The *Warburg Electronic Library* project was set up in 1997 by the Art Historical Institute in Hamburg and the Department of Software Systems at the Technical University of Hamburg-Harburg; it is based on the *Image Index of Political Iconography* (Bildindex zur politischen Ikonographie), containing 300.000 reproductions (photographs, postcards, extracts, photocopies) of works of art, stored as paper cards that give only a short source information. The cards were brought together in order to draw illustrations out off different publications and to provide a general view of the various phenomena of the arts in their political contexts; they shall not display the aesthetic quality of works of art and architecture, medals, decorations etc. but their political and social functions. Therefore, the index does not focus on the quantity of images but on the complexity of their relations. All entries are classified by a thesaurus of some hundred keywords that are subdivided again into small groups; thus, the index is a hybrid of an alphabetic keyword list and a systematic catalogue. Also, some of its terms are borrowed from other academic disciplines such as political or social sciences.

The WEL project had to consider the logistics and the limits of the basic material, e. g. the quality of the illustrations which is reduced - like thumbnails - to the mere preview information; the lack of copyrights which means that a distribution of the contents in the web would cause legal problems; or the intention of the index not to follow a systematic catalogue but to keep several entries under a certain keyword until the contents allow or demand the creation of a more adequate one. The collecting of images means a constant evaluation of the underlying thesaurus that is changed from time to time due to the re-interpretation of the contents.

The central issues of the WEL project are:
- expressing the co-operative character of a long-term collection by applying the internet technology to it, thereby allowing all participants to make use of their actual ressources where-ever they work (be it in the library, the computer department etc.); in this respect, the WEL should rather be compared to the editorial system of a newspaper than to a mere database
- preserving the simplicity and flexibility of the card box and its concept of evaluation by a complex architecture
- revising and extending the image index by integrating other contents (like the institute's book collection) and classification systems (of publishing houses or historical institutes); the WEL allows individual approaches to the material through personalized indexes, by chosing keywords from the actual list or adding a different list
- supporting a comparative way of seeing (which was popularized by art historians in the beginning of the 20th century as a means of argumentation)
- becoming a technological basis for educational purposes and research by supplying university courses and seminars with information that can be supplemented (or replaced) by the students; this will have a deep impact on their forms of discussion
- testing recent products, improving the communication between different faculties and increasing the competence in the field of visual and multi-media administration.

The image index is a special solution for a special problem, and the properties of the source material are a decisive factor for the project's orientation. Therefore the WEL project does not pretend to provide any kind of standard software (even though its concepts are to be transferred to other domains) or to produce a new type of art historical scholar. The WEL group proposes, quite on the contrary, to establish further co-operations with the IT on the basis of the profiled art historical experiences which both sides can profit from in the long run.

For further information on the "Image Index of Political Iconography" and the collections of the Forschungsstelle Politische Ikonographie, see: www.warburg-haus.hamburg.de (in German); for information on the current project, see: www.sts.tu-harburg.de/projects/WEL (also in English)

THE LOGISTICS OF IMAGES:
ON THE PARTICIPATION OF ART HISTORY
IN THE DESIGN OF NEW FORMS OF INFORMATION

Dr. Matthias Bruhn

Forschungsstelle Politische Ikonographie, Universität Hamburg

Warburg-Haus

Heilwigstraße 116

D-20249 Hamburg

Tel.: (+40) 42838-6151   Fax: (+40) 42838-6161

eMail: ma.bruhn@tu-harburg.de

When art history became an academic discipline in the middle of the 19th century it belonged to the *avant-garde* in the field of image reproduction and application. 125 years ago, slides and photographic prints were introduced as a medium of art historical teaching in Europe, and researchers began to co-operate with publishers and photographers and participated in the creation of large picture collections. At the same time publishing houses specializing in art history improved the quality of illustrations in their books and magazines, reaching millions of readers and increasing the social importance of the arts. Soon after, the so-called *Bildatlas* that was designed to visually compile the knowledge of that time became a successful instrument and was also adopted by the well-known founder of the *Kulturwissenschaftliche Bibliothek* in Hamburg, Aby Warburg (to whose name and ideas the current project *Warburg Electronic Library* is obliged). As a result, art historical efforts in improving the pictorial reproduction in public university lectures and publications had a strong influence on the appearance of today's conferences, of poster presentations or even, indirectly, of multi-media applications.

The discipline has lost this innovative role since the use of high-quality illustrations in full colour became a matter-of-course, and journalism or the natural and economic sciences developed their own forms of visualization. Art history is still an important player because it delivers valuable contents: in spite of the "digital age", the number of copies of illustrated book titles is higher than ever. But scholars and students in art history have to be aware in how far far modern technologies for the digital storage and automatic analysis of images, their transfer and exploitation have become an economic factor they have to calculate with. Otherwise they will ignore in which way they could keep on contributing to the global market of images.

Technological innovations (and barriers!) concerning the image are now coming from software producers, picture agencies or internet providers. But as well as "art history" is no longer a coherent entity but signifies a wide range of particular activities in museums, academies, archives, libraries etc, also those branches have different ideas about the solution of technological and logistical problems and the exploitation of the pictorial world. This is where art history should step in by co-operating with IT faculties or private entreprises.

Art historical institutes provide high quantities of images that need to be digitized, classified, and interpreted; they stand for rich experiences in investigating visual resources and offering a broad cultural, geographical, and linguistic knowledge. Compared to former times, many representatives of art history now consider themselves incompetent for a co-operation with high-technology providers to change the situation, or they are content with old techniques. Indeed, some of those techniques (e. g. the card box which is to be discussed below) are not yet replaced by better ones; this is one of the reasons why art history is a challenging application domain for the IT, helping technology providers to evaluate their methods and tools and insisting in the simplicity, adequacy and economy of old *and* new media.

[Presentation of the Warburg Electronic Library *prototype]*