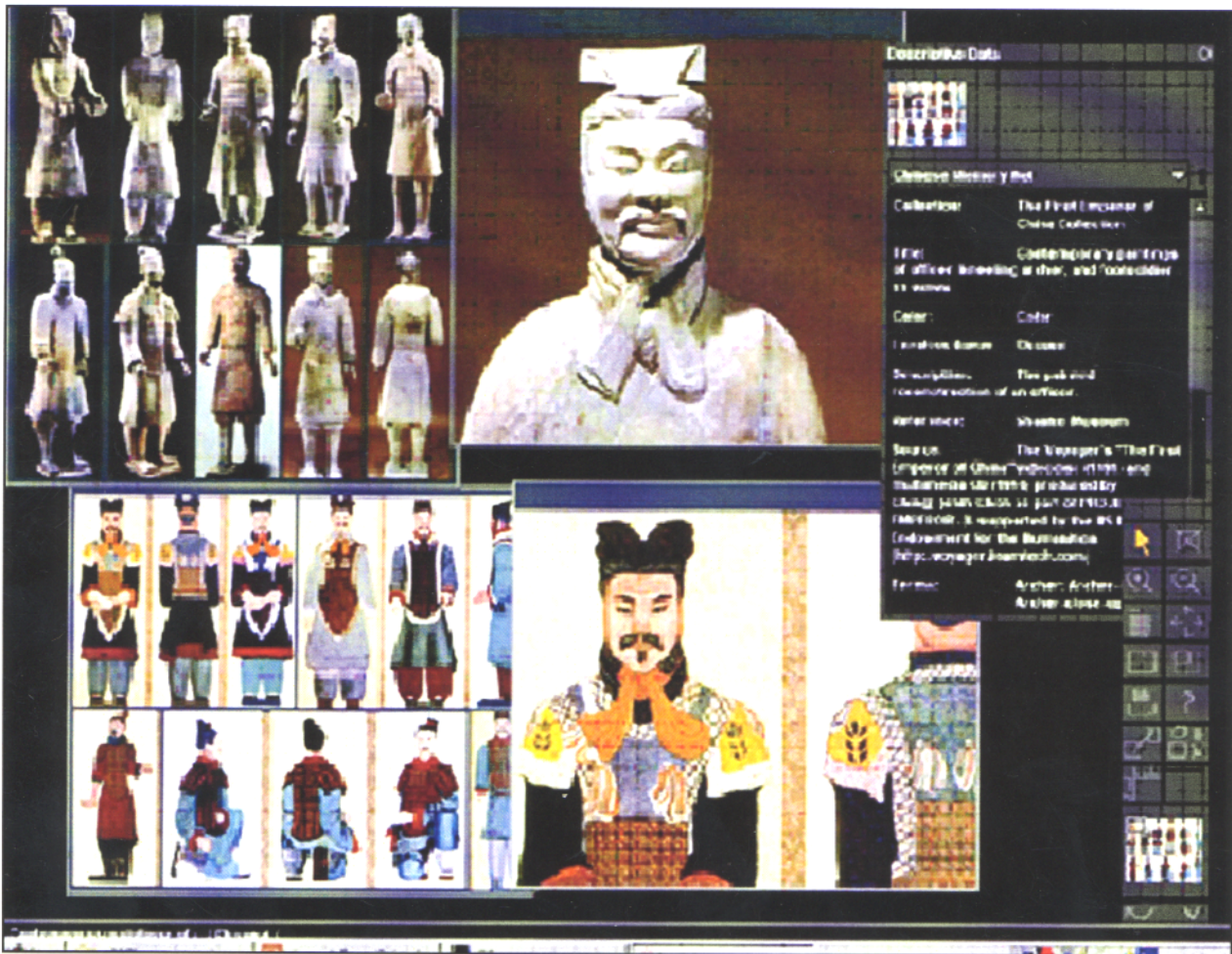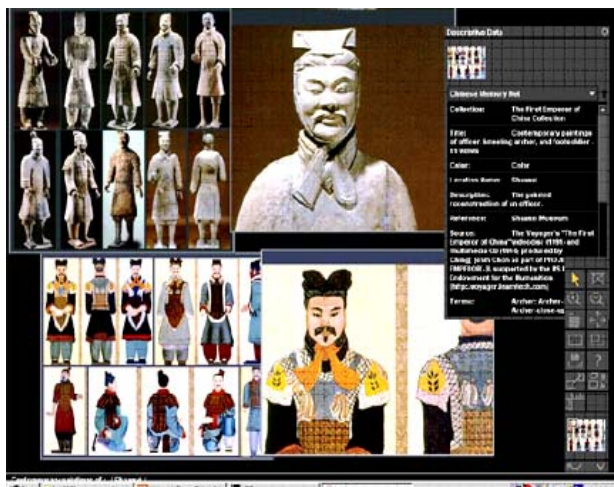# PLUS
BULLETIN

March 2003

Image from *Chinese Memory Net,* a multimedia project
headed by Sister Ching-chih Chen

Chinese Memory Net and China-US Million Book Digital Library Project

In the last decade, the Internet has changed our world in every conceivable aspect -- everything from how we communicate, learn, conduct research, deal with information, do business, receive health care, and dealing with our governments at all levels.   In the area of information, people's information needs can be met by global resources far beyond those traditionally held in own institution, one region or even one country.

With the fast and powerful global network communications, the infrastructure and environment are naturally inductive for all kinds of international collaboration prohibited with the barriers of physical distance before. Thus, "digital libraries" have offered new meanings and potentials for information access and sharing.   In this Internet era, we have witnessed the exciting convergence of content, technology, and global collaboration. Take higher education as an example, for the first time, academe, faculty and students can benefit from the rich contents and treasured resources of other universities and institutions and organizations of other countries at the point of needs. The old model of "owning" the collection on site has given way to "sharing," and the new emphases have shifted from the large "physical libraries" to "virtual libraries" all over the world. Similarly, we can begin to appreciate the high vision that "all citizens anywhere anytime can use any Internet-connected digital device to search all of human knowledge…"[1]

Sister Ching-chih Chen, Professor and former Associate Dean at the Graduate School of Library and Information Science at Simmons College, Boston, and wife of PL Brother, Professor Sow-Hsin Chen of MIT, has been one of the pioneers in cutting-edge technology applications for global information access.   In the 1980s before multimedia technology was common place, she created the award-winning interactive videodisc and multimedia CD-ROM, called *The First Emperor of China,* under the sponsorship of the National Endowment for the Humanities, to demonstrate how multimedia technology can help to close the time and geography barriers, and can bring

the fascinating and magnificent terracotta warriors and horses of Xian to the western world.   Her multimedia CD receives wide recognition and distribution. In this digital era, she has expanded her work to promote "global digital library" activities, and has led since 1999, a R&D project supported by the National Science Foundation, the *Chinese Memory Net*, by collaborating with some of the best institutions in the US, China and Taiwan.   These include Carnegie

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[1] The vision was that in the report of the Digital Library Panel of the US President's Information Technology Advisory Committee (PITAC). Sister Chen was a member of PITAC from 1997-2001.

Mellon University and Penn State University in the US, Peking University, Tsinghua University and Shanghai Jiao-tong University in China, and National Tsinghua University, National Taiwan University and Academia Sinica in Taiwan. The above Figure gives a quick look on how one is able to not only having ten different full views of different terracotta warriors, but also are able to bring the color drawings of those figures to enhance the understanding of the subject. Also, one is able to enlarge any portion of the images, as well as retrieving the descriptive annotations etc… There are many other features. In addition to image database and metadata research, other activities involved in content-based image retrieval, computer learning, intelligent agent search, digital video retrieval and segmentation, time-based and semantic sensitive research, etc…

Admittedly, we are a long way from the realization of a "global digital library" which she has advocated for over a decade. While technologies are advancing faster than imaged, quality "content" availability in digital form continues to be one of the greatest challenges. In this regards, Dr. Raj Reddy of Carnegie Mellon University has been instrumental in his push for "universal library. Together with Dr. Reddy, Chen served as the co-PIs in the US side of the *China-US Million Book Digital Library Project*, supported partially by the National Science Foundation for the US, and the Chinese Ministry of Education for the Chinese collaborative partners, with Phase I Chinese partners including the "best" in China – Chinese Academy of Sciences, Peking University, Tsinghua University, Zhejiang University, Fudan University, and Nanking University. This will expand in Phase 2 to include six additional universities like Wuhan University, Shanghai Jiao-tong University, Xian Jiao-tong University, Chung San University, etc. At this point, the Chinese Ministry of Education has approved this as a major national project with a grant of an equivalent of US$10 Million for the next 3-4 years with a matching fund from the US. Massive scanning activities will take place in building the much needed digital contents, and the project is also connected with the India-US Million Book Project, and other related activities. Clearly this is an exciting project!

Sister Chan is also interested in hearing from those PL members who have valuable copyright-cleared digital contents on subjects related "Chinese memory" – cultural and heritage contents in art, music, history, science and technology, Chinese medicine, etc… and are willing to share. Her email address is chen@simmons.edu