

SAME TASK, NEW TOOL

Santiago Alcolea Blanch
 Instituto Amatller de Arte Hispánico
 Paseo de Gracia, 41 - BARCELONA, Spain.
 Tel. 0034 - 932 160 175
 email s.alcolea@amatller.com

The Instituto Amatller de Arte Hispánico, founded in 1941, is a research institute specializing in Spanish art & architecture, with a library of over 25.000 titles and a photo archive of some 300.000 negatives from various collections, the oldest one being *Arxiu Mas*, started by Adolfo Mas around 1900. Thus, the photo-library of the Instituto Amatller represents a continuous effort during a whole century to gather information relative to the Spanish visual arts, not only in museums and other public collections but also in the more elusive hands of private collectors or art dealers. These negatives, ranging between 24x35 mm and 18x24 cm, are organized by sizes and numbered sequentially. The photo library has a triple system of access. The first index is organized as a traditional topographical inventory, with a complete collection of 9x12 cm paper prints. The second index is made up of iconographic reference cards. And the third one consists of an other collection of 18x24 cm positive prints, ordered according to “art-historical” criteria, i.e., organized first by artistic genera (architecture / sculpture / painting, drawing & prints / metalwork / ceramics / glass / textiles / ...), then subdivided into chronological periods and a final classification by artists and/or art centres, with the possibility of further fine-tuning by date of creation of the individual works of art. This last index is what we consider the main access to the photo-library and is constantly being updated according to the latest published evidences. This way, it constitutes the primary research tool for establishing the catalogues of the *oeuvre* of the artists.

The Instituto Amatller is now in the process of converting from the traditional into a digital system. The conversion is twofold: a.) digitising the photographs and negatives and b.) creating a digital indexing system & information organizer.

Converting the photographic images into digital ones is necessary to preserve the vast quantity of information stored in slides and negatives, which deteriorate inexorably. If we take photographic resolution to be something around 1800 d.p.i., we can calculate the approximate size of the digital image files needed to store the same information. In the following table I have also included the corresponding figures for 1200 d.p.i (optical resolution of the Agfa Horizon scanner) and for 2150 d.p.i. (approximate resolution used in the Kodak Photo-CD system)

size of negative / slide	size of digital image file					
	1200 d.p.i.		1800 d.p.i.		2150 d.p.i.	
	grey scale	RGB	grey scale	RGB	grey scale	RGB
24 x 35 mm					6 Mb	18 Mb
6 x 9 cm	12 Mb	36 Mb	27 Mb	71 Mb	38,5 Mb	116 Mb
9 x 12 cm	24 Mb	72 Mb	54 Mb	142 Mb	77 Mb	232 Mb
13 x 18 cm	52 Mb	156 Mb	117 Mb	351 Mb	167 Mb	502 Mb
18 x 24 cm	96 Mb	289 Mb	216 Mb	650 Mb	309 Mb	927 Mb

These figures can be used to define what is a high quality image. It is also obvious that some of the resulting file sizes are impractical to work with nowadays. In fact we have not scanned any

images larger than 75 Mb, and the normal file sizes that we use range between 24 and 50 Mb. Of each image we keep three copies: 1.) the high quality image, stored in TIFF format on CD-rom, 2.) a print quality image (6 Mb greyscale / 18 Mb RGB - 2125 x 2834 pixels, enough to produce a 18 x 24 cm print at 300 d.p.i.), stored in JPEG format on CD-rom and 3.) a reference image (with 720 pixels of largest dimension), stored in JPEG format, both on CD-rom and in the on-line server.

With these figures in mind, we can also calculate that we will need some 14.000 Gb on 21.500 CD-roms to store our 300.000 digitised photographs [300.000 x (40 Mb + 6,5 Mb)], plus a further 100 Gb in our on-line server for the reference images [300.000 x 0,35 Mb].

We consider it extremely important to document precisely the origin of these images and to differentiate between non-modified and modified ones. The basic concepts we use are the following:

- direct digital image (scanner / digital camera)
- photographic source (slides / negatives / paper prints)
- printed source (publications / postcards & reproductions / ...)
- digital image/s (copy of an other image / modified image / combined images / ...)
- other sources

As to the digital indexing system & information organizer, the idea is also to provide a substitute for the traditional archival systems based on paper storage. We have not developed the complete structure of the data base, but we have defined the different catalogues that will have to be linked, in order to process art historical information coherently:

- architectural monuments & buildings
- movable art objects (sculptures / paintings, drawings & prints / metalwork / textiles / ceramics / glass / etc.)
- persons (artists / patrons / collectors / bibliographical authors / sitters / etc.)
- bibliography
- exhibitions
- documents (contracts / inventories / receipts / letters / etc.)
- photographs (of architecture / objects / persons / documents / etc.)
- digital images (of architecture / objects / persons / documents / etc.)
- iconography (descriptive elements / individual identified elements / events)

I am aware that this is a task not to be tackled individually. Apart from the sheer dimension of the undertaking, the impossibility to impose a strict geographical framework to the infinitely complex artistic phenomenon, will demand the cooperation between a number of institutions (museums and research institutes, among others), in order to avoid duplications and to make the best of the joint efforts. There are already some projects pointing in this direction, like **Van Eyck** (Rijksbureau voor Kunsthistorische Documentatie, the Hague - Witt Library, Courtauld Institute of Art, London - Trinity College, University of Dublin) and new bodies are emerging that may help channel the course of action, like **RIHA** (International Association of Research Institutes in the History of Art).

But this may prove to be a too ambitious aim, at least in a first period, and perhaps we should start by defining the minimum common denominator, acceptable to all database systems. Even if this were to be only a **unique identification number** for each individual object (acting as an object authority file), I think it would become an extremely useful tool for future collaborative efforts and have multiple repercussions within the art historical scene and related fields.