

THE NEW FRAMEWORK FOR CIPA AND ITS WORKING GROUPS

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ABSTRACT:

At the ISPRS Congress 1996 in Vienna, a CIPA Five Year Outreach Plan concept was introduced which was meant to bring together members of ICOMOS, ICCROM, UNESCO and other organizations involved in cultural heritage conservation to meet and dialog on common needs pertaining to the activities of Recording, Documentation and Information Management. Since Vienna, two CIPA Outreach Workshops took place to discuss the restructuring of the activities of CIPA. As a result, a new CIPA Framework of Expert Groups has been defined with a matrix structure combining five application fields of ICOMOS with five technical fields of ISPRS as an Internet market place of ideas and proposals which will be evaluated by a new Advisory Board of Experts prior to approval by the CIPA Committee. Proposals with high interest and priority will be given as tasks to permanent Working Groups and not permanent Task Groups. Currently, the leading Working Group develops basic guidelines for Recording, Documentation and Information Management. In the foreground of the next Working Group are the Cultural Heritage Information Systems, which are needed for single complexes as well as for the management of groups of monuments and sites. In the centre of interest remain four Working Groups for Photogrammetry, Digital Image Processing, the combination with other Surveying Techniques, and Archaeology and Rock Art. Task Groups concern Cultural Heritage Recording as a Hobby which tries to forward mass documentation by scholars and hobby recorders in addition to what professionals can do, and Restitution from Old (single) Images like postcards or printed images in books which collects geometric-photogrammetric means and methods with examples for restorers and architects. Interested experts are invited to join the CIPA Expert and Working Groups via Internet: <http://cipa.uibk.ac.at/> and to help making the forthcoming CIPA Symposium 1999 in Olinda, Brazil, a success.

1. A NEW CIPA FRAMEWORK OF EXPERT GROUPS

During CIPA's Special Session that was held during the ISPRS Congress 1996 in Vienna, a CIPA Five Year Outreach Plan concept was introduced. This Outreach Plan was meant to bring together members of ICOMOS, ICCROM, UNESCO and other organizations involved in cultural heritage conservation to meet and dialog on common needs pertaining to the activities of Recording, Documentation and Information Management.

As a follow-up to this concept proposal, two CIPA Outreach Workshops took place i.e. in Gross Siegharts (July 1996) and Marstrand (October 1997), to discuss the restructuring of the activities of CIPA and to provide CIPA with a 'Five year Outreach Plan'. Both workshops attracted respectively 22 and 20 people from over a dozen countries (i.e. conservation experts from various conservation disciplines), that discussed how best CIPA can assist in addressing the Recording, Documentation and Information Management needs being expressed by ICOMOS, ICCROM and UNESCO. The new **CIPA Framework of Expert Groups** outlined in Figure 1 is the outcome of these two CIPA Outreach Workshops. This

Framework was refined during CIPA's business meeting in Granada (March 1998) and

chairpersons were assigned (in some cases were proposed or to be confirmed) to each Expert Group.

The Framework was designed based on a MATRIX that ensures that each Expert Group has two co-chairs representing respectively ICOMOS and ISPRS interests. For now, this matrix has been limited to 5 Application Groups and 5 Technical Groups that represent in some way the main areas of interest. However, this matrix is meant to evolve and to be refined over the next two years as Expert Groups are initiated and that results are delivered and assessed.

2. ICOMOS APPLICATION AREAS AND EXPERT GROUPS

(Co-ordinated in the beginning by Robin Letellier)

The following list shows the expert fields with the same terminology as used within ICOMOS for the other Committees.

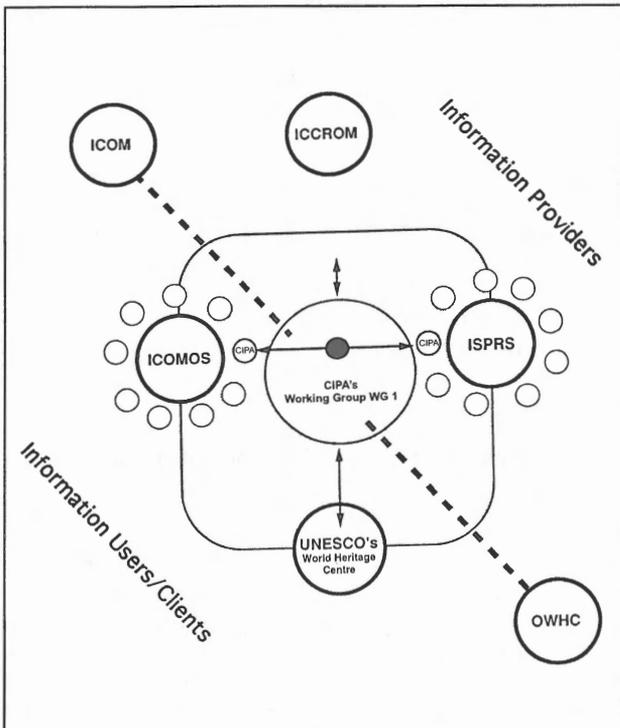


Figure 1: CIPA's and ICCROM's Five Year Outreach Plan towards integrating the activities of Recording, Documentation and Information Management.

ICCROM in Rome is an International Training Centre financed by 94 Member Countries.
 ICOM is the World's Museum and Art Society
 OWHC is the Organization of the World Heritage Cities unifying hundreds of towns
 ICOMOS has a personal membership of about 5000 experts from 80 Member Countries
 UNESCO has 140 State Parties, its World Heritage Centre is responsible for about 500 of the world's most important Natural and Cultural Sites.

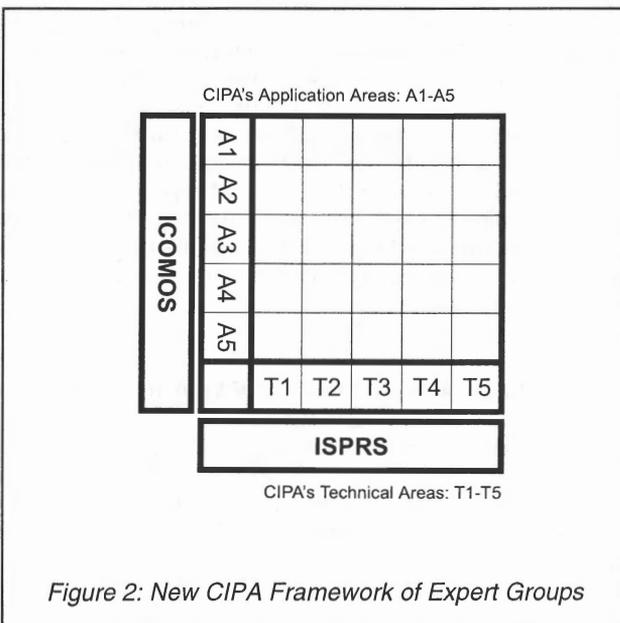


Figure 2: New CIPA Framework of Expert Groups

A1 Recording, Documentation and Information Management - Principles and Practices

- A. Recording
 - 1. Principles: CIPA participated to the refinement of the ICOMOS document entitled 'Principles for the Recording of Monuments, Groups of Buildings and Sites' which was ratified during the ICOMOS General Assembly in Sofia in 1996
 - 2. Standards
 - 3. Guidelines/Framework: Published with ICCROM: 'Guidelines/Framework for the Recording, Documentation and Information Management of World Cultural Heritage Sites' by R.Letellier 1998)
 - B. Documentation
 - 1. Inventories
 - 2. The Netherlands proposed to create a new ICOMOS Committee on 'Surveys and Documentation
 - C. Information Management
 - 1. Information Management International Standard and Guidelines
 - 2. Cultural Tourism
 - D. World Cultural Heritage
 - E. Training*
 - F. Other
- (Co-ordinated in the beginning by Robin Letellier, Canada)

A2 - Architectural and Industrial Conservation Vernacular Architecture*

- B. Earthen Structures*
 - C. Stained Glass*
 - D. Stone*
 - E. Wood*
 - F. Link with TICCIH
 - G. Other
- (Co-ordinated in the beginning by Antonio Almagro, Spain)

A3 - Archaeological Conservation and Museum Objects

- A. Archaeological Management*
 - B. Traditional
 - C. Rock Art*
 - D. Underwater Cultural Heritage*
 - E. Artefacts
 - F. Link with ICOM
 - G. Other
- (Co-ordinated in the beginning by Michael Doneus, Austria, and Cliff Ogleby, Australia)

A4 - Urban and Landscape Conservation

- A. Historic Towns and Villages*
 - B. Urban Planning
 - C. Information Systems
 - D. historic Gardens and Sites*
 - E. Other
- (Co-ordinated in the beginning by Michel Bonnette, Canada (to be confirmed))

A5 - Risk Preparedness

- A. UNESCO Risk Preparedness Program
 - B. Blue Shield
 - C. (see Kobe Symposium results)
 - E. Other
- (Co-ordinated in the beginning by Leo van Nispen tot Sevenaer, The Netherlands (to be confirmed))

3. ISPRS TECHNICAL AREAS AND EXPERT GROUPS
(coordinated in the beginning by Peter Waldhäusl)

The Technical Groups, the other side of the dialog and development matrix, consist of all experts needed for PRS and related fields, these are:

T1 Photogrammetry and Remote Sensing (analog-analytical-digital; from imaging to plotting; rectification, orthophotography; a.s.o.)
(Coordinated in the beginning by Petros Patias, Greece)

T2 Building Surveying (from simple tape and plummet wire, to theodolite, infrared distance meter, laser scanner, GPS, i.e. all non-photogrammetric surveying methods to be used alone or in combination with photogrammetry.) The reason to include all that in CIPA is that we must know the alternatives, the possibilities for combination with photogrammetry and, of course, the competitors. We shall invite them to take also photogrammetric methods into their consideration.
(Co-ordinated in the beginning by Peter Waldhäusl)

T3 CAD/CAAD (Computer Aided Architectural Design)
(Coordinated in the beginning by Andre Streilein, Switzerland, and Jürgen Peipe, Germany)

T4 Information Systems
(Co-ordinated in the beginning by Robin Letellier, Canada)

T5 Visualization and Virtual Reality
The last three expert fields concern tools urgently needed after data collection by T1 and T2 as well as in the ICOMOS application fields.
(Co-ordinated in the beginning by Andre Streilein, Switzerland)

CIPA doesn't consider this grouping as final, because the solution of more complex problems and tasks might demand to include experts of other technologies which are not included above.

4. THE NEW UNDERSTANDING OF CIPA MEMBERSHIP

CIPA is more than only a Committee of twelve people. CIPA includes up to ten Associate Members, National Delegates and the above mentioned experts organized in Expert Groups and Working Groups. All of them are considered Members of CIPA according to the Eger Principles of ICOMOS.

How shall CIPA become efficient within this new framework? Efficiency depends on people, on their quality and their know-how. As the preservation of the world heritage is of highest importance CIPA needs top staff well prepared to

- work for ideals
- take part in a dialog between ICOMOS and ISPRS
- develop ideas and proposals
- evaluate proposals and results
- define tasks for Working and Task Groups
- help in the recruitment for Working and Task Groups
- help raising funds for research and development
- etc.

How to find and motivate efficient people? CIPA trusts on the efficiency of Internet (not exclusively, but basically), for recruitment as well as for communication. Interested people are invited to join New CIPA.

In more detail: There are two Advisory Boards attached to the Committee: On the one hand, there is the **Advisory Board of National Delegates** of both sides, ICOMOS and ISPRS. This includes two delegates from each country. On the other hand, there is the **Advisory Board of Experts** with the Chairpersons of the Expert Groups, their Coordinators and the Chairpersons of the Working and Task Groups. This Advisory Board is the top of the democratically organized expert staff of CIPA.

Expert Groups as well as the **Working and Task Groups** are open to all qualified specialists, to everybody with proven and appropriate expert knowledge. Equal access for participation is guaranteed to professionals of diverse regions, cultures, disciplines and resources. In the list of Expert Group Members are automatically included all authors of CIPA related papers published or

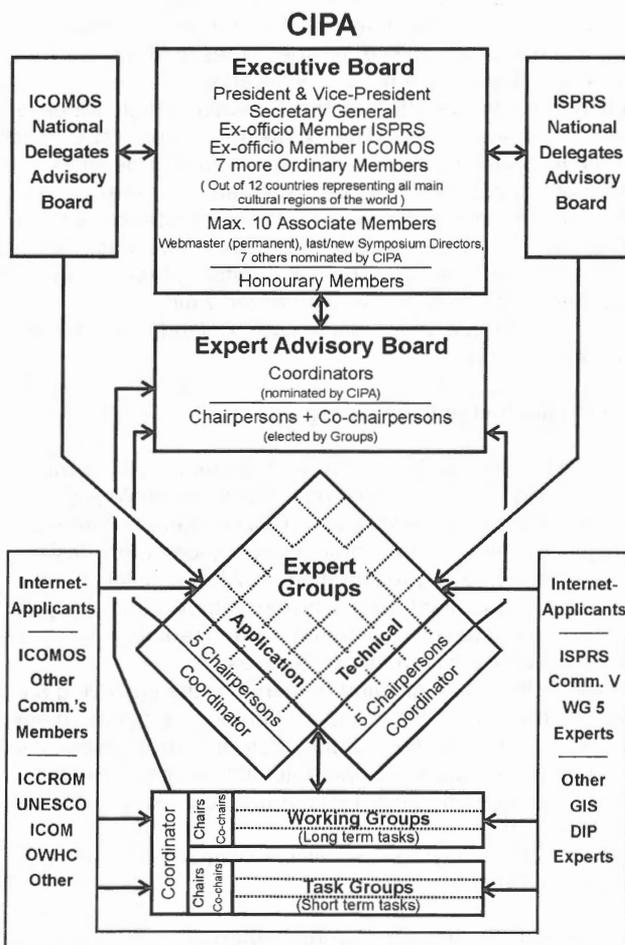


Figure 3: The new Structure of CIPA

accepted for publication at CIPA Workshops or Symposia, or at ISPRS, specially Commission V/WG 5 conferences, or at related ICOMOS events, if they show their interest by answering the CIPA questionnaire. Working and Task Group Membership is open to everybody feeling able to properly contribute. Each Expert Group should have or elect one or two chairpersons, who should observe and stimulate the market, collect the best ideas, ask questions, forward information to the right Group, right place, region or organization on the one hand and to the Coordinator and Expert Advisory Board on the other.

The **CIPA Webmaster** will technically organize communication and easy information flow between the experts, who themselves must be active in this dialog world of CIPA, where they get into touch with each other and where the best ideas will find its market. (The dialog matrix, shown in the figure 1 and 3, can also be considered as a market place of ideas and proposals.)

The **Chairpersons** inform their Coordinator (and vice versa !), and both will form the Expert Advisory Board, which will be the organized forum of pre-evaluation of papers, ideas, results of Working Groups. The Expert Advisory Board closely cooperates with the Executive Board of CIPA, the so-called Committee.

According to its statutes, the **Committee** consists of twelve members and will be increased now by a maximum of ten **Associate Members**, nominated by the Committee. One of them is the **Webmaster** who is somehow in the center of mutual information. He is responsible for the CIPA Webpage where the program of the Working Groups and their results are published. Associate Members are also the past and future **Symposium Directors** and the most active of the Chairpersons. The Coordinators of the Chairpersons will be two of the Associate or Ordinary Members of the Committee.

5. WORKING GROUPS

The already existing Working Groups will continue their work undisturbed by the reorganization of CIPA. The Committee decided to cancel the old Working Group numbers and to bring the Working Groups into a new order. Not the numbers are important. We should call them by title, because this gives much more flexibility.

5.1 Recording, Documentation and Information Management.

Currently, this leading Working Group develops basic guidelines for Recording, Documentation and Information Management. It facilitates dialog between organizations. It organizes and organizes a series of 'Outreach Meetings' and Workshops that bring together members of ICOMOS, ICCROM, UNESCO, ISPRS and other organizations or groups. It filters out specially all possible and existing needs of photogrammetry, surveying and related fields. It discusses also generally the required standards. Chairperson is Robin Letellier, Canada.

5.2 Cultural Heritage Information Systems

Cultural Heritage Information Systems are needed for the internal management of single complexes of monuments as well as for the management of groups of monuments

and sites. These systems are to be filled with, among others, results of photogrammetry and other building surveying and recording techniques.

It is supposed to be the Working Group of those technical experts who really do the recording, who know the difficulties and who have the know-how on the advantages and disadvantages of the several database concepts, of software and hardware. Their task should be

- to exchange their experiences and
- to compare and
- to analyse the systems and their handling,
- to consult CIPA and ICOMOS as well as the communities and societies interested,
- to consult software producers and sellers,
- to instruct staff and management,
- to take care for permanent data availability,
- to arrange international networking,
- etc.

This WG is under development, the chairpersons are not yet elected.

5.3 Simple Methods for Architectural Photogrammetry

The universal photogrammetric systems of the professionals are too complicated and too expensive for many architects. But there are also simple PC-systems on the market which suffice for special tasks in architectural photogrammetry, such as rectification or simple restitution. Jachimski's VSD or the Canadian Photo-Modeller are good examples. The Working Group tests and compares such systems and helps to further develop it in the right direction. It can be expected that after another decennium the software of these systems will be advanced in such a way that also automatic mass restitution will be possible, if digital images can be provided in a cheap and well arranged way.

Chairpersons are Jozef Jachimski, Poland, and Antonio Almagro, Spain.

5.4 Digital Image Processing

As a discipline, architectural photogrammetry is currently undergoing profound changes. New technologies and techniques for data acquisition (CCD cameras, Photo-CD, photoscanners), data processing (computer vision), structuring and representation (CAD; simulation, animation, visualization) and archiving, retrieval and analysis (spatial information systems) are leading to novel systems, processing methods and results.

Although there is a growing demand for the surveying and documentation of the cultural heritage, modern image acquisition and analysis techniques are rarely used. The working group deals with the potential and practical use of digital photogrammetric tools and technologies for the aims of CIPA.

Chairpersons are André Streilein, Switzerland, and Klaus Hanke, Austria.

5.5 Archaeology and Photogrammetry

This Working Group is specially designed for the needs of archaeologists. The main demand archaeologists pose to photogrammetry is not always an exact analysis, but more often the acceleration of the working process (while maintaining the demanded tolerances) thus saving expenses. A special topic is photogrammetry for the

documentation of Rock Art.

Chairpersons are Cliff Ogleby, Australia, and Michael Doneus, Austria.

5.6 Surveying Methods for Heritage Recorders

Up to now surveying methods were no problem for heritage recorders. Surveying was a standard in all curricula for architectural students. This has changed. In many schools Surveying got an eligible subject which students neglect and thus even the simplest surveying techniques seem to become difficult in practice. Another group are the off the shelf photogrammetrists who know nothing about surveying but own and use photogrammetric software systems. They need courses in surveying, which should be organised by this Working Group.

Another reason is the combined adjustment technology. Geodetic measuring data and photogrammetric data as well as other data types can be adjusted together according to the minimum principle of Gauss. This makes it necessary that universal geodetic experts consult the colleagues from ICOMOS about those possibilities.

Argument three concerns new and non-geodetic scanning and measuring devices using magnetic fields or multi-distancers for the determination of object co-ordinates.

All non-photogrammetric methods for the metric documentation of cultural heritage of different size and material and mobility shall be surveyed and classified. A typical question recently concerned the easy to use handheld Leica laser distancer and its combination with other surveying instruments used for building surveying.

Another typical problem is the measurement of control information for photogrammetry, where all methods of surveying can be asked for an economic solution, from GPS, the Global Positioning System, to the simplest tape measurement.

This Working Group is under development.

6. TASK GROUPS

6.1 Non-professional Heritage Recorders

This Task Group is new and not yet finally installed but already advanced in Austria. The aim is heritage documentation and recording by scholars as well as by everyone. Already in 1988 Martin Brunner and the second author of this paper published the 3x3 Rules for hobby photogrammetrists who travel or undertake expeditions. While the professional photogrammetrists are occupied with actual restitution and with recording of the most important objects of architecture, with the World Heritage and other first rank buildings, non-professionals shall help to record the mass of the cultural heritage more or less systematically. This is considered a necessary measure for heritage at risk and in general for civil protection against all eventualities.

Teaching photogrammetry already in schools and occupying scholars with problems of their future heritage, is another high pedagogical motivation. But most important is the possibility of systematic trend control by means of change detection by the population itself.

To propagate these ideas, to prepare manuscripts and posters and videos for the proper management of mass recording including photogrammetry, is a lot of work. The working group intends to exchange their experiences and to use already prepared materials internationally for the introduction to the 3x3 Rules and to the database handling etc. Communities, societies, clubs, insurance companies and private people interested in such useful hobby work have to be properly informed and motivated.

This should also be a means to achieve something like a living archive, continuously updated and systematically used for the control of the environment. The database APIS, the Architectural Photogrammetric Information System, can be considered as a common memory of details which we cannot remember but which are important to know and to witness when the effects of men and time have to be analysed.

The Task Group will hopefully have a long life and success. The goal is a high one, but it is possible to reach it.

Chairpersons are Edel Lundemo, Norway, and Jozef Jachimski, Poland.

6.2 Single Images in Conservation

After man-made or natural catastrophes details of facades or other objects shall be reconstructed, but in the majority of cases there is nothing available but one single photograph or some completely different ones. Such emergency situation is not seldom. The town of Vienna pays a lot for the reconstruction of old facades which have been destroyed during World War II, repaired provisionally in the 1960s and which now don't fit to the ensemble.

The task of the working group is to prepare a collection of all geometric-photogrammetric means and methods with examples available for restorers and architects.

Chairperson is Katja Oven, Slovenia.

7. CALL FOR COOPERATION

Interested experts, especially from ISPRS Commission V are cordially invited to join the CIPA Expert and Working Groups via Internet: <http://cipa.uibk.ac.at/> and to help making the forthcoming **CIPA Symposium 1999 (October 3 – 6) in Olinda, Brazil**, a success.

Many countries don't have nominated their National Delegates yet. This gives the possibility to enter CIPA in a double function. National Delegates are to be delegated formally by the ISPRS National Member Society or by the ICOMOS National Committee, nominated by a letter to the President of CIPA.