

# Global Memory Net: Digital Portal for Global Resource Sharing and Closing Digital Divide

**Ching-chih Chen**, Professor and Principal Investigator of *Global Memory Net*

Graduate School of Library and Information Science, Simmons College, Boston, MA 02115, USA

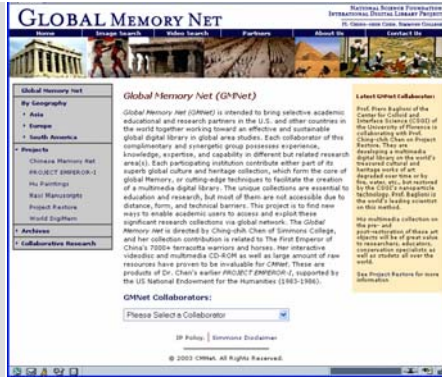
Chen@simmons.edu [Tel: 1-617-521-2804, Fax: 1-617-521-3035]

*Chinese Memory Net* is one of the very first US National Science Foundation/International Digital Library Projects (IDLP) since 2000. It has established a model for international collaboration both for content development as well as for cross-disciplinary research [Chen, 2001]. Once it is possible for developing a multimedia digital library in one subject disciplinary or for one geographical area, it is upward scalable to include more subject areas and bigger geographical areas. This was the case with the expansion of the scope of *Chinese Memory Net* to *Global Memory Net* since 2002.

*Global Memory Net* is a perfect example of a major research and development effort in creating global portal of significant cultural, heritage and historical materials by using cutting edge technology. For example, *Global Memory Net* enables one not only to be able to search invaluable digital archives using "traditional" methods by searching metadata fields, but also enables one to do cutting-edge semantic-sensitive content-based image retrieval using the SIMPLcity technologies developed by James Z. Wang at Stanford University and now Penn State University [Chen & Wang, 2002].

Chen, Ching-chih, "Chinese Memory Net: A model for collaborative global digital library development," in *Global Digital Library Development in the New Millennium: Fertile Ground for Distributed Cross-Disciplinary Collaboration*. Beijing: Tsinghua University Press, May 2001, pp. 21-32.

Chen, Ching-chih & James Z. Wang, "Large-scale Emperor digital library and semantic-sensitive region-based retrieval," *ibid*, pp. 454-462.



The organization of the *Global Memory Net* shows clearly that the image and video contents are organized in the following hierarchy arrangement:

- ✓ **Geography**
  - *Continent* - Asia, Europe, North America, South America, etc. ...
  - *Country* - Under each Continent, countries are listed alphabetically
- ✓ **Projects** - Special multimedia collections can be arranged alphabetically by project, such as *Chinese Memory Net*, *PROJECT EMPEROR-I*, *Project Restore*, etc. In addition to the hyperlink to the retrieval of each project's image collection, the extensive project archive and product(s) if any are also provided.
- ✓ **Archives** - Archival materials related to each project.
- ✓ **Collaborative Activities** - This highlights all the major collaborative research activities and publications related to *Global Memory Net*.

*Global Memory Net* enables global content development and resource sharing. By doing so using the global information network, it helps to close the gaps of digital divide between the rich and poor countries. In fact, comes to cultural and heritage contents, the poor countries that are the richest ones in the world because they possess something which other countries do not have.

## Navigating The Emperor Image Base

Step 1: From Chinese Memory Net, click on Emperor Image Database

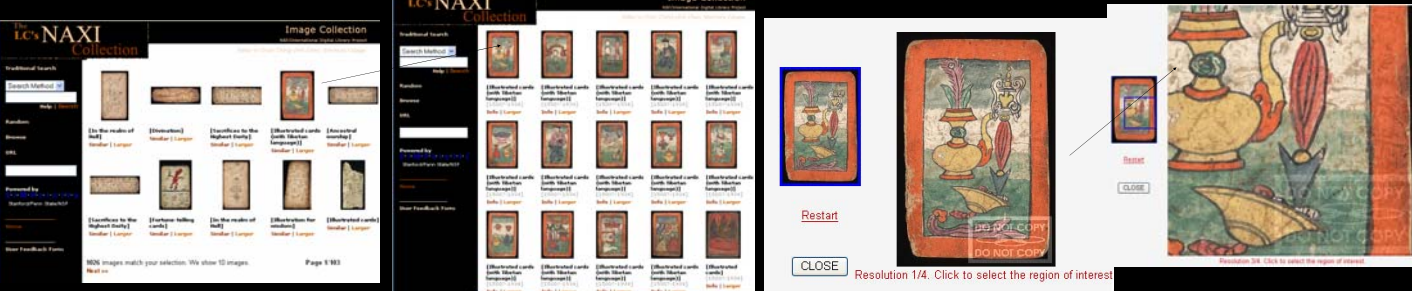
Step 2: Random images will show up, browse till one is chosen.

Step 3: If map is chosen, click on "similar" and all similar maps will show up

Step 4: Chose on for "larger" image, and digital watermark will be generated automatically



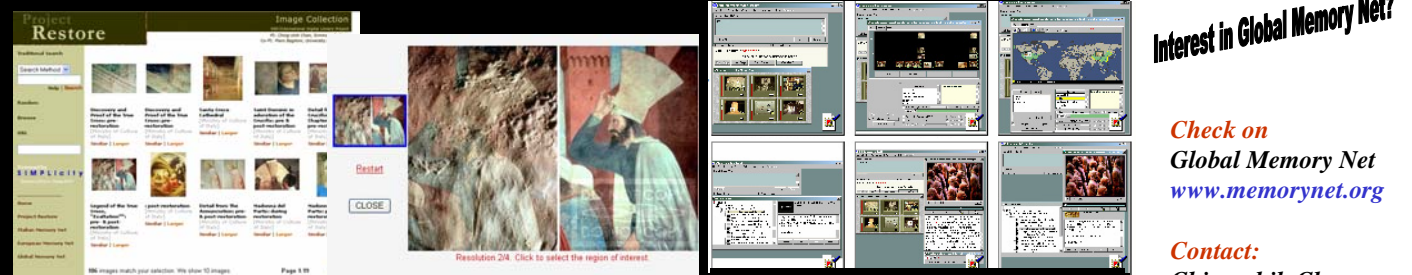
## Navigating Library of Congress' Naxi Image Collection – Similar steps as above except choosing the Naxi Collection under PROJECT



## Navigating the World Digital Collection, including UNESCO's Memory of the World – Choosing DigiWorld Collection



## Other Exciting Projects of Global Memory Net and Future Development – Incredible restoration technology, digital video, sound, etc...



Nano-particle technology of University of Florence for physical restoration - Baglioni, Piero, Rodorico Giorgi, and Ching-chih Chen, "Nanoparticle technology saves cultural relics: Potential for a multimedia digital library," in *Online Proceedings of DELOS/NSF Workshop on Multimedia Contents in Digital Libraries*, Crete, Greece, June 2-3, 2003.

Digital video retrieval using Informedia technologies of Carnegie Mellon University - Wactlar, Howard D. and Ching-chih Chen, "Enhanced perspectives for historical and cultural documentaries using Informedia technologies," in *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL)*, Portland, OR, July 15-18, 2002, pp. 338-229.

**Interest in Global Memory Net?**

Check on  
**Global Memory Net**  
[www.memorynet.org](http://www.memorynet.org)

Contact:  
**Ching-chih Chen**  
[chen@simmons.edu](mailto:chen@simmons.edu)