
Review of the Web sites for Chinese archaeology

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Abstract

The ability to sift through the ever-increasing amounts of information made available online to find quality and accurate data is becoming more important every day. Using credibility, accuracy, reasonableness, support, and uniqueness as criteria for Web site evaluation, the authors analyse five Web sites in an effort to determine the value and quality of the information. This article discusses the evaluation of Web sites dedicated to Chinese archaeology, and also points to six main characters of online resources for the subject area. In addition, questions are raised concerning the extent to which online Chinese archaeological resources can advance general awareness of the field and contribute to a growing body of knowledge. The authors hope this article sheds light on some of the challenges that need to be overcome when attempting to present this information to the global community.

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Introduction

Modern Chinese archaeology really began in 1921 when the Yangshao Village sites in Henan were first excavated by Johan G. Andersson, and the rest of the twentieth century brought extraordinary archaeological finds to light in China. Since liberation in 1949, under the auspices of the Chinese Government, archaeological excavation has flourished in every corner of the country as a way to uncover and protect China's rich cultural heritage. By contributing more of its unique archaeological findings and theories, and by participating in some of the more important comparative studies taking place internationally, China can take its place on the world stage of archaeological history.

With such a vast territory and an abundance of historical and cultural legacies, China witnesses new discoveries of archaeological ruins on a regular basis. It is therefore no easy task for archaeologists to keep abreast of the latest developments, but with the increasing popularity and proliferation of the Internet, archaeologists can obtain up-to-date information from relevant Web sites and publish their latest research online for others to share. Web sites are simply a unique tool for disseminating and accessing information, and as long as caution is used, the Internet really can open up a wide world of knowledge that historically has never been available before on such a wide scale, or so easily. This article is a result of visiting and evaluating many Web sites in an effort to highlight some of the most informative and useful for archaeologists, students, teachers, librarians and other interested people.

Aims and objectives

In the light of the relatively few articles highlighting Chinese archaeological Web sites and the issues surrounding them, the purpose of the present paper is to discuss some of the features and characteristics found in these Web sites. Good Web sites can provide readers with the latest information and also help point out trends in the development of Chinese archaeology, but what constitutes a good Web site?

The Internet is a very important search tool for faculty members and students. Currently, many disciplines are dependent on the Internet for the

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dissemination of information. In fact, many professors and scholars use online resources to further their own research. However, simply using a search engine, such as Google or Yahoo, to look for information will not necessarily lead to quality resources, and is more likely to provide a large number of unordered results to sift through. Many useless items are also included in the results, and quality cannot be assured. Susan Herring conducted a survey on faculty satisfaction of the Internet as a research tool and pointed out that “although faculty members are generally satisfied with the Web, they question the accuracy and reliability of much Web-based information and the sufficiency of Web resources for research” (Herring, 2001, p. 213). It is therefore not surprising that users are concerned with how to evaluate the quality of online information and, in particular, how to establish what constitutes accuracy, reliability, and the overall usefulness of online resources (Harris, 1997; Alexander and Tate, 1999; Kovacs, 2000).

This study will examine the following issues:

- How can a user know if a Web site on Chinese archaeology contains reliable and accurate information?
- What should one look for in assessing the reliability and accuracy of online information relating to Chinese archaeology?
- How can quality be evaluated?
- What are the things to take into account when developing a Web site for Chinese archaeological information?

To summarise, this article presents an overview of criteria that can be used to establish quality for online Chinese archaeological information, and makes recommendations for promoting Chinese archaeology in a global context. In addition, an attempt was made to categorize the types of online information available for Chinese archaeology. By highlighting what is available and presenting some of the tools for assessing quality, the authors hope that this article can contribute to the general awareness of Chinese archaeological online resources and help to empower archaeological users.

Method

The authors conducted a number of Web searches to compile a list of sites on Chinese archaeology and placed them into six categories:

- (1) academic and museum Web sites;
- (2) Sino-foreign cooperation;
- (3) reading groups;
- (4) archaeological Web sites and tourism;

- (5) oracle-bone inscriptions; and
- (6) excavated documents.

The Web sites are listed in the Appendix. Many are in Chinese or a combination of Chinese and English. The five English sites which were the most comprehensive were then chosen from the list and were analysed for their quality. Analysis was done using Robert Harris’s CARS Checklist, a tool that offers some general criteria for evaluating the quality of Web sites. A summary of the CARS Checklist for research source evaluation follows:

- *Credibility*. Trustworthy source, author’s credentials, evidence of quality control, known or respected authority, organizational support.
- *Accuracy*. Up to date, factual, detailed, exact, comprehensive, audience and purpose reflect intentions of completeness and accuracy.
- *Reasonableness*. Fair, balanced, objective, reasoned, no conflict of interest, absence of fallacies or slanted tone.
- *Support*. Listed sources, contact information, available corroboration, claims supported, documentation supplied (Harris, 1997).

The above four criteria were used for evaluating Chinese archaeological Web sites. In addition, “uniqueness” was added as a qualifier, since Web sites specializing in archaeology can provide unique features and information, and by doing so offer access to rare data and attract repeat visitors.

Evaluating Chinese archaeological Web sites

At the time this article was written, using Google to search for Chinese archaeology resulted in 201,000 hits, while Yahoo provided 135,000 hits, numbers that users find overwhelming. Making use of such a large volume of material is difficult, especially when there are no overt pointers to quality information. Most people prefer quality to quantity, and need to learn the skills required for finding information of that kind. In this case, how could one sift through the Web sites and decide whether one is useful or not?

Evaluating the “Chinese Studies WWW Virtual Library: Archaeology” Web site (evaluation date 29 January 2004)

- *Credentials of author, or authority*. The level of authority and trustworthiness of this site is quite high because it is a part of the University of Melbourne’s East Asian Collection of virtual resources, created and maintained by university librarians.

- *Accuracy/currency.* The site is comprehensive, with links to information on Chinese architecture, archaeology, bibliographies, history, and arts, to name but a few. Created in 1996 and last updated late in 2003, this is a long-term project which is fairly up to date. Users should always check the dates on Web sites for currency of information.
- *Reasonableness.* The information found on this portal site is basically a collection of links, so conflicts of interest and slanted tones are not real concerns. The authors list a large number of links, which is a good indication that a wide range of information is available for interested users.
- *Support.* Names of the site creator and coordinator are listed, along with copyright information, and by following a few links it is easy to find e-mail addresses and phone numbers.
- *Uniqueness.* This Web site does not offer much that is unique beyond the inclusion of Chinese characters and occasional instructions for browsers.

Evaluating the “Ancient East Asia” Web site (evaluation date 30 January 2004)

- *Credentials of author, or authority.* The names of some of the contributors and editors are listed on the site. They are professors and scholars from international institutes.
- *Accuracy/currency.* Many of the Web site’s sections contain information including news, conference reports, and members’ items. The information provided is assured to be current because written dates are also available. A series of factual and detailed reports is available on the site, but this would not be a site to visit for the latest resources or findings on Chinese archaeology.
- *Reasonableness.* There is a wide range of information on the site and no apparent conflicts of interest or prejudices.
- *Support.* Contact information is supplied and many of the papers are written by experts with doctorate degrees. In-depth instructions are also provided for Web site submissions, although papers are not scrutinized by a selection of peers.
- *Uniqueness.* The site offers unique bibliographies.

Evaluating the “Silk Road Foundation” Web site (evaluation date 31 January 2004)

- *Credentials of author, or authority.* A number of prestigious academic institutions participate in the site, such as the Center for Chinese Studies at the University of Michigan and Dunhuang Research Academy. There is a high level of quality control.

- *Accuracy/currency.* It is not a good sign when the homepage contains information about an upcoming conference and a new bibliography, both dated 2001. However, the site does contain a great deal of excellent and detailed information, such as a Silk Road chronology and a bibliography on the Silk Road, contributed by experts in the field.
- *Reasonableness.* A wide range of quality information which seems objective.
- *Support.* Research is supported by extensive bibliographies, and many of the articles are from peer-reviewed journals. Contact information is also included.
- *Uniqueness.* Web site includes unique maps, timelines, comprehensive bibliographies with full citations, images, and research studies.

Evaluating the “Society for the Study of Early China” Web site (evaluation date 23 April 2004)

- *Credentials of author, or authority.* The Web site is for a non-profit, scholarly organization, with editors and members from prestigious academic institutions around the world. It is hosted by the University of Chicago.
- *Accuracy/currency.* Sections of the site were recently updated, such as the page on news and events. The publications section is a disappointment because the two journals that are published by the society list no articles dated later than 2002. It is unclear whether the journals are no longer being published or whether the latest issues were not uploaded to the site. Overall, this is a factual and comprehensive site with a lot of information.
- *Reasonableness.* The site seems to meet the objectives of the society by offering a number of interesting documents and links to outside resources, such as the *Scripta Sinica* (Chinese text retrieval system, Academia Sinica), and an *Etymological Dictionary of Common Chinese Characters*, in a fair and balanced tone.
- *Support.* Online documents are supported by bibliographies, and expert input is evidenced by the existence of academic journals published by the society. There is easy-to-find contact information, and the near 30-year legacy of the society to support its quality.
- *Uniqueness.* The site offers some unique additions, including a database of early Chinese manuscripts, and a bibliography of materials pertaining to the Kuo-tien and Shanghai Museum Manuscripts.

Evaluating the “Ancient Chinese Rice Archaeology Project” Web site (evaluation date 23 April 2004)

- *Credentials of author, or authority.* Authors and contributors are respected researchers in the

field, as well as interested professionals from around the world. The project is funded by the National Geographic Society, and managed by the Canadian Museum of Civilization. The site is hosted by the Sociology and Anthropology Department, Carleton University, Ottawa, Canada.

- *Accuracy/currency.* Some of the Web site's information appears up to date, and includes recently uploaded articles translated into English (e.g. "Traditional farming views in Chinese dietary culture" by Ming-an Zhai, and "Population pressure and growth of Chinese primitive agriculture" by Jiange Wang). There is no indication that the project is no longer funded, but the information seems incomplete.
- *Reasonableness.* The site contains information on the Chinese Rice Archaeological Project, and reports some of the findings in a fair and easy to understand manner.
- *Support.* Contact information is posted for the lead researcher, along with the project history and a preliminary report.
- *Uniqueness.* Unique photographs from excavation sites and traditional music files are added features.

Web sites created and maintained outside China are not necessarily able to obtain first-hand archaeological findings, so in most cases they contain different types of information, such as links to important secondary data. Undoubtedly, these Web sites offer information on Chinese archaeology; however, the most informative sites, offering the latest primary data on Chinese archaeology, are written in Chinese. Excavated Chinese materials are not only essential to the study of Chinese civilization, but are also of great value to the study of world civilization, and should be shared. Presently, this is not happening since most up-to-date Chinese archaeological findings are not written in English.

For example, Chinese Studies WWW Virtual Library: Archaeology is an integrated English Web site and acts as a portal, providing links to other Web sites on Chinese archaeology. The site can serve as an introductory guide, but does not provide any research information, just links to it, and the sheer number of links can prove daunting to many users. Other disadvantages of such sites include not being able to offer the most up-to-date news and unique information, and the need to periodically check linked Web sites in order to make sure they are still available. On the other hand, the advantages of having such a site created and maintained by academic librarians are numerous: research methodologies were certainly used to compile the list; librarians use some of the

techniques they have historically used in evaluating print reference tools when they review Web sites for inclusion in such portals; and since these types of Web pages are considered reference tools, they are normally reviewed and updated quite regularly, and have a high degree of credibility and accuracy built in.

Silkroad Foundation, Ancient East Asia and Society for the Study of Early China are all Web sites of scholarly organizations of Chinese archaeology created by overseas scholars, and have a high degree of credibility and accuracy. Besides providing membership services, they are also interchange centres for Chinese archaeology. The members are mostly expert scholars and provide complete and excellent bibliographical databases. The online materials are richly inclusive and valuable as research information for scholars of Chinese archaeology, but all three sites have some dated sections and would not necessarily be good sites to visit for the latest resources or findings on Chinese archaeology. All three contain a wide range of quality information that meets the objectives of the participating societies, and are presented in a fair and balanced manner. Research materials are supported by documentation, extensive bibliographies, and expert opinion. Finally, unique features are prevalent and include specialized maps, noteworthy studies, and field images. The Ancient East Asia site has the Bibliography of Western-Language Works on East Asian Archaeology, while the Society for the Study of Early China site offers the Database of Early Chinese manuscripts, conference reports, research notes and bibliographies, including a Bibliography of Materials Pertaining to the Kuo-tien and Shanghai Museum Manuscripts; Ancient Chinese Civilization: Bibliography of Materials in Western Languages; and Early China (2001-2002) annual bibliographies.

Many Web sites, such as the Ancient Chinese Rice Archaeology Project site, have resources on Chinese archaeological research projects and are highly sophisticated, offering quality and valuable information. The Ancient Chinese Rice Archaeological Project site is a good example because it provides a downloadable database of articles for the research project and is based on field data collected by experts who were funded by prestigious organizations, such as the National Geographic Society. Some sections of the Ancient Chinese Rice Archaeology Project Web site appear to be out of date, and there is no indication that the project is still being funded.

For Web sites of this kind it may not be necessary to update the content on a regular basis, especially after the research is completed. The sites contain research results compiled by experts and

reviewed articles and, as a result, the contents can be considered very reliable. Regional Lifeways and Cultural Remains in the Northern Corridor: Chifeng International Collaborative Archaeological Research Project; The Origins and Formative Processes of the Chinese People; Lost Cities of the Silk Road: A Space-Age Search for Relics of Eurasia's Distant Past; Fossil Evidence for Human Evolution, and The World of Xuanzang and the Silk Road are other valuable sites in this genre. Uniqueness is often a hallmark of archaeological research project Web sites, since the information is highly specialized and referential.

As can be seen, it is not necessary for a Web site to receive full marks when evaluated with the CARS Checklist to be considered a valuable source for information. A site can still be highly regarded and contain quality information, just as long as users are critical when reviewing online sources and keep the evaluative criteria in mind. It is equally important for Web site creators to be conscious of the qualities that are expected in good Web sites: uploading a site and not updating it leaves a lot to be desired, since Web sites should be interactive and current. In terms of technical quality, decreasing the file sizes of images and multimedia features is also important. Visitors to Web sites expect to get the information they require quickly and easily, and do not want to spend a lot of time downloading files, especially if their usefulness is uncertain.

Categorization of Chinese archaeology Web sites

Academic and museum Web sites

According to the above evaluation criteria, Chinese archaeology Web sites established by Chinese official and academic institutes are highly regarded for their credibility and accuracy. The Web sites for Chinese Archaeology, Chinese Cultural Relics News Network and the Center for the Study of Chinese Archaeology, Peking University, were created and are supported by some of the most authoritative academic institutes and archaeological bureaus in China. The Institute of Archaeology, the Chinese Academy of Social Sciences, the State Administration of Cultural Heritage of the People's Republic of China and the Center for the Study of Chinese Archaeology, Peking University, are all official institutes at the forefront of coordinating and participating in archaeological excavations in China. These institutes possess the most direct access to excavation news and recent archaeological research. As a result, the information provided on

their Web sites is the most up to date, reliable, and even exclusive – or should be.

Museums are highly credible institutions and can also be good sources for information related to Chinese archaeology, especially for unique visual aids such as photographs. For example, the Web site of Sanxingdui Museum in Guanghan, Sichuan Province, has 15 high-resolution photographs that depict the most important pieces of bronze held by the museum. The bronzes are among some of the most striking archaeological finds in the field of Chinese archaeology. As with all museum Web sites, the content serves many purposes, and often lacks detailed explanations of particular artefacts, concentrating instead on giving an overview of the collections. Museum Web sites that have some resources for Chinese archaeology include: Beijing Cultural Museum Information Net; Jiangsu Province Cultural Museum Information Net; Brilliant Sanxingdui; Zhoukoudian Site Museum; Hemudu Site Museum; Xian Banpo Museum; and Liangzhu Culture Museum.

Sino-foreign Web sites

Chinese archaeological institutions generally lack sufficient funding and the technological facilities needed to conduct extensive archaeological surveys and excavations. Fortunately, overseas scholars and institutes interested in Chinese archaeology are eager to participate by allocating funds and providing technical assistance. Regional Lifeways and Cultural Remains in the Northern Corridor: Chifeng International Collaborative Archaeological Research Project and Yi-Luo River Survey are two Web sites that highlight joint excavation projects between China and foreign countries. Sino-foreign cooperation is an important trend in the current development of archaeology in China and, in part, facilitates work in the field. Interested scholars can stay current by reading the information provided by the Web sites of these cooperative projects, and can be assured of credibility, accuracy, and often timely data that are unique.

Simultaneously, studies of tangible archaeological finds collected for and housed in various museums and libraries are also made available on the Internet. The Web site for the International Dunhuang Project is the most remarkable collaborative venture in the world. Participating institutes include the Bibliothèque nationale de France in Paris, The British Library in London, The Institute of Oriental Studies in St Petersburg, the National Library of China in Beijing, The National Museum in New Delhi and the Staatsbibliothek in Berlin. Their common interest is The Silk Road. The Silk Road was a vital communication line in ancient times, connecting

China and the Middle East. During the Han and Tang Dynasties, merchants, monks and other travellers frequented the road, leaving many traces of themselves behind.

The twentieth century brought scholars from Britain, France, Russia and Japan to Xinjiang and Gansu provinces (Dunhuang is located in Gansu Province) to hunt for treasures linking back to that time. Cultural relics from The Silk Road taken out of China astonished world archaeological circles and opened a new chapter in the archaeology of The Silk Road. Silk Road discoveries include frescoes, literary documents, Buddhist relics and many more historical objects. Countries are cooperating because they have a large number of unique Silk Road relics and excavated documents which they removed from China in the beginning of the twentieth century and are now eager to pool resources and work to put the pieces together. This cooperative project utilizes the Internet to bring together photographs of cultural relics and scanned copies of important documents, which are presently scattered across the world. Through effective use of the Internet, scholars and libraries from many different countries are now able to share their resources and use primary sources to further Silk Road research.

Sino-foreign cooperation should be encouraged. Since research materials generated by Sino-foreign research projects are mostly written in English, these types of projects along with their Web sites are important channels for disseminating unique information, and for shedding some light globally on archaeological developments in China so that others can make use of the important research that is taking place in the country. In addition, given the number of possible sites in China that remain untouched because of financial constraints, Sino-foreign cooperative projects could prove critical in uncovering hidden secrets.

Reading group Web sites

Specialized Web sites are currently providing Chinese archaeologists and enthusiasts with the opportunity to participate in reading groups by drawing together like-minded scholars who want to discuss subjects of common interest. This form of study originated in Sinological circles in Japan, and sees teachers leading study groups that read and discuss particular documents. This approach has gradually influenced academic circles in Taiwan, where the formation of reading groups of professors and graduate and undergraduate students has become very popular and is a great resource of unique information (Fan, 2003). In Mainland China, however, this way of studying is still relatively unusual. The Origins and Formative Processes of the Chinese People, Daoist Materials

on Bamboo and Silk Slips versus Reading Group for New Slips Stored in Shanghai Museum, Reading Group for Newly-Unearthed Literature on Philosophical Writing, Reading Group on Ruoshui Bamboo Slips, Reading Group on "The Book of Songs" Excavated in Fuyang, and Research on Dunhuang Manuscripts, Niigata University are all Web sites of established reading groups in Taiwan and Japan which offer the opportunity to participate through the use of the Internet. In addition to publishing discussions, the Web sites also provide online versions of the documents as well as research achievements relating to the topics. This genre of Web sites incorporates elements of uniqueness, credibility, currency, support and reasonableness in a very distinct and sophisticated manner.

Archaeological and tourism Web sites

After 1949, cultural relics departments were established by the Chinese central government as well as by local governments. Archaeological work once again resumed and a large number of prehistoric ruins were discovered. Such discoveries brought along many new and important perspectives regarding the origin and development of ancient Chinese civilization (Chang, 1986). Web sites focusing on the prehistory of China contributed different and useful resources which are important to the current debates on the origins of civilization, agriculture and prehistoric culture in world archaeology.

Web sites on Chinese prehistoric archaeology are often museum Web sites, such as those mentioned previously in this article. More often than not, museums are built in places where large-scale archaeological excavations have been completed, and function as research, education and entertainment venues, as do their Web sites. The introduction of museums and excavation sites can also promote local tourism in a real way. In fact, tourist information is often included on museum Web sites in China.

The Yin-Shang Culture Web site was established by the municipal government of Anyang as a way of providing historical information about the area and to promote local tourism. Cultural relics obtained from archaeological excavations and subsequent academic research can bring about significant economic benefits. Profits from tourism generate funding for more archaeological excavation projects and create mutual benefits for both local government and archaeological organizations. Many other cities, including Gaoyou, Anshan, and Linyi have developed Web sites that spotlight archaeological excavations with the hope of

attracting tourists with money to spend and funding for more digs.

Web site users must be aware that although there is a degree of credibility and support associated with these types of sites, there is also a need for caution when information is presented, in part to attract tourist dollars from both inside and outside China. The information contained in such sites may not be totally accurate, and since government officials are not archaeological experts they cannot be expected to present the latest archaeological information to users. In addition, there is a real danger of Web sites becoming more commercialised and much less academic if more and more Web sites are developed and supported by local governments and tourism companies in China.

Oracle-bone inscriptions Web sites

A large number of Web sites are dedicated to the transmission of primary Chinese archaeological information in the form of oracle-bone inscriptions. The Yin-Shang dynasty has long been well documented in Chinese historical texts. Ever since the beginning of the excavation of the Ruins of Yin in Anyang, a large number of oracle-bone inscriptions have been unearthed in the Ruins of Yin and they are comparable to the descriptions of the Shang history in *Shi Ji* (Historical Records). Oracle-bone inscriptions are writings on tortoise shells. People in the Shang Dynasty were very superstitious, believing that everything in life was preordained by ancestors and God in Heaven. No matter what they did they would first ask advice from the gods and spirits by practising divination. Oracle-bone inscriptions were the records of their divination. As a reflection of the political, cultural, social and technological situations at the time, these records are the most important keys to understanding the history of the Shang Dynasty. Highly unique information can be expected on this type of Web site, supported by credible sources and accurate data that is presented in a fair and supportable manner. However, each site will need to be examined individually to guarantee quality. Some sites require users to pay to view the inscriptions. A degree of caution should be displayed in such cases.

Excavated documents Web sites

From the Warring States to the Wei-Jin Periods, the terms “bamboo and silk” or “bamboo slips” were generally used for writing materials such as bamboo, wood, cloth and silk. Bamboo and silk were not abandoned until papermaking became increasingly popular. In ancient times, people buried bamboo and silk slips with the dead. Ancient historians never had the chance to see the

bamboo and silk pieces because they remained buried. Bamboo and silk slips were widely discovered in Gansu, Hubei and Hunan provinces. Up to the present, an astonishing 200,000 pieces of bamboo and silk have been discovered in China, and even more are being found in newly discovered graves. New bamboo and silk pieces are regularly discovered, causing excitement in archaeological, historical and also philosophical circles.

Most of the documents excavated from Dunhuang are from the Tang Dynasty. Those excavated from other tombs mostly focus on philosophical history from the pre-Qin to the Han period. Modern scholars attach great importance to these new resources of excavated documents since they influence the direction of thought and contribute to an understanding of history. As a result, a large number of Web sites contain excavated bamboo and silk documents, providing retrieval and perusal services.

Books written on bamboo and silk slips were largely philosophical, military and official documents. As the most truthful and direct documentation of people in ancient times, they are precious primary materials for historical and philosophical studies. The discovery of bamboo and silk slips is of tremendous significance, not only providing materials for the study of ancient history and culture, but also helping to modify many age-old myths about China.

Research Group for Images and Artifacts, Institute of History and Philology, Academia Sinica Language; Resource Library for Wu Bamboo Slips during the Three Kingdoms at Zoumalou; Jia He Li Min Tian Jia; and CHANT: A Computerized Database of the Excavated Wood/Bamboo and Silk Scripts contain searchable electronic databases of excavated manuscripts. The first two provide a free service, while the third is fee-based. All are high-ranked Web sites because the authors responsible for the content are also experts in related fields and provide clear and detailed instructions, which is especially useful for researchers.

Archaeological electronic journal Web sites

Chinese archaeological Web sites often post research papers by scholars. Web sites of research societies and reading groups also publish the research achievements of their members. Electronic journals (e-journals) are also playing an increasingly important role in scholarly communication (Harter and Kim, 1996). *Internet Archaeology* is an established refereed e-journal from the Archaeology Department at York University, UK, and *Stanford Journal of Archaeology* is an online, peer-reviewed journal

from the Archaeology Center at Stanford University, California.

Professors and researchers alike are no longer using the library in traditional ways, and go to the library less and less, choosing to use Internet resources instead (Albanese and Oder, 2002). It would be very beneficial to scholars if tables of contents and abstracts for more Chinese and English journals on Chinese archaeology were made available online. E-journals may even be included in *Science Citation Index – Expanded* and *Social Science Citation Index*. However, to date, there are no peer-reviewed e-journals for Chinese archaeology.

There are many journals on Chinese archaeology, yet only a few can be accessed on the Internet. Scholars must resort to journal databases such as CNKI and Wanfang Data to access them, and even then not many journals on Chinese archaeology are retrievable. In addition, a search of the Internet for some of the most important journals on Chinese archaeology, such as *Cultural Relics of Central China*, *Chinese Archaeology* and *Archaeology and Cultural Relics*, reveals only tables of contents. In order to download the full texts readers are required to go to a service such as the Superstar Digital Library for their fee-charging services. Interested scholars should consider publishing more free-of-charge electronic journals and newsletters in order to increase opportunities for information exchange among scholars, researchers, students and other interested people.

Conclusion

The key for assuring and maintaining the confidence of readers is to offer as many of the elements of credibility, accuracy, reasonableness, and support as possible. In addition, Web sites should also be able to provide unique news and information. Online Chinese archaeological resources advance general awareness of the field and contribute to a growing body of knowledge in a global context. Newly found archaeological materials in China should be announced on Web sites as quickly as possible so as to inform readers both inside and outside China.

Another element which will add to the international standing of Chinese archaeological finds is to provide bilingual Web sites. In this way, non-Chinese speakers can also access Chinese archaeological information, which they can consult and possibly incorporate into their own research. Allocation of funds for translators would help to fill in the information gaps in a significant way. As well as textual information, photos and

pictures can also add vital information for readers about Chinese archaeology.

The authors believe that Web sites devoted to research projects are relatively more professional and of a higher quality. The participants in these research projects are mostly professors and experts who have spent a considerable amount of time in the field. Should more research projects be made available online? This would be most beneficial to the field of archaeology, and would not only increase the number of professional archaeological Web sites, but would also provide more opportunities for experts and interested readers to exchange information and experience more effectively.

Chinese archaeological Web sites often post research papers by scholars. Web sites of research societies and reading groups also publish the research achievements of their members. Professors and researchers alike are no longer using libraries in traditional ways, and go to the library less and less, choosing to use Internet resources instead (Albanese and Oder, 2002). Electronic journals are also playing an increasingly important role in scholarly communication (Harter and Kim, 1996). *Internet Archaeology* is an established refereed electronic journal from the Archaeology Department at York University, UK, and *Stanford Journal of Archaeology* is an online, peer-reviewed journal from the Archaeology Center at Stanford University, California. However, to date, there are no peer-reviewed electronic journals for Chinese archaeology. It would be beneficial to scholars if tables of contents and abstracts for more Chinese and English journals on Chinese archaeology were made available online.

There are many journals on Chinese archaeology, yet only a few can be accessed on the Internet. Scholars must resort to journal databases such as CNKI (www.cnki.net) and Wanfang Data (www.periodicals.net.cn/qikan) to access them, and even then not many journals on Chinese archaeology are retrievable. In addition, a search of the Internet for some of the most important journals on Chinese archaeology, such as *Cultural Relics of Central China*, *Chinese Archaeology* and *Archaeology and Cultural Relics*, reveals only tables of contents. In order to download the full texts readers are required to go to a service such as the Superstar Digital Library (www.ssreader.com) for their fee-charging services. Interested scholars should consider publishing more free-of-charge electronic journals and newsletters in order to increase opportunities for information exchange among scholars, researchers, students and other interested people.

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Appendix

Academic and museum Web sites

- Chinese Archaeology (Chinese), www.kaogu.net.cn
- Chinese Cultural Relics News Network (Chinese), www.ccrnews.com.cn
- Center for the Study of Chinese Archaeology, Peking University (Chinese), www.pku.edu.cn/academic/csca/index.htm
- Chinese Academy of Social Sciences, www.cass.net.cn
- State Administration of Cultural Heritage of the People's Republic of China, www.sach.gov.cn
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