With more than 350 participants and 266 papers, all published before the delegates arrived in Torino, the CIPA Heritage Documentation International Committee of ICOMOS and ISPRS is one of the most active and productive international committees in this field. These are some of the words used by L. Dowman, President of ISPRS to welcome the participants and open the CIPA XXth international symposium in Torino.

Prof. Eng. Sergio Dequal, ISPRS Symposium Director, also welcomed the participants on behalf of the CIPA Organizing Committee, the Italian Society of Photogrammetry, the Italian ICOMOS Section and the Politecnico di Torino. He reminded the participants that the Symposium’s Theme this year was: International Cooperation to save the World’s Cultural Heritage. The Theme and the fact that this is now CIPA’s XXth Symposium give a clear idea of the importance of this event: documentation, monitoring, conservation and management of cultural heritage are an absolute moral duty. The dimension and complexity of the problems and the increasing dangers that threaten cultural heritage, due not only to natural aging and decay, but also to human indifference and stupidity (he was referring here to wars, acts of terrorism, vandalism, etc.), require greater effort and closer international cooperation to attempt to save this huge and precious heritage for future generations.

The highly sophisticated instruments and methods available today give us new opportunities to succeed in reaching this objective. Still, much hard work needs to be done: new technology and its...
potential, need to be better known by end users; experts in surveying and geomantic need to find a common language to communicate with architects, archaeologists, conservators, historians and public managers of the cultural and natural landscapes.

This is a demanding task for CIPA and he said that he was convinced that the participants would contribute greatly by their papers and discussions to helping the international community to make a significant step in this direction.

Petros Patias from Greece, CIPA’s President also welcomed the participants and mentioned that the meeting was a great opportunity for all of the participants to learn about new developments as well as share experiences with one another. The occasion of CIPA’s XXth Symposium provides also a nice opportunity to show respect and gratitude to colleagues who enormously helped CIPA in reaching its goals. The Executive Board decided to confer to them the CIPA Honorary Membership for lifetime, with many thanks for their activities for CIPA’s ideas and visions. The CIPA Honorary Members are: Prof. Cevat Erder, Prof. Ross Dallas, Prof. Jozef Jachimski and Prof. Peter Waldhäusl, all of them pioneers in documentation of the cultural heritage and CIPA activists from the early days.

**What is CIPA**

The International Scientific Committee for Documentation and Architectural Photogrammetry (CIPA) is a joint committee set up by the International Council on Monuments and Sites (ICOMOS) and the International Society for Photogrammetry and Remote Sensing (ISPRS). The latter is an international organization with more than 60,000 members, mostly surveyors, photogrammetrists and scientists engaged in mapping and remote sensing activities. CIPA ensures liaison and co-operation between ICOMOS and ISPRS.

Its main purposes are:

- to promote recording, documentation and study of status and changes of cultural objects, monuments, groups of buildings, including their environment, villages, towns, sites and cultural landscapes by means of further development of applications of photography, photogrammetry and related disciplines and techniques.

- to actively pursue programs which define research needs, stimulate and support research activity, and increase exchange and dissemination of relevant information in order to promote greater understanding in the field.

- to actively pursue international co-operation in that domain.
More than 200 papers and posters were presented during the Symposium.

Following is a sample of some of the papers presented that might be of interest to some of you. The full list and all the papers will be available shortly on CIPA’s website.

- Architectural, Archaeological And Environmental Restoration Planning Methodology: Historic Researches And Techniques Of Survey Aiming To Conservation (Genovese R.A.)
- Standards In Cultural Heritage: The Missing Grammar For The Digital Documentation Of The Past (Ioannides M.)
- A Programmed Procedure For Selecting Measured Survey Methods (Elwazani S.)
- Modeling And Visualization Of Landscape And Objects Using Multi-Resolution Image Data (Gruen A.)
- Non-Metric Camera Calibration And Documentation Of Historical Buildings (Bosch R.)
- IMAP3D: Low-Cost Photogrammetry For Cultural Heritage (Martinez Rubio J.)
- Planning A Conservation Project: The Information System Of The Insula Orientalis I At Herculaneum (Brizzi M.)
- An Integrated GPS And Total Station Instrument For Cultural Heritage Surveying: The Leica Sartstation Example (Biasion A.)
- Urban Lasermetry. Problems And Results For Surveying Urban Historical Centers: Some Pilot Cases Of Spanish Plaza Mayor (Sanjose J.I.)
- Elimination Of Color Fringes In Digital Photographs Caused By Lateral Chromatic Aberration (Kaufmann V.)
- Applications Of GIS In The Ancient Town Kelenderis In Turkey (Durduran S.)
- Recording Aboriginal Rock Art Using Cheap Digital Cameras And Digital Photogrammetry (Chandler J.H.)
- 3D Reconstruction And Simulating Assembly Of Ancient Chinese Timber Structure Buildings (Li D.)
- The Use Of Satellite Remote Sensing For The Management Of Cultural Heritage Sites In Cyprus (Hadjimitsis D.G.)
- Combined High Resolution Laser Scanning And Photogrammetrical Documentation Of The Pyramids At Giza (Neubauer W.)
- Integrates Surveying Techniques For The Archaeological Park Of Chan-Chan In Peru (Fangi G.)

- Photogrammetric Documentation Of An Archaeological Site (Palpa, Peru) Using An Autonomous Model Helicopter (Eisenbeiss H.)

- Architectural Surface Monitoring By Means Of The Active Vision System AVS (Balsamo A.)

During the Symposium, the RecorDIM Initiative, to which the GCI participates actively, was given one and a half hour in plenary session to present some of its achievements. This is where I had the opportunity to present the GCI’s progress on the preparation of the Principles and Guidelines publication for heritage managers and decision makers and the Handbook publication for professionals in the field of conservation.

For their Workshop, the RecorDIM Partners were given special access to Castello del Valentino that houses the School of Architecture. There, they had the opportunity to discuss the progress of their Task Groups with expert providers of documentation tools and services.

The RecorDIM Partners are individuals who belong to institutions that have created and support an active Task Group to bridge one or several of the gaps identified in earlier meetings. The Partners meet once every year to review progress, receive feedback, and approve the creation of new Task Groups.

TECHNICAL VISIT, THURSDAY Sept. 28, 2005

Venaria Royal Palace

The 17th century Royal Palace, designed in 1658 by Amedeo di Castellamonte for the Duke Carlo Emanuele II, is dedicated to Diana, the goddess of the hunt, and the Gallery of Diana, the Citronnerie, the Stables and the Chapel of St. Umberto, all famous works by Juvarra (1716-28), make up the so-called Turinese “Versailles”. It is a complex of extraordinary size (480,000 sq.m.), which exists in symbiosis with the village and the surrounding park. The Residence is currently being turned into a large work yard for the restoration wanted by the Italian Ministry of Cultural Resources and Affairs, and by the Region of Piedmont, with funding from the European Union. After restoration the complex will house a Museum on Court Life and Civilization; it also houses a national center for restoration and an exhibition area on the history and culture of Europe and the Mediterranean.
A New Conservation Institute Is Born

On March 21st, 2005, the Centro Conservazione e Restauro La Venaria Reale was established as a Foundation. The complex was established in the outstanding Venaria Reale setting at the Gates of the City of Turin.

The Center has 15 lecture rooms, 7 study rooms, 8 restoration workshops, 5 scientific laboratories as well as a 200 seats auditorium. There is also a library, offices, archives and services, all part of the recently restored 8,000 square metres (80,000 sq.ft.) of the original 18th century building complex.

Legally, the Center has been established as a private foundation, which makes it flexible and dynamic to manage, ready to play a leading role in the field of national and international conservation.

The articles of incorporation state that the Foundation has a mandate to defend and conserve heritage, and specifically:

a) establish a Heritage Conservation Laboratory and Workshop, carrying out consistent, coordinated and planned monitoring, prevention, maintenance and restoration of heritage;

b) organize a Scientific department for analysis and research on art objects and on materials and technology for conservation;

c) create and manage a School for Advanced Training and Research including the above mentioned project of the University of Torino to start a new curriculum for a degree in Cultural Heritage Conservation and Restoration;

d) document, collect, organize and circulate the results of the Foundation's activities;

e) organize courses and activities for training;

f) promote and develop studies, research and experiments in the field of conservation and restoration;

g) promote study and research and the collection of documents on the history of conservation and restoration;

h) promote the establishment of conservation and heritage related businesses and enterprises in the area;

i) participate in international heritage research and conservation programs.
Workshops
The Center houses restoration and conservation workshops and scientific laboratories. It will carry out restoration, conservation and controlled maintenance of a number of cultural heritage artifacts made from a wide range of materials, such as:
- paintings and sculptures
- polychrome wood and furniture
- textiles
- frescoes, stuccoes and decorations
- stonework
- metal works
- books and paper

Scientific department
The department will offer diagnostic testing services on the artifacts and works entrusted to the Center. It will also offer technical and scientific assistance to public and private restoration laboratories and workshops, will conduct research into material and methods used in conservation, offer support to training the educational activities.

The Scientific Department operates through five laboratories:
- chemistry
- mineralogy and petrography
- biology
- microscopy and photography
- climate and light control
Racconigi Castle

The last palace of delights to be inhabited by the House of Savoy, who entrusted its restoration to Guarini in 1676, the Racconigi Castle, was the favorite residence of King Carlo Alberto. The King himself entrusted the renovation of its luxurious apartments to the architect and interior designer Pelagio Pelagi, who added the prestigious picture gallery and built the Neo-Gothic complex of model farms, the "Margherie" with chapel and attached green-houses. Strolling along the paths of its magnificent park, one is impressed by picturesque buildings, grottoes, ponds, waterfalls and other romantic sights.

Social Dinner

Our hosts in Torino offered a very special dinner on Friday evening, September 30.

Participants were hosted to an aperitif in the large square in front of the Basilica of Superga, an imposing church dominating the hills of Torino which hosts the tombs of some of the most important kings of Italy.

From there, they took the Cremaliera, an old train preserved in its original furnishing from 1934, where they enjoyed a very nice view of Torino, the way the aristocratic families used to in the first half of the twentieth century.

At the end of the 20 minutes ride, they were invited to taste the gourmet dishes of the Stazione Sassi Restaurant where the atmosphere brings you back to the times of old train stations, complete with replicas of horse-driven coaches and old counters.

Dinner took place in a friendly atmosphere where the hosts had a special cake prepared with the CIPA XXth Symposium logo on it and everyone could have their caricature drawn by a friendly local artist that went from table to table.

The RecorDIM Session

Twenty-five delegates participated to the RecorDIM Session that was held on Saturday afternoon and Sunday at the splendid Torino School of Architecture, an ancient summer palace of the aristocratic Savoy family.

I said a few words to remind participants why the GCI decided to get involved in this Initiative and to support its international coordination to ensure that the Task Groups created received the support and encouragement they needed to meet their objectives.

I reminded them that the RecorDIM Initiative was scheduled to end in 2007, that we were past the mid-point and that it would be appropriate to start thinking about what they all wanted to do after 2007. I pointed out the fact that the Task Groups are beginning to
show significant progress towards delivering results and that CIPA had been a most active supporter of the Initiative since its inception. CIPA specialists have contributed significantly to help the users who came to this platform to develop better products. By doing so, CIPA has attracted a number of important institutions (English Heritage, India National Trust for Artistic and Cultural Heritage, Ankara University, Politecnico di Torino, Public Works Canada, Centre Raymond Lemaire, ICOMOS, GCI etc.) to its international platform and that makes it an even more significant and relevant international committee of specialists.

Petros Patias, President of CIPA, acknowledged the groups’ efforts and said that during a recent meeting of its Executive, it decided to continue to support the RecorDIM Task Groups that would need more time to complete their tasks past the 2007 deadline. CIPA was also creating its own Task Groups to work collaboratively with the existing ones to address the gaps still remaining and to explore new issues.

The participants then heard from various persons representing institutions that want to create new Task Groups.

- **Monitoring** - Giora Solar from ICOMOS reported on the progress of the Task Group entitled: Documentation for World Heritage Nominations and Monitoring.

- **Vernacular architecture** - Ulrike Herbig, Head of the Institute for Comparative Research in Architecture at Vienna Technical University presented a proposal for a new Task Group to develop a methodology for documenting vernacular heritage in Nias, Indonesia to help with the recovery efforts of the village architecture in this region devastated by the Dec. 2004 Tsunami. The results will be shared with other villages and made available to others who might need them in other regions of the world.

- **Standards** - Marinos Ioannides from Cyprus proposed the creation of a Task Group to address the sensitive but very important question of developing international standards for recording and documentation in cultural heritage.

- **Photo-Tacheometry** - Michael Scherer from the University of Bochum (Germany) and José Luis Lerma from the Universidad Politécnica de Valencia proposed the creation of a Task Group to survey architecture and cultural heritage by phototacheometry. This low-tech tool would enable professionals to quickly and economically document and analyze graphically architecture and other types of cultural heritage.

- **International Glossary** – Joseph Jachimski from the University of Mining and Metallurgy of Krakow, Poland proposed the creation of a Task Group to adapt existing software that would enable the international community to upload directly onto the Internet words and definitions that pertain to the field of documentation of cultural heritage.

- **Monitoring** – Peter Waldhäusl from Technical University of Vienna reported on the progress to create a Task Group to work
on the development of monitoring methodologies for World Heritage sites in Western Anatolia, Turkey.

- **GIS** – Fulvio Rinaudo from Politecnico di Torino and Guliz Bilgin from Ankara University in Turkey reported on their joint efforts to create a Task Group to develop open source GIS software and basic standards for the gathering of information to document archaeological sites and urban environments.

Robin Letellier, the RecorDIM international coordinator, thanked all the participants and closed the session.

**The Antonelliana Mole – History and problems of the highest masonry construction in the world (at that time), built starting in 1863**

To celebrate the emancipation given to the Jewish community by king Charles-Albert, the community bought a piece of land on via Montebello and decided to build a synagogue. The commission was given to architect Alessandro Antonelli in 1862. He designed and supervised the construction of an audacious and unique building.

The original design called for a 47 metres high cupola. The construction work began in 1863 but shortly thereafter, Antonelli modified his design and brought the construction to a height of 113 metres. The synagogue would have been the largest in Italy and the highest in Europe. Unfortunately, in 1869, the Jewish community realized that the project went far beyond its financial means and decided to stop financing the project.

Construction work stopped and the Mole was covered with a temporary roof.

Though he was going through personal financial difficulties at that time, Antonelli was still convinced that he should continue to fight for the completion of his extraordinary masterpiece. In 1873, he not only convinced the municipality of Turin to purchase the unfinished project and complete it as a monument to king Victor-Emmanuel II but he also convinced the Municipal Council that his original project was too modest for such a king. The construction was raised to 146 metres, then 153 metres and finally to 167 metres (550 ft.).

Of course, the design of the original foundations was not adequate for such an additional load and Antonelli worked relentlessly to find solutions. Unfortunately the construction technology at that time was not advanced enough to support such a “vertical dream”.

Nevertheless, Antonelli’s genius found remarkable solutions and the construction held. The 50 metres high cupola is built with two 12 centimetres (4 in.) thick walls located less than 2 metres (6 ft.) apart and held together by iron braces and intertwined brick arches. Two crisscrossing staircases were built within that tight space; they give access to the spire for maintenance purposes.
In 1889, the spire was completed and the “golden winged genie” was installed at the top. Construction work had lasted 26 years but the interior finishes work would continue under the direction of the architect’s son, Costanzo and be completed in 1908 by architect Annibale Rigotti.

The spire was badly damaged during the February 23 1887 earthquake and required important repair work. A violent hurricane also damaged it in 1904 and a 4 meter-wide star replaced the “golden winged genie”. In 1953 another violent storm removed 47 meters (155 ft.) of the spire that had to be rebuilt. This time, a steel structure faced with brick was used. Restoration work was completed in 1987. The Mole now houses an exhibition center and the cinema museum and continues to be the symbol of the City of Turin.