Rome (ARIS-07), Torino (Politecnico), Nicosia (Documentation)
October - November, 2006

The number of visitors in Rome has tripled during the past few years. It appears that the Catholic Church, that is the custodian of so many of Rome’s most outstanding treasures, has not yet caught up with this situation nor has it set in place measures that would mitigate the impact of this major increase in the number of visitors on the monuments and sites.

ARIS-07 Course preparation
During 2003, ICCROM held a very successful advanced course entitled Architectural Records, Documentation, Inventories and Information Systems for Conservation (ARIS-03). The course was repeated in 2005 (ARIS-05) in collaboration with the GCI and was again very well received by participants.

Building on this experience, and within the framework of an umbrella agreement of collaboration between the GCI and ICCROM for training activities, the GCI has agreed to work with ICCROM to deliver ARIS-07. The meetings in Rome were held to prepare a formal agreement between our institutions to deliver this course, to prepare a schedule and a budget and to share responsibilities for the next steps.

The course
Good conservation decisions are made with knowledge of the significance, history, past interventions, and current conditions of cultural resources.

This advanced course on architectural records, inventories, and information systems for the conservation of cultural heritage addresses the needs, methodology, and techniques for acquiring and using this knowledge. The course draws upon the vast wealth of cultural material in Rome and will be taught by leading experts in the field who participated to the previous ARIS courses. Records, inventories, and information management tools are continuously being developed and must be considered as a fundamental part of the conservation process.

Course preparation meetings
Rand and I met with Joe King (ICCROM) and Ana Almagro (consultant, course coordinator) to discuss the course’s organization and budget. The course will last four weeks. It will be held at ICCROM during the month of October 2007.
A small group of core resource persons was identified. Each person will be responsible for overseeing one week of training. The core resource persons will meet at ICCROM during the first week of March 2007 to finalize the course contents, review the course materials, discuss the transition from week to week, and agree on a process for regular evaluation. Both institutions will promote the course but the selection of participants will follow ICCROM’s well-established process for such international courses.

The course is structured around three blocks of knowledge on specific matters relating to:

1. **Documentation: principles, theory, and guidelines.**

2. **Recording practice:** Practical workshop about: generating records (direct, topographic, photogrammetric, 3-D scanning), archival research (historic, archaeological, structural, condition), and dissemination (computer graphics, multimedia, GIS).

Including topics such as:
- *Architectural recording*, emphasizing the relationship between representation and content;
- *Architectural recording as a discipline*, supported by all the sciences and techniques that are able to contribute to the understanding, measurement and analysis of architecture from a morphological, material and structural standpoint;
- *Architectural recording as a research activity* combined with the bibliographic and documentation investigation;
- *Architectural recording as an open knowledge system*, aiming at obtaining the most comprehensive understanding of the structure under investigation and the collection, over time, of critical records of all relevant elements;
- *Architecture and context*;
- *Demonstrations* and presentations of technical developments in recording.

3. **Information management: planning, practice, access and diffusion.**

The course will stress the notion of ‘inventory’ as the core element of information systems to be able to establish links between the various aspects and fields relating to architectural documentation processes. The notion of ‘information management systems’ includes:
- Principles, design and management of records of database systems;
- Methods to process architectural records and related information.

**Other meetings**

Rand and I also met with several other colleagues. Nicholas Stanley-Price, former Director General of ICCROM discussed with us potential papers that the GCI could contribute to the CMAS publication and various other international conservation activities in which he is involved.

With Alejandro Alva we reviewed the latest developments of the “Guiding Principles” and the “Illustrated Examples” publications that the GCI is preparing on the subject of heritage documentation. Alejandro is a retired ICCROM employee and a member of the Editorial Board for these two publications.

We did the same the following day with conservator Werner Schmid, Technical Editor for the “Guiding Principles” publication. Both were very enthusiastic about the publication’s developments and made constructive and thoughtful comments. We
also met with several ICCROM staff to discuss the institution’s project documentation and information management practices with a view to inform our own efforts to create a centralized project records system at the GCI.

**Rome**

Whenever we had a few moments, Rand and I enjoyed walking through the history-laden streets of Rome. We were told that tourism in Rome has tripled during the past few years and that this increase is encouraged and welcomed by the current municipal government.

We could certainly see and feel the pressure that this is causing on the historic monuments and the tourism infrastructure. The conflict between pedestrians and automobiles is heightened as well as the pressure on the tourism infrastructure especially for hotels, restaurants and transport. It appears that the Catholic Church, that is the custodian of so many of Rome’s most outstanding treasures, has not yet caught up with this situation nor has it set in place measures that would mitigate the impact of this major increase in the number of visitors on the monuments and sites. The next generation of conservators will certainly have a lot of work to do!

**Torino**

**Politecnico School of Architecture**

During the CIPA Heritage Documentation international conference held in Torino, Italy during September 2005, the participants were taken on a technical visit to the site of Venaria Reale Palace where important conservation and restoration works were being carried out by the Italian government. This was a huge restoration project involving many different professional firms of surveyors, architects, engineers, landscape architects, historians, conservators etc. and numerous construction firms. Part of the complex being restored was to house a new conservation institute, the Centro Conservazione e Restauro La Venaria Reale. The Center has 15 lecture rooms, 7 study rooms, 8 restoration workshops, 5 scientific laboratories as well as a 200 seats auditorium.

At that time, architect Mauro Volpiano made a presentation to the CIPA participants on the project’s documentation activity. He explained that the Italian government did not want to pay several times for the preparation of basic plans that would be needed by the professional firms; they also wanted to ensure that all documentation produced (text, drawings, photos etc.) would be prepared in digital formats that could be easily shared among the various firms and kept in a central archive for all.
to consult. For this, the state created a small group of three professionals to manage this documentation effort and hired Mauro to lead it. Only a few months after its creation it became obvious that this group’s efforts were saving the state such a great amount of money, and preventing costly duplications and errors, that the state increased this group to sixteen persons.

At that time, Rand and I took the opportunity to share with architect Mauro Volpiano our two heritage documentation publications in preparation, the “Guiding Principles” and the “Illustrated Examples” and GCI RecorDIM Initiative International Coordinator Robin Letellier talked about our international activities in this field.

It was on the basis of these initial contacts that architect Volpiano extended to us an invitation to come to Torino to speak about the GCI’s activities in general (all departments) and in documentation in particular.

A few words about the Torino Politecnico...

The Regio Politecnico di Torino (Royal Turin Polytechnic) was founded in 1906, but its origins go back further. It was preceded by the Technical School for Engineers founded in 1859 after the Casati Act and the Italian Industry Museum founded in 1862 under the aegis of the Ministry of Agriculture, Trade and Industry. The Technical School for Engineers was part of the university, which led to technical studies being accepted as part of higher education. The country was about to begin a new industrial era, which the Industry Museum was to address more directly. Famous scholars and researchers, authorities in different subjects with characters to match, gave a decree to new subjects such as electrotechnics and building science. They were the first to have a vision for founding a school which dealt with the needs of people and society.

Following the model of the most famous European Polytechnic Schools, at the beginning of the 20th century the Regio Politecnico di Torino had various objectives. It began to contact both the European scientific world and local and national industry. Aeronautics began as a subject. Students from all over Italy came to Turin and found in the new laboratories built for the study of everything from chemistry to architecture a lively and resourceful atmosphere. The future was already at hand.

The Polytechnic has two main campuses in Turin: the Valentino Castle on the River Po is still the main teaching campus for architecture, while the Corso Duca degli Abruzzi campus is dedicated mainly to engineering. A new mini-campus at Alenia Spazio holds the first teaching year of engineering while motor vehicle engineering is attended at Fiat-Lingotto Fiere.

Progetto Mestieri Reali

Documentation and the Built Heritage Conservation Process

On October 26, Rand and I gave a lecture at the Politecnico di Torino School of Architecture located in the impressive Castello del Valentino on the banks of the Fiume Po River.

Some thirty students, professors, conservators and documentation specialists participated to this session. Architect Mauro Volpiano introduced the session. He was followed by Mr. Antonio Fassone, President of the Fondazione CRT a very prominent public-private foundation with funds in excess of six billion Euros that supports the arts as one of its important programs. The Foundation made an important financial contribution for the creation of the Centro Conservazione e Restauro La Venaria Reale. Mr. Fassone gave more details about the Foundation’s other activ-
ties and its commitment to support the arts and the conservation of historic monuments and sites in the Piedmonte region.

The Built Heritage Conservation Process Phases: Initiation, Assessment, Options, Project Development, Implementation, Operation

 Venaria Reale Palace. The new Conservation Centre is housed in this complex.

I presented a diagram that explains the notion of heritage, went through an explanation of the Built Heritage Conservation Process and the necessity of creating an Integrated Project Dossier where the information gathered during each phase of the process is stored in a central location and made available to all who are involved in the conservation project. I then spoke about the GCI’s work in the field, the labs, in education, research and dissemination of information.

Rand presented our two heritage documentation publications that are scheduled for printing next year. Mr. Alberto Vanelli, Director General for the cultural heritage of the Piedmont Region made the concluding remarks. He raised several interesting points including the necessity for documentation standards and for developing training programs for professionals to become better at documenting the monuments and sites that they are entrusted with; he suggested that the documentation work done for the Venaria Reale was a model that is worth sharing internationally. Participants raised points such as the necessity to document and preserve traditional crafts that are rapidly disappearing in Europe and the problems related to collecting and archiving digital information.

Based on the discussions that followed our presentations and the comments I received from several of the participants, I can say that the workshop was very well received. The participants had a genuine professional interest for the GCI’s work. To hear about our work helped them to learn from conservation work that is being done in other parts of the world on important conservation problems or issues. It helped them to see and understand better where they stand. And where they stand is at the leading edge of the conservation profession and movement.

La Venaria Reale

**Centro Conservazione e Restauro**

Mauro Volpiano drove Rand and I to the new Conservation Institute La Venaria Reale located in the northern outskirts of the city of Torino. There, in the company of the Chief Scientist Emilio Mello, we visited the new laboratories, restoration workshops, documentation center and projects archive. We met the Director General, Dottoressa Carla Enrica Spantigati, who is also the Superintendent for the Piedmont Region for historic, artistic and ethnoanthropologic heritage. The first class of twenty students has completed the first year program and the second class has recently arrived. The course lasts five years; when the first full cycle is complete, there will be one hundred students in the Institute.
One of the several interesting activities we saw was in the digital lab where sophisticated modern equipment enables a technician to accurately calibrate color of digital images on a computer screen. He places a “McBeth” color chart on the object to photograph, then takes a digital picture. Placing the same “McBeth” color chart in a specially illuminated “box” in which the light level is controlled by the computer to duplicate the light level of the computer screen, he then uses the software to accurately duplicate the colors that appear on the screen with the ones in the “illuminated box”. In other words, what your eye sees in the “illuminated box” is identical to what it sees on the computer screen. A similar technique is used for color prints to ensure that the colors of the printed image are identical to the ones on the “McBeth” chart in the picture.

**Progetto La Venaria Reale**

From the Conservation Institute, we went to the offices of the Progetto La Venaria Reale downtown Torino. These are the offices of the group led by Mauro Volpiano to coordinate all the documentation of the restoration project of La Venaria Reale, the largest restoration project in Europe in recent times (more than 200 million Euros). The group began with 3 employees, was increased to 16 and while it is winding down, it is now reduced to 7 employees.

Mauro explained to us that it was critical to capture information in real time and to develop a system that would manage the data quickly and efficiently. The software that was already in use for the whole Piedmonte region was used and expanded for the project. It is a sophisticated database that manages the plans, the pictures and the text information. It is fast and capable of complex sequential questioning, but does require special training to operate.

In the early stages of the project, the contractors and the professionals were quite annoyed when the members of this team would ask them to stop work because a new archaeological or architectural feature had been found and needed to be recorded and documented before work could continue. But after a very short while, they all recognized the benefits of the approach and of the system and they were the ones who contacted the documentation group to ask for help and support to obtain quick decisions on how to proceed when a new feature or problem was encountered. By having access to all the archaeological, historical and architectural information of the project, the documentation group was able to supply the professionals with accurate data enabling quick and efficient resolution of problems, thus saving time and money for everyone.

What was critical to the success of this group was to have staff constantly on site during the work and talking with the professionals and the contractors. Human interaction was a critical element. Interestingly, members of the documentation group were tasked with preparing all the base drawings used by everyone on site because most of the ones supplied to them by the surveyors, the engineers and the architects were inaccurate or incomplete to some degree.

**Museo delle Antichita Egizie di Torino**

If you like Egyptian antiquities, this museum is a “must see”. The Egyptian Museum (Museo Egizio) was formally founded in 1824 with the acquisition of a large collection gathered by Bernardino Drovetti. Following his service with Napoleon Bonaparte, Drovetti became the French Consul to Egypt (Technically to the Ottoman Sublime Porte).
Drovetti’s collection of 5,268 objects was deposited, along with the other Egyptian antiquities already in the university, in the 17th-century palace, built as a Jesuit school by the architect Guarino Guarini. During the 18th century, it became the Academy of Sciences.

Ernesto Schiaparelli, who became Director of the Museo Egizio in 1894, went to Egypt to acquire further antiquities and to excavate at several sites. Between 1900 and 1937 he and his successor Farina added some 20,000 objects to the Museum’s collections. The last great addition was the small Temple of Ellesija, presented by Egypt to Italy for its sustained technical and scientific support during the Nubian monument salvage campaign. During the 1960s, when Egypt was building the Assuan Dam to control the floods of the Nile River, the temple of Abu Simbel was dismantled and moved to safe grounds through an international campaign organized by UNESCO and supported by many nations.

Some six and a half thousand objects are on display, whereas a further 26,500 objects are in storage. One of the interesting objects on display is the scale model of the tomb of Nefertari. The model was made shortly after the discovery of the tomb in 1904 by E. Schiaparelli. The reproduction was made to scale, based on the documentation collected at the time of discovery.

The museum label on the model states: “The photographs and drawings were vital for the restoration and conservation of the tomb carried out between 1987 and 1992 by the Egyptian Antiquities Organization and the Getty Conservation Institute”. It was nice to see that the work of our Institute was acknowledged.

**Nicola Restauri**

Rand and I had the great privilege to be invited to visit Nicola Restauri, a private art conservation atelier and to have lunch with the Nicola family that created, owns and operates the atelier.

Nicola Restauri is a 3000 square meters art conservation complex located in Aramengo, a small village 40 km from Torino. It was created by conservator Guido Nicola who is now 86 years old and still lives on the premises. Gian Luigi Nicola, the son of Guido is a world-renowned conservator who took up in his father’s footsteps along with his sister. Now, Gian Luigi’s two sons, Alessandro, architect, and Marco, chemist, are also involved in the family business.

The Nicola family has been operating this art conservation atelier for more than fifty years. The business employs sixty persons, most of which are professional restorers with different specialized skills. The wide and luminous premises in Aramengo are equipped with industrial cranes, elevators and modern equipment that are both safe for the employees and the precious works of art. The conservation workshops are supported by a well-equipped laboratory for analyses and research.
Nicola Restauri is highly specialized in the restoration and lining of large canvas paintings (more than one hundred square meters), paintings on wood, gilded and poly chromatic wooden sculptures, picture frames and boiseries, works on paper, parchment and painted fabrics. They also restore primitive and oriental art, Egyptian artifacts, murals, frescoes and stucco-works, stone and clay materials.

Each work of art brought to the atelier for restoration goes through a rigorous recording and documentation process. Sketches, scaled hand and CAD drawings, “frottages” (rubbing a pencil over a sheet of paper on the back of a picture frame or canvas), photos and various specialized examinations (X-ray, infrared, ultra-violet) are all part of the basic information collected on the work of art before any recommendation for options for treatment are made.

This information is carefully catalogued and inputted into a custom tailored computerized database that is accessible to all those who will be working on the work of art through the atelier’s computer network.

Alessandro and Marco introduced us to the remarkable archive of all the work the Nicola did during the past fifty years; it is certainly a model for others to follow. From the very onset, the Nicolas have been very conscientious about documentation. Complete documentation of the original condition of an art object and of the various treatments made to it, is something that they have done meticulously for every art object in their care. They now have a better and more complete archive than most of their clients. The computerized database that they have created specifically for their records links all photographs, drawings, notes and reports and is fully searchable.

Gian Luigi Nicola is a specialist of Egyptian artifacts and sarcophagus restoration and he has a strong interest in African art as well. His personal collection of African art objects and rare books is quite impressive. He shared with us his personal interest in doing research to better understand the patina of wooden African works of art, and for the recreation of ancient dyes for textiles; he showed us a rare French book with small samples of textiles that dates back to the mid 1800s; with each sample, there is the recipe for creating the dye.

Lunch was truly a rich cultural experience for us. It began with antipasti of locally made salami, bread and wine, followed with pasta and truffles; Guido Nicola is a specialist for finding truffles and still enjoys doing it. This was followed by meat, salad and grappa (strong liquor). The conversation was lively on conservation issues and the family’s history, interspersed with the showing of an ancient American gun and a waterproof hat made of rabbit skin, all in the authentic Italian Piedmont decor of the family’s dining room, with Marco’s young children running around and begging for attention.
Slow Food

“Slow Food” is in opposition to “Fast Food”. Every year, Torino hosts the “Salone del gusto” – a fair to promote not only regional food, but also food of quality, food that one savors and eats slowly. Rand and I tried it out one evening. The fair offers a wide selection of gourmet foods. Once you have paid the entrance fee, you can walk through the numerous rows of stands and taste small portions of food.

CIPA International Workshop on e-Documentation and Standardization in Cultural Heritage - Nicosia, Cyprus

This year’s symposium was a joint event focusing on e-Documentation and Computer Graphics. It was organized by CIPA Heritage Documentation, VAST (Virtual Reality, Archaeology and Cultural Heritage), Eurographics Workshop on Graphics and Cultural Heritage and Euro-Med on IT in Cultural Heritage.

The event was pulled together by Marinos Ioannides from Cyprus, member of several international organizations and organized under the Auspices of the Cyprus Minister of Education and Culture, the Minister of Commerce, Industry and Tourism and in Cooperation with the Department of Antiquities in Cyprus and the Cyprus Institute. With more than 250 participants and hundreds of papers, all published before the delegates arrived in Nicosia, the event set an example to follow. The organizers felt that there were just too many meetings in this field, being organized by too many different organizations. Regrouping resources to organize a single event such as this one made sense and required a lot of efforts but it was certainly worth it.
Some of the conference organizing partners...

**CIPA Heritage Documentation**

This is the international committee created by ICOMOS (International Council on Monuments and Sites) and ISPRS (International Society for Photogrammetry and Remote Sensing) to advise them on issues related to cultural heritage. For more than thirty years, CIPA Heritage Documentation has been organizing international conferences on recording, documentation and information management and publishing the proceedings.

In Nicosia, Rand was elected to CIPA-Heritage Documentation's Board as an Associate Member. He was asked to inform the Committee of pertinent GCI activities in the area of recording, documentation and information management that may be of interest to the international community.

**EPOCH**

The European Research Network of Excellence in Open Cultural Heritage

EPOCH is a network of about a hundred European cultural institutions uniting their efforts to improve the quality and effectiveness of the use of Information and Communication Technology for Cultural Heritage. Participants include university departments, research centres, heritage institutions, such as museums or national heritage agencies, and commercial enterprises, endeavouring together to overcome the fragmentation of current research in this field. The partnership avails itself of partners’ expertise to attain state-of-the-art results and create the conditions for an increasingly and more productive integration at Europe-wide level. The results of EPOCH research have an impact on the scientific community and improve the overall quality of European research in the field.

**EG**

European Association for Computer Graphics

EG helps professionals, scholars and students to excel in their work and careers in Computer Graphics and Interactive Digital Media.

It is the only truly European-wide professional Association, which helps its members in advancing the state-of-the-art in Computer Graphics, multimedia, scientific visualization, animation, human computer interfaces and related fields. Through a world-wide membership, EG maintains close links with developments in the US, Japan and other countries, promoting the exchange of scientific and technical information and skills on a global scale.

**Following are a few papers that may be of interest to you...**

**How Does Hi-tech Touch the Past? Does It Meet Conservation Needs?**

Results from a Literature Review of Documentation for Cultural Heritage

R. Eppich, A. Chabbi, Getty Conservation Institute

Abstract

- Only 1/6th of the reviewed literature is strongly relevant to conservation
- Simple and easy-to-use tools are not published or widely disseminated
Often, hi-technology tools do not meet the current needs of conservation
 Documentation literature is not extensively published outside of Europe
 Literature frequently targets already informed and highly specialized professionals, thus limiting the audience and reducing the influence of significant ideas, techniques and methods.

These are some of the conclusions drawn from a recent literature review on recording built heritage. As part of a larger project to identify examples of good documentation practice, the Getty Conservation Institute conducted this review, reading over 700 articles, books, conference proceedings and white papers.

Although our research was not a scientific random sampling, our selection set is nevertheless a good indication of trends in the field. The material was drawn from library catalogues, databases, and interviews with international professionals, and then debated by a team of four people over the course of a year. A rating system was created to quantify the results and centers around the following questions:

- What is the conservation issue? Is there a correlation between the documentation phase and the conservation process?
- Are the tools appropriate and effective enough to address the issue?

In other words: Does documentation serve conservation? Does it truly inform the conservation process? Through a detailed analysis of this review, we identify significant risks and propose solutions. Documentation practitioners need to be aware of and overcome prevailing challenges to ensure that documentation truly serves the preservation of our cultural heritage.

The Eternal Egypt Project

“At first I could see nothing, the hot air escaping from the chamber causing the candle flame to flicker, but presently, as my eyes grew accustomed to the light, details of the room within emerged slowly from the mist, strange animals, statues, and gold—everywhere the glint of gold. For the moment—an eternity it must have seemed to the others standing by—I was struck dumb with amazement, and when Lord Carnarvon, unable to stand the suspense any longer inquired anxiously, “Can you see anything?” It was all I could do to get out the words, “Yes, wonderful things.”

- Howard Carter, on the discovery of the tomb of Tutankhamun, November 1922

For over five thousand years, from the dawn of the pharaohs to the modern era of independence, Egyptian culture has evoked a sense of almost inexpressible awe. By the fifth century BC, as the Greek historian Herodotus wrote, Egypt had “more wonders in it than any other country in the world,” and provided “more works that defy description than any other place.”

For the past three years, the Egyptian Center for Documentation of Cultural and Natural Heritage (CultNat) and IBM have been working to bring the awe-inspiring experience of Egypt to the world through a project known as the Eternal Egypt.
Keynote Speaker John Tolva explained that with the help of a $2.5 million grant of technology and expertise from IBM, the Eternal Egypt represents a unique partnership to use innovative IBM technologies and services to create an interactive, multimedia experience of Egyptian cultural artifacts and history for a global audience.

A little over one year since the 100th anniversary of the Egyptian Museum in Cairo, anyone with access to the internet is now able to enter a three-dimensional reconstruction of Tutankhamun’s tomb. The experience is only one small part of Eternal Egypt, which is accessible by handheld digital guides in the Egyptian Museum in Cairo, by cell phone for visitors to the pyramids at Giza or the Luxor Temple in Upper Egypt, or through the Eternal Egypt web site.

The Eternal Egypt web site includes an unprecedented experience of high-resolution images, three-dimensional reconstructions of Egyptian monuments and antiquities, as well as virtually reconstructed environments, panoramic images, and panoramic views of present-day Egypt captured by robotic cameras located from the top of Karnak Temple to the streets of Old Cairo. An innovative, interactive map and time line will guide Eternal Egypt visitors through Egypt’s cultural heritage, while a “context navigator” presents the complex relationships between objects, places and personalities of Egypt’s past in a unique, web-like display.

**Standards and Culture**

Prof. Marc Wilhelm Küster, University of Applied Sciences, Worms, Germany, and Chair of the CEN/ISSS Cultural Diversity Focus Group was one of the Keynote Speakers.

Prof. Küster explained that this “focus group” was created with the European Standards Committee to suggest and initiate activities dealing with standardization in the field of cultural and linguistic diversity from the perspective of information and communications technology (ICT). The group’s main focus lies on the European level, but also considers regional or international diversity if it is deemed appropriate for European interests.

The CDFG has the function of a European discussion and coordination forum for standardization activities related to cultural diversity in ICT in Europe and beyond. He began his talk with a few definitions.

**Formal standard:** Document established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context (ISO/IEC Guide)

**Culture:** The set of distinctive spiritual, material, intellectual and emotional features of society or a social group, that encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs. (UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions).

**Culture and Code:** Cultures can be modeled as conventionalized codes passed on over several generations (Roland Posner). They can be described as intricate processes of emission and reception of signs.

For instance, we could not understand each other unless we agree on the “codes”
i.e. the letters and the words and their meanings. Marc went on to give a few examples of recent research and developments in this area. For instance, one of the standards developed by the Group concerned “lists”. A random list of names in English of European cities was distributed across European institutions; they were asked to simply but the names in alphabetical order and return it. The lists came back alphabetized in 9 different ways! The A to Z alphabet was not listed the same way in all European countries because of the various languages and use of different alphabets. If you don’t have a standard for listing, this means that you can’t even exchange telephone book listings. The Group developed a European standard for listing names, and it is now official.

Another example was the relative shape and order of characters in the writing systems. Not more than 10 years ago, the type of Unicode characters used on computer screens was very limited. It was not possible to write in Chinese, Arabic, or any other languages that did not use Roman characters. Also, the way computers rendered text on computer screens and printers was only from left to right.

This is now changed. Chinese, Arabic and characters from many other languages have been standardized. Text can be rendered from the left, right or top to bottom. This means that it is now possible to exchange cultural information in the language in which it was created. But this is not enough. There is meaning embedded into the way a character is formed. If you compare a calligraphic Chinese character to a standardized computerized one, you can see the difference, though most of us cannot understand the difference in meaning. There is research going on to try to address this issue so that more “culture” can be transmitted or exchanged through the IT systems.

There is meaning embedded into the way a character is formed

This Group has a dream...

“Our dream is that standards are created that do not force us to modify existing sign processes and thus make their interchange through electronic channels transparent.

CEN (Comité Européen de Normalisation) is the central European Standardization Body responsible for carrying out standardization throughout Europe. It prepares five types of “standards”:
Color Reproduction of Digital Still Cameras - Simple Test and Affordable Solution

By: G. Fabricatore1 and F. Cantone1,2
1 Centro Interdipartimentale di Ingegneria per i Beni Culturali (C.I.Be.C.) Università di Napoli Federico II, Italy
1,2 Dipartimento di Discipline Storiche, Università di Napoli Federico II, Italy

One of the most relevant problems in the imaging of cultural heritage is the faithful rendition of colors (if any). Control on the spectral sensitivity of the chemical sensor (i.e. the film) is not possible; firmware governing first phase processing of images acquired by digital still cameras allows, instead, to control to some extent colors and hues due to non-standard (i.e. not consistent with CIE criteria) lighting.

The problem of chromatic deviation is particularly serious during on site, open-air shooting sessions, as in archaeological excavations, where the use of appropriate standard lighting is excluded and the natural light (the only available) is often more or less affected by various chromatic intonations. A relative aid to manage the question is offered by digital still cameras with the so called white balance (WB), a feature pretending to adjust color temperature in order to match the chromatic sensitivity of the sensor to the actual light source spectrum.

The paper reported on a simple, affordable and reliable way to test how much you can trust the white balancing of your still camera. Furthermore, a comparison with a “reference” shot of an appropriate subject (containing a grey scale and the basic colors) indicates that a well known SW (a standard de facto) can be the simple but effective solution to the correct (i.e. rather faithful) rendition of colors and hues in various chromatic intonations of light during a shooting session.

RecorDIM Roundtable-6

RecorDIM is the five-year (2002-2007) documentation initiative created by ICO-MOS, CIPA and the GCI to fill the gaps between “users” and “providers” of heritage information. Roundtable-6 was fully integrated within the conference’s program and was led by the initiative’s International Coordinator Robin Letellier. More than thirty professionals representing both “users” and “providers” of heritage information participated. There were two parts to the roundtable:

1. Presentations and discussions on how international standards are created and preparation of a proposal for the creation of a RecorDIM Task Group on standards for heritage information and
2. Progress reports from existing Task Groups.

The roundtable was considered to be quite successful. Participation and interest on the issue of standards was very high and reflected a real need in this community of professionals. A Task Group on Heritage Information Standards was proposed and a large number of participants offered to serve on it. If, through the RecorDIM Initiative, our field gets its first international standards on documentation for conservation, then I believe that the GCI’s support will have been really worth the effort.

Robin Letellier welcomed participants to Roundtable-6 and gave an overview of the RecorDIM Initiative to bring everyone to the same level of understanding. Then four Guest Speakers introduced participants to the world of international standards, what they are and how they are developed. They also informed participants of on-going research and activities in the area of standardization for cultural heritage documentation and conservation.
Françoise Pellé – France, ISO

The first Guest Speaker was Françoise Pellé, Director, ISSN International Centre, International Standards Organization (ISO).

Françoise used a question and answer approach to help participants understand what the International Standardization Organization is, and how it operates. Essentially, she explained that international standards are developed by consensus and based on a specific need expressed by members. There are no international enforcing mechanisms. ISO does not have a « police » for the enforcement of international standards. Each standard is enforced by the member countries that are members of the organization, in a way that fits their particular situation and legal context.

What is ISO?
It is the International Standardization Organization, an international non-governmental organization. It was officially created in 1947 to facilitate the international coordination and unification of industrial standards. It works through a network of 157 national standards institutions. There is only one member per country. It is usually a national standards institute that is most representative of standardization in that country.

ISO Basic principles
The organization works on the principle that every member is equal and therefore, each member is allowed only one vote. Participation in ISO is voluntary and market driven. It operates by consensus and is worldwide. There are currently 3,000 technical groups and some 50,000 experts participate annually to develop ISO standards.

How is ISO financed?
The ISO Central Secretariat is financed by subscriptions from the national members. Their subscription is calculated on the basis of the country’s Gross National Income and trade figures, and by the sale of standards. This represents 20% of the organization’s budget. 80% of the expenses are paid directly by member bodies that organize meetings and invite experts to discuss and develop specific standards.

How does ISO decide what standards to develop?
This is sector driven. When the need for a standard is felt by a sector, it communicates the requirement to one of ISO’s national members. The member proposes the new work item to ISO as a whole. If accepted, the work is assigned to an existing technical committee or a new technical committee is created.

How are ISO standards developed?
Experts from national delegations develop them; each ISO national member chooses them and they have to represent the views of all stakeholders. They are written within the framework of Technical Committees (TC), Sub-Committees (SC) or Working Groups (WG). Their work follows an established process based on consensus. The steps are:
1. New Work Item Proposal (NP)
2. Working Draft (WD)
3. Committee Draft (CD)
4. Draft International Standard (DIS)
5. Final Draft International Standard (FDIS)
6. Publication as International Standard (IS)
These committees deliver:
- Technical Reports (TC)
- Technical specifications (TS)
- Publicly Available Specifications (PAS)
- International Workshop Agreements (IWS)

What are the benefits of having standards?
Standards bridge gaps that are common to several actors. There is no exchange possible unless there are common standards; this is particularly fundamental in the electronic era in which we live. Standards benefit both users and providers, broaden choice for consumers and create markets for providers.

Several ISO standards have been developed in areas that are of interest to us. For example:
- Records management (ISO 15-489)
  - Documents, and the information they should contain
  - Management principles and processes
  - Information life cycle
- Requirement for long term preservation of electronic records (NP 26102)
- Code for the representation of names of historical countries (NP 3166-4)

More information on ISO?

Lessons learned
- If the field that deals with cultural heritage information is interested in developing international standards, it should involve institutions that have specific needs or problems to address. This is essential to ensure that the needs are addressed and that those working on developing the standards are motivated.
- We should ensure that Users and Providers organizations get useful and practical results so they value their investment.
- We should get commitment from the directorate level of the participating institutions so that Task Group sustainability is ensured.

Jack Vandenberg – Canada, ISO 9001
The second Guest Speaker was Jack Vandenberg, Director, Heritage Conservation Directorate, Public Works and Government Services Canada (PWGSC). He presented “A Canadian Perspective on Recording Standards in Heritage Conservation”.

The Canadian Federal Government Context
There are 850 National Historic Sites in Canada and 150 are owned or managed by Parks Canada and there are over 1,400 designated heritage buildings that are
owned by various departments of the Canadian Federal government. The Heritage Conservation Directorate of PWGSC is the Federal government agency that offers all departments a common service to conserve these buildings or sites.

**ISO 9001 Accreditation**

During the mid-1990s, the agency implemented a quality management system and achieved ISO 9001 registration in 1998. This meant that the agency was offering a service that met this international ISO project management standard and that all Federal government agency or department that asked for services would be guaranteed that the services would be performed at this international level of quality. But then, many professionals were apprehensive or reluctant to this. Why standardize a governmental service they would ask. Why adopt a legalistic approach to working in a public sector environment? But as they discovered that the ISO 9001 clearly defined the level of service they would get and that it focused on managing Client relationship / Client satisfaction, the mentalities began to change. The level of Client satisfaction was measured and improved every year. The work volume of the Heritage Conservation Directorate has doubled since then. The roles and responsibilities are better understood and there is better information management and sharing.

The Client is better integrated into the conservation process; there is consistency in the approach and reviews and in the deliverables. This has led to the definition and adoption of new standards, as everyone realizes their importance and benefits. A functional meeting was held during February 2006, and a new standard was developed for “posterity recording” to protect against catastrophic loss due to human or natural disasters.

Now, recording is fully integrated into the Federal government conservation process. The benefits of standardization are that critical information about National Historic Sites will be systematically captured and shared, that a cost-effective approach is adopted, that there is a clearer understanding by the Client of the end product and that there are more opportunities to conserve the Canadian heritage for future generations.

**Vasco Fassina – Italy, CEN/TC346**

The third Guest Speaker was Vasco Fassina, Chairman of CEN/TC346 – Conservation of Cultural Property. Vasco works for the Ministry of Cultural Heritage of Italy – Superintendency of Venice. He presented European Standardization in the field of Cultural Heritage.

**Composition of CEN**

The management center for the “Comité Européen de Normalisation” (CEN) is in Brussels. It is made up of 29 members with voting rights. There are 4 affiliate members with no voting rights (Albania, Bulgaria, Croatia, Turkey), 8 Associate members and 300 Liaison members (European Federations).

**Background...**

In 1978, the Italian Ministry of Cultural Property and the Italian National Research Council (CNR) jointly set up the NORMAL Commission with the aim to develop standards regarding the test and analysis methods for conservation of stone materials.

After a twenty-year experience in 1997 the NORMAL Commission converged into the standardization activities carried out by UNI (the Italian Body of Standardiza-
In 2001, UNI presented to CEN a request for the Standardization on Conservation of Cultural Property at a European level.

Following much discussion, the Committee accepted the request and proposed a set of actions, namely the standardization in the field of definitions and terminology, methods of testing and analysis:

1. Terminology relevant to movable and immovable artifacts, and to the conservation of the artifacts and of the material constituting the artifacts themselves, so that a common European terminology could be created;
2. Guidelines for a methodological approach to the knowledge of the materials constituting the artifacts of the deterioration processes, and of conditions of optimum long-term conservation or preservation work (preventive conservation);
3. Test and analysis methods for the diagnosis and for the characterization of the artifacts and of their state of conservation with regards to outdoor and indoor environmental parameters;
4. Test and analysis methods (in laboratory and in-situ) for the evaluation of the performance of the products and methodologies to be used in the conservation work (ordinary and extraordinary maintenance);
5. Test and analysis methods for the evaluation of conservation conditions of indoor Cultural Heritage. In particular, standardization on transportation and packaging methods, shall take in due accounts the needs and problems related to itinerant exhibitions and exchanges of works of art, in the permanent presentation conditions in museums, galleries, libraries and archives, in temporary exhibit galleries, in stores and in transport packaging.

Strategies adopted to reach the Objectives

The main objective of CEN/TC 346 is to draft standards that will help conservation professionals in their restoration and conservation work, ensuring at the same time the possibility for European experts to exchange information on tests and analyses methods on Cultural Heritage. Therefore, this standardization activity will permit to harmonize and unify methodologies for all the European area.

The structure

Five Working Groups were created:
1. WG1 – General guidelines and terminology
2. WG2 – Materials constituting cultural property
3. WG3 – Evaluation of methods and products for conservation works
4. WG4 – Environment
5. WG5 – Transportation and packaging methods

Next meetings
- CEN/TC346/WG3 no.4 – Florence, Nov. 30-Dec.1, 2006
- CEN/TC346/WG1 no.4 – Milan, Nov. 23-24, 2006

Isabel Holroyd – UK, FISH

The fourth Guest Speaker was Isabel Holroyd from FISH (Forum on Information Standards in Heritage). She is the Chief Bibliographer at the British and Irish Archaeological Bibliography online (http://www.biab.ac.uk). The BIAB online database contains data sets covering publications from AD 695 to the present day on archaeology and the historic environment, historic buildings, maritime and industrial archaeology, environmental history, and the conservation of material culture - with a geographical focus on Britain and Ireland.
She briefly presented the Forum that has been created recently in the UK to co-ordinate, develop, maintain and promote standards for the recording of heritage information. The Forum has no headquarters or permanent staff at this time. Its aim is to enable information created within the heritage sector to be gathered into a retrievable, reusable and interoperable form, to produce, review, maintain and update data content standards, metadata standards, indexing and terminology standards for the heritage community. The Forum focuses on the “historic environment” taken to mean the built and buried heritage, historic areas and landscapes, marine archaeology and related information requirements.

**FISH Member Organizations**

**Activities relevant to the work of FISH**
- Data capture and recording practice
- Recording system design
- Archiving of digital data
- Promoting access to information
- Re-use of digital archives

In 2000, FISH held an e-Conference on Period Terms Thesaurus; in 2001, on GIS standards and in 2004 on Archaeological Science. It organized structured peer review of draft standards, commented on the relevance, coverage, clarity and suitability of existing standards and reported the results of FISH to support discussion and formal adoption of standards. It adopted the UK Historic Environment Information Standard (MIDAS); it offers guidelines for recording historic environment information in any system, card or digital; the next edition is due for publication in 2007. The INSCRIPTION standard is a collection of word lists maintained or recommended by FISH (http://www.fish-forum.info/inscrip.htm). It also developed the FISH Interoperability Toolkit standard (http://www.heritage-standards.org/). This toolkit has three major components:
1. MIDAS XML: W3C compliant XML encoding, with some additional features anticipating MIDAS II.
2. DVT: Data Validation Tool, used to validate the contents of a MIDAS XML document against INSCRIPTION and specific benchmarks.

Other products from FISH include: Fact sheets, leaflets, posters and articles.

**MDA – Museum Documentation Association**
- Documentation and information management (Http://www.mda.org.uk/spect-grum-terminology/ and http://www.collectoinslink.org.uk/manage_information

**ADS – Archaeology Data Service**
- Digital data resources, support and guidance (http://ads.ahds.ac.uk)
Challenges
- Funding of FISH
- Funding of sector
- Negative perceptions of standards
- Use of Folksonomy
- Identity and authority in digital records
- Mapping of standards

**Proposal for a RecorDIM Task Group on Heritage Information Standards**

Following these presentations, the participants recommended the creation of a Task Group within the framework of the RecorDIM Initiative to deal with the development of standards for heritage information. A large number of participants offered to be part of the committee and three persons were nominated to steer the committee. Bill Blake of English Heritage is the proposed Task Group leader, Fulvio Rinaudo of Torino Politecnico represents the users and Minna Lonnqvist from University of Helsinki, Dept. of Archaeology, Finland represents the users. The proposal will be finalized and presented shortly to the international coordinator, R. Letellier.

The proposed Task Group would focus on three areas for developing or proposing standards:
- **Work Group 1: Work Practices**
  To include
  - Standards for project management in both thematic studies and heritage management processes

- **Work Group 2: Technical Standards**
  To include
  - Standards for the performance and quality assurance of techniques and technologies.

- **Work Group 3: Data standards**
  To include
  - Standards for data exchange and archive.

Some of the needs for standards expressed by participants
Workshop participants came up with a list of 39 needs that they thought should be addressed by standards. Here are a few of them:
- Standard for condition assessment of built heritage
- Standard for condition monitoring of built heritage
- Standard for ante-disaster recording performance
- Standard for evaluation of past treatments
- Standard or guideline for condition report by visual observation
- Standard for documenting reburial of archaeological sites
- Standard for intellectual property rights in cultural heritage
- Standard for sharing CAD drawings
- Standards for long-term archiving of documents and digital files
- Standards for teaching in cultural heritage
- Need to establish a clearly defined vocabulary to be used in conservation field
- Guidelines for data acquisition
- Guidelines for data processing

And the list goes on...
RecorDIM Task Groups Progress Reports

Task Group Rock Art Science – Daniel Arsenault
The main purpose of this Task Group is to produce a PDF document that is simple to read and to handle, and easily accessible worldwide through the Internet for archaeologists, anthropologists, conservation specialists and managers of rock art sites. The objectives are to propose standardized principles and guidelines in Rock Art science to better survey, analyze, record, sample and date the visible constituent elements of Rock Art sites. By the deadline of 2007, the Task Group will produce a short document where only the basic principles and guidelines will be presented; the Task Group will continue to work in the following years to finalize this work.

Task Group Training and Metric Survey Tools – Bill Blake
The main purpose of this Task Group is to produce training and metric survey tools. Bill shared with the group the new publication being prepared within the framework of the RecorDIM Initiative by English Heritage entitled “Metric Survey for Heritage Documentation”. The publication should be finalized in time for the 2007 deadline. Other tools and publications have already been finalized by this Task Group.

Task Group Survey of Architecture and Cultural Heritage by Photo-tachaeometry – Michael Scherer
Formal definition of photo-tacheometry
Photo-tacheometry is a new fast method to get geometry and photorealistic texture of architectural features (e.g. monuments and buildings) for visualization in one step, on site, and at a relative low cost with a high degree of automation. In general, the object’s coordinates are derived from a total station, defining regular shapes (i.e. planes, cylinders), and textures. It is above all an excellent tool to capture architecture that is of mostly regular shapes (flat rectangular shapes).
Needs
- Tools to enable cost-benefit surveying for the documentation and graphical analyses of cultural heritage and architecture.
- Encourage users to make use of off-the-self technology.
- Raise awareness of providers to off-the-self technology in surveying.
- Deliver graphical information on the web.

Target Audience
Professionals (users and providers) dealing with the documentation of cultural heritage and architecture.

Photo-tachaeometry uses a total station, a digital camera and a laptop computer to quickly produce 3-D models of buildings.

Purpose and Objectives
Fast and complete surveying of surfaces and interiors of buildings as well as regular shapes by means of photo-tachaeometry.
The main objectives are:
- To inform providers of the capability of simple photo-surveying technology for the reconstruction of interior and exterior buildings, monuments and small sites.
- To analyze pros and cons of photo-tachaeometry technology when compared to stand-alone surveying,
- To train users for the auto-surveying of cultural heritage by means of state-of-the-art reflectorless (traditional and motorized) total stations and digital imagery.
- To open markets for new surveying techniques concerning regular objects.

Deliverables by 2007 deadline
- Guidelines for proper use of photo-tachaeometry in documenting cultural heritage and modern architecture.
- A Case study.
- All the information will be available on the RecorDIM web page.
- Software for photo-tachaeometry
- To quickly create virtual models to be placed on the Internet for active use.

Task Group: Generic GIS Template for the Management of Heritage Places
- Fulvio Rinaudo (Politecnico di Torino) and Guliz Bilgin (METU Faculty of Architecture, Turkey)
The goal of this Task Group is to develop a simple open source GIS from which it will be possible to identify common tasks for similar archaeological projects. This involves collaboration between Torino, Roma and Turkey. The target audience is common users and researchers in archaeology. G. Bilgin from METU Faculty of Architecture, in Turkey is developing a GIS for urban centers within the framework of this Task Group.

The database structures between the two groups cannot be standardized because the projects are so different, but it is hoped that generic rules can be defined for such things as multi scale organization, generalization of data, standards for data formats etc. In terms of deliverables for the 2007 deadline, the Task Group plans to publish a collection of examples that will have been examined and reviewed by all RecorDIM Partners.

**Task Group - Publications for Heritage Information – Rand Eppich**

Rand reported on the two publications being prepared by the GCI. The “Guiding Principles” publication targeting heritage managers and decision makers, and the companion publication “Illustrated Examples” targeting mid-career professionals are both close to completion and should be printed in time for the 2007 deadline. A PDF version of the publications will be made available on the GCI’s web site and a certain number will be printed and distributed to key persons.

**Task Group Stereoviews – Walter Schuhr**

This Task Group is concerned with collecting, compiling and sharing heritage stereoviews.

Participants looking at 3-D images with special blue and red color filtering glasses

Stereoviews were particularly popular during the 1920s. They were viewed in private homes with guests and friends and also used for the education of children. Hundreds of thousands of these stereoviews are stored in more than 200 archives throughout the world. A large number of these collections concern international historic landmarks. The advantage they offer over traditional photos is that measur-
able information can be drawn from them using photogrammetry software.

This Task Group’s goal is to bridge the need identified during Roundtable 1 as “to improve the perception and communication in Heritage recording, documentation and information management”; it plans
• to prepare and publish an inventory of stereo views archives
• to make available on the web as many stereo views as possible
• to prepare technote that show how to draw measurements from stereo views
• to give technical advice for scanning stereo views and for making stereo views using simple digital cameras and common commercial image software
• to promote the making of stereo views to the conservation professionals

The largest collection of stereo views in the world is at the Univ. of California Riverside (more than 350,000); many of the stereo views illustrate historical sites and buildings from 1892 to 1963.

Task Group Guidelines on documentation for monitoring World Heritage sites – Mario Santana Quintero
This Task Group is developing a Resource Manual for baseline documentation for monitoring of World Heritage Sites and preparing didactic material for preventive maintenance of World Heritage sites. It works in collaboration with ICOMOS and the Raymond Lemaire Center in Belgium. The Resource Manual(s) will provide guidelines for documentation in the preparation and submission of nominations to the World Heritage List; they will encourage the creation of a real baseline information for future monitoring of the sites, something that does not exist at this stage, and most of the current sites on the List lack adequate documentation material. While the guidelines are being prepared and after their publication, research will be undertaken to develop didactic material for preventive maintenance for World Heritage sites, covering such subjects as approaches, techniques for monitoring and other issues. This component is lead by Prof. Koen Van Balen and M. Santana and is part of the UNESCO chair proposal currently in preparation.

At this time, the Task Group members are seeking institutional validation, meeting with representatives of the World Heritage Center and ICOMOS and is organizing an experts panel for spring 2007 at WHC headquarters in Paris. The methodology proposed comprises preparing a questionnaire, reviewing literature, identifying the array of indicators that potentially might affect World Heritage sites and drafting guidelines.
A brief history of Nicosia

Lefkosia, the capital of Cyprus is better known to foreigners by its mediaeval name, Nicosia. It lies just to the north of the geographical centre of the island at an elevation of 160 metres and is being traversed by the seasonal stream of Pediaios. The city has a population of about 230,000, by far the biggest on the island. 195,000 live in the government-controlled southern quarter while the rest live in the Turkish-occupied northern quarter.

Lefkosia hosts the seat of government, the House of Representatives, the Supreme Court, the Archbishopric of the Greek Orthodox Church, government services and foreign embassies, high commissions and consulates. Lefkosia also has an International Airport about 8 km west of the city centre, which remains closed since the 1974 Turkish-invasion as it is lying in the UN-controlled “buffer zone”.

Lefkosia has the unenviable legacy of being the last divided capital of Middle East, and indeed the world, following the fall of the Berlin Wall in 1989 and the reconciliation of feuding factions in Beirut in the early 1990s.

The thousand-year-old capital
The city’s origins go back in history as the earliest human settlements found in the vicinity of the modern city date back to the 3rd millennium BC. The first inhabitants were attracted by what was then a rich river. Today’s dried up stony riverbed is a
far cry of its former bygone glory. It was only about 1000 years ago that Lefkosia (Nicosia) became the capital of Cyprus at a time when the island’s rulers were forced to withdraw inland in order to protect themselves from the raiding Saracens, who were marauding the coastal towns. Ever since it has remained the capital sharing the country’s fate through the centuries.

Around the time when Lefkosia became capital, Richard the Lionheart of England claimed Cyprus from the Byzantines on the way to the Holy Land. It was then sold to the Knights Templar and later sovereignty was transferred to the Lusignans. Under the reign of the Frankish dynasty Lefkosia remained the feudal capital with a cosmopolitan array of contemporary buildings, palaces and churches. Among them the Gothic cathedral of Saint Sophia, modelled on the Notre Dame of Paris, later transformed by the Ottomans into a mosque, remains to this day a prominent landmark in the walled city.

Towards the end of the 15th century the island passed on to the Venetians, who built the fortifications around the city. In the process they had to destroy several buildings. The circular walls are 4.5 km long, contain 11 bastions each bearing the name of an aristocratic family, together with three Gates: Pafos Gate on the SW edge of the walls now lying in the “green line” dividing the city, Keryneia Gate to the NW in the Turkish-occupied quarter and Famagusta Gate to the South in the government-controlled quarter. The latter has been renovated and serves as the capital’s major cultural centre hosting art exhibitions, conferences, lectures, concerts and other cultural activities. The ditch running along the ramparts has been transformed into park space, parking lots, open markets and an open-air theatre decorated with modern sculptures.

In 1570 the Ottoman Turks conquered Lefkosia after a bloody siege that was followed by extensive massacres and destruction. The period was marked by the public hanging of Archbishop Kyprianos, three Bishops and other priests and Greek Cypriot dignitaries, for their alleged support for the 1821 National Uprising in Greece and for inciting their people to rise against Ottoman rule. The Ottomans built a number of mosques in the city while they converted several Greek Orthodox or Roman Catholic churches into mosques. Economic and cultural activities were maintained at lower levels during the Ottoman rule.

The British, who took over from the Ottomans in 1878 and remained on the island as colonial masters until 1960, also left their mark on the face of the city. Many of today’s government buildings, including the Presidential Palace, many of the ministries, the Supreme Court, government buildings, police stations, the Archaeological Museum and schools date back to this period. Lefkosia started expanding rapidly after the end of WW II and its population reached 100,000 in the early 60s. It’s suburbs expanded rapidly during that period (1946-1965) and joined up with the city proper. Later Kaimakli and Pallouriotissa were accommodated within the city limits, while Strovolos, Aglandjia, Agios Dometios and Engomi were upgraded to municipalities.

Following the Turkish invasion of 1974 the city expanded further in a southerly direction as a consequence of the influx of thousands of refugees from Turkish-occupied territory. Thus, Latsia, Lakatamia, Tseri and Geri, settlements to the south of the capital, also grew in population the first two being granted the status of municipality.
Since 1974 the de-facto partition of Lefkosia was completed. The Greek Cypriot suburbs to the north of the walled city - Trachonas, Omorphita and Neapolis - were captured by the Turks and their inhabitants also became refugees.

A coup d’état on July 15, 1974 against the lawful Cypriot government provided a pretext for Turkey to invade the island on July 20 and promote her expansionist plans. Ankara attempted to present the invasion as a so-called peaceful operation aiming at restoring constitutional order and protecting the Turkish Cypriot community. However, even after the restoration of constitutional order and the return of Archbishop Makarios III in December 1974, the Turkish troops remained on the island promoting Turkey’s plans against Cyprus.

On August 14, 1974, the second phase of the Turkish Invasion of Cyprus began, which led to the following consequences:
1. 37% of Cypriot territory is under occupation despite repeated UN and other International Resolutions for the respect of independence and territorial sovereignty of the Republic of Cyprus.
2. Five thousand Greek Cypriots were killed, 180,000 lost their homes and became displaced and 69 are still missing.

Since 1974 the people of Cyprus have been experiencing the tragedy of a divided country, with the Green Line cutting in two the heart of the capital city Nicosia and crushing the dreams of its inhabitants.

A City That Waits
In spite of the current division, the people of Nicosia hope that one day the city will be reunited and they look forward to Cyprus’ accession to the European Union. Ancient is the city of Nicosia, yet her later history tightly interwoven among the years of the Franks, the years of the Turks and of the British and of course the years of our own generation. In our times she remains the last divided city of Europe, sliced in two by the “Green Line” disrupting its cohesion and its continuity.