terminology): a simplified LCSH-based vocabulary," available at http://archive.ifla.org/IV/ifla69/papers/010e-ONeill_Mai-Chan.pdf.

[17] Ibid.

[18] Edward T. O'Neill, Eric Childress, Rebecca Dean, Kerre Kammerer, Diane Vizine-Goetz, Lois Mai Chan and Lynn El-Hoshy, "FAST: faceted application of subject terminology," available at http://www.oclc.org/research/themes/data-science/fast.html

[19] Jeffrey Mixter and Eric R. Childress, "FAST (Faceted Application of Subject Terminology) users: summary and case studies," available at http://www.oclc.org/content/dam/research/publications/library/2013/2013-04.pdf

[20] Gretchen L. Hoffman, "Negotiating normative institutional pressures and maintaining legitimacy in a complex work environment: a multiple case study of three academic cataloging units," *Advances in Library Administration and Organization* 29 (2010), 243-292.

[21] Ibid.

[22] Junli, Diao and Mirtha A. Hernandez, "Transferring cataloging legacies into descriptive metadata creation in digital projects: catalogers' perspective," Journal of Library Metadata 14, no. 2 (2014), 141

[23] Tina Gross, Arlene G. Taylor and Daniel N. Joudrey, "Still a lot to lose: the role of controlled vocabulary in keyword searching," *Cataloging & Classification Quarterly* 53, no. 1 (2015), 31.

Table 1. Title patterns of Chinese archaeological reports

Title Pattern	Sample	Number	Percentage
Geographic Name + Dynasty + Site	满城汉墓	169	50%
Dynasty + Personal Name + Site	北齐徐显秀墓	21	6.2%
Geographic Name + Subject + Site	嘉峪关壁画墓发掘报告	14	4.1%
Geographic Name + Site	辉县孙村遗址	134	37%

Table 2. FAST headings for Chinese archaeological reports

	Prehistoric	Historic
Topical	Excavations (Archaeology)	Excavations (Archaeology)
Topical	Antiquities	Antiquities
Topical	Cultures	
Topical	Peoples	
Topical		History
Topical	Prehistoric periods	Historic dynasties
Geographical	Site name (China)	Site name (China)
Geographical	Place name	Place name