

# 1995 Annual Report - Interorganizational Activities

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## **INTERORGANIZATIONAL ACTIVITIES - CIPA**

### **INTERNATIONAL COMMITTEE FOR ARCHITECTURAL PHOTOGRAMMETRY**

### **COMITÉ INTERNACIONAL DE PHOTOGRAMMETRIE ARCHITECTURALE (CIPA)**

ANNUAL REPORT FOR 1995

*Submitted by: Dr. John Badekas, President of CIPA*

### **COMMUNICATION WITHIN CIPA**

Several decisions have been taken with are expected to improve the functioning of the committee:

- a. All CIPA correspondence will be circulated through the Secretary General.
- b. Minutes of CIPA meetings will be broken down into specific items and each specific CIPA member will be made responsible to take action by a given date.
- c. An effort has been made to improve communication between CIPA committee members by free distribution of the International Council on Monuments and Sites (ICOMOS) News to ISPRS members and of the proceedings of the Symposium of Commission V of ISPRS. So far the response was negative.

### **CIPA INTERNET POSTMASTER**

There will be the "CIPA Postmaster" tool that should be made available to CIPA. This tool will be used by the Secretary General to facilitate and expedite correspondence between CIPA Committee members at little or no cost.

### **WORLD-WIDE-WEB (WWW)**

A "CIPA Home Page" has been developed by André Streilein in Zurich. It has been decided that the Home Page must be developed further, that it will be updated frequently and be maintained as the prime information center for CIPA.

### **MARKETING CIPA PUBLICATIONS**

Regarding CIPA Publications an effort is in progress for finalizing a contract with RICS Books. This will be done in parallel with ISPRS publications being dealt with by D. Tait and L. Fritz.

It was decided that CIPA related books would sell for \$40 US so as to cover all related costs.

## ARCHIVING CIPA DOCUMENTS

All CIPA documents produced from now on will be stored in the ISPRS Archives using ISPRS standards. Those that organize CIPA symposia and seminars in the future will be responsible for sending proceedings, reports and other related documents to these archives.

## 1996 & 1997 CIPA SYMPOSIA AND MEETINGS

- *Proposed Symposium in Bali, Indonesia November 1996*

The proposal for a CIPA symposium to convene in Bali in January 1995 was initially proposed by Tono Saksono in 1994. This proposal was approved during the CIPA annual meeting in Bari, Italy, in November of 1994. The symposium was later postponed to November 1996. The final decision by the Indonesian authorities is still pending.

- *CIPA Participation in the July 1996 XVIIIth ISPRS Congress in Vienna, Austria*

A 90 minute Special Session has been identified within the ISPRS Congress Program for CIPA (i.e. Friday, July 19 between 08:45 hrs. and 10:15 hrs.). To make best use of this time to sensitize ISPRS members to CIPA activities and to attract more ISPRS participation in CIPA future meetings, the following proposed list of speakers and time frames have been arranged:

1. CIPA President, J. Badekas will give an overview of CIPA (15 minutes).
  2. CIPA Secretary General, R. Letellier will talk about CIPA's "outreach concept" to integrate ICOMOS, ICCROM, UNESCO's World Heritage Center clients into CIPA's activities (20 minutes).
  3. Two ICOMOS & UNESCO world class speakers, each one to take 20 minutes to inform ISPRS and Commission V of ISPRS about Cultural Heritage Programs in the world and how ISPRS could participate more in the practice of conservation through CIPA activities and CIPA working groups.
  4. Question period (15 minutes).
- *Proposed CIPA Working Group IV Workshop Vienna - July 96*

It was proposed by R. Letellier that Working Group IV will organize a two to three day CIPA workshop in July of 1996, in a remote location of the Alps. This workshop would include CIPA Committee members and a few special guests. It is to address questions pertaining to how best CIPA can manage its needs, i.e. ICOMOS, ICCROM, and UNESCO's World Heritage Center's requirements for recording, documentation and monitoring. The dates identified for the Workshop are between 21-25 July 1996.

- *ICOMOS 1996 General Assembly - Sofia, Bulgaria*

It has been decided that the 5-9 October 1996 ICOMOS General Assembly in Sofia must be used as an opportunity for CIPA to advertise its activities by

displaying photogrammetric results, displaying a CIPA pamphlet/poster, and/or by giving a report during the General Assembly. It was suggested that additional ideas on CIPA's participation in Sofia be sent to President Badekas.

- *1997 CIPA Symposia.*

Prof. Rosswall from Sweden has proposed that a CIPA Symposium be organized in Gotemborg, Sweden in 1997. This has been approved in principle by CIPA awaiting final commitment from Prof. Rosswall. Edel Lundemo will contact Prof. Rosswall in the near future to discuss her possible assistance in the organization of this symposium.

It was also mentioned that CIPA Symposia and other meetings should be advertised using ICOMOS and ISPRS Newsletters as much as possible. This requires advance planning as the Newsletters are generally published only once or twice a year.

## **ANNUAL MEETINGS**

- *1995 CIPA Annual Meeting.*

The 1995 CIPA Committee meeting was organized by Prof. J. Jachimski and took place during 22-24 September 1995 at the Department of Photogrammetry and Remote Sensing Informatics of the University of Mining and Metallurgy in Krakow, Poland. Members present were:

Prof. Dr. J. Badekas, Greece

Arq. Antonio Almargo Gorbea, Spain

Arch. Robin Letellier, Canada

Prof. Dr. Peter Waldhaeusl, Austria

Prof. Dr. Jozef Jachimski, Poland

Eng. Edel Lundemo, Norway

Dr. Chryssy Potsiou, Greece (as assistant to the President)

- *1996 CIPA Annual Meeting.*

The next CIPA meeting should be held in Bali, Indonesia, following the above mentioned Bali Symposium. Should the Bali Symposium not take place, the CIPA meeting will occur in conjunction with the XVIII ISPRS Congress in Vienna between 20-25 July 1996.

- *1997 CIPA Annual Meeting.*

The 1997 CIPA Annual Meeting is planned to take place in Gotemborg, Sweden in conjunction with the 1997 CIPA Symposium.

## **REVIEW OF CIPA WORKING GROUP ACTIVITIES**

- *Working Group I - "Control Information"*  
*Chair: P. Waldhäusl and J. Peipe*

The results of CIPA Karlplatz Test have been used at several occasions. A series of measurements have been finished in 1995. The best of them were made by the Slovak Technical University. The final report of this test will be published by Petros Patias, Aristotle University, Thessaloniki, Greece; Antonio Almagro, Escuela de Estudios Arabes, Granada, Spain and Peter Waldhölzl, University of Technology, Vienna, Austria, at the Vienna Congress of ISPRS 1996.

Rollei and Leica are testing their own software by using the material produced by the Test.

The list of all centers which have managed to make acceptable restitutions will be approved by CIPA; sent to ICOMOS and UNESCO; published in the **ICOMOS News** and the **ISPRS Journal of Photogrammetry & Remote Sensing**; and will be accessible on the WWW.

- *Working Group II - Digital Image Processing*  
*Chair: A. Streilein and K. Hanke*

A questionnaire on "the use of digital architectural photogrammetry" was structured in order to investigate the present level of application of Digital Architectural Photogrammetry. The final results and their evaluation are expected by the summer 1996.

- *Working Group III - Simple Methods for Architectural Photogrammetry*  
*Chair: A. Almagro*

The software Maas-CR from Leica was tested. It works with the Leica SD2000 for bundle adjustment not including control measurement with theodolite; only with plumb lines and tape measurements. The results are very satisfactory because of the simple user interface and the possibility to work on line with the stereoplotter used as measuring device. Some other works using ORIENT have also been conducted. Experience has been gained in recording using stereo-photogrammetry with reduced control (distances and plumb lines).

- *Working Group IV - Recording Documentation and Information Management*  
*Chair: R. Letellier*

The purpose of Working Group IV is to provide a forum for photogrammetrists from CIPA and conservationists at large from ICOMOS to discuss and work toward linking and integrating recording, documentation and information management practices for cultural resource conservation needs.

Working Group IV undertook the following:

1. Got financial support from ICCROM to publish, during the winter of 1995-1996, guidelines entitled "Recording, Documentation and Information Management Guidelines for World Cultural Heritage Sites."

2. Invited over 120 Organizations and experienced practitioners from more than 25 countries to review the Guidelines. This invitation was sent to members of ICOMOS, ICCROM, UNESCO and CIPA.
  3. Received 81 positive responses from the above organizations and practitioners which reviewed and commented on the Guidelines. They are being considered as corresponding members of this working group. The 30 people that provided detailed remarks to enhance the Guidelines are also being considered as Active Members of Working Group IV.
  4. Presented the above mentioned Guidelines at the September 1995 CIPA Annual Meeting in Krakow. These Guidelines were discussed during the Krakow meeting and adopted by CIPA.
  5. Presented a "CIPA Outreach" Concept in Krakow. As a result of the past two years of activities, Working Group IV recognizes that CIPA should now disseminate its knowledge by sharing it with ICOMOS membership from other Continents.
- *Working Group V - Archeology and Photogrammetry*  
*Chair: C. Ogleby and M. Doneus*

The aims of Working Group V are to make archaeologists aware of the **possibilities** and the **limits** of photogrammetry and remote sensing within their field. The following steps are suggested:

- To get in contact with the ICOMOS Working Group for Archaeology and prepare an address-list via Internet and WWW.
- active participation at archaeological congresses
- setting up a questionnaire within the archaeological section of the WWW.

The objectives of this working group are under review.

#### *Working Group VI - Monuments Information System*

P. Waldhäusl has taken the responsibility for developing a proposal for a new CIPA Working Group on this field.

#### *Working Group VII - Non Professional Cultural Heritage Recorders*

J. Jachimski has taken the responsibility for developing a proposal of a new CIPA Working Group on this field.

### **PROPOSED UK/FRANCE ICOMOS RECORDING GUIDELINES**

The Guideline document was presented by Philip Withbourn at the ICOMOS 1995 Advisory Committee meeting in Krakow in mid-September 1995. It was then proposed by ICOMOS Canada that the document will be reviewed by a Scientific Committee of ICOMOS as stipulated in a procedure document of ICOMOS. This proposal makes reference to the CIPA as the Scientific Committee to review the document.

The suggestion for the CIPA's involvement in reviewing the Guidelines was made by R. Letellier who attended the September 1995 Advisory Committee meeting. This

suggestion implied that the CIPA Working Group IV would be representing CIPA on this review. Working Group IV involvement will be to ensure that the UK/France Guidelines are at a high standard and are well linked to the "Recording, Documentation and Information Management Guidelines for World Cultural Heritage Sites" to be published by ICCROM soon.

CIPA is in contact with Secretary General Luxen of ICOMOS for establishing the proper ad-hoc Working Group and R. Letellier is actively preparing the first meeting of the Working Group.

## **SELECTION OF NEW BOARD MEMBERS**

A. Daoulatli, CIPA committee member from the part of ICOMOS, has submitted his resignation. Also F. Ursua-Cocke and R. Dallas, both members of CIPA from the part of ICOMOS, have expressed their intention to leave the Committee. There is then a need for the replacement of one or possibly three members of the Committee.

Despite that several names of European based people were suggested it has been decided that people from other countries should be attracted by proper advertising in the **ICOMOS News**, so as to reach all member countries equally and strive to get representation from all continents.

## **NATIONAL DELEGATES AND CORRESPONDENTS**

- *CIPA National Delegates*

It was discussed that selection criteria should be defined to ensure that designated National Delegates are active in their respective countries.

- *CIPA Corresponding Members*

It was discussed and agreed that CIPA should broaden this membership to include those interested and actively involved in "Recording, Documentation, Information Management and Monitoring" activities. It was observed that it is very important to activate as much as possible National Delegates and Corresponding Members.

- *Membership Database*

National Delegates and Corresponding Members will be compiled into a database for reference and mailing. R. Letellier offered to manage and maintain this database.

## **CIPA OFFICERS**

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## **INTERORGANIZATIONAL ACTIVITIES - ISO**

### **THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION ORGANISATION INTERNATIONALE DE NORMALISATION**

*Submitted by: Prof. Dr. H.-P. Bähr, Co-Chairman ISPRS Working Group VI/3  
Lawrence W. Fritz, Secretary General ISPRS*

#### **GENERAL INFORMATION**

The ISO is a worldwide federation of national standards bodies comprising 118 members (85 Member Bodies, 24 Correspondent Members, nine Subscriber Members), one in each country. ISO international standards are developed in agreement between its Member Bodies. A committee draft is given to an ISO Technical Committee (TC) for discussion. After consensus in the TC, the central secretariat of ISO emits a Draft International Standard (DIS). The drafts include the vote results from the respective countries. Final voting is done by all ISO Member Bodies and the final ISO version has to be agreed by at least 75% of the voters.

International Organizations such as ISPRS may be granted liaison status (Category A or B) with an ISO TC, ISO Subcommittee (SC) or ISO Working Group (WG). Category "A" liaison gives right to full participation, whereas Category "B" liaison is to be kept informed only.

#### **ISPRS LIAISONS AND REPRESENTATIVES**

During 1995, ISPRS has had liaison status on the following ISO committees.

- *ISO/TC 20 "Aircraft and Space Vehicles"*
  - ISO/TC20/SC14 "Space Systems and Operations"  
Category B liaison  
ISPRS representative is Prof. Dr. H.-P. Bähr  
Co-Chairman, ISPRS WG VI/3
  - ISO/TC20/SC13 "Space Data and Information Transfer Systems"  
Category B liaison

ISPRS representative is Dr. Hartmut Ziemann, Chairman, ISPRS WG I/1

alternate representative is Dr. Ekow Otoo, Chairman, ISPRS WG II/3

- *ISO TC 42 "Photography"*  
WG 03 "Sensitometry, Image Measurement and Viewing"  
WG 05 "Physical Properties and Image Permanence of Photographic Materials"  
WG 12 "Lens Quality Characteristics"  
WG 18 "Electronic Still Picture Imaging"  
Category A liaison  
ISPRS representative is Dr. Hartmut Ziemann, Chairman, ISPRS WG I/1  
alternate representative is Dr. H.-P. Bähr, Co-Chairman, ISPRS WG VI/3
- *ISO TC 172 "Optics and Optical Instruments"*  
ISO/TC172/SC9 "Electro optical systems"  
Category A liaison  
ISPRS representative is Dr. Hartmut Ziemann, Chairman, ISPRS WG I/1  
alternate representative is Dr. H.-P. Bähr, Co-Chairman, ISPRS WG VI/3
- *ISO TC 211 "Geographic information/Geomatics"*  
Category A liaison  
ISPRS representative is Lawrence W. Fritz  
Secretary General, ISPRS

Efforts to establish Category A and B liaisons with the subcommittees SC 1 of ISO TC 172 and SC 6 of ISO TC 20 respectively, have been unsuccessful to-date. TC/172/SC1 addresses "Fundamental Standards," TC/20/SC6 addresses "Standard Atmosphere."

## REPORTS

During 1995 ISPRS was not represented but, did receive information about the following meetings:

- ISO TC 20/SC 13  
May - Sant Hubert, Canada  
Nov - Toulouse, France
- ISO TC 20/SC 14  
Jan - Cannes, France  
Apr - Paris, France
- ISO TC 172/SC 1  
Jun - Tucson, USA

TC 42 and TC 172/SC 9 provide their draft and adopted standards regularly to ISPRS. Prof. Biçliç maintains an available registry of them. The documents considered of most interest to ISPRS members from TC 42 (Photography) are:

- ISO 5-3 Density Measurements, Part 3: Spectral conditions
- ISO 5-4 Density Measurements, Part 4: Geometric conditions for reflection density
- ISO/DIS 517.2 Apertures and related properties pertaining to photographic lenses: Designations and measurements
- ISO/DIS 5466 Processed Safety Photographic Films: Storage practices



- ISO/DIS 6221 Films and papers: Determination of dimensional change
- ISO/DIS 8478.2 Camera Lenses: Measurement of ISO spectral transmittance
- ISO 10602 Processed silver-gelatin type black-and-white film: Specifications for stability
- ISO/DIS 12231 Electronic still-picture cameras: Terminology
- ISO 11145 Lasers and laser-related equipment: Vocabulary and symbols

The documents considered of most interest to ISPRS members from TC 172/SC 9 (Optics and Optical Instruments/Electro-Optical Systems) are:

- ISO 9334 Optical Transfer Function: Definitions and mathematical relationships

ISPRS was represented at the ISO TC 211 plenary meeting which convened in Reston, USA during 28-29 May 1995. ISPRS Category A liaison with TC 211 was officially established 29 September 1995.

TC 211 on "Geographic information/Geomatics" was initiated in late 1994 and is now very active in drafting standards for GIS activities. It has formed five Working Groups within which one or more Work Items are being addressed. The following is a listing of the five *WGs*, *their Convener (host)*, the Work Items, and their Chairpersons:

- *WG 1 - Framework and Reference Model (Greg Smith, USA)*
  - Reference Model (N. Andersen, USA)
  - Overview (Gower, UK)
  - Conceptual Schema Language (Berre, Norway)
  - Conformance Testing (Imai, Japan)
- *WG 2 - Geospatial Data Models and Operators (Ken Bullock, Australia)*
  - Spatial SubSchema (Parker, UK)
  - Temporal SubSchema (Roswell, USA)
  - Rules for Application (Hoseggen, Norway)
  - Spatial Operators (open Chair)
- *WG 3 - Geospatial Data Administration (Les Rackham, United Kingdom)*
  - Cataloging (Rugg, USA)
  - Geodetic Reference System (open Chair)
  - Indirect Reference System (Walker, UK)
  - Quality (Morrison, USA)
  - Quality Evaluation Procedures (Shibasaki, Japan)
  - Metadata (Danko, USA)
- *WG 4 - Geospatial Services (Morten Borrebaek, Norway)*
  - Positioning Services (open Chair)
  - Portrayal of Geographic Information (Toppe, Norway)
  - Encoding (Skogan, Norway)
  - Services (Berre, Norway)
- *WG 5 - Profiles and Functional Standards (David McKeller, Canada)*
  - Profiles (O'Brien, Canada)

ISPRS has been invited to provide specialists to work in these groups, and even to lead by Chairing open Work Item positions (as listed above), and to provide reviews of the draft standards being developed in each of the Work Items. Addresses of the

chairpersons and a registry of all documents produced by TC 211 are available and are being maintained by the ISPRS Secretary General.

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## **INTERORGANIZATIONAL ACTIVITIES - SPIE THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING**

*Submitted by: Prof. Dr. Armin Gruen, 2nd Vice President ISPRS*

### **1995 VIDEOMETRICS IV CONFERENCE**

For the fourth time in a row ISPRS has supported the Videometrics Conference of SPIE. Videometrics IV took place from 22-26 October 1995 at the Pennsylvania Convention Center, Philadelphia, USA as part of Photonics East (comprising 45 conferences and 67 courses). The conference on Videometrics addressed developments and applications of the state of the art of vision-based measurement technologies.

The primary function of Videometrics is to obtain quantitative information about physical objects or the environment. This includes methods to accurately and automatically recover 3-D properties, such as coordinates and dimensions, from images. These images are obtained not only from traditional CCD cameras but also, among others, active 3-D laser scanners, high resolution digital still video, VCR's, structured light, and integrated different types of data.

Calibration and performance evaluation of vision systems for measurement-related applications remains an important issue. The designer must be able to precisely predict the resulting accuracy from a given vision system, in a given configuration, under all the conditions expected during operation.

Improving the metric performance of object positioning, orientation and tracking in three-dimensional space, and geometric modelling of the environment is also dealt with in this conference.

Recent advances, notably those documented in photogrammetric publications, show that the achievable accuracy has reached a level that makes it acceptable for many industrial requirements such as gauging and reverse engineering.

An important objective of this conference was to bring together machine vision specialists, photogrammetrists, system designers, and potential users, particularly those with high tolerance requirements and those already convinced of the importance and payback of vision metrology, to discuss and exchange ideas on the above issues.

Papers have been solicited in the following and related areas, with particular emphasis on system applications:

- successfully demonstrated system applications
- on-line control systems
- processing and analysis of 3-D data
- object and environment (site) modelling
- dynamic tracking in 3-D

- rigorous and practical camera and system calibration
- accuracy and performance evaluation
- precise and robust measurement algorithms
- integration of various sensor data for metrology

In eight sessions 37 papers were presented and printed in the **SPIE-Proceedings Volume 2598**.

## **RELATIONSHIPS WITH ISPRS**

At Videometrics IV, ISPRS was given the opportunity to display and distribute information material about the Society and for the XVIII ISPRS Congress in Vienna 1996.

As the number of SPIE conferences, conducted in parallel, has increased in recent years, the attendance has partly dropped substantially. Therefore, SPIE is currently reevaluating its conference program with the aim to focus more on the well-attended, attractive topics.

Videometrics, which is chaired by Sabry El-Hakim, with Hirofumi Chikatsu, Armin Gruen, Henrik Haggren, Kurt Novak, Mark Shortis and Walter Snow on the Program Committee, ranks among the most stable and well-attended single conferences (it was actually the second biggest of the Photonics East Symposium) and is thus likely to survive at least for a few more years.

The next conference Videometrics V will move to the SPIE Annual Meeting, San Diego, July 1997.