



Sharing
Conservation
Decisions

edited by
Rosalia Varoli-Piazza

lessons learnt from an ICCROM course



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Complementary materials, images and other useful resources can be accessed in the attached CD-ROM.

Foreword

Over the past fifty years, the same period that ICCROM has been in existence, the conservation of works of art has changed considerably, and in this time, there have also been important changes in applied research for the conservation and restoration of cultural property.

In the field of archaeological research we no longer have field missions run by a single archaeologist who stands in as architect, photographer and topographer - without mentioning all the other disciplines contributing to this field. The field of conservation and restoration has developed in the same way. At the beginning of the 21st century, the museum or gallery director who, in isolation with a restoration specialist, decides on the methods for treating a painting or an archaeological artefact no longer exists.

Many disciplines have developed around conservation in parallel to advances made in science. Most notable are the fields of chemistry and physics, with nuclear physics and digital imaging opening up innumerable possibilities in the conservation domain. Analyses and diagnostics on the entire work have become a prerequisite to restoration operations.

Consequently, decisions are more complex and require the participation of a number of different protagonists, something that was unimaginable forty or fifty years ago. What conservator today would risk cleaning a painting by a 16th, 17th or 18th century master without calling upon various colleagues to make radiograms of the work, to analyse the pigments, to identify the underlying layers...

This is why ICCROM, in partnership with the specialized Italian institutions, Istituto Centrale per il Restauro, the Opificio delle Pietre Dure, and La Venaria in Turin, along with the Institut National du

Patrimoine in France, has set up a series of training courses addressing this fundamental topic of sharing decisions in the field of conservation/restoration.

The 2006 course entitled 'Sharing Conservation Decisions' was very successful, and it opened the way to extremely fruitful exchanges among museum professionals from different countries, who were able to benefit from and effectively use these methodologies and experiences.

Mounir Bouchenaki

Director General of ICCROM

Introduction

CATHERINE AN TOMARCHI

From design to evaluation: the anatomy of an ICCROM Course

2000, A TURNING POINT

In April 2000, ICCROM organized an intensive three-day seminar on 'Developing strategies in conservation education and training' with a selected group of its partners from Africa, Asia, Latin America, North America and Europe. Seminar participants came not only from various regions of the world but also comprised a balanced group of experienced conservators, art historians and scientists, all of them involved in the education and training of professionals in the field of movable cultural heritage. The purpose of the seminar was to reflect on the current challenges in the conservation of cultural heritage and how these might be integrated in education and training, including the ICCROM education and training activities. The following three issues emerged from the discussions:

- the need to re-focus the reflection on the cultural values of heritage at the core of any conservation actions;
- to establish conservation as a bridge between the cultural object and the past, present and future generations;
- and finally to encourage, diffuse and protect the plurality of approaches, disciplines and contexts in the field of conservation.

During the discussions, keen interest was expressed in the possibility of incorporating such issues in our training activities. The idea evolved of offering an ICCROM course on 'Sharing conservation decisions'.

Our aim was to create a forum where mid-career professionals of diverse cultural contexts and disciplines would meet to learn and discuss how conservation decisions are made, what influences them and how the process could be improved. This was an inspiring but challenging project that would require careful planning with special attention devoted to the teaching and learning approaches.

"Planning a course is like writing a piece of music. We have to consider where we want the points of emphasis, the

appropriate tempo, and the variations of rhythm and melody you intend to offer. We also have to decide who is playing the instruments and what kind of audience they will have!" (Robert Ferguson, *Our students and ourselves*, 2003)

THE ICCROM COURSE, A MULTICULTURAL AND MULTI-DISCIPLINARY FORUM

An ICCROM course provides an ideal venue for 'Sharing conservation decisions'. First, the audience is always multicultural and multidisciplinary. Second, while most training opportunities for mid-career professionals are one or only a few days long, the ICCROM international courses last from three to eight weeks. This is necessary to create the right conditions not only to acquire new information and skills but also to truly share experience, to take another perspective from our own work and hopefully to renew our attitudes and approaches. The 'Sharing conservation decisions course' responds to the needs of professionals in the field. Since the first year it was announced the number of applications has been unusually high compared with other ICCROM courses, and derive from many countries and cultural heritage contexts. The applicants are diverse in their professions, and mostly all at senior level positions: directors of national heritage institutions, heads of conservation departments, heritage policy analysts, site or collections managers, architects, archaeologists and researchers, as well as professionals involved in training and education.

A first and fundamental step in ensuring success is the creation, consolidation and expansion of the network of partner institutions and resource persons, who will work with ICCROM to produce the course. Partners are involved at all stages, and in particular, in the course design, in the announcement of the course and the participants' selection, in the choice and treatment of course topics, in the development of resource materials, and in the selection of case studies. They therefore play an essential role in the making of the course. Both course partners and course participants will influence the character and quality of the specific course. As for the participants, careful attention must be given to the selection process that must ultimately generate a strong, plural, motivated and dynamic group. Applications

are assessed against a set of pre-established criteria, before they are reviewed and discussed by a Selection Committee. Plurality unfolds in a variety of ways: regions, types of cultural heritage, type of responsibilities, gender, years of experience, etc. The only necessary common requirement is the need to be able to understand, read and communicate in English. Even if all ICCROM courses are designed to overcome language barriers and to facilitate interaction and communication, experience shows that lack of fluency in the course working language can create unnecessary pressure and frustration for everyone on the course.

ESTABLISHING A CAREFUL AND PARTICIPATIVE PLANNING PROCESS

Nine to six months before the course, one or usually more planning and design meetings are organized with the core team, representatives of partners and key resource persons. The size of these meetings can vary from 5-15 persons. Larger teams are more difficult to manage but provide more diversity and viewpoints in the process. In any case, the core team, which will then proceed with the full preparation, should include 3-4 persons maximum. In our design sessions, we analyze the information we have about the participants: their expectations, their education, their responsibilities and challenges. We also discuss the feedback we have collected from former participant evaluations that are organized in three stages: during, at the end, and six months after the course. These comprehensive evaluations assist us in identifying where misunderstandings have arisen, whether some of the content needs eliminating or further developing, and which teaching and learning approaches need to be altered or improved. During the design sessions, we also examine the learning context, i.e. whether participants will be living together, what social activities can be organized to facilitate mutual understanding and future networking, and what local case studies can serve and illustrate the purpose of the course. Once context, target group and resources have been discussed and clarified, the design exercise always begins by formulating or re-formulating the 'objective' of the course. In other words, 'what changes with regard to knowledge, skills and behaviour do we want to stimulate in the participants?' For

example, for the SCD in 2006, the objective was that 'at the end of the course, participants would be able to create the conditions for engaging all parties in the decision-making process, for ensuring that the values of cultural heritage are assessed and are at the core of the decision process, and for making a good decision that responds to the problem without compromising future decisions'. In the course of the design process, the objective is regularly re-examined and may be re-written by the end of the process.

BUILDING THE COURSE SCHEDULE

Once a first "objective" gains the team consensus, a playful session with cards and pens is organized: the design team brainstorms on topics and events that must happen during the course to achieve our objective. We then try to organize the brainstorm results into 'Units' and to agree on a logical sequence. This is when the real work starts! An empty framework or timetable for the whole course is sketched on the wall of the meeting room. Before fitting the units into this empty timetable, we must think about allocating time for essential activities that will dramatically impact on the quality of the whole learning and teaching experience. The first thing we do is to reserve the first morning and the last afternoon of the course, since they are the key moments of induction and conclusion. The beginning must orientate and inspire; the end must stimulate and reward. For example, in order to offer an inspiring start, in 2006, we organized a keynote lecture from a researcher outside the field of conservation and cultural heritage, who came to introduce ways in which people make decisions in their everyday life, and what can influence them. At the end of the course, we usually dedicate time for a group discussion about the course and about the after-course projects of the participants. This is often a rewarding moment for everyone, as there is a chance to reflect on the experience, to contribute to the course assessment and future improvements, and to share projects for the future. Before filling the course schedule with the units, we also allocate time for individual study and reading, either every day or as a block, one afternoon per week. Inserting individual study time within the regular schedule demonstrates that we value reading as much as any other learning activity. How many of us have experi-

enced courses where teachers distribute stacks of 'essential' documents and information to read and study outside the official course schedule? We also believe that individual study time is necessary to encourage personal reflection and to balance the intense lectures and group work sessions. In 2006, participants used this individual study time to go the ICCROM library, to have meetings with ICCROM project managers or visit conservation colleagues from the Istituto Centrale per il Restauro (ICR), around the corner from ICCROM. Before inserting the course units, we also leave space for a "review session" at the beginning of each week. This review is part of a sophisticated monitoring and evaluation system carried out by both participants and one of the course team members. The monitoring and evaluation system includes daily, weekly and six-months-after questionnaires, which are compiled and shared with the participants. The monitoring and evaluation system is not only useful for long-term planning. It also ensures that we can respond to participants' needs as the course progresses. The review sessions, which take place every Monday morning during the course, have a special role in this system, especially since participants volunteer to prepare and present them. Review sessions are an opportunity to refer back to the overall objective, to link the various course components, and to return to issues in need of further discussion. In 2006, one day and a half of the course at the end of the first week was also set aside to introduce a new course feature, which we called the 'course mini-conference'. This was inspired by another ICCROM course and is now adopted in other courses, due to its success. On acceptance for the course, participants are asked to prepare a fifteen-minute presentation on "current approaches to decision making in conservation: a case study from their working context". The key lecturers are also asked to speak on the same topic. The contributions are arranged into a "mini-conference programme". The event is held outside the usual course context, possibly in a historic building or at a site of special interest. The conference offers a remarkable opportunity for participants and teachers to exchange their experience and views at peer level, to compare situations and challenges in different cultural and working contexts, and to

strengthen professional and personal links. From that moment on, participants' confidence is boosted and the whole course benefits both in quality and atmosphere. Only once all these essential activities and sessions have been included are we able to fit the different units into the remaining schedule, taking not only their logical sequence into account but also striving for a harmonious flow of teaching and learning activities.

BALANCING TEACHING AND LEARNING ACTIVITIES

It is important to ensure that each day includes a variety of activities, each requiring different skills: not only lectures, but also visits, case studies, role plays, panel sessions, etc.

Diversified activities will allow participants with different communication abilities and different personalities to participate more actively and better integrate the group.

Diversified learning and teaching activities also stimulate and enrich the participants' experience, encouraging everyone to exercise different skills. For example, one of the first course activities is a workshop featuring brainstorm and group discussions, during which participants analyze why and when conservation decisions go wrong. Immediately, participants are mobilized to express themselves, and negotiate to organize and structure their thoughts. Another example of the SCD06 learning activities was the interesting case of "crèche figures" which, in Italy, are museum objects and objects of living worship at the same time. The course team arranged sessions in conservation laboratories, in museums, in churches, and in handicraft shops, thus offering opportunities for participants to meet with different stakeholders, learn, compare and integrate very diverse approaches to cultural heritage. The course also featured panel sessions, in particular one on funding and conservation, where a number of speakers from both the public and private sectors presented the issues from the standpoint of both donors and custodians.

In order to address the topic of public awareness of conservation, participants engaged in a role-playing session where they had to agree or disagree on the decision to close a site to visitors (such as in the case of the prehistoric site of Lascaux, France), and to develop arguments and proposals for compensating the loss to the public.

In selecting teaching and learning activities, an important issue has to be considered: whether to favour examples from a variety of cultural contexts, which would enhance the cultural diversity of the course but, at the same time, limit discussions to virtual representations of cultural heritage; or to focus on examples from the course context, i.e. Italian objects and sites, which would inevitably reduce the multicultural scope of the course but, at the same time, allow a direct and physical connection between the participants and the 'object'. Of course, some balance between the two options had to be found. However, the course team placed considerable emphasis on the need to study, learn and reflect directly from the observation of the object and its surroundings. Participants were made aware of this didactic decision so that they would not misinterpret the course team's intention. In order to further underline this special person/object relationship and the course emphasis on cultural values, we asked each participant to bring an artefact, of personal value and cultural significance, to present to the group. This also provided a mechanism for introducing participants to each other.

FURTHER STEPS IN THE PREPARATION AND PLANNING

Once the course schedule is finalized with the proposed related activities, we make all possible efforts to involve specific teachers and participants in the later stages of preparation. An action plan is drafted, including all the next stages until Day One of the course, at three different levels: communication with participants, communication with teachers and course content development, and logistic preparation. Each participant receives information and requests for information at regular intervals. While we provide support and orientation for visas, travelling, scholarships, accommodation and information in Rome, we also give more insight into the course content and programme. We also invite each participant to prepare his/her contribution for the course: presentation, glossary of terms in use in his/her working environment, etc. In parallel, each teacher or contributor to the course is personally contacted and requested to provide details of his/her sessions (learning objectives, session scenario, timescales, bibliographic or other resources required, etc.). It is important to note that

as the preparation goes ahead, the course programme and its specific content will continue to undergo small changes right up to the last minute, in order to incorporate everyone's needs and suggestions, and to ensure ownership of the final product. The course team at ICCROM pulls everything together, prepares the final course documentation, the binders for each participant and teacher, an annotated bibliography on all the course topics, and a course glossary. At the same time, all the necessary logistic arrangements in-house and for the case studies and study tours are prepared. Every ICCROM service and unit is engaged in the course preparation and contributes to its success, and in particular, to the well-being of the participants, our privileged guests.

CONCLUSION

Both before and throughout the course, the organizers emphasize the fact that the course itself is only the beginning of the journey and that the learning process will continue well after they separate and return to their working environment. Our experience shows that ICCROM courses always make a strong impact on individuals. For both participants and teachers, it is a full-immersion experience of the plurality of cultures, disciplines, languages, and hierarchies in our field. For the teaching team, this means making adjustments to and innovating the more traditional approaches, such as reducing lecturing time, making use of visual and other teaching aids, encouraging group work and practical sessions, providing glossaries and written documentation on the various topics, and ensuring productive debates and discussions. It also requires genuine commitment, flexibility, and a willingness to listen and to learn.

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CHAPTER I

BEHIND THE SCENES

Introduction

ROSALIA VAROLI-PIAZZA

From the co-ordinator of three SCD courses

'We are like dwarfs sitting on the shoulders of giants. We see more, and things that are more distant, than they did, not because our sight is superior or because we are taller than they, but because they raise us up, and by their great stature add to ours.'

Bernard of Chartres, 12th century

These lecture notes from the International Course on *Sharing Conservation Decisions* synthesize previous course experiences¹ with the hopes of becoming a tool, as well as a point of reference in the preparation of future courses. With this publication, we are bringing to fruition one of the many suggestions put forward after the first course in 2002.

Because this publication is a tool, there is no intent to disseminate any absolute truth, any final solution. Our goal is to stimulate the reader to reflect, discuss, and possibly to take concrete action in his or her own sphere of work and interest. My participation in the planning meetings for the SCD courses has been a new and personally rewarding experience. It was also a surprising one: after twenty-six years teaching at the Istituto Centrale per il Restauro and six years in the university (all successful years according to the students), I realised how much my teaching and course-planning abilities could be improved. Even before I became involved with the SCD courses, I had fortunately been able to participate in meetings at ICCROM, experiencing and learning the methods of 'putting together' a meeting and the techniques used in *brainstorming*, but when one is involved as co-ordinator, it is almost like 'going behind the scenes' - you learn so much!

The successful structure of the course depends not only on the maieutic capabilities of the co-ordinator and collaborators, but also on their abilities as facilitators. For example, to my great surprise, after the second SCD course in 2004 and as a result of its success, I thought I would have to make only a few adjustments to the 2006 course. The same individuals who participated in the planning process for the previous two courses were still on board². Once again, we

sat around a table to confirm the quality of the product; but this time with a facilitator³. After three days of discussions, we had almost entirely remodelled the course - to our immense satisfaction! Consequently, we made significant changes in the third course: we used the object to be conserved as our focal point, and we strengthened and stressed communication mechanisms.

The greatest hurdle I had was with first-time colleagues, in terms of both the mechanisms and the final project. They truly wanted to be collaborative and challenging, but they 'did not listen', going off in their own directions, according to their own, perhaps implicit, patterns of thought and with unexpressed goals. This experience taught me how important the presence of a good facilitator is, not only during the planning stages, but also in a short communication course for those instructors not versed in this type of teaching and learning.

A very important link between the team from ICCROM and the participants is the tutor. The choice of this individual is particularly difficult. He or she is chosen from the host country and has to integrate the ability to actively participate in the course with the abilities of someone who constantly listens and melds with the participants, a resource for the many questions about the host country and city.

My heartfelt thanks go to all the ICCROM personnel, to the staff that was *visible* during the course: the *Collections Unit*⁴, colleagues from the *Sites Unit*⁵ and *Documentation, Library and Archive Unit*⁶ all taking part in the various internal planning meetings and assisting with the teaching; the 'behind the scenes' staff, especially the small but very efficient *Office of Communication and Information*⁷, and *Administration and Logistics*⁸. I would also like to thank the *Office of the Director-General*⁹ for invaluable advice and collaboration.

This publication is structured to follow the development of the course. After an introductory section on the motivations and critical investigations on how to plan a course, we hear about the well-established experiences offered by our institutional partners. These institutions play an important initial role through the presentation of their duties and functions. They provide a point of reference, a 'model' capable of

assimilating various experiences and opinions, of critical discussion, and consequently, of actively stimulating the participants. We then proceed into the heart of the course, addressing the decision-making mechanisms, and here we ask ourselves: is decision-making a responsibility or a privilege? To help find an answer, we go to the history of conservation and restoration, and together we analyze *values* used in making decisions in the past and the resulting consequences. As the course unfolds, we continue by questioning the certainties that each one of us has constructed during our studies and experiences. This self-interrogation evolved in a critical and constructive manner, using a very simple mechanism. We compared and contrasted the various cultural realities and the relative decisions in order to open ourselves to *different* values, to decisions made differently from how we may have done. We learned from one another to be *curious* about *diversity*, and to understand that ‘in diversity we find wealth’¹⁰.

We discussed terminology from a legal standpoint, a different perspective than we are accustomed to. Rather than addressing the type of object, its value or its condition, the first thing we asked ourselves is: who is the owner and who the possessor of the cultural asset?

This brings us to the mid-point in the course, dealing with the *object* destined for conservation. How do we look at it, what do we see, how do we analyze it, is our approach philosophical, religious or scientific, how do we document it, and perhaps most importantly, what does this object communicate to us today? Only then can we comment on how to conserve and restore it for future generations.

This brings us to the topic of what ‘science’ to use for the safekeeping of our heritage. How can it be used in emergency situations such as an earthquake or flood? What other resources do we have when faced with natural disasters that destroy both our cultural heritage and human lives? The course is now coming to a close, and after so many shared opinions, so many discussions about so many different problems, so many suggestions and perhaps even solutions, what tools will the participants take with them to their institutions to use in solving the problems they first presented? To this end, we called the final section ‘tools for the

future’. The month-long course provided new knowledge, but we hope it has also been the impetus for using new working methods and new decision-making mechanisms in interacting with those over us, or under us, or both. We also addressed economic problems: how to find sponsors and how to open a dialogue with them, how to manage resources and plan long and short-term strategies. From a *tangible* perspective, the many photocopies distributed to the participants, the numerous and beautiful photos – a wonder of modern technology – recording the studio visits and the restoration laboratories in the various partner institutions, the visits to the cities devastated by destruction, Florence and Assisi, the lost and rediscovered city of Herculaneum – inseparable from Naples and its ‘living’ heritage, the crèche, and finally the study trip to Paris, with its new, old and renovated museums, are all added to these *lecture notes* helping those who participated to recall the experience, and as a stimulus for everyone else. From an *intangible* perspective, I would again like to thank ICCROM; in its half-century of life, in relatively small premises with a few well-chosen and highly capable personnel, it has, over the years, created an international meeting place (as its statutes require), opening its doors in an almost magical, ‘never-never land’ welcome, whenever, and wherever in the world, an ICCROM course is held.

¹ *Infra*, C. Antomarchi.

² The co-ordinator, the Unit director and colleagues from the Partner Institutions (INP, ICR, OPD and CCR La Venaria Reale).

³ Hugo Houben, Paris, March 2006.

⁴ C. Antomarchi, K. Simila, A. Tandon, J.L. Pedersoli Junior, I. d’Ailhaud de Brisis, C. Lespérance.

⁵ J. King, Z. Aslan, W. Nodoro, S. Tanaka, G. Wijesuriya, B. Keita, V. Magar, E. Borrelli, E. Incerti Medici, M.F. Adolphe, R. Wolde Mikael, S. Wiedmer.

⁶ P. Arenson, M. Mata Caravaca, M. Ohanessian, G. Paganelli, N. Falciglia, C. Georgeff.

⁷ R. Killick, M. Garcia Robles, M.A. Stewart, E. Ortiz, S. Giuriati.

⁸ B. Pisani, R. Nahum, A. Menicucci, A. Berardino, M. Moriconi, C. Parrini, E. Carra, P. Baldi, G. Cioffi and the security people.

⁹ M. Bouchenaki, B. Pisani, M.T. Jaquinta, P. House, S. Santangelo.

¹⁰ The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expression adopted by the General Conference at its 33rd session on 20 October 2005 (<http://portal.unesco.org/culture>).

From the partners

LIDIA RISSOTTO, ALESSANDRA PERUGINI

**(Centro Conservazione e Restauro La Venaria Reale -
Turin, Italy)**

The 4For course for training the trainers: a prototype between models and experiences

'We need to begin to identify learning with life. We should learn from everything we do; we should live each experience as a 'learning experience'.

M. Knowles

LIDIA RISSOTTO

THE REASON FOR THE COURSE

On 21 March 2005 at the Reggia di Venaria Reale just outside Turin, Italy, the articles of foundation forming the Fondazione Centro per la Conservazione e il Restauro dei Beni Culturali 'La Venaria Reale' were signed. The Centre has two main purposes: the organization of laboratories for monitoring, preventive maintenance and restoration of cultural property, correlated to analysis, research and diagnostics; the organization and implementation of a *School for Higher Education and Study*, the third of its type in Italy after the *Istituto Centrale per il Restauro* in Rome, and the *Opificio delle Pietre Dure* in Florence. In October 2005, La Venaria Reale, in conjunction with the *Università di Torino*, initiated the 'inter-departmental course for restorers', a degree programme lasting five years.

The idea for a course on 'Training the Trainers in Restoration' emerged from this still young and experimental context. The course is meant to bridge a gap between the need for a university environment and the professional profile of the restorer, which to date has 'suffered' by not being recognised on par with other professionals working in the field of conservation. The conceptual environment behind the formation of this course developed from concern about the collapse of traditional teaching/learning models that had been based on the transmission and acquisition of experiential technical knowledge (capacity), or, by the memorization of abstract concepts (familiarity). For the most part, the

role of the student in this process has been passive, without sufficient attention or awareness to changes occurring in the labour market, which increasingly demands 'administrative and managerial' capabilities in restoration.

A COURSE FOR WHOM?

In 2004, the hazy fog that had traditionally enveloped the professional figure of the restorer began to dissipate, rendering a clearer, more distinct profile of the individual. This change was due primarily to the activation in Italy of Article 29, entitled *Conservation*, in the Code for Cultural and Natural Heritage (Law 42/2004). In Art. 29, the restorer is identified as the central figure in the conservation process, and as such, must possess all those qualities that can only be acquired through 'information' and 'education' on a higher educational level. Our course was open to twelve professional restorers selected from a field of one hundred applicants on the basis of their resumé and personal interview. They ranged in ages between 27 and 34; all held a diploma from a restoration school, and many also had university degrees. They represented numerous sectors in the field of restoration including mosaics, metal objects, mural and easel paintings, textiles, wood sculpture and contemporary art.

WHERE?

The headquarters of the Centre are in a wing of the former stables and riding school of the Reggia della Venaria, founded in the mid-1600s. The historic spaces were restored and furnished incorporating a contemporary architectural structure into the traditional setting. The uniqueness of the Centre is the creation of new spaces contextualised within an eighteenth-century structure that does not intrude on the original architecture and facilitates an on-going 'dialogue' having interchangeable contents. There could be no better place for our professionals: a location permeated by the ancient spirit of a strict discipline, but at the same time caring, loving, with respect for the current *protagonist*.

THE COURSE 4FOR

The course itself is constructed in two different directions: a vertical matrix, made up of seven modules dealing with crucial topics to our sector of restoration. It includes current topics such as preventive conservation, different ways of

understanding and viewing the object (from the perspective of the art historian, the restorer, the scientist), topics dealing with planning phases in restoration (and we know how important this is for a 'successful restoration'), the restorer in a museum setting, and communicating restoration. The other matrix is horizontal, and is comprised of projects, exercises, active education, evaluation and self-evaluation sessions based on the completed exercises. The course ends with an internship that, for the most part, is completed outside Italy.

COURSE STRENGTHS

The **projects** are built around information received and gathered by the students during the course. There are three main projects:

- the project for the restoration, transport and display of the 'Peota', a ceremonial boat designed by Filippo Juvarra in the early 1700s;
- the restoration of the paintings decorating the 'Music Room' in the Tesoriera, an eighteenth-century building on the outskirts of Turin;
- a theoretical project for setting-up a restoration laboratory for contemporary art (to be built next year at the La Venaria Centre). Three working works were set up for these work-in-progress projects.

The **internships**¹. The European integration and the globalisation of labour markets guided the preparation of a total immersion period outside Italy at national and international public structures working in the field of conservation. The internship period is an important opportunity to compare and verify what the restorers learn during the course.

The **tutor**. The role of this professional figure within the course is extremely important not only in guiding 'good form' in the learning process, but also for initiating reflection, facilitated by a critical approach to course content and to integrating the experiences.

The richness of the course was the varied 'instruction' of the proposed topics throughout all the different modules, and the didactic attention to the topics and teaching methods, fundamental to any trainer. Another strength was the length of the course. The eleven-month long course was challenging and we often questioned ourselves about the adequacy

of the time-effort ratio. Consequently, it was necessary to 'readjust our sights' with regard to our initial plan, using the space dedicated to classroom time with their previous experiences and realities, giving attention to their growth within a working complexity such as the Centre. In this essay we want to present a few of the reflections that guided us during the process and consider the methods these opened up.

ALESSANDRA PERUGINI

'There is nothing more practical than a good theory'

K. Lewin

*'The novelty is not in the utterance,
but in the event of its return'*

M. Foucault

1. Since the 1970s, an extensive literary base has evolved on modelling that views the topic of training as being intertwined and fused with that of organisation. In this sense, training and education can only engender broader knowledge, can only help in increasing capacity and refining abilities. The acquirement of these qualities is closer at hand as the competencies of the individual in training are more clearly defined. We all know how difficult it has been to formulate the still-provisionary definition of competencies for the restorer, a multi-faceted figure having many inclinations and abilities. These consist of a set of competencies initially formalized 'on paper in terms of *capacities, knowledge and competencies*', but that are *felt and understood* differently by the protagonists in this adventure, still searching for an unsure and immature identity.

How can we apply models constructed from triumphant *objectives*, characterised by obvious and clear *contents* and dazzling *methods*, if we are not even sure about who and what the restorer is? After eight months of experience, and with the course not yet finalised, 'Training the Trainers in Restoration' can only be characterised as a '*prototype*', a '*primitive*' sample model, from which to begin rigorously evaluating anew the pros and cons of ground we have now covered.

2. From the start, the course had a complex structure, care-

fully constructed and articulated in modules. It consisted of a training programme that at first blush seemed orientated towards being very structured, delving into the most current and highly specialized knowledge in the sector. The course centred on the *docent* rather than the participant, because the students were still an unknown entity in the minds of the course planners. As indicated in the first part of this essay, the course developed within the organisational structure of the Centro Conservazione e Restauro della Venaria Reale (and specifically in the stables of the Reggia...). This, in itself, might have been reason enough to structure the course according to the previously mentioned models that view training as a moment for the development of *competencies* (that is, organization). It is also true, however, that the course participants were not yet part (nor would they necessarily become part) of the organisation promoting the course. The participants, in fact, were twelve adults with dissimilar professional training, from fairly heterogeneous experiences and training situations.

What immediately emerged from this situation was the complexity of the project and a certain discontinuity in the field of action. As a result, we realized that a new training model could be experimented, even though it would be confined (or comforted) by a structure more similar to a railway than a soft country road.

3. The theoretical model we turned to, while work was in progress, is a fairly recent contribution by Gian Piero Quaglino (2005). After two decades of reflection on the topic of training, the writer paradigmatically entitled his contribution *Manifesto for a New Way of Training*. It is an approach to the training process with a strong ethical element, in which training functions as transformative learning, an occasion for self-training and personal change.

This ethical component is certainly conducive to our 'restoration universe' marked by uncertain identities, fused and often confused with others, replete with instances of non-recognition often because its own definition was delegated to authoritarian voices from outside (or above). An identity that, even though part of a collective history, seems to express an urgency to recognize itself, to reinterpret itself, and in the end, to reinvent itself on a very personal

track. This model was capable of transporting a specific idea about the subject in training, while concurrently fitting into the framework for which the 4For course was structured. The organizational structure hosting the course was still in a phase of definition, and this resulted in limited ties to the organisation itself, allowing for 'out of the box' thinking on training. The heterogeneity of the participants in the project, a vagueness about competency profiles also contributed to the query: what and how can we teach a restorer if we do not agree on who he/she is and what he/she does? The theoretical model we used follows a four-step training process: *experience, reflection, interpretation and narration*. We mentally visualize this process as a never-ending cycle. It is perpetual and it moves from one experience to another and then returns. The process requires a precise definition of what is meant by the term 'training' and who the players involved in it are.

We assume that training is the accumulated result of instructing and educating. The etymology of the words help to understand where we place training:

- to *instruct*, in the sense of increasing accumulated knowledge, as indicated by the translation of the Latin verb, *instruere*, to construct, to build up;

- *educere*, in the sense of *e-ducere*, to lead, powerfully evoking the idea of process, the drawing out of something.

Training [in Romance languages, *formation*] is derived from the Latin *forma*, which means form or figure. G. P. Quaglino states '... unconfirmed popular etymology would have *forma* derived from *formus* (hot), thus further explaining the connection between 'formation and heat, the kindling of fire and passions'. In this seemingly eccentric positioning, we have the idea that there can be no formative action - formation - without the presence of heat, understood as a *disposition towards*, a *propensity* to pursue the positive outcome (the 'good form') required so that training (formation) transforms into learning. This juxtaposition also mentally elicits the idea of *reciprocity* in training, the exchange relationship between maestro and pupil. But, to whom is this training directed? It can only be the adult, as are our twelve participants in 4For. Thus, in considering training as the balance between instruction and education, it is an action directed

towards adults. This also implies that the trainees bring with them experiences that have been matured by prior and varied histories, and as adults, they deal with these critically – as in a *'crisis'*, a questioning, a debate – with regard to the experience on which they are about to embark. Precisely because they are adults, they are also open to understanding their own cognitive, but also emotional precariousness. They recognise (through a process of crises, of betrayals resulting from experience as it opens new horizons) the uncertainty of the goals that have been attained, their precariousness, and the state of partiality that drives them to constantly redefine themselves.

4. The course was based on these theoretical suppositions. As things progressed, it seemed to us that the 'railroad' emerging from the initial planning was incapable of allowing sufficient voice to the participants in 4For. They would have been crushed under the weight of the proposed body of information to the detriment of their own personal 'learning'. This had to be the 'trade off' in the course: learning instead of information. A concentrated effort was thus made to coax the participants into a perpetual goal-reflection on what the course was offering them. We attempted to offer opportunities for reflection in relation to the proposed course contents. We often proposed unrelated contributions, bringing experiences into the discussion that created more doubt than certainty. Above all, we compared and contrasted the means and methods of transmitting knowledge with the content they were 'receiving'.

5. We know there are many different approaches to teaching: formal classroom lectures, interactive methods, problem-solving, etc. A more structured course would have required a meticulous selection of the docents capable of disseminating specific teaching methods. Because of the different training and teaching philosophies, not all the docents were prepared for more innovative teaching techniques centring on the student. Nonetheless, the challenge was to include a highly *'instructive'* course content, even in the absence of a completely heterogeneous 'delivery'. This challenge consisted in asking the students to reflect 'above and beyond' the instructors' spoken contents using a goal-reading of the contributions themselves. The contents often

shattered the seemingly consolidated certainties of some participants, and this required providing space to recalibrate perspectives and viewpoints with the content being proposed (at times, imposed) by the instructor. This readjustment hiatus helped to construct a balanced synthesis, both critical and clinical in character, between the known and unknown suddenly emerging, and certainly creating uncertainty and apparent confusion. And when the speaker/instructor presented only certainties, we tried to facilitate curiosity, discussion, criticism and inquiry. We also realised that the stringent pace of the course left little time for discussions on the content and method of transmission. In order to open space to this type of reflection, as one of their primary tasks we asked the students to create a personal space for contemplation and introspection of the experience.

6. Experience was a daily constant; the frenetic pursuit of the many stimuli, an alternating of the often-demanding technical contributions of the many speakers involved in 4For. But the participants also experienced active learning, becoming personally involved in the 'projects' on the specific restoration topics. This experience concentrated on concrete problems and was directed towards creating a 'continuous' bond between daily work and the learning process. The goal was not only to complete the assignment, but most importantly, to ask new questions for the unique and unusual situations. The intention was to stimulate knowledge by elaborating past experiences, by following a 'research' process where reality was questioned from a standpoint of uncertainty and without predetermined answers. Experience translated into personal challenges through the difficult work carried out in small groups, not always a welcoming structure, where the participants faced not only topics they agreed on, but very often, topics that instigated dissent if not open arguments.

7. The experience was consolidated with the thought *'Reflection affords us a step backwards that allows us to leap beyond. This 'beyond' is not limited to something that exceeds experiences, but is that from which learning surely gets its energy, but without leads us nowhere'* (G. P. Quagliano, 2005, p. 210). We used reflection as a founda-

tion on which experiences could build, be recognized by memory, and at times through the repetition of paths already travelled, invite the participants to reflect and go back along their tracks.

8. The theoretical model presented above assumes that interpretation and narration come after experience and reflection. In order for training to become true learning, both interpretation and narration are essential to the process, bringing about a *transformation* in the subject. What, then, is this *trans-formation*? Based on the premises and ethics underpinning our approach, a transformation certainly cannot be the result of any externally imposed action meant to 'instruct' or to 'direct'. If, as we hope, transformation does occur, it will be the result of a completely personal, interior experience.

9. The first thing we will ask our 4For once they return from the *exile* of their internships is about their awareness of their personal transformation. It will be important to understand how much of the *experience*, the numerous presentations, the complexity of the projects underway, the difficulty of having to contend with many months away from Italy, how much of this stayed with them thanks to 'value added' from the process of self-directed questioning. How did the rigorous but lenient attitude towards their own labour affect their time, the place, the adequate distance (fantasized by some as a true exile)² for conscious *reflection*; for an *interpretation* of the entire process, and to finally recount it all with *narration*, in equilibrium between what were once evident certainties and the apparent uncertainties that the future holds.

10. It may seem unusual that in all this we never referred to the well-known saying, *to know, to know how to do, to know how to be*. Upon reflection, perhaps the added value of our *prototype*, the value that developed step-by-step with a process in which we believe, is something even more fundamental, to know that '*we are*', through a thoroughly personal exploration and discovery.

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¹ Internships: Stage: Italy: Rome - ICCROM; Rome - Galleria Nazionale di Arte Moderna (GNAM); Florence - Opificio delle Pietre Dure (OPD); France: Paris - Istitute Nazionale de Patrimoine (InP); Paris - Institute de Maison d' Italié; Paris, UNESCO; Germany: Erfurt - University...

² Nathan, T. (2001), It. trans. 2003, p.45 "They say that exile is one of the most acute types of suffering; made of a fixed, stubborn silence born from the impossibility to muffle the longing, the hope of returning to a delusion of a one-time happiness. But exile is also an adventure, as long as the memory of the traveller resist the temptation to give in, to the sirens' song of simplifications, as long as that one day a place can be found to give back the accumulated experience. It is true that one learns enormously from travel; the first this one learns is about personal change as the experience unfolds; but what good would it be to learn if there were no moment, no place where the experience can be solidified? If exile is always a suffering, for the traveller and his hosts it can only become a treasure through the constant need of loyalty.

(Institut National du Patrimoine - Paris, France)

The education and training of curators and conservators

Founded in 1990 as the *Ecole nationale du Patrimoine (ENP)*, the school was first set up to organize the competitive entrance examination and training courses for curators of cultural heritage recruited by the state, the City of Paris or the regional authorities. In 1996, *ENP* took over the task of selecting and training conservators of cultural heritage after merging with the *Institut de formation des restaurateurs des oeuvres d'art (IFROA)*.

The government decree of 21 December 2001 confirmed the dual mission of the establishment and the present denomination, *Institut National du Patrimoine (INP)*. The reform also takes into account the continuing education schemes addressing curators and other practitioners of cultural heritage as well as the ever-increasing collaboration with the *Centre National de la Fonction Publique Territoriale*. Since 2004, *INP* has also organized refresher courses for professional conservators.

Today *INP* comprises two academic divisions, situated in Paris and Saint-Denis, dealing with specific but complementary fields. The curators are trained for a period of eighteen months, alternating academic sessions with placements in France and abroad. The conservators are trained for a period of five years after a competitive entrance examination according to specialism (*arts du feu*, graphic arts and books, textiles, furniture, painting, photography, sculpture). Unlike curators, conservators do not become civil servants after completing their studies at *INP*, but work mainly as free-lancers.

Since 2006, the diploma of conservator of cultural heritage gives successful graduates the equivalent of a master's degree. Their study programme includes academic and practical sessions, placements in France and abroad as well as research in the field of conservation. In the fifth year each student heads the conservation of a work or a series of works of art, from the preliminary examination to the conservation treatment itself. This further involves writing a thesis

in which students must give a full account of their work, explaining the choices they made along the way. The thesis also contains an in-depth study of the treated works of art, both from the art historical point of view and that of the history of the techniques used. Finally, students present the results of the applied scientific research that they have carried out on an issue that their conservation work has raised. The conservation work and the research carried out by the student, is assessed by an independent jury, composed of curators, conservators and scientists.

Joint seminars are organized each year around topics of professional interest and methodology common to both student curators and conservators. These seminars stimulate very enlightening debates about conservation-restoration. The themes are: professional ethics, respective roles of curators and conservators, history of conservation-restoration, preventive conservation, condition surveys, tender procedures and enhancement of conservation-restoration. The institute desires to serve the needs of the diverse professions encountered within the field of cultural heritage, and to foster their awareness and understanding of each other. Another of the institute's priorities is to reinforce the ethics of each one of these professions, promote discussions on their evolution in France and internationally, and as far as possible, anticipate future developments.

INP brings together a varied range of expertise and practice, reflecting the different paths taken by conservators and curators before their admission to the institute. Equally varied is the expertise provided by the many professionals - nearly seven hundred - who contribute to *INP* activities. This diversity, in conjunction with the unfailing motivation and dedication of the students, is the strength of the institute. International trainees have access to short sessions or to the long-term study courses provided by *INP*.

ANNA VALERIA JERVIS

(Istituto Centrale per il Restauro - Rome, Italy)
**A restorer from ICR in SCD:
experiences, evaluations
and suggestions**

INTERDISCIPLINARITY AT ICR¹

During the 1930s, the founders of the Central Institute in Rome were consciously motivated in their intent to create the Istituto Centrale del Restauro on solid scientific, historical and technical-operative bases. The institutionalization of a place where the different disciplines could cohabit, on constant call to work together to safeguard the Italian patrimony made for collaboration with varying levels of success, that, nonetheless, usually ended with the successful completion of the mutual goals.

I was trained as a restorer at the Istituto Centrale del Restauro, and I matured in the conviction that it was normal for a restorer to treat an object by working side by side with scientists and humanists; the 'required' condition for every restoration intervention. At the same time, it is not always easy to achieve harmonious collaboration. Inside ICR this reality can be observed in the lecture halls, in the scientific laboratories, but most of all in the restoration laboratories. It is the perfect environment for reflecting on how to share decisions for heritage protection: reflections that are at the nucleus of the SCD course.

How ICR's ACTIVITY FITS INTO THE 2006 SCD COURSE

The educational activity in the School at ICR is to train restorers. The restorer-instructor at the school finds that the educational practices fairly well define the needs of the students. Equally important is the knowledge base they already have upon which the instructors can lay the educational foundations. In my attempt to propose something useful to the SCD 2006 course participants, I needed to keep in mind that, in addition to having different geographic origins they also work in their home countries in different activities dealing with the safeguarding of cultural property. What is their common knowledge? Can the same language be used for everyone? In this sense, I had to take a broader

approach. This broad perspective once again demonstrated to me that my profession as a restorer is interdisciplinary, and a 'broader view' is intrinsically necessary to take in all aspects and implications for the care and safeguard of cultural patrimony.

I would like to briefly examine the thoughts and reflections emerging from the contact the SCD 2006 course participants had with the activities at the ICR.

UNIT 2: CULTURAL PROJECT. CONSERVATION DECISIONS IN CONTEXT

In the laboratories at ICR, decisions are made in a twofold manner. We consider the context from which the work comes and to which it will return after the restoration (whether it be an original context or not). The other context is tied to the laboratory in which the restoration will take place. The ICR laboratory is not simply a physical space, but rather a place where every decision, with all the implications and variables intrinsic to a 'case by case' situation, is made in the context of the traditions of the Institute and Cesare Brandi's *Theory of Restoration*.

Therefore, the problems presented to SCD had to reflect this background, and the laboratory visits were planned taking this into account. Different technical-conservation topics were presented where it was necessary to call upon various professionals: scientists, humanists, restorers. The main topics chosen for the SCD 2006 were:

- the evolution of stretchers for the tensioning of paintings on canvas;
- aesthetic challenges in loss reintegration for ceramic objects;
- the *Risk Map*: how a large-scale computerized plotting of cultural heritage and its state of preservation can help in establishing priorities and making decisions.

This is not the forum to go into detail on all the technical problems that were dealt with and their theoretical and scientific implications. Nonetheless, it is necessary to state that the visit stimulated many other questions, queries and information exchange. When heritage professionals who come from different contexts and places meet, it is always an extraordinary moment of human contact and professional exchange at all levels.

UNIT 3, MODULE 1: THE OBJECT AS A SOURCE OF INFORMATION. LOOKING AND SEEING.

Once again in this module, the discussion and viewpoints initiated while the course participants were in the ICR laboratories were rich and varied.

Even though the ICR is a State institution concerned with Italian art from a specific but broad geographic area, there are many types of objects in the laboratories having various cultural meanings. They range from the object signed by an illustrious artist to a craft object, an archaeological artefact, or an ethnographic object. The diversity of the objects in the ICR laboratories allowed us to make theoretical reflections on the cultural context of the object using specific case studies.

A single group of people observing the same object over a period of time and expressing their impressions was a source of stimulus for numerous reasons. We never fully get to know an object: there is always something new to see and observe. The collective evaluations and discussions on an object in the laboratory are stimulating for the restorer working on the object as well as for each member of the group. A fresh viewpoint from someone who has never seen the object before can often elicit original, unique observations, at times inaccessible to the person closest to it. We begin to realize that each of us carries an accumulation of knowledge that is inevitably tied to different kinds of stereotypes (including those strictly technical), which at times can be an obstacle to further knowledge.

Individuals from different geographical areas and different cultures are taught to 'look' differently, and thus they 'see' different things. The conceptual mosaic created from these different thoughts and reflections offers a richer understanding of what is being observed.

THE ICR AS AN INSTITUTIONAL PARTNER: LEARNING FROM SCD

The participation in a learning project and cultural comparisons intrinsic to the SCD course provides both participant and partner institution with a unique learning opportunity. In reality, anyone can benefit from a course teaching that interdisciplinary conflicts can be settled and managed while working towards the same objective through useful and

fruitful dialogue. Just as for the other partner institutions, by opening up its spaces and materials for reflection, it is important that ICR is also able to increase its own knowledge. A very positive aspect of the course (one which should be encouraged) is that the personnel in the SCD partner institutions can participate in/attend the course. The close geographical proximity between ICR and the SCD course at ICCROM can contribute to this participation. The two-year course cycle helps the instructors at ICR to work within the themes and topics and to choose topics having the most interest for the participants. The section of the course involving ICR usually comes towards the end, and thus gives us the time and space to see what areas and topics have created the most interest among SCD participants. I would like to add one more general thought: the didactic programme at ICR may be conducive to modules or lessons useful to the ICCROM courses. This partnership is also very positive in the training and education of the students attending the ICR Higher Education School because ICCROM contributes with its own lessons as well as encouraging the participation of young Italian restorers in the training courses at ICCROM. This gives future restorers an educational experience encompassing the true international aspect of cultural property care and safeguard. This approach not only increases their knowledge, but also enhances relationships among the partner institutions.

¹ <http://www.icr.beniculturali.it>

(Opificio delle Pietre Dure - Florence, Italy)

Angels, saints and demons: eight masterpieces restored¹

On the fortieth anniversary of the flood that hit Florence on 4 November 1966, the Opificio delle Pietre Dure and the Florence Restoration Laboratory, directed by Cristina Acidini and in collaboration with the Opera di Santa Croce, returned eight masterpieces of Florentine painting to the Museum of the Basilica of Santa Croce. The paintings date from the fourteenth to sixteenth centuries and the temporary exhibition was inaugurated on 7 November 2006. This exhibition was significant, first and foremost, because it highlighted the on-going activities of the laboratories in the Opificio delle Pietre Dure dedicated to the conservation of national cultural heritage. Equally significant was the challenge of recovering a series of paintings that had been severely damaged in the 1966 flood.

From a general cultural policy, the reflections that can be made today, with the benefit of historical hindsight, open up a series of topics and considerations: the important and difficult choices made immediately following the disaster and their true efficacy, the development of treatment methods for the damaged works and how they related to the evolution of theoretical reflections, and the inconstant and sporadic interest the city of Florence and its political forces showed for these problems. Initially, there was an intense influx of resources dedicated to the Florence flood. But as time wore on both media attention and subsidies died away, and new, constantly pressing needs were always on the horizon; priorities dictated by the progressive ageing of the materials, and even new disasters, such as the 1993 bomb attack on the Uffizi. Adding to these exigencies, from the early 1980s on, there was a growth in the culture of image increasingly based on blockbuster exhibitions and on easily executed treatments having immediate and spectacular impact as required by the sponsor system. In this context and environment, one can easily understand why we are still talking about restoring paintings forty years after the flood. The Opificio has continued to work recovering works of art

damaged by the flood. As the main reference point for all the interventions at the time of the disaster, the Opificio was on the front lines of the emergency and for a long time it was the only entity equipped with know-how and experience in this complex sector. Even today, the Opificio remains actively involved in consulting for the flood-related treatments undertaken by private restorers, most of whom are former students of the institute and, to some extent, the heirs of our past experiences and knowledge.

More than ten years ago, we began by concentrating on a series of paintings from the heart of the 1966 flood, the Basilica of Santa Croce and its Museum. Then as now, these paintings were located in the large refectory and the rooms adjoining the first cloister. These works consisted in two enormous and severely damaged altarpieces, one by Salviati depicting the *Deposition of Christ*, and the other, the *Descent of Christ into Limbo* by Bronzino. The group includes polyptychs by Lorenzo di Niccolò, Giovanni del Biondo and Nardo di Cione, two panels incorrectly identified in the old inventory entries as pendants and both attributed to Domenico di Michelino depicting the Franciscan priests *Saint Bonaventure* and *Saint Bernardine of Siena*, (the latter now attributable to Rossello di Jacopo), and finally, a smaller panel depicting *Saint James* attributed to Lorenzo Monaco, in disastrous condition with a partially completed transfer of the pictorial layer.

In 2003, during the preparation for the fortieth anniversary of the flood, there was a final surge in the restoration work, in order to present the series in an exhibition curated by the Opera di Santa Croce when work on the redesigned display areas was completed.

Inevitably, when dealing with the problems of the flooded works, we must reconstruct the events and the choices made at the time. The situations and choices must then be evaluated in a historical dimension, avoiding the extremes of either praise or polemics. The historiography also encompasses the important role played by many individuals, from restorers to upper management; individuals who participated in writing the history of restoration in Florence and who took on the enormous responsibility of making the necessary choices. First on the list was Ugo Procacci,

Superintendent during the flood, whose centenary anniversary was commemorated last year. Immediately behind him was Umberto Baldini, who passed away while we were still preparing the Santa Croce exhibition, and to whom the entire initiative is dedicated.

In an attempt to synthetically present the technical problems, we should bear in mind that amongst all the different types of works damaged in the flood, the paintings on wood panel certainly suffered the most damage. When examined individually, the various phenomena affecting a painted wood panel as a result of a flood can be fairly easily understood. The greatest problem is often the interaction within the different levels of the multi-material composite, and understanding the best treatment approach. The different materials, the non-homogeneous behaviour of the wooden support, the ground layers and the pictorial film of a work on wood panel are constantly influencing the normal ageing of the work, but change and alteration caused by external stimuli are often even more threatening to its stability. To ensure the 'good health' of the composite it is important that each of the three structural elements have in themselves good *cohesion* or solidity, and that there is good *adhesion* to the other elements. It is especially important that the ground be firmly attached to the support and the paint film to the ground. As is often the case, when any intrinsic or extrinsic factor infringes on an object's cohesion and adhesion, we are faced with a worst-case scenario for the deterioration of a painted work; the solution for which contributes to the difficulty and uncertainty of the treatment. In this type of scenario, restoration is not omnipotent. The available solutions are often partial and, at times, fraught with hazards in and of themselves.

Water, or humidity, acts on two elements in the painting: the ground preparation and the wooden support. The composition of the ground can vary greatly depending on the school of painting and the use of materials, however, the two materials always present in the ground on a wood panel painting are the body or bulking agent (in Tuscany, most often gypsum) and animal glue. The wooden support will absorb humidity depending on how long it is in contact with water or exposed to water vapour, the species of

wood, the thickness of the wood member and other factors related to the way the wood was worked. These factors contribute to a dimensional dilation, which on large-dimension paintings can be notable. During the drying phase, when water is removed from the surrounding environment, shrinkage in the wood occurs at a rate comparable to the speed of the cessation of the effects and the amount of water. Shrinkage brings about marked compression in the wood fibres, with the possibility of structural collapse and deformation. With the movement of the wood, the ground to which the paint film is attached undergoes a decohesion process due to the breakdown of the adhesive component. The combined effect of these two phenomena is that the movements in the support influence the overlying layers, causing loss of adhesion resulting in possible flaking and loss of colour. As a solution to this problem, during the 1700s the pictorial layer was separated from the underlying structure and applied onto a new, stable support and ground. This treatment is termed 'transfer' of the paint layer, and it is characterized by many different technical methods, all destructive to some degree.

Other damage to the flooded panels was caused by the accumulation of dirt, mud mixed with sewerage and the hydrocarbon deposits from below ground level, as well as the impact of the physical mass of water on the works. Baldini and Procacci decided that all the wet paintings should be protected with a facing, and placed in climate-controlled storage areas in the Boboli Limonaia so that the works could dry slowly and so they could remain in Florence for their restoration treatment. Without a doubt these were positive choices, though perhaps today some aspects would be given greater attention due to our increased technical and scientific knowledge.

In terms of the restoration treatments themselves, we should remember that the work done in the laboratory was not limited to merely carrying out consolidation methods or to the traditional transfer of the paint layer. Moulds were made of the paint surface to ensure a rigid support for the paint layer so that when the painting had to be placed face down, the numerous crested areas on the paint surface would not be broken or flattened, as was done for the

Deposition by Allori. Additionally, using a technique modified from the traditional 'Florentine glue-paste' lining method, deformations of the paint layer were avoided².

Original research was introduced to identify the best way to fix the colour-ground-canvas composite onto the support so that the operation could be reversed in the future. After a number of experiments, one solution having various applications, consisted in using a special cardboard with pre-determined breaks as a separation and possible sacrifice layer. This demonstrates the desire to research the concept and practice of reversibility, an approach that has made great headway in recent years as a new theoretical principle in restoration. The reversibility is undoubtedly only partial, due to the fact that the transfer treatment in and of itself is obviously non-reversible.

The problem of structural deterioration in panel paintings was addressed using numerous methods and approaches, always attempting to maintain the entirety of the structural materials, reserving the transfer operation to only those cases that could not otherwise be resolved. Some of the works, like the large altarpieces by Bronzino and Salviati now returned to Santa Croce, did not undergo a transfer at the time of the flood. This made it possible to treat them today with more advanced, updated instruments and techniques. Other works, such as the San Giovanni Gualberto polyptych, due to the solidity of the construction technique, were saved by carrying out a careful consolidation treatment and localized colour-fixing.

The careful technical execution usually found in traditional works was an important factor in assessing and planning for the recovery of the paintings. The quality of execution varied from the large sixteenth-century panels where less care went into their overall construction, a factor contributing to the greater level of deterioration in these panels, to the excellent execution techniques used for the panels dating from the Middle Ages. The solidity of these latter works allowed us increased latitude in carrying out innovative treatment solutions. The most famous example of this is perhaps Cimabue's *Painted Cross*. The presence of a sturdy and continuous canvas interlayer under the ground layers that was glued onto the wood surface allowed the paint

and ground layers to be separated from the wood support with the canvas, thus preventing the demolition of the wood support.

Many other interesting innovations were introduced for the restoration of Cimabue's *Cross*. One example consisted in replacing the pre-broken cardboard layer with a special, permanent-viscosity synthetic adhesive that guaranteed the on-going reversibility of the bond, thus eliminating the need to introduce other materials into the reconstructed structure. This experimentation clearly demonstrates the desire to introduce a new, intermediate support between the colour-ground-canvas and the wood, avoiding future problems with any movements in the latter. A thin sheet of resin and fibreglass was chosen because it is inert, unaffected by changes in relative humidity and temperature, lightweight and resistant.

The technical evolution in the transfer of the paint and ground layers was motivated by the desire and need to avoid the loss of material during the demolition phase. Additionally, if the painting is repositioned on a very regular and smooth surface, it gives an unnatural appearance to the painting. The Opificio laboratories developed a method to resolve this problem that was applied to the *Painted Cross* by Lippo Benivieni, still housed in the Santa Croce Museum³.

All eight paintings in the commemorative exhibition have different stories and conditions, and their treatments were spread out over the past forty years. It should come as no surprise that there has been a wide range of choices and solutions, all didactically and historically quite interesting. An initial group consisted of paintings that required a traditional transfer of the paint layers. This operation is irreversible and it required an approach that would employ all the best possible techniques. These paintings included *Saint Bonaventure*, attributed to Domenico di Michelino (Fig. 1), and Lorenzo Monaco's *Saint James* (Fig. 2), dating from 1408. The demolition and separation phases had already been carried out for both these works, and they had been protected on the paint surface with a heavy facing layer. On the reverse side of the paintings, the first ground layers were reconstructed around a thin gauze, called 'cencio di nonna'



Domenico di Michelino
Saint Bonaventure

the ground layers and the means used to adhere the layers to the new wood support were carefully contemplated and planned. This resulted in the use of innovative techniques for the complex case of the Lorenzo Monaco panel. Even though there was no objective evidence attesting to



Lorenzo Monaco
Saint James

the degree of planarity in the old surfaces on the *Saint James* and the *Saint Bonaventure*, we used pre-flood photographs, which aided in the decision to give the transferred works a slightly curved surface, avoiding an unnaturally flat appearance. We attempted, however, to avoid the impression of a subjective and arbitrary choice and therefore, we constructed a geometrically regular curve, just enough to give movement to the surface, and which would not have the visual characteristics of a fake imitation.

In contrast, the polyptych of the *Coronation of the Virgin with Saints* by Lorenzo di Niccolò (Fig. 3) is one of the very few cases where the separation of the pictorial layer from the wood support did not require the demolition of the support. The weakened bond with the interlayer canvas on which the layers of colour and ground were attached allowed the layers to be separated without destroying the wood. Once each element was separately treated, the layers were repositioned with the colour laid upon a sheet of

(similar to cheesecloth). Over time, the extremely fragile conditions of the works had produced troublesome deformations accentuated by surface wrinkling. The restorers dedicated many working hours to recovering an acceptable overall planarity without flattening or producing an excessively regular surface. The subsequent phases in the reconstruction of

plexiglass, and the pre-broken cardboard was used as an element of discontinuity. Slight size variations between the detached parts and the structural



Lorenzo di Niccolò
Coronation of the Virgin with Saints

elements that had remained intact required a complex repositioning and remounting. A seemingly infinite amount of small chips and damage covered the paint surface. The surrounding chromatic areas of abraded, original colour were used to affect a careful but limited pictorial integration employing the *selezione cromatica* (chromatic selection) technique.

The polyptych by Nardo di Cione (Fig. 4) had already been transferred, with the colour layers repositioned on a canvas attached along the sides of the support, similar to a canvas stretched onto a panel. Over the centuries the wood planks in the panel had lost most of the old carpentry elements, and they arrived in the laboratory attached to a very poor-quality structure that had been semi-destroyed by the flood. Subsequently, a new polyptych structure was made, using simplified shapes in order to avoid the semblance of a fake. The new

structure, however, allowed for a more consonant reading of the work's formal values due to the fact that the



Nardo di Cione,
Polyptych

lines and spaces were constructed from the shape and dimensions of the painting; this restoration is exemplary of a pro-active treatment approach, typical of Baldini. We decided to re-use this structure because it is also significant for the history of the treatment, and we attempted to give it a

chromatic value that would assimilate with the exhibition structure. We treated a large portion of the previously retouched areas that had employed the 'selezione oro' (gold selection) technique quite differently. The *selezione oro* integration technique had developed over the years in the laboratory, finally acquiring greater functionality in its use with the introduction of shell gold to the colour-triad *tratteggio* of the traditional yellow-red-green. This enabled us to obtain the characteristic reflections of light that more closely approached gold leaf. Based on this logic, all the previous retouching was reworked in keeping with current tendencies, but without changing the basic underlying choices previously worked on the completed ground. There are two paintings exemplary of those cases when a transfer of the paint layer was avoided because of greater solidity of the technical construction. These works are the *Saint Bernardine* by Domenico di Michelino and Giovanni del Biondo's *Polyptych of San Giovanni Gualberto* (Fig. 5). The treatments on these two works were limited to the usual consolidation and localized colour-fixing on the front



Giovanni del Biondo
Polyptych of San Giovanni Gualberto

of the paintings and the consolidation of the wooden support structure. As part of the maintenance, the missing frames were replaced with similar materials, but without any intention

to create fake replicas. The two treatments on the supports are chronologically distanced from one another, and this too, testifies to the uniqueness of recent treatments in this field of restoration. For example, the battens on the *San Giovanni Gualberto*, made in 1986, represent the first case where mechanical elements were introduced in order to provide flexibility to the possible curvature of the panels, no longer left exclusively to the elasticity in the battens themselves.

Two of the most complex treatments carried out in the laboratories over the past fifteen years, were on the works by

Francesco Salviati (1548), *The Deposition from the Cross* (Fig. 6) and *Christ's Descent into Limbo* by Bronzino (1552) (Fig. 7). These works were originally made for the altars of the Dini and the Zanichini families on the inner facade of the Santa Croce church. The painting by Salviati had been split apart into its six vertical planks. Over time, in addition to the deterioration phenomena caused by the flood, the planks were deformed to such an extent that it was difficult to imagine them being rejoined into a single painting. Each plank underwent long and repeated consolidations and localized colour-fixing, requiring pressure and infinite patience. At the same time, the unevenness in the planks caused by the inserts used to plug the wood knots, which were removed when the panel was constructed, was treated.



Francesco Salviati
Deposition from the Cross

The plugs resulted in an undesirable surface because they were no longer flush with the surface of the pictorial layers. Minute, localized transfer of colours was required in order to recover bits of the original paint and reposition them onto the new plugs that were flush with the surface. The delicate operation of rejoining the planks in the panel was then carried out. The first step was to re-establish a general curvature to the panel, which allowed the individual deformations and warped sections to be recovered with minimal aesthetic damage. The cleaning operations followed, revealing old repaintings from before the flood possibly caused by the infiltration of rainwater from above. These operations uncovered an extraordinarily high-quality painting that was, nonetheless, disfigured by an infinite series of small losses and abrasions. In keeping with our theoretical methodology for total colour-loss, lacunae are filled and integrated using two differentiated *tratteggio* techniques corresponding to the interpretation given to the lacuna itself and whether it

can be formally reconstructed or not. These *tratteggio* techniques are commonly referred to as *selezione cromatica* and *astrazione cromatica* (chromatic selection and chromatic abstraction). In Salviati's work, the limited extent of the lacunae in relation to the figures made it possible to reconnect the forms and use the *selezione cromatica* technique in all the loss areas. The abraded areas remained a problem. A faithful interpretation of Baldini's restoration theory, even though not well-known and certainly infrequently applied due to our tendency to 'fix' paintings, is to not intervene at all on abraded areas, on what remains of the 'original' material. In this case, however, the extent of the damage caused a strong visual disturbance, rendering the appreciation of the work's formal values impossible. On the other hand, Baldini also teaches that excess retouching, product of the need to knowingly 'fix' paintings, runs the risk of lowering the overall quality of the work, becoming 'homogenized' in the hands of the restorer. In restoration we often have to confront a problem where both aspects hold some truth, and this dialectical nature always demands a patient and complex evaluation, paying close attention to the characteristics of the specific case. Thus, we decided to proceed gradually, again using the *tratteggio* integration in relation to the aesthetic disturbance that existed, and which resulted in various levels of intervention. There were areas where the integration was almost non-existent, areas with a simple chromatic tonality, and areas where the form was reconstructed.



Agnolo Bronzino
Descent of Christ into Limbo

The painting by Bronzino posed different problems. The flood did not cause the separation of the planks as in the Salviati painting, however, the lower three-quarters of the panel had shrunk even though the drying process had been slow and gradual. The result was the creation of empty

spaces between one plank and another, leaving the paint layer precariously positioned over an empty bridge and supported by a few fibres of tow, which had been fortuitously inserted in the original construction of the joins between the planks. The treatment was centred structurally around two phases: the lengthy, minutely detailed consolidation and localized colour-fixing, and the treatment on the support requiring extensive micro-plugging of both the back and front, as well as inserting wedges to reinforce the joins in the planks. This was done using the normal technique for inserting wedge supports on the reverse of the structure, but it was also done on the front of the panel allowing for the repositioning and re-adhesion of the pictorial layers onto a flush surface. During the cleaning phase, we found that not only were there residues of mud from the flood and the materials used to initially treat the surface, but also a series of old repaintings meant to hide the unusual iconography of the devils, one of the interventions suffered over time and aimed at the moralistic censure of the image.

The works by both Bronzino and Salviati have splendid antique frames that were finely carved and gilded, and that required an equally complex and careful restoration. In addition to their decorative function and their role in defining the space of the paintings, the two frames were part of the treatment for stabilizing the movements of the support, a combination of restoration and preventive conservation meant to ensure the success of the entire operation over time. Originally conceived as slats that needed to be supported by a connection with the altar wall, the frames were equipped with an internal structure that had to support them along with the paintings. The thickness of the frames was increased and back panels were applied in an attempt to create a closed environment in order to control humidity, thus reducing the stresses transmitted from the support to the pictorial surface. Obviously, there would be greater overall protection if the works were displayed in a climate-controlled environment, but for now the installation is only transitory, until a new museum installation can be realized for all the many masterpieces in Santa Croce.

¹ This contribution has been reworked by the author and originally appeared in the publication *Angeli, santi e demoni otto capolavori restaurati. Santa Croce quaranta anni dopo 1996-2006*, edited by M. Ciatti, F. Frosinini, C. Rossi Scarzanella, Florence, 2006, going into greater detail and accompanied by a full bibliography and participants in the restoration.

² This technique entails keeping the paint layer in traction using a system of paper stretchers that allow the deformations and raised areas to be flattened and repositioned under specific conditions of humidity, pressure and heat. When the operation is carried out inside a pressurized bag enclosure, the results can be even more effective, safe and homogeneous. The new ground was prepared so as to be homogeneous with the traditional materials, and similar to a large-scale lining procedure; all the layers were placed on a single, large, tight weave linen canvas that acted as the first support. The choice of the final support was made based on the characteristics of the work. New wood panels were chosen with construction characteristics that make them resistant to insect attacks and to humidity without deforming and having very little movement.

³ This work was presented in the 1986 exhibition during its restoration phases and was returned to Santa Croce for the commemoration of the fortieth anniversary of the flood. The restoration process included the following operations:

- protection and moulding of the surface with lightweight plaster and with a load-bearing structure;
- stereoscopic radiographic investigation aimed at understanding the internal three-dimensional structure;
- construction of a custom-made machine on a wheeled cart able to cut through the thickness of the painting, following the cut line identified by the radiograph and replicated by the cart tracks;
- cutting the first millimetre of wood and turning the front of the painting onto the previously made mould to prevent flattening and breaking the raised areas on the pictorial film. This allowed for the last millimetre of the wood support and any deteriorated ground to be manually demolished and removed;
- separate treatments on the paint film and the wood support, following procedures already experimented in the two disciplines;
- elimination of the mould used for the raised areas on the paint layers, and realization of a new support mould that would recreate the original form of the panels and compensate for the thickness that was lost with the cut, made from resin and fibre-carbon. It was constructed so that the front was modelled from the mould, with a flat reverse side to mount it on milled wood;
- fixing of the colour-ground-canvas composite onto the new synthetic support using permanently-viscous adhesive; all this was anchored to the reconditioned old support using a series of flexible lateral anchors to compensate for the movements in the wood with respect to the inertia of the new structure.

Course management

PAOLA CAMERA, MARY ANNA STEWART

Selection criteria and procedures

The success of a course is in great part due to the selection of the participants; the balance and harmony created within the group are fundamental elements for its positive outcome. This type of course, which requires lengthy preparation and organization, is tailored to the requests and needs of the participants who are interested in the specific topics addressed in the course; the participants are therefore the pivot around which a course is conceived, created and evaluated.

How do we optimize our choice?

Starting with the concept that the courses organized by ICCROM are highly specialized and attract professionals from all over the world, the choice to be made, based on the applications received, is extremely difficult. Obviously the selection criteria, which are established by the course coordinator, provide the basic guidelines for the Selection Committee members to choose candidates on the basis of their educational background, professional experience and the specific on-going projects in which they are involved. Furthermore, the thorough examination of each application and particularly the personal statement, which highlights the candidate's reasons for applying, his/her expected results and the benefits to his/her professional development, contributes to making the final choice. Particular attention is also focused on seeking an ideal balance among the group of participants, taking into account the male-female ratio, the geographical distribution of the countries of origin of the participants, and the range of professional backgrounds.

In actual fact, the synergy that can originate in the classroom goes beyond rationale although it can certainly be aided by a communication model¹, which can help both participants and lecturers to tune in and open their minds to listening to others. In the long run it is the individual qualities of each participant, sharing the same spaces and the same experiences, which bring them together to create a dynamic and interactive group. A fundamental role in this process is also played by the trust established with each participant before they arrive at the

venue where the course is being held. With regard to this, many different aspects must be taken into consideration: they often come from faraway countries, with completely different customs and traditions and, in some cases, they have never even left their hometown before and need reassurance that what they will find is not that different. Nowadays communication around the world has improved considerably and e-mail has reached out and connected people worldwide. The first contact one will have with participants will in fact be by e-mail and right from the start one will get a feel for the individual and ultimately for the group as a whole. There are a few basics to keep in mind and the most important is that not everyone's command of the language, adopted for the course, is the same; some will have no difficulty, others will come across as not being entirely confident and finally there will always be one who turns out to be more problematic. Through correspondence with the participants, which can span over the six months preceding the beginning of the course, all the issues related to their attendance of the course and to their presence in a country that is not necessarily their own must be covered. In a nutshell these would include: the entry visa if required, travel expenses, accommodation, the health certificate, and finally the name of a person to contact in case of an emergency. The most crucial concern for the majority of participants is the financial factor and their first question will always be related to the funding required to attend the course. In this respect, if a tuition fee is requested to offset part of the costs related to the organization of the course, to facilitate participants and to allow them enough time to search for their own funds, the fee should be divided in two parts, namely the registration fee that is due one month after acceptance and amounts to 20% of the total, and the final balance that must be paid approximately six weeks before the start of the course. The host organization and its partners (if applicable) should, on the other hand, attempt to search for scholarships for participants at least one year before the beginning of the course, and possible sponsors should be identified well in advance as fund-raising is an extremely time-consuming process. Participants should be encouraged to search for their own funding and one should always be supportive without committing or offering a scholarship until there is an overall picture of

the financial needs of everyone involved. In this process, when participants indicate that they have been successful in raising some funding or that their employer has been able to contribute to some of the costs associated with their participation in the course, this should always be taken into account as every participant who receives a scholarship through the host organization must receive the same amount in order to avoid unnecessary discrepancies within the group and to make participants feel treated equally. Some participants will need an entry visa, which should be requested from the embassy of the host country for the entire duration of the course, taking into consideration the necessary travel time as well. Given the intense schedule of the course, we also advise participants to arrive slightly in advance of the start of the course and, if possible, to stay after its conclusion to enable them to take full advantage of ICCROM's invaluable library resources and spend time sightseeing in Rome and/or elsewhere.

Another important aspect is linked to the accommodation and it has been found that if participants share common living quarters, this is beneficial to the cohesion of the group as they can travel together to and from the course venue and choose to spend time together after the course as well. A welcoming reception is normally offered on the first day and social gatherings should be envisaged throughout the course along with weekend excursions, which represent a further opportunity for everyone to exchange their personal and professional experiences in a more friendly environment than a classroom.

Certificates of attendance should be planned and prepared well in advance of the end of the course especially if many partners have been involved in its organization, as it will be necessary to get signatures from the highest-ranking officials of all partner organizations.

All in all, participants in ICCROM courses represent a valuable source of knowledge as well as a network of international contacts, which should be maintained, cultivated and used to promote wider dissemination of the knowledge acquired daily in the field of conservation for the enhancement of cultural heritage. This is ultimately reflected in one of ICCROM's strategic directions².

¹ *Infra*, D. Russo, *The COM System, shared and participatory communication*.

² ICCROM Strategic Directions 2006-2010, www.iccrom.org

ISABELLE D'AHILLAUD DE BRISIS
CHIARA LESPÉRANCE
Administrative support

The organization of a course starts twelve months before with preparatory meetings at management and internal level.

Discussions with partners are necessary to establish the course objectives, identify funding needs, fix dates and deadlines as well as define the role of each partner. A *Memorandum of Understanding* is then signed by each partner.

Once this preliminary work has been carried out, the first important step for the administrative staff is the preparation and dissemination of the course announcement, to be done at least seven months before the course commences. The announcement is placed on the website and on the appropriate notice board at ICCROM, a copy of which is then sent with a covering letter to relevant institutions, embassies and council members. All former course participants and other potential participants, selected from the ICCROM database according to their field of interest, also receive the course announcement via e-mail. Subsequently, the administrative assistant in charge of each course receives numerous requests for information, which must be dealt with. In collaboration with the Collections Unit, the Office of Communication and Information coordinates the choice and purchase of bags and T-shirts for participants, lecturers and course staff. The coordinator of the Training Information & Fellowship programme is responsible for all correspondence with the selected participants, organizes their accommodation and assists them with visa applications where necessary, as well as following up on any eventual scholarship requests.

The Logistics Office is involved from the very beginning in reserving the necessary classroom facilities and preparing a room equipped with computers, and provides continual and invaluable support throughout the duration of the course. A further intense working period occurs when applications start to arrive. Folders are prepared to file the large quantity of documentation and information arriving from prospective candidates. An Excel sheet is prepared

with all the necessary information relating to the selection of course participants.

A mailing list is also compiled in preparation for the letters that have to be sent out once the selection has been finalized; for the SCD course this usually means more than one hundred letters!

Once the selection procedure has been completed, the course assistant becomes involved in contacting lecturers, drawing up their contracts, and booking flights and hotels on their behalf. While the programme content and schedule is being planned, as well as all the related material (course agenda, teaching notes, background documents, bibliographies, glossaries, list of lecturers, list of participants, etc.), it is important to liaise with the lecturers to assess their needs during the course (what documents they require along with translations, if necessary). A second letter is also sent to the selected participants providing them with all the necessary information and requesting them to attend a mini-conference, usually held in a different location from that of the course. Study tours and visits also need to be organized. Letters are sent to the relative institutions and translators are identified (when necessary). All logistical needs are identified and reservations for hotels and transportation are made.

The month before the course starts is certainly the most intense. Together with the Logistic staff, the classrooms are set up and equipped (tables, computers, lockers).

Identification badges for all participants and lecturers are prepared.

The opening ceremony requires considerable planning. Invitations are sent out to ambassadors of participant countries in good time. A couple of days before the ceremony each Embassy is contacted by phone to find out whether the Ambassador is available and if not, whether another Embassy staff member might represent him (usually the Cultural Attaché). A buffet is arranged for the event. All ICCROM staff receive a programme and list of participants and lecturers since they will be involved in the tour of the building and are invited to the opening buffet.

The ICCROM Library staff also play a key role, both in the early stages of preparing the bibliography and also during

the course to assist participants with their numerous requests.

The week prior to the course is mainly dedicated to the preparation of the binders and related photocopies for the participants and lecturers and any last minute issues. Once the course has started, most of the work is managed by the course assistant, although the administrative staff still deal with all photocopying requests and other day-to-day preparations. A lot of time is spent assisting participants and lecturers with their daily requests (information on where to buy..., on how to get to... etc.) and also organizing individual trips (booking trains and hotels in Venice, for example) on their behalf. The time seems to fly by and the closing ceremony has to be organized. Certificates of attendance are prepared and handed out. Thank-you letters are drafted to be sent to lecturers, invited speakers, organizers of study visits, and any other necessary documentation is seen to.

The course budget, which is constantly updated once estimated costs have been confirmed is now finalized and a financial statement is prepared for the sponsors. The course evaluation, which is made at different stages (daily, weekly, final) is also a very important component and is included in the final report of the course together with the budget statement. The course assistant is usually in charge of organizing all the documents related to the course, of preparing a master file and storing it in binders. A CD with all the photographs taken during the course is also produced and given to all participants; a souvenir for them and us!

CHAPTER II

SHARING AND COMMUNICATION TECHNIQUES

Introduction

ROSALIA VAROLI-PIAZZA

Is a course on how to share decisions in the field of cultural heritage really necessary?

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*'Explaining a **phenomenon** means identifying within the object those relationships from which it is produced, and externally, the relationships that [the object] itself produces, that is to say, those relationships that connect it to other phenomena, thus forming a domain, a system où tout se tient.'*

Giulio Carlo Argan, "La storia dell'arte", in *Storia dell'arte*, 1969:8.

'A work of art no matter how old and classic is actually, not just potentially, a work of art only when it lives in some individualized experience. As a piece of parchment, of marble, of canvas, it remains (subject to the ravages of time) self-identical throughout the ages. But as a work of art, it is recreated everytime it is esthetically experienced'.

John Dewey, *Art as Experience*, 1934 (ed. 2005:113).

In a broad sense, art history is a discipline that has only emerged as a profession relatively recently. What is it that motivates our renewed search for the roots and reasons behind the existence of this profession; why is it happening right now, in an international context, and for what purpose? If we are going to talk about conservation and restoration - or just conservation, or just restoration¹ - and thus, about the various professions and the many stakeholders entrusted with transmitting our *cultural heritage* to future generations, we must also deal with new concepts and topics: what are the mechanisms underlying the decision-making? Who is making the decisions and at what level? How do we interact? Is there a specific place where we function in an interdisciplinary manner? Perhaps it occurs more on the worksite than in research? Aren't there professionals and other stakeholders who introduce their ideas and their projects at a higher decision-making level, on the administrative or political levels? And in the end, isn't it those individuals who barely understand the motivations and urgencies behind the proposals who make the decisions? And on what grounds? What reasoning and mechanisms are used? Many relatively illustrious persons have reflected and written on problems dear to us: let's try to uncover these problems and attempt to understand the

thought process and the resulting actions. I invite each reader to use this book as a *work in progress* and actively participate in adding personal experiences and knowledge for the conservation of cultural heritage.

Let's begin this thought process together.

Until relatively recently, we lived happily and carefree: if grandmother's teapot, a house, an old building were no longer useful, if they no longer fulfilled their function, if we didn't like them anymore, we changed them, we disposed of them, or we transformed them into something more useful and/or more pleasing. We didn't ask too many questions. This was everyday life, unwritten, ancient and recent.

Then **history** appeared: and with it the first problems.

We discovered that many objects, which up to that time were considered everyday things - like the great monuments or sites or particularly **significant** objects - had a **message** to pass on, a **value** to conserve, because they were the expression of a collective interest that collaborated on the configuration of a cultural identity². A shared **decision** was made almost concurrently in many regions and nations: was it the result of studies and research? Or was it a convergence of problems and necessities that, strangely enough, solidified in different places at the same time? But who, in past eras, which person or what community, religious, political or civil, decided what to conserve, and for what reason: what object, which symbol? And through what mechanisms, on both individual and community levels? Until the time of Pope Leo I (AD 447) the Catholic Church prohibited bishops and all clergy to give, exchange, or sell the cultural property of the Church without the consensus of the entire clergy under pain of excommunication and even deposition³. These provisions were meant to conserve communal property, and they underline the need to maintain those objects that not only have economic but also spiritual value; today we might use the term 'intangible' value. Today, in those areas of the world where technology reigns, we believe we can 'discover' everything, and as a consequence, we can 'understand' everything by means of super-sophisticated analyses, delving more and more into the heart of **matter**, even being able to 'see' the energy that matter generates: the neutrino⁴. Perhaps we are able to

understand the mechanisms of the relationships between the **tangible** world and the **intangible** one. It is not, however, this knowledge that uncovers the most profound essence of these two inseparable entities: their substance and their content. This is what presses us to reflect and to work together. Herein lies the interest and the richness in **diversity**. Herein is the urgent curiosity to delve into what we don't know, to learn how to listen, and to have respect for what we don't yet know: *'Ye were not made to live like unto brutes, But for pursuit of virtue and of knowledge'*⁵. But why and what do we need to pass on to future generations? And will they be pleased with these 'gifts'? And especially, *how* do we conserve this cultural heritage? Among the scholars I have known personally, it was Giulio Carlo Argan who most ardently pursued the structure and the mechanisms for studying art history. He maintained that it was impossible to reduce the artistic phenomenon to preconceived schemes, neither was it possible to suffocate art in empirical-scientific analyses of 'its reality as an entity'⁶. Perhaps the most important aspect of the research carried out during the 1940s by Brandi and Argan⁷ centres on the concept that image, as formulated in the artist's mind, is received as reality in the consciousness of the observer - whether that image be a painting, a sculpture or an architectural structure. This clarifies the statement that 'until this *re-creation* or *re-cognition* occurs, the work of art is only potentially a work of art'...as also expressed by Dewey's passage, a piece of parchment, of marble, of canvas⁸. Further, it can be deduced that 'art history is the only history that takes place **in the presence of events** and thus should neither recall nor reconstruct nor narrate, but simply interpret'⁹. Even more reason to conserve these objects that can be relived each time an individual *re-cognizes* them. We should therefore not be afraid of theory and philosophy, of research into both the human and natural sciences. A great American art historian, James S. Ackerman stated 'Without theory we are more or less justified in describing and analyzing works of art, in dating them, reconstructing them, iconographizing them, but we are not capable of evaluating them, of interpreting them, nor discussing their reciprocal relationships...'¹⁰. Carried away by the enthusi-

asm for the marvellous discoveries in the fields of physics, chemistry and biology, perhaps we have placed too much emphasis on these 'exact sciences', the solution to all our problems. We need to take back our 'right to doubt', to find time for reflection and discussion in searching for the most useful mechanism in addressing the problem at hand. For this reason we turned to fields that are seemingly different from ours, but have experience in the study of decision-making mechanisms: economics and psychology. For this reason we wanted someone to speak about 'anomalous decisions' at the opening conference to the course¹¹; an individual familiar with economic theories, approaching them from the apparently distant perspective of psychology, an individual like Daniel Kahneman, Nobel prize-winner for 'for having integrated insights from psychological research into economic science'¹².

Last but not least, we wanted to give special importance to terminology; not to dilute it down into a sort of primordial broth, but to try to better understand and explain it, even searching into our own origins.

Thus, we approach our tasks with both philosophical tools, such as that of phenomenology, and with the awareness that there is also another side to the coin, the side of emotions in its broadest and most encompassing sense.

Only by being 'curious' about what is being done by those around us - or what our predecessors did and said - will we be able to open ourselves up to collaborate, work and share decisions together, to better safeguard the cultural heritage in our care.

¹ cf. Glossary, attached CD Rom.

² O.Ferrari, "Preservation of Art Works", *Encyclopedia of World Art*, Mc Graw Publishing Company Limited, London, 1959-1966, Vol. XI, 1966 : 687-704; O. Ferrari, S. Papaldo, *Conoscenza, tutela e valorizzazione del patrimonio artistico, culturale e ambientale*, in *Nuove conoscenze e prospettive del mondo dell'arte, Supplemento e aggiornamento dell'Enciclopedia Universale dell'arte*, Rome 1978, pp. 565-575.

³ Francesco Marchisano, Lettera Circolare sulla necessità e urgenza dell'inventariazione e catalogazione dei beni culturali della Chiesa, Vatican City, 8 December 1999.

⁴ 'Neutrinos are the most elusive particles found to date... they are minuscule, electrically neutral particles... that rarely react with matter: they can pass undisturbed through enormous thicknesses. The neutrino was first postulated in 1930 by the Austrian physicist, W. Pauli... E. Fermi gave the neutrino its name. They were observed for the first time in 1956...' http://www.lngs.infn.it/home_it.htm

⁵ Dante Alighieri (1265-1321), *La Commedia, Inferno canto XXVI*, v.118-120.

⁶ Giulio Carlo Argan, "La storia dell'arte", in *Storia dell'arte*, 1969: 6.

⁷ C. Brandi, *Carmines o della Pittura*, Rome 1945. G.C. Argan, *Gropius e la Bauhaus*, Turin 1951.

⁸ Cited in Brandi, *Teoria* 1963:32.

⁹ Argan, op.cit.: 10.

¹⁰ James S. Ackerman, *On American Scholarship in the Arts*, in "College Art Journal", XVII, 1958, p. 362.

¹¹ cf. N. Bonini, *infra*.

¹² Citation for the Nobel Prize in Economics, 2002: 'The Committee cited me "for having integrated insights from psychological research into economic sciences".'

NICOLAO BONINI

Decision anomalies and the psychology of decision making

RATIONAL CHOICE THEORY VERSUS INTUITION

In our daily lives we make many decisions. We vote in favour of a political candidate, we accept a business offer, or we choose a medication. *Rational Choice Theory* holds that individuals have preferences that are coherent with their own self-interests. Expressed in other terms, it presumes that people decide based on an evaluation of the consequences of a given choice and the respective probabilities that it will occur. Additionally, people decide on the basis of maximizing their own expectations. In this theory, for example, the way the dilemma of choice is communicated should not modify the preferences in the decision if the consequences and the respective probabilities do not change. Psychological studies on how people make decisions have demonstrated the importance of *intuitive evaluation*. For example, it took a physician more than twenty minutes to explain to a group of students or colleagues how he formulated a diagnosis, while only a little more than fifteen seconds was necessary to formulate the same diagnosis while examining the patient¹. Even management decisions rarely depend on an analytical and systematic evaluation of consequences and their probability of occurrence. Could it be intuition or first impression that is the deciding factor in the final choice²? There is a complex relationship between intuitive choice and rational decision theory. In some circumstances, intuitive decisions violate the principles on which the rational decision theory is based. This behaviour is called *decision anomaly*. It can be better understood and anticipated if put into a decision model based on the analysis of cognitive processes relative to the construction of the mental representation of choice dilemma and information elaboration. Since the 1950s, empirical-experimental analysis of the decision-making process has shown that individuals express preferences that are neither coherent nor self-serving. An important factor in the explanation of these decision anomalies depends on the way the decision maker *repre-*

sents the decision dilemma. Take, for example, the problem of the parts presented to Blaise Pascal by Chevalier de Méré more than three centuries ago. ‘Two gamblers play three games, and each one wagers thirty-two pistols. Let us presume that player A wins two, and player B wins one of the pistols. The game is interrupted and cannot be continued: how should the sixty-four pistols be divided? Most people answer this question using a ‘past mental perspective’, or, a perspective that keeps track of the score reached by the two players. Based on this mental representation, two thirds of the pistols are assigned to player A and one third to player B. Conversely, other people use a ‘contractual mental perspective’. Because neither player reached the maximum number of points, and the game went unfinished, the solution is to return to each player his own pistols.

Very few people suggest Pascal’s solution. This solution is based on a ‘future mental perspective’ where the number of pistols is calculated on the expectations of wins if player A and player B had continued the game. If player A won the hypothetical game then all sixty-four pistols would go to him; if he lost he would get thirty-two. According to Pascal, player A should follow this reasoning: ‘I am sure to have thirty-two pistols, because even if I lose I will still have thirty-two. Maybe I will win the other thirty-two, or maybe you will. The risk is the same; thus, let us divide these thirty-two pistols in half...’³.

The difficulty most people have in coming up with Pascal’s solution is not due to the calculations. It arises from the fact that two pieces of pertinent information go unconsidered: the consequences of a hypothetical wager and the respective probabilities. This difficulty can be defined as ‘problem representation’.

COMMUNICATING THE DECISION DILEMMA

The consequences of the choices and their relative probability can be communicated in very different ways. The final decision is strongly influenced by the manner in which they are presented. In a groundbreaking study, Kahneman and Tversky (1979) demonstrated how choice is influenced by the way the *same outcome* is presented, essentially, in a *positive vs. negative language presentation*. The dilemma posed by the two researchers was: the United States is

preparing for an epidemic that should cause six hundred deaths. Two possible programmes for fighting the illness are proposed.

PROGRAMME A: Two hundred people will be saved.

PROGRAMME B: One third possibility that six hundred people are saved; two thirds possibility that no one is saved.

The outcome of the dilemma is presented to a different group of people in this manner.

PROGRAMME C: Four hundred die.

PROGRAMME D: One third possibility that no one dies; two thirds possibility that six hundred people die.

The pair of options A & B are identical to the pair C & D.

The only difference is the language presentation for the outcome, which is positive in the first and negative (and complementary) in the second. Even though the final outcome in the choice is the same, the majority of people prefer programme A under the first condition, and programme D under the second. This crossover in preferences between the two conditions is a decision anomaly.

THE WAY PREFERENCES ARE EXPRESSED

The other rational and intuitive principle involved with choice is the principle of procedural coherence. This principle holds that the preference should not change based on the way it is expressed. The study by Shafir (1993) helps to illustrate this point. In this study, a group of consumers is given a dilemma choice to choose between two vacation packages offered at the same price:

VACATION A: Normal climate conditions. Average-level beaches. Above-average hotel. Average water temperature. Normal night life.

VACATION B: Very sunny climate. Extraordinarily beautiful coral reefs and beaches. Ultra-modern hotel. Very cold water temperature. Very strong winds. No night life.

*When participants had to choose a vacation, the majority chose Vacation B. When it came down to cancelling a reservation between the two (refusing one of the options), the majority of those interviewed always cancelled Vacation B. Shafir attributes this decision incoherence to a psychological mechanism called *principle of compatibility*. This principle states that people give greater weight to positive consequences when they have to choose an option, and they*

favour the negative consequences when they have to reject an option. The outcomes associated with the two vacation packages in the two decision-making contexts (choose/reject) are the same. Even their language presentation is identical. The difference lies in the way the decision-maker is invited to deal with the problem.

VALUING PUBLIC PROPERTY HERITAGE

Public property heritage encompasses activities and services that differ in type, scope, cost and importance. It is usually shared, or used by multiple persons at the same time; it does not have a market value and it favours co-active use. Ideally, it is destined for the general public, and as a consequence, recent discussions have concentrated on the suitability of having the public participate in the management costs of the heritage. In order to fully address this debate, we need to know *how* citizens value public property heritage, and *how much* they value it, attempting to place a value on these goods even in the absence of a marketplace. One widely used method is *contingent evaluation*⁴. This method polls a group of individuals about how much they would contribute to the conservation or to improving the condition of a public heritage good, that is, to estimate their *willingness to pay* (WTP). This method of measuring the economic value of public property heritage has received various criticisms, such as overestimating the WTP with respect to the citizen's real willingness to contribute, the lack of conformity of these valuations to economic principles that describe a preference for private property, a limited sensitivity of the WTP to factors that in standard economic analysis influence the value of the good, or, an excessive sensitivity to those factors that the analyses show to be irrelevant. In other words, the criticisms point out that there are decision anomalies in using WTP in the valuation of public property heritage. This is where the 'inclusion effect' comes into play⁵. This effect demonstrates that people are willing to pay similar amounts for an action that favours a single public good, such as cleaning and maintaining a lake, and one that includes a group of public goods having the same action as the singly valued good; for example, the cleaning and maintenance of five lakes.

This effect is termed 'inclusion' because the public heritage

good is inserted into a group encompassing greater public goods. The two valuations, the individual public good and the group of goods can be compared. Assuming that the valuation of all the goods is positive, economic theory requires that the group of goods have a higher valuation than the single good. Experimental results, however, have not shown significant differences between the two valuations. The robustness and generality of the inclusion effect has led various authors⁶ to attribute it to a symbolic bias or other moral consideration, and thus, the WTP does not measure economic value of the public good but rather the moral satisfaction of contributing to a publicly utilitarian initiative. According to the experts, in the contingent valuation method, the interviewees must take into consideration income limitations and the spending alternatives to their contribution in order to have a valid WTP measurement⁷. If the WTP does indeed measure the economic value of the good, it should not change whether the good is valued singly or in reference to another public property good. For example, in Kahneman and Ritov (1994) a sampling of individuals are asked to give a valuation to two public works programmes: one is for the protection of dolphins, and the other for improved medical care for skin cancer. There is a high willingness to pay for the 'dolphin' public property good when valued singly, but this decreases when the same good is valued in reference to an action favouring public health. Much discussion has centred on the characteristics of the mental processes used in making separate and comparative valuations. Kahneman and Ritov interpret willingness to pay as an expression of positive or negative attitude of the individuals towards the public good. The amount one is willing to pay does not depend on economic decisions (the scarcity of the good, or, the cost-benefit relationship), but rather on whether the affective perception of the good. Similarities exist between this analysis and Peters, Slovic and Gregory (2003), where the concept of affection is used to explain how individuals attribute an economic value to public goods.

CONCLUSIONS

Decision anomalies seen over the past fifty years of empirical and experimental research show the limitations in

Rational Choice Theory. They have also contributed to some of the psychological principles on choice allowing for greater understanding and improved prediction of decision-making behaviour. In contrast to Rational Choice Theory, the preferences are neither coherent nor self-serving.

Specifically, the decision does not seem to be an exclusive function of the value of the certain or probable outcome deriving from the choice. The relative acquisition value of a good on the market, or the enjoyment of a public good, cannot be reduced to the value of the outcome of such an acquisition. The cost-benefit associated with making a choice is surely an important element in influencing a decision, but it is not the only one. The way the outcomes are presented and the decision-making context are equal factors in making a choice by introducing, for example, a change in the perception of the value. In other words, the decision seems to be a function of the mental representation of the outcome more than the outcome as such (outcome representation value). An analogous discussion, not addressed in this essay, is on probability outcome.

Decisions would be a function of the mental representation of the probability rather than the value for the probability (probability representation value). This is a major contribution to decision-making science. In finding values for things, we must look to the mental representation of the various components in the decision dilemma (probability, outcomes, relationship between options and decision-making reference point) as well as to its ability to generate emotions or interest. Anomalies cannot be attributed to lack of incentives, calculation errors, lack of understanding, or to an eccentric, unusual and unpredictable behaviour by the decision maker. Decision anomalies seem to depend on the mental characteristics of the decision maker and a corresponding capacity to elaborate a representation of the world. The resulting model is certainly less elegant and formalized than the Rational Choice Theory, but it is probably more valid in describing and predicting individual decisions.

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¹ Hamm 1988.

² Isenberg 1988; Mintzeberg 1975.

³ Boursin 1966.

⁴ Gios, Notaro 2001; Hausman 1993; Knetsch 2000; Mitchell, Carson 1989.

⁵ Kahneman 1986; Kahneman and Knetsch 1992.

⁶ Kahneman and Knetsch 1992; Mitchell - Carson 1989.

⁷ Desvousges, Johnson, Dunford, Boyle, Hudson, Wilson 1993; Gios - Notaro 2001.

DANIELA RUSSO
***The COM System,
 shared and
 participatory
 communication***

*Listen to everyone, learn from everyone.
 Nobody knows everything
 but everyone knows something.*

Charlie Hough

Following the introduction to the SCD 2006 Course, the first session addressed how individual and group decisions are influenced by different values and mental processes. The course participants were involved in the analysis and the development of an effective system for communication and sharing: the COM System, also known as METAPLAN¹.

This method was introduced in Germany in the 1970s by Wolfgang and Eberhard Schnelle. It was presented by Hugo Houben, who successfully involved a very heterogeneous group of participants in the mechanisms for sharing language, ideas and viewpoints. These exercises furnished the necessary tools for maximizing the capacity for communication and critical analysis, elements essential to the decision-making processes integral to conservation. The method is used to facilitate the management of communication processes in working groups. It is based on gathering the opinions of the participants and subsequently organizing these ideas into logical topic groups or 'clusters'. The ultimate step in the process is to formulate an action plan that identifies problems and proposes possible solutions. The first discussion topic dealing with 'sharing' and 'co-operation' addresses the physical space where decisions are made: the fundamental parameters in this discussion are each participant's ability to function and be perceived in the space. This provides the physical context for the participants to put their ideas in concrete form, putting them down on paper and submitting them for re-elaboration by the entire group. The initial concerns were organizational exigencies: dividing up space and acquiring tools to facilitate the process: boards, markers, paper, coloured pens, etc. The group as a unit experimented the difficulties of paper sheets that were too small, and felt-tipped pens that

were too fine to be seen and read by all. They came to the mutual realization of how large a card should be so that it is an effective visual tool, how many words it should have, and how they should be written in order to get to the heart



Fig. 1 - Working materials

of the message or idea being transmitted. The COM System is based on a visual discussion technique and thus a series of working materials are given to the participants (Fig. 1): large rolls of paper, pin-boards, plane geometrical figures made from different-coloured and sized paper, coloured markers, sticky dots, pre-constructed structures such as Cartesian axes, webs, branch diagrams, outlines, etc.; tools used in visualizing the entire work process of the group. After the first time attempts by professionals not accustomed to such a 'simple' (!) method of expressing ideas, the pin-board began to be filled up with filing cards containing key words reflecting topics introduced by the moderator (). The 'rules of the game' and the objectives were now defined. The moderator not only explains how the tools can be used, but also guides the working group through the entire process. This process includes meetings, discussions and working sessions in which the groups have to analyze specific aspects of the proposed topic, presenting ideas and proposing solutions. The moderator does not interfere in the intensity of the discussions, which can often be difficult to manage given the presence of many professionals. His presence facilitates an effective discussion among the participants, working with the material tools within and between the groups, assisting in resolving critical questions. Once the use of the materials and the objectives in the process were explained, the participants expressed

their opinions about each discussion topic using the filing cards, writing down key words to support and recall ideas and thoughts to be developed at a later point in time. The cards were collected and attached to the pin-board so they could be seen by everyone, and they were grouped by topics and similar characteristics ('clustering'), or eliminated because of repetition, or substituted because they were difficult to understand. All the materials produced remain in sight and available to the group for later analyses. This allowed for the identification of critical and contrasting elements, priorities could be made and different approaches for a solution could be shared. The process allows the concrete 'form' of the problems to be visualized, creating closer contact with the point of the discussion, and activating the hand-eye mechanisms that assist in the flow and organization of information. Essentially, by using a three-dimensional 'mock-up' of the problem in which everyone participates, an intuitive and implicit link between the subjects of culture and the different environments is forged. The group constructs a problem-solution tree with the main problem at the centre, the causes of the problem at the roots and the consequences spread out among the branches. This type of representative model allows the group to focus on

even in the absence of advanced technologies. The disadvantages consist in the costs and procurement of the necessary materials, and misunderstandings resulting from poorly written and developed visual aids. Those individuals accustomed to dealing with the public may be 'over-communicating' with respect to more timid, even though competent, participants, who in some way may be influenced or embarrassed. The approach using the COM System left an absolutely positive mark, as evidenced by the positive feedback from the group in their self-evaluations during the SCD course. There was almost unanimous agreement on the effectiveness of the method and its 'convertibility' to use in the individual workplaces. From an entirely utilitarian aspect, I have to report on the collateral effects of this technique: there were sharing and exchanges of experiences, of terminology and meaning, of diametrically opposed viewpoints and the creation of common foundations where a traditional 'data transfer' would have been completely ineffective.

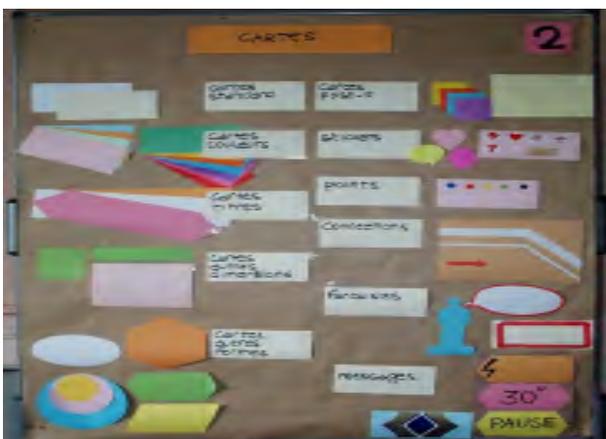


Fig. 2 - Working materials

the primary elements, those that must have positive action taken in order to change a situation and construct a 'solution tree'. The advantages of this method are clearly tied to the participation of all those who will be able to influence the decision-making processes in the analysis phase. This is facilitated and assisted by being able to share a very high percentage of information and in having a common lexicon,

¹cf. Power Point in the attached CD-ROM.

PAUL ARENSON

Conservation resources on the Web

INTRODUCTION

The Web is a major new invention: an amazing resource that puts information at our fingertips, and links us together like never before. It is constantly changing and expanding: what you find today you may not find tomorrow, and tomorrow you will find new things you could not have found today. Curiosity and persistence, using different search techniques, and feeling a sense of ownership of the web and its resources are all fundamental tools for the World Wide Web.

This article will deal with seven main topics, related to *conservation resources on the web*, trying to offer a survey of the web potentiality in researching this field:

- Conservation Libraries and Documentation Centers;
- Conservation Bibliographic Databases;
- Library Database Searching;
- Fee-based Academic and Scientific Literature Databases;
- Web Searching: Search Engines and the Invisible or Deep Web;
- Conservation Websites, Listservs (Distribution Lists, Discussion Groups).

1. CONSERVATION LIBRARIES AND DOCUMENTATION CENTERS (WITH ONLINE CATALOGUES)

ICCROM: International Center for the Study of the Preservation and Restoration of Cultural Property, www.iccrom.org

Online catalogue with 86,000 references; collection includes books, monographs, journal articles, conference proceedings, legislation, international conventions, internal documents and reports etc. 750 journal subscriptions. International collecting policy: materials in over 40 languages.

Conference and **training directory** databases, conservation-related **links**

Available in English and French

CCI: Canadian Conservation Institute, www.cci-icc.gc.ca

Online catalogue; collection includes over 10,000 books,

400 journal subscriptions specializing in preservation of Canadian moveable heritage

Home of CHIN, BCIN and BMUSE

Available in English and French

GCI: Getty Conservation Institute, www.getty.edu/conservation/

Online catalogue of GCI Information Center, linked to the Getty Research Library: 800,000 volumes of books, periodicals and auction catalogues

Conservation project bibliographies at gcibibs.getty.edu

Terra

Lime Mortars & Plasters

Home of AATA

ICOMOS: International Council on Monuments and Sites, www.icomos.org

Online catalogue includes 40,000 titles, 400 periodicals, 25,000 slides, and original nomination files of World Heritage sites and monuments. Collections specialize in built heritage, its conservation and restoration, and historic monuments and sites

Available in English and French

Library services typically include: reading room with regular, posted opening hours; online catalogues; reference services; bibliographic database searching; Interlibrary Loan (ILL) for books often with associated fees takes several weeks or months to receive the book; photocopying services and document delivery, usually with a set cost per page subject to copyright regulations.

2. CONSERVATION BIBLIOGRAPHIC DATABASES

These mega-databases include records contributed by many different libraries and institutions internationally. They provide powerful, useful bibliographic searches on a single site.

BCIN: Bibliographic Database of the Conservation Information Network, www.bcin.ca

Contains nearly 200,000 records of conservation-related journal articles and books, contributed by ICCROM, CCI, the National Archives of Canada, ICOMOS, ICOM, AATA, GCI, and Smithsonian MCI (Museum Conservation Institute)

Managed by CHIN (Canadian Heritage Information Network)

Searchable in English and French

BMUSE: Museology Bibliography

In English:

www.chin.gc.ca/Bmuse/bmuse.cgi?Language=English

In French:

www.rcip.gc.ca/Bmuse/bmuse.cgi?Language=Francais

Contains over 25,000 citations from 1990 to the present, focusing on aspects of museology. Contributors include CCI, ICOM, and the Library of the Direction des Musées de France.

Managed by CHIN (Canadian Heritage Information Network)

AATA: Art and Archaeological Technical Abstracts, aata.getty.edu

Contains over 100,000 abstracts of literature related to material cultural heritage preservation and conservation. Contributors include ICCROM and the work of volunteer abstractors.

Managed jointly by the Getty Conservation Institute (GCI) and the International Institute for the Conservation of Historic and Artistic Works (IIC)

Free user registration required

3. INTRODUCTION TO LIBRARY DATABASE SEARCHING

Some terms and definitions:

Record: catalogue entry that describes a particular book, journal article or holding

Fields: elements that make up different sections of a library record, such as Author, Title, Publisher, Publication Year, Subject, etc.

Library database: set of all records that represent full holdings of library

Online catalogue: library database that is searchable by computer over the Web

Search term or **terms:** text used to find relevant records.

Known Item Search (Author/Title) vs. **Subject Search**

Query: all search terms connected together to find relevant records

Retrieval set: set of records that are found as a result of user search or query

Search terms are combined into a query using **Boolean logic**, which has three operators: **OR**, **AND**, **NOT**.

OR broadens a search (LASER **OR** SURVEY)

The retrieval set will contain all records containing the word LASER **PLUS** all the records containing the word SURVEY.

One of the two words will be in all the resulting records,

but both words will only be in some of them.

OR creates a **larger** retrieval set than for LASER or for SURVEY alone.

AND narrows a search (LASER **AND** SURVEY)

The retrieval set will contain all records containing **BOTH** words LASER and SURVEY in the same record. **AND** creates a **smaller** retrieval set than for LASER or for SURVEY alone.

NOT also narrows a search (LASER **NOT** SURVEY)

This retrieval set will contain all records with the word LASER that do **NOT** also contain the word SURVEY (if for example I am interested in learning about other applications of laser technology, such as cleaning, etc). **NOT** creates a smaller retrieval set than for LASER alone, where you have excluded the word SURVEY.

Boolean searching is really very easy, but beginners sometimes confuse the AND search with the OR search.

Remember:

OR broadens a search to all records that contain either search term.

AND narrows a search to records that contain both search terms in the same record.

Some other helpful search techniques:

Truncation: use of a symbol at the end of a word root, to allow for searching for all variant endings of that word (including forms in other languages). Typical truncation symbols include:

asterisk	*
dollar sign	\$
hash mark	#
question mark	?

Truncation symbols vary by database, so you should check the rules for each database you use. ICCROM's database uses a dollar sign \$.

DIGIT\$ will search for: DIGITAL, DIGITISATION, DIGITAL IMAGE, DIGITALIZAÇÃO etc. But it will also find DIGIT and DIGITS, which have meanings distinct from digital technology. So it is important to use truncators carefully.

You may find relevant documents in other languages, however. Abstracts or keywords are provided in English, so it may be well worth knowing about these texts.

Caution: you may retrieve sets that are so enormous that

the database cannot handle them, and will stop the search before it has been completed. It may be better to use *OR* in these cases: *DIGITAL OR DIGITISATION*

Phrase searching: lets you search for words in a set order:

“SANTA CECILIA IN TRASTEVERE”.

Usually one encloses the terms in quotes: “xxx xxx”. Or there may be a pull-down menu in the entry slot that enables you to search as a phrase.

ICCROM’s database does not support phrase searching (except in a few cases).

Stop words: very common words that databases will not search, in order to speed up searches. They include: **an, and, as, at, be, if, that**, and so on. It is best never to use very common words in a search, unless they are part of a title string or you are searching them as part of a phrase.

Thesauri (singular **thesaurus**): lists of standard or controlled words or vocabulary that help by channeling searches using preferred vocabulary. Controlled vocabulary searching is to be distinguished from free-text searching. Thesauri include: ICCROM’s keyword list, AAT (Art and Architecture Thesaurus), LCSH (Library of Congress Subject Headings), etc.

If you can access the thesaurus used in a particular database to select the controlled terms that are appropriate for your search, you have a better chance of retrieving all relevant records.

Pearl-gathering: look at subject terms in a relevant record to find other helpful subject terms: Example: discovering and searching the subject term “Decision-making”, which you may not have known existed, will currently lead you to 137 new entries of possible interest in the ICCROM Library Database.

What you get from a library database search:

A Record or Citation that you can use to find a book or article.

An Abstract, if included in the record, can help you

judge whether you really need the text.

Options to get text:

Visit a conservation or academic library, if one is nearby.

If not:

Articles: Order Document Delivery by contacting the holding library.

Books: Order an Interlibrary Loan (ILL) from a library near you.

4. FEE-BASED ACADEMIC AND SCIENTIFIC LITERATURE DATABASES

- Make periodic and full-text literature available on a vast scale
- Enable searching of tables of contents and abstracts, for free or for a set fee.
- A separate fee lets you order the full text of an article.
- Fee structures vary widely from system to system: can be complicated.
- “Search Tips” will tell you how to formulate a search.
- Pushing, also known as Email Alert or Article Alert: a separate for-pay feature. You sign up to be notified by email when new articles appear in your stated topics of interest. (Similar to AATA’s “set preferences”.)

Ingenta, www.ingentaconnect.com

Academic and professional publications

Free table of contents and abstract searches

Access to over 17 million separate abstracts, 6100 online journals and publications, 28,500 publications that can be delivered by fax or Ariel (pdf delivery system)

Private corporation with offices in the UK (Oxford and Bath) and the US (Providence, RI and Cambridge, MA)

Science Direct: www.sciencedirect.com

One of the world’s largest providers of science, technical and medical literature

Free table of contents and abstract searching in journals database (journal list provided)

For-fee access to abstract databases

Managed by Reed Elsevier, an electronic publisher with offices worldwide, directed from Amsterdam, London and New York

CISTI Source, Canada Institute for Scientific and Technical Information, source.cisti.nrc.ca

Search abstracts of literature in science, technology, engineering, medicine and other topics. Separate databases give access to over 20 million articles, or to 20,000 journals worldwide in all topics.

Searchable in English and French

Must register to use

STN International: Science and Technical Information Network, <http://www.stn-international.de/>

220 databases in all fields of science and technology

Specialists in patent delivery

Managed by FIZ (Fachinformationszentrum) Karlsruhe, Germany; CAS (Chemical Abstracts Service), Columbus, OH, USA; JST (Japan Science and Technology Agency), Tokyo, Japan

Scanned Full-Text Journal Databases

These databases contain scanned pages from encyclopedias, scholarly journals, and other publications. OCR enables free-text searching, after which the scanned pages can be downloaded. May be fee-based or freely accessible.

JStor : Journal storage, the Scholarly journal archive

<http://www.jstor.org/>

Provides scanned pages of scholarly journal issues as originally designed

Text-searchable

Institutional registration required to search or download

Persée: Portail des revues scientifique en sciences humaines et sociales

www.persee.fr

Search screen in English and French

Searches fourteen journals (some complete runs, others to the year 2000)

Free access to search screen and scanned journal pages

Confusing results screen but can be very useful

Search: *restauration*

Digizeitschriften: the German Digital Journal Archive

www.digizeitschriften.de

Over 2 million pages scanned

Searches free; must be registered to download articles (content)

5. SEARCHING THE INTERNET: SEARCH ENGINES AND THE INVISIBLE OR DEEP WEB

A search engine is a program that searches the Internet for keywords, and returns a list of documents where the keyword was found.

Google www.google.com : very useful "first pass" search engine

Yahoo www.yahoo.com

Ask Jeeves www.ask.com

- Search using free text, Boolean logic OR, AND, NOT, "phrase searching"

- Advanced search screen

- Quick and easy information available, HOWEVER:

- Ask yourself: Can I trust this information? Is it accurate? Reliable?

- Be sure to evaluate sites (look at root directories to find and judge institutional sources and bias)

- Don't think that search engines will show you all the information you need: they won't. Think of search engines as a starting point.

- Verify everything you learn from search engines from a separate source. There is a great deal of bad, inaccurate and slanted information on the Web.

An excellent resource: Google Scholar

<http://scholar.google.com/>

Beta version permits broad search of scholarly literature in all subject fields. Many articles will require payment for download (frequently the articles link to JSTOR or other for-fee vendors), but other sites will deliver free PDF or web documents. Search by keywords. Can also serve as useful bibliographic search: articles from JAIC, Studies in Conservation etc. are indexed here.

6. CONSERVATION WEBSITES AND LISTSERVS (DISTRIBUTION LISTS, DISCUSSION GROUPS)

a. Conservation Websites

1. CoOL: palimpsest.stanford.edu

Conservation On-Line, Stanford University (California, USA)

Directory of links (scroll down) on a wealth of conservation topics: entries for disaster planning and response; mass deacidification; mold; and many other topics

Home of ConsDir (Directory of Conservation Professionals)

Also Cons Dist-List:

<http://palimpsest.stanford.edu/byform/mailling-lists/cdl/>

2. **PreserveNet:** www.preservenet.cornell.edu

Hosted at Cornell University, Ithaca, NY (USA)

Includes information on grants, educational and training opportunities, job announcements, conservation-related legislation and legal decisions, subject links and awards

3. **Sciences et patrimoine culturel,**

<http://www.culture.gouv.fr/culture/conservation/fr/>

Useful French site dedicated to conservation resources in France

Lists of laboratories, current events, upcoming conferences and publications, educational resources, bibliographies, project reports and documentation, databases and links

4. **CAMEO (Conservation and Art Material Encyclopedia Online),** http://www.mfa.org/_cameo/

Searchable encyclopedia of conservation terminology, chemical and product names etc. developed at the Museum of Fine Arts, Boston. Over 10,000 entries

Search: Paraloid B72

Naphthalene

5. **PreservArt,** <http://preservart.cccq.mcc.gouv.qc.ca>

Site produced by CCQ (Centre de Conservation Québec)

Bilingual French-English

Lists and evaluates products useful in preventive conservation, with glossaries, vendor information etc.

Click Choosing the right product: Cardboard, Textiles, Paper

Click Browse and search: By category, use, product name, manufacturer/supplier

Simple search: Reemay

Navigate: Browse and search:

Category: Textiles

Use: Protection against dust or abrasion

Others viewable from the ICCROM Other Conservation Libraries and Online Information Centres webpage,

http://www.iccrom.org/eng/02info_en/02_01library_en/otherlibs_en.shtml

b. Listservs (Distribution Lists, Discussion Groups)

- Listservs = special-interest discussion groups or mailing lists.
- Exist on virtually every topic.
 - Sign up, or subscribe, to receive postings at your email address.
- Unsubscribe at any time.
- Receive notices of developments in field, debates, discussions etc.
- You may post messages to the list, if you want advice on a given topic. Rules governing postings vary from list to list.
- Listservs can be moderated or unmoderated:
 - An editor or moderator may guide the discussion and/or filter out messages considered to be off-topic or outside the rules.

Some conservation discussion groups in English:

Cons Dist-List, US:

<http://palimpsest.stanford.edu/byform/mailling-lists/cdl/>

Conservation Research, UK: www.jiscmail.ac.uk/lists/conservation-research.html

A list of all discussion groups hosted at jiscmail is available here:

www.jiscmail.ac.uk/lists/

Masonry Conservation Research Group, Aberdeen, Scotland
www2.rgu.ac.uk/schools/mcrg/stlist.htm

Comprehensive list of email discussion groups in heritage conservation (some links out of date)

Conservation of Photographic Materials:

<http://groups.yahoo.com/group/photoconservation>

One conservation discussion group in Spanish:

Restauracion y conservacion de BBCC,

www.rediris.es/list/info/restauracion.es.html

Conservation discussion group dedicated to “restauración y conservación de profesionales del Patrimonio histórico artístico”.

CHAPTER III

HISTORY AND VALUES

Introduction

ROSALIA VAROLI-PIAZZA

The values of cultural patrimony and some references to history

The Indian tale of the blind men and the elephant: they all had touched a portion of the animal, but they could not agree on what an elephant was like, until a wise man came and explained: "All of you are right. The reason every one of you describes it differently is because you each touched a different part of the elephant."

Jainism and Buddhism, Uclana 68-69:
Parable of the Blind Man

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History has many dimensions - private, communal, regional, national - and can be transmitted in just as many ways: orally, as fable or myth, by images, through music, and so on. But when and who decides that something is so important it should be passed on to our children, on to the community? And how? And for how long? In eternal, perpetual memory, or for a few years, only to a few generations? Perhaps the very first way we transmitted something, something tangible but also intangible, was in the burial act: someone decided to 'care for' the remains, to not abandon another being: to conserve in the event of continuity in this world or in the other. In the first case, someone had to carry out a ritual, a commemoration, and maintenance works. The second case required even more commitment: a *monument*, of whatever size, was necessary to remember or be remembered. 'In its etymological value¹ (Latin, Greek, German, English...), the term 'monument' is used to designate an object that brings to mind the memory of a person or past event.' The values can be varied: sentimental, documentary, historical, economic, collective, political. Nonetheless, there has always been a reason, a *choice* made by someone based on a judgement of values, whether just emotional or dictated by other reasons. In Italian we say '*vale la pena di...affrontare questo sacrificio, di...intraprendere questa impresa*' (is it *worth*... is this sacrifice *worth* it, is it *worth* doing), because etymologically the word *valore* (value), is derived from *valere*². We should not forget that the object - and its material - can have intrinsic value, but each one of us also attributes a value to the

object. Because works of art are things to which we attach value... a distinction made by Scheler³ in his general theory on value, we can say that on one hand there is the 'object' or the thing that has value (*Wertdinge*), and on the other there is the value of the thing (*Dingwert*)⁴. Value can, thus, be something tangible such as gold, diamonds, a monument that is universally held as important⁵, or intangible: the recollection of a fragrance, a verse, an idea. It can be debated that tangible and intangible are not divisible entities, but were divided at a certain point in history, in a certain area of the world. I think that other apparently opposite terms such as *mind* and *brain*, can also be put in this category: one does not exist without the other. During the course, we wanted to demonstrate that moveable heritage and immoveable heritage are not easily separated⁶. If and when this occurs, it is usually a consequence of administrative and legislative convenience. In this chapter, the authors deal with different types of values that have been given to culture in different historical periods and in different geographical areas. It should provide us with a very rich sample stemming from different points of view, different ways of seeing, of appreciating, of caring for different types of objects and from certain cultural expressions rather than others, perhaps still to be discovered. The history of our heritage is rich with examples showing that at a given moment we cared for certain types of object, of monuments, of music, which we then abandoned. At another moment, in another place, the opposite could have occurred. So, does the choice of what portion of our inherited culture to preserve boil down to 'taste'; or, are there 'theories' or mental 'categories' that we consciously or unconsciously follow? The term 'patrimony' has a specific etymology⁷, but it can be interpreted in very different ways depending on its historical, cultural and professional context. In a legal or regulatory context, it can be used in reference to an economic situation or to an inheritance. Much has been written in recent years on its meaning and the concepts it references. Nonetheless, evolving from the idea of personal or family patrimony, it is also used in a cultural, intangible and supranational sense. And now, it is even used in relation to an excess, like the icing on a cake⁸!

There has been much recent debate surrounding the concepts of authenticity, original and copy. But what is the *meaning* of these terms? And what is their history over time and in various parts of the world?

I would like to propose a topic for reflection: over the past decades increased importance has been given to the natural sciences over the humanistic sciences. Consequently, a schism has opened between art history and the conservation-restoration world. But aren't we pursuing the same values, the conservation and transmission of our heritage to future generations? On the one hand, there has been increased attention that benefits both these relatively recent disciplines; on the other, perhaps it is now time to re-open a dialogue. Let's search together; using the examples presented to us in order to identify past decision-making mechanisms in various fields, to verify those familiar to us today, and especially, to ascertain our awareness of them. The *mini-conferences* were enormously beneficial and important. These consisted in a series of contributions from the participants and some of the instructors in a day organized as a *conference*⁹. This format helped to uncover the problems and the needs of each individual in his or her own institution and country. It proved to be a very effective didactic tool for getting to know each other, for learning to communicate, for engendering mutual respect and for working together in resolving difficulties.

We must question if we are indeed aware that, through both scientific and humanistic study and research, and past and present debates, there have truly been advances made in the field of conservation and restoration, and what these advances are. Where, and with what means and mechanisms must we improve and, in all likelihood, work together?

³ Max Scheler, *Vom Umsturz der Werte*, 1919; Italian edition *Crisi dei valori*, edited by A. Banfi, Milan 1936.

⁴ Giulio Carlo Argan, "La storia dell'arte", in *Storia dell'arte*, 1969:5.

⁵ Even at UNESCO, the debate is still on-going about the meaning of 'universal'. cf. whc.unesco.org/archive/2006/whc06-30com-09e.doc, Paris, 23 May 2007, Discussion on the Outstanding Universal Value, item 9.

⁶ Nicholas Stanley-Price, 2003 Movable : immovable - a historic distinction and its consequences, In: *Conservation of historic buildings and their contents: addressing the conflicts*, Watt, David (ed); Colston, Belinda (ed); Shaftesbury: Donhead, p. 14-27, *Where conservation meets conservation: the interface between historic buildings and their contents*, Leicester, United Kingdom.

⁷ From *pater*, father, and *monere*, memory (André Desvallées, 'From the private notion of tangible heritage to the universal and all-encompassing concept of patrimony: return to the history and some semantic ambiguities' « De la notion privée d'héritage matériel au concept universel et extensif de patrimoine : retour sur l'histoire et sur quelques ambiguïtés sémantiques », in *Médias et patrimoine, Actes du colloque international organisé par la Chair UNESCO et l'Institut sur le patrimoine culturel 2003* www.ulaval.ca/ipac/pdf/Actesmedia2004.pdf, p. 21).

⁸ *ibid.*

⁹ It was held at the prestigious Accademia di San Luca, the ancient and traditional Academy of Painters, Sculptors, Architects in Rome. The Accademia's roots go back to the Middle Ages and the first sources to document its activity date from 1478. Later, the artisans and stonecutters separated from the 'artists' guild, and in 1577, thanks to the efforts of Pope Gregory XIII, Borromini and Federico Zuccari (the Academy's first '*principe*' in 1593), an autonomous statute was written for the Accademia. The statutes state that the purpose of the Accademia Nazionale di San Luca is to promote fine arts, to honour the special merit of the artists by electing them to the academic body, to work for the promotion and continuation of the great Italian artistic traditions and for the conservation of works of art.

¹ R. Assunto, "Monument", in *Encyclopedia of World Art*, Mc Graw Hill Publishing Company Limited, London 1959-1966, Vol X, 1965 : 272-298.

² *Valere*, from the Latin *valire* 'to be strong, healthy, able, to have force, power, authority, merit, worth, value, price; *valore* (value) is derived from *valere*, (*econ.*), the characteristic of a good that can be exchanged for a given quantity of other goods (*exchange value*), or the usefulness of something considered in respect of a particular need... Garzanti Linguistica, www.garzantilinguistica.it

MARIE BERDUCOU

The “values” of cultural property and conservation-restoration: a historical perspective

INTRODUCTION

Conservation-restoration has always been about “values”, a question that lies at the very heart of the process of recognising cultural property **as such**. Restoration and conservation primarily signifies recognising that certain objects possess a particular value, which makes them stand out from the mass of ordinary things. These objects are therefore set apart, by a collective will, from the usual cycle of production-use-abandonment-destruction. They are introduced into a different dynamic, as a result of which they escape obsolescence and acquire heritage status: they become worthy of being handed down because they are richly endowed with specific values, which differ from those belonging to the sphere of humdrum production and trade. It is certainly the **immaterial contents** channelled through the material (tangible, visible...) heritage) that justify our desire to make them accessible and to hand them down. Is the term “value” the appropriate one to apply to them?

“Value” is a word that creates a head-on clash between the vocabulary used by economics and by culture. Many of the parties involved in heritage conservation prefer to skirt this difficulty by using other nouns, such as sense, message, meaning, information potential etc. But we have decided to use it here, by reference to Alois Riegl who was the first to use it. For the methodology used to identify, analyse and rank these intangible contents is still very largely based on his essay published in 1903, “Der moderne Denkmalkultus, sein Wesen, seine Entstehung (English Translation by K. W. Forster and D. Ghirardo, “The modern cult of monuments: its character and origin”. We will return to this short, but very substantial essay, at the end of this paper. But let us begin with a brief trip backwards into the past of the past, to take a historical look at two essential questions: conservation and restoration; why? and conservation and restoration: how?

WHY CONSERVE AND RESTORE?

Numerous archaeological texts and findings bear witness to an ancient human desire to conserve and restore in the history of human societies. The text of Nabonidus, discovered on the foundation brick at Larsa (Iraq) from the sixth century BCE reads:

“I am Nabonidus, king of Babylon... on a favourable day for my reign, the god Shamash remembered his former dwelling, and it is to me, King Nabonidus to whom he entrusted the task of restoring the temple and remaking his dwelling...

The winds of the four quarters arose... and the mighty sanctuary could be seen... I set about mobilising the workers, holding the pick, carrying the shovel, moving the basket...

Specialists examined the site to understand its decorations... I rebuilt this temple in the ancient style for my Lord Shamash, and I restored it. On an alabaster tablet I placed the inscription of the ancient King Hammurabi that I have read here with my own, and I have replaced it there for ever.”

More than a thousand years separate the reign of the highly prestigious Hammurabi (1792-1750 BCE) and the reign of Nabonidus, king in the neo-Babylonian period (556-539 BCE). But although the latter researched and restored the temple built by his distant and glorious predecessor, it was to inherit something of that glory and display before the eyes of all a continuity underlining the legitimacy of his own kingship, and add splendour to his own aura. Roughly at the same time, and once again in Babylonia as well as at Nippur, collections of objects and tablets found during archaeological excavations were evidence of the deliberate intention to conserve and hand down the traces of a very ancient past: the intentional accumulation of ritual objects produced during the course of earlier centuries, and the selection of epigraphic documents evidencing the development of writing and used for training scribes¹. Political interest, religious fervour or superstition, the wish to educate: the wide range of different reasons for conservation were already being sketched out.

It was also for their beauty and their huge market value that some objects were very quickly religiously preserved and sometimes wonderfully restored. We also know of the mov-

ing gold leaf restoration work done by the Celts on ancient goblets dating back to the fifth century BCE². This restoration work was not designed to remain camouflaged. Quite the reverse. The shape of the vase was restored with all its integrity, and the cracks disappeared under this supplementary gilt work carved in a Celtic style, powerfully highlighting the noble character and the valuable nature of the object enhanced in this way. The great collections of works of art produced in the golden age of classical Greece, and which were built up in the Hellenistic kingdoms, also bear witness to the cult of beauty, and the desire for ideal models for educating the eye and uplifting the spirit³. But the Ptolemys and Attalids also displayed their power and opulence through their capacity to collect together and own these models, and by succeeding in collecting and translating into Greek all the great works of antiquity in sumptuous libraries, at Alexandria and Pergamon. Only a little later, the Romans would acquire works of art, displaying them in their *domus* as sure evidence of their high social status, thereby “doping” what would today be called the international art trade, and giving rise to doubtful practices that were mentioned by Strabonius in the first century BCE: ***“the new arrivals (he was talking about a new colony of emancipated slaves who had recently settled in Corinth) by disturbing the ruins and turning over the tombs discovered a mass of objects, pottery and many bronzes. Admiring their quality they left no tomb before they had inspected it, with the result that they managed to gather a great many of them, and by selling them at very high prices, they filled Rome with them.”***

Political reasons, spiritual reasons, economic reasons, educational reasons, a desire to keep the past firmly in mind: this, then, is the first set of answers to the question, “why conserve and restore?”, and some of these answers seem to have emerged very early on in the history of humanity. But unfortunately, it was also very early on that these answers found their sinister mirror image in vandalism: people destroyed for political activism, religious fanaticism, mercantilism, ignorance, forgetfulness of the past, or the desire to dress it up.

In the nineteenth century, when curiosity about the past finally morphed into History, an interest in history and the

documentary value of relics of the past were added, with a considerable weight, to all the reasons that we mentioned here so far. This new look at the past, with the distancing it entailed, therefore raises the question of the authenticity of heritage objects at the heart of conservation and restoration. Conservation and restoration is fine: but how is it to be done?

CONSERVATION, RESTORATION: HOW?

As the history of ancient sculptures up until the modern age shows, the great freedom given to artists enabled them to “restore” the works of their predecessors. Famous sculptors completed the Laocoon group in the sixteenth and seventeenth centuries. Others, less famous, assembled into a single composition the fragments taken from different ancient works, or even recreated a complete individual based on a simple torso brought to light by chance⁴. This freedom was hardly compatible with the takeoff of the history of art and the desire to closely correlate stylistic features and the periodisation of Art. This was an ideal quest which developed throughout the whole of the eighteenth century mainly under the impetus of Winckelmann⁵.

Powerful reactions therefore emerged in the nineteenth century, yet they led to stances that were radically contradictory. The two great figures that embodied the debate in that century were John Ruskin, in England, whose ideas were later popularised by a fellow Englishman, William Morris, and Eugène Viollet-le-Duc, in France.

Aesthete, art lover, traveller and great connoisseur of European architecture, John Ruskin passionately venerated the monuments of the past ***“... these stones will be considered sacred... the greatest glory of a monument is not in its stones, nor in its gold. Its glory is in its Age”***. He advocated a total respect for ancient works, their ageing, and their incompleteness, where applicable. Any attempt to restore them was, for him, a profanation by definition: ***“It is impossible, as impossible as to raise the dead, and restore anything that has ever been great or beautiful in architecture... The first result of restoration... is to reduce the original work to nothing... It is not a question of expediency or feeling whether we shall preserve the buildings of past time or not. We have no right to touch them. They are not ours....”***⁶.

On the other side, the architect and restorer, Viollet-le-Duc analysed the monument as a specialist in the history of styles and considered that he was authorised by his undoubted erudition to undertake radical restoration work on the mediæval buildings that the nineteenth century was so passionately rediscovering. This is his definition of restoration in his Dictionary of French Architecture from 11th to 16th Century (1854) (*Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle*), he wrote: ***“Restoring a building is not only maintaining it, repairing it or rebuilding it, but returning it to a state of completion that may never have existed at any time in the past.”*** Viollet-le-Duc reasoned as an architect and archaeologist. At the origin of the monument there was planning, the design which the vagaries of history and the ravages of time have altered. But if it is possible scientifically to establish what the original project was, or ought to have been, it is lawful to restore it to that state. He was therefore opposed to the inventive practices of earlier centuries: ***“the artist must disappear entirely, forgetting his tastes, his interests, to study his subject, to rediscover and to follow up the thinking that governed the creation of the way to be restored. To achieve this result it was necessary to decipher the texts, consult all the documents... and above all study the archaeological features of the monument”***, he wrote, on the subject of the restoration of Notre Dame de Paris.

While Ruskin's devotion to works from the past led him to reject any kind of intervention, it was Viollet-le-Duc's knowledge of the past and faith in science that led him, conversely, to undertake massive restoration projects.

Such contrasting approaches as these certainly masked the fact that they shared a number of ideas in common: in particular, they were both anxious to advocate the protection and maintenance of monuments. Both reacted to the same situations: they rejected the fanciful re-creations of earlier ages, and agreed on the need to bury amateur traditions. This latter point deserves to be emphasised. The Industrial Revolution had overwhelmed people's mentalities and expertise: Ruskin felt a sense of nostalgia which led him to wholeheartedly advocate respect for works bearing witness to this cherished past. Viollet-le-Duc, on the other hand, had a determined confidence in the technical procedures

of his age which, in his eyes, could improve the solidity of ancient buildings. The restoration works on which he had the courage to embark were based on his attachment to two things: History and... Progress.

These two, seemingly irreconcilable, points of view were to come into the spotlight at the end of the century in a remarkable work by the Italian architect Camillo Boito⁷. He succeeded in persuading these two outstanding men representing clashing and extreme positions to dialogue, and led them to work out fruitful, productive and subtle compromises making it possible to undertake measured, justified, perceptible and documented restoration operations. This was a first step towards breaking the deadlock, and Boito was to bring a decisive influence to bear on the history of restoration in architecture. A few years later the Austrian museum conservator and art historian, Alois Riegl, would make a fundamental contribution by putting back the issue of values at the heart of the conservation and restoration policies in his work mentioned at the beginning of this paper⁸.

ANALYSIS OF TWENTIETH CENTURY CONSERVATION-RESTORATION VALUES AND POLICIES

The German word *Wert*, which is translated into English as “value”, is omnipresent in Riegl's work. This art historian, who became the President of Austria's Historic Monuments Commission in 1902, pragmatically worked out his reflection that would drive the national policy for the conservation and restoration of monuments. Riegl, who invented a number of complex neologisms in his work, was well aware of the economic connotations of the word “value”. He even spoke of “comparative value-added”, linked to the rarity or the great age of a monument. This word is therefore not innocently used. Even though it does not yet lead us into the universe of the measurable, and even less the countable, it nevertheless leads us into the universe of evaluation, the identification of the variables, and the relativity of criteria referring to a specific cultural object in a given context. For Riegl's reflections are quite evidently not limited to historic monuments in the traditional sense of the term, but it is on the basis of that notion and its evolution that he generalises. For how is it possible to rank, and remain relevant from the

point of view of a conservator the countless examples of human activity, which cannot all be preserved without running the greater risk of paralysing the future under the accumulation of the past? How can the different values which coexist in a monument be inventoried, and how can one reconcile conservation and restoration choices when these values are contradictory and it is impossible to preserve all of them to the same degree?

Without going into the details of the analytical grid proposed by Riegl, let us just recall that essentially he contrasts two large groups of values: the **values of remembrance** which refers to studying, breaking into and perceiving the past, and the **values of contemporaneity**, which function, in the present moment of the evaluation.

One particular value was isolated by Riegl: the value which corresponds to the etymology of the word 'monument' and its very origin: **the value of intentional remembrance** can be attributed to monuments of the past and of the present, being conceived and maintained in order to hand on the "living" memory of a particular event. When the memory of the meaning of that commemorative event and its social utility are lost, this diachronic value disappears. But the values of remembrance and contemporaneity can survive, and indeed re-invest the monument.

Among the former, **the historical value**, which includes a specific approach of the history of art, is certainly central to Riegl. The distancing and the rigour which his analysis requires are characteristic of the very concept of a historical monument and date its emergence in Europe: the idea was only able to fully take off in the modern age with the elaboration of History as a scientific discipline. And it is this that the title Riegl gave his essay reminds us of.

Alongside the historical value, the **value of age** appears to be more intuitive and more fleeting: everything that looks to us as incomplete, ruined, having had a very long life, takes on a certain value in our eyes, independently of any proven scientific interest. But the appreciation of this value to the senses is highly individual. The disputes that have arisen as a result of the treatment of numerous historical monuments often have to do with this value of old age, which *a priori* condemns any attempt at renovation.

Among these values and contemporaneity mentioned by Riegl, the **value of usage** and the **value of novelty** are difficult to reconcile with the ravages of age. The former presupposes the solidity of the buildings still in use. The second can be appreciated by the monument's conservation condition, which seems to defy time by retaining all its original features intact: Riegl feared the popularity of the value of novelty, which popularises the idea of the eternal youth of monuments and leads to restoration work that wipes out all traces of ageing and history, in order to re-create a highly improbable original state with the power of a myth. Like a strategist arbitrating the conflicts between "enemy" values, he appealed to the power of conviction of the value of history and the evocative power of the value of age in contrast to the attractiveness of these spectacular and ill-conceived restorations.

It is interesting to note that the "artistic value" of monuments or human works - an expression which is so widespread today - was rejected by Riegl to be replaced by an "art value", which is only relevant in the present, and consists of the following:

- the value that resonates in our own sensibility, education and the present conditions under which we receive it: a **relative art value** which must be examined at arm's length as far as possible, when this appreciation irreversibly influences the choices made regarding conservation and the decisions regarding restoration;
- the value that refers to the pleasure of contemplating a whole work, with no apparent deterioration, whether a recent work or one which has been miraculously preserved from the ravages of time: this is the **novelty art value**, mentioned earlier.

CONCLUSION

Riegl's thinking was militant, and sometimes he even used quasi-military, warlike, terms to express himself, of which we have tried to give a taste here. His is the work of a theoretician confronted by the reality of having to make concrete choices regarding the legal protection of monuments and the conservation-restoration measures they require. Out of concern to argue his ideas robustly, he laid the foundations for what today we would call the "prior survey" of all con-

ervation projects. He was, above all, the first person to brilliantly demonstrate the coexistence of contradictory values, the relativity of these values from the point of view and origin of the observer who appreciates those values, and the impact that restoration can have on the readability of these values.

The twentieth century continued to broaden and deepen these ideas which were both complex as they were rigorous and mobile, evidenced from the three international instruments that mark out the main stages in this development. The Athens Charter for the Restoration of Historic Monuments in 1931 (the first international attempt to lay down rules for the conservation of monuments) enshrined a number of fundamental ethical principles: the need for legal protection tools, the primacy of maintenance and conservation over restoration, respect for the integrity of monuments and the contributions of every age, the documentation and readability of the measures adopted and the care to be shown to buildings.

These principles were reaffirmed and generalised to apply to urban and rural sites in the “International Charter for the Conservation and Restoration of Monuments and Sites” in Venice in 1964.

The “Nara Document on Authenticity” adopted in 1994 by the experts convened by UNESCO to shed light on the study of the natural or cultural heritage sites as candidates for inclusion in the list of World Heritage sites was a conceptual extension of the Venice Charter. This latter instrument stated that it was by now impossible to make value judgements and appreciate the authenticity of monuments in terms of a finite number of criteria. Account had to be taken of an increasingly varied number of heritages and to consider them through the prism of different social, cultural and economic contexts in which the exceptional and universal value of the world heritage sites can be recognised. The approaches proposed for evaluating the authenticity of a site are both numerous and nonexhaustive. They require an interdisciplinary approach and a wide variety of different kinds of information: design and form, materials and substance, usage and function, tradition and techniques, situation and positioning, spirit and expression, original state and

historical development...

With this latter stage, respect for cultural diversity becomes the indispensable corollary for defining Heritage, its values and its modes of conservation and **presentation/enhancement**: all of this must now be incorporated into the rationale of sustainable development policies. The word “value” can then epitomise a bridge between economics and culture.

¹ These examples, and many others, can be found in the superb work by Alain Schnapp “La conquête du passé. Aux origines de l’archéologie”. Editions Carré, Paris, 1993. (English translation: The discovery of the past, Harry N. Abrams, New York, 1997).

² Objects of this kind (two Attic cups) were found in the tomb of a Celtic princess from the latter half of the fifth century BCE (the Hallstatt civilisation) and are housed in the Württembergisches Landesmuseum in Stuttgart.

³ Reference can be made to the stimulating work by Françoise Choay “L’allégorie du patrimoine”, Editions du seuil, collection La couleur des idées, Paris, 1992. (English translation: The invention of the historic monument, Cambridge University Press Cambridge, 2001).

All the leading museums in Europe possess examples of restored antiquities (some of them almost re-invented) in the modern age, but the Ludovisi collection on display at Palazzo Altemps in Rome is particularly instructive and well documented.

⁵ Johann Joachim Winckelmann (1717-1768) is considered to be one of the founding fathers of the History of Art, mainly thanks to his work “Anmerkungen über die Baukunst der Alten” (“Observations on the Architecture of the Ancients”) (1767).

⁶ These quotations are taken from John Ruskin’s “The Seven Lamps of Architecture” (1849), chapter entitled, *The Lamp of Memory*.

⁷ We are referring to *I restauro in architettura*, taken from Camillo Boito’s “Questioni pratiche di belle arti: restauri, concorsi, legislazione, professione, insegnamento”, published in Milan in 1893. An older version of the first of the two dialogues that comprise this text had been published in 1886 entitled, “I nostri vecchi monumenti: conservare o restaurare? (Our ancient monuments: conserve or restore?)”.

⁸ Riegl’s small, but very important work was published for the first time in Vienna in 1903 entitled, “Der moderne Denkmalkultus, sein Wesen und seine Entstehung”. In the last two decades of the 20th century translations were published in French, Italian and English.

Concepts in international doctrine: conservation between practice and theory

The awareness of the significance of cultural heritage and the need to safeguard it for its memory and for its essential qualities is a topic that has evolved with modernity. To a great extent, the problems of heritage conservation have been caused by the quantitative and qualitative changes that have taken place in the structure of society and in the increasing mechanisation of the processes of production. These have been accompanied by the rapidly increasing population growth, especially in the second half of the twentieth century. In these past fifty years heritage conservation has in fact grown into an international movement, involving an increasing number of countries. A clear indication of this is the World Heritage Convention of 1972, now ratified by some 164 States Parties (2001).

'RESTORATION' VS. 'CONSERVATION' IN THE NINETEENTH CENTURY

In the nineteenth century, restoration and conservation developed as if they were two opposing trends.

'Restoration' aimed at the re-establishment of the historic structure in its most complete form, while the purpose of conservation was to maintain the historic structure as a historic record.

In 1866, Eugène Viollet-le-Duc, then the principal restoration architect of France, gave the following definition: "The term Restoration and the thing itself are both modern. To restore a building is not to preserve it, to repair, or to rebuild it; it is to reinstate it in a condition of completeness which may never have existed at any given time."¹ As a result, some buildings were saved from destruction, but many were substantially modified, thus losing some of their essential historic qualities. The 'conservation movement' developed as a critical position against 'restoration', emphasising the importance of keeping the original historic material and structure as authentic documents and as a testimony of the past. The artist and socialist William Morris attacked restoration in a newspaper article in 1877, proposing conservation as a

respectful alternative. He claimed that one should: "stave off decay by daily care, to prop a perilous wall or mend a leaky roof by such means as are obviously meant for support or covering, and show no pretence of other art, and otherwise to resist all tampering with either the fabric or ornament of the building as it stands; if it has become inconvenient for its present use, to raise another building rather than alter the old one; in fine to treat our ancient buildings as monuments of a bygone art, created by bygone manners, that modern art cannot meddle with without destroying."²

INTERNATIONAL MOVEMENT

These two positions of the nineteenth century have since been founded on a common ground in modern conservation theory and principles, which recognize the historicity of the heritage, and accept conservative restoration as a legitimate operation providing that it does not falsify the evidence.

Modern conservation principles were recapitulated in the Venice Charter, *The International Charter for the Conservation and Restoration of Monuments and Sites*, resulting from the Second International Congress of Architects and Technicians of Historic Monuments, held in Venice in May 1964 on the invitation of the Italian government and with the participation of UNESCO and ICCROM. The charter was later adopted by ICOMOS, the International Council on Monuments and Sites, as its fundamental doctrine. It is also generally referred to in the context of the World Heritage Convention. The charter was written in the early phase of a movement, which has since produced a large number of documents, including recommendations by UNESCO, charters and declarations by ICOMOS, as well as international conventions and agreements, touching on a wide range of interests, from the protection of nature to sustainable development and cultural diversity, e.g.:

- Archaeological heritage (UNESCO: *Archaeological excavations* 1956; ICOMOS: *Archaeological heritage* 1990, *Underwater heritage* 1996);
- Architectural heritage, (*Venice Charter* 1964);
- Historic areas (UNESCO: *Historic Areas* 1976; ICOMOS: *Historic Towns* 1987);

- Landscapes (UNESCO: *Landscapes* 1962, ICOMOS: *Gardens* 1982);
- Traditional structures (UNESCO: *Traditional Culture and Folklore* 1989; ICOMOS: *Built Vernacular Heritage* 1999, *Historic Timber Structures* 1999);
- Authenticity (*Nara Document on Authenticity* 1994);
- Public works (UNESCO: *Public or Private Works* 1972);
- Tourism (ICOMOS: *Cultural tourism* 1976 & 1999) ;
- Education (ICOMOS: *Guidelines on Education and Training* 1993).

HISTORIC RESOURCE

The international documents represent a framework for conservation policies, indicating a process that should be followed every time a restoration is considered. Each site has its history and the situations can be quite complex; therefore, decisions about treatments should be based on sound judgement regarding the qualities and significance specific for each property.

The first thing to clarify in the conservation process is: what is meant by **historic monument**? The Venice Charter starts: "Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions." This is specified: "the Concept of an historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilisation, a significant development or an historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time."³ (Art. 1) The valid contributions of all periods should be respected, "since unity of style is not the aim of a restoration"⁴. The World Heritage Convention (1972) speaks of 'monuments', 'groups of buildings', and 'sites', which cover cultural properties from a single architectural structure or monumental sculpture to historic towns and villages, archaeological sites and cultural landscapes.

CONSERVATION AND RESTORATION

The ICOMOS *guidelines on education and training* (1993) define **conservation**: "The object of conservation is to prolong the life of cultural heritage and, if possible, to clarify the

artistic and historical messages therein without the loss of authenticity and meaning. Conservation is a cultural, artistic, technical and craft activity based on humanistic and scientific studies and systematic research. Conservation must respect the cultural context"⁵. The Venice Charter refers the term 'conservation' to the need to maintain a building's association with the history to which it bears witness and the setting in which it occurs, guaranteeing a regular maintenance and appropriate use⁶. The process of **restoration**, instead, is defined as a highly specialised operation, aiming to "preserve and reveal the aesthetic and historic value of the monument", based on respect for original material and authentic documents. The process of conservation-restoration is based on the recognition of cultural values defining a particular property as a common heritage, but also identifying its cultural specificity.

CONSERVATION PROCESS

The 'theory' of modern restoration can best be interpreted as a methodology. This methodology consists of all the operations that are necessary for the identification, understanding, interpretation and presentation of the heritage. The first task to undertake in any restoration, is the definition of what the heritage resource consists of, and what its significance is.

- **Survey**: systematic inspection, survey and documentation of the heritage resource, its historical setting, and its physical and cultural environment;
- **Definition**: critical-historical definition and assessment of the significance of the heritage resource within its setting, taking into account the cultural, social as well as economic considerations;
- **Analysis**: examination of the resource using scientific methods, and the diagnosis of its physical consistency, material and structure, and its spiritual significance;
- **Strategy**: establishment of short-term and long-term plans and programmes for the conservation and management of change, complemented with monitoring, regular inspections, cyclic maintenance and environmental control.

A necessary tool to acquire knowledge of cultural heritage in all the necessary aspects is provided by recording.

Recording is an essential part of the conservation process, in order to get to know the place concerned and its physical condition, and subsequently to monitor any changes occurring over time. It is necessary for the management of a heritage site, programming maintenance and timely repair, as well as any time a new restoration or rehabilitation project is launched. It will thus include inspections reports, graphic records, as well as scientific data on the condition and behaviour of the building within its social, cultural and environmental context. It is obvious that records should be safely stored, possibly with a second copy in another location, and made available for relevant consultation and research regarding the site. Results should also be published⁷.

DEFINITION OF THE HERITAGE RESOURCE

The survey phase is fundamental for the identification of the resource and its significance, and vital for the definition of what should be preserved and what are the limits of change. It includes detailed inspections and reports, and the relevant graphic documentation and scientific analyses. The task is to define the structural system, the historical phases of construction and change, the condition of the building and the causes of decay.

Modern science and technology have produced tools to help in the preparation of records, inventories, survey documents, and analyses. Some of the methods can be sophisticated, including photogrammetry, digital recording systems, and measurement of the specific condition of structures and materials. At the same time, regular visual inspections by the expert in charge remain a fundamental tool, whether dealing with an historic building or area. The purpose of the inspection is to know and define the historic structure as a 'whole'⁸. It has been demonstrated that when maintenance plans are established for historic buildings on the basis of regular inspections (at five-year intervals), proprietors save money and effort, being able to foresee repairs before small defects develop into major problems. Survey should be complemented with appropriate art-historical and archaeological research, carried out on the building itself and in relevant archives and libraries. Whatever the type of construction, its behaviour needs to be taken

into account in the intervention. Mistakes in reinforcement and consolidation will generally become evident when a building is stressed, for example, as a result of soil movements or earthquakes.

THE TEST OF AUTHENTICITY

Sites that are inscribed on the World Heritage Lists are expected to pass the 'test of authenticity' in relation to design, material, workmanship or setting. This demand is not only relevant to the moment of nomination, but always remains valid in the process of conservation and eventual change.

Authenticity means that an historic building should be seen as a true testimony of the culture or traditions that it represents. The *Nara Document on authenticity* has further emphasised that "the diversity of cultures and heritage in our world is an irreplaceable source of spiritual and intellectual richness for all humankind" (par. 5). Authenticity is expressed in the tangible and intangible aspects of a building, including historical changes and additions. The Venice Charter invites us to safeguard historic structures "no less as works of art than as historical evidence"⁹. In relation to the artistic aspect, it would refer to the building as a genuine result of the human creative process. This can be verified in the quality of design and execution, but requires critical comparison with similar works of the same culture. Another aspect of authenticity refers to the historic structure in its quality as historic document. Due attention is required to safeguard not only the quality and aesthetics of the surface, but also the material and structure which document the workmanship and different phases of construction in the past. Speaking of the memory and life in an historic building, John Ruskin said: "That which I have above insisted upon as the life of the whole, that spirit which is given only by the hand and eye of the workman, can never be recalled. Another spirit may be given by another time, and it is then a new building; ..." ¹⁰. The Venice Charter therefore recommends that any indispensable new work should be "distinct from the architectural composition and must bear a contemporary stamp"¹¹.

CONDITION OF INTEGRITY

The condition of integrity in relation to cultural sites should

be understood in the relevant historic context describing the state that a particular place has acquired by the present time. Integrity can be referred to visual, structural and functional aspects of a place. It is particularly relevant in relation to cultural landscapes and historic areas, but even a ruin can have its historic integrity in its present state and its setting.

The visual integrity of a building or an area indicates what is visually relevant to its historically evolved condition in relation to its context. The identification of the visual integrity of an historic building should take into consideration not only its architectural character but also the impact of historic time. Building materials such as stone, brick and timber obtain patina of age as a result of the ageing process and weathering. Replacement, reintegration and other types of treatments of such surfaces require a sensitive eye and an understanding mind in order not to lose the historically established visual integrity of the place.

The structural integrity refers to the mutual relationship that links the different elements of an historic structure or area. Any change to such balance should be carefully thought out, and based on a sound judgement of the values and priorities in each case. In an historic building, the question of structural integrity is particularly relevant when discussing consolidation and reinforcement. Experience has shown most traditional structures in seismic areas can resist earthquakes if in good state of repair. The Venice Charter approves the use of modern technique for conservation and construction, but insists that its efficacy should be “shown by scientific data and proved by experience”¹². This leads us to stress the importance of follow-up and monitoring of all restoration work in order to learn from experience and improve for future projects. This is also one of the reasons for the often-repeated modern principle of ‘reversibility’, meaning that one should be able to come back to the site and repeat a treatment where necessary. The project of architecture is conceived in reference to a functional scheme that is associated with the different aspects of design, and forms the functional integrity of the building or site. Understanding this notion is important when discussing the criteria and strategies of rehabilitation. The identification of functions should be based on an analysis of

the urban fabric with its transformations, and the evolution of building typology. Keeping in mind functional integrity is useful for an appropriate balance in the policies of development and conservation, with due regard to the character of traditional uses. The notion of functional integrity is particularly relevant in relation to large sites and landscapes, where traditional functions may be challenged by the introduction of modern technology and new priorities. Subject to the character of the building, new needs can be satisfied within the limits of the carrying capacity of the historic building or site without losing its cultural significance. Even museum use is a new function in an historic building, and would often impose radical changes, including those demanded by requirements of safety and security.

The issue of integrity in its different aspects is particularly relevant in relation to historic areas and landscapes. In article 14, the Venice Charter mentions: “The sites of monuments must be the object of special care in order to safeguard their integrity and ensure that they are cleared and presented in a seemly manner.” The UNESCO *Recommendation regarding the safeguarding and contemporary role of historic areas* (1976) states:

*“Every historic area and its surroundings should be considered in their totality as a coherent whole whose balance and specific nature depend on the fusion of the parts of which it is composed and which include human activities as much as the buildings, the spatial organization and the surroundings. All valid elements, including human activities, however modest, thus have a significance in relation to the whole which must not be disregarded.”*¹³

The conservation of historic urban areas is a complex and dynamic process, which needs to take into account the forces of development as well as the relevant cultural, social and economic values. The process of planning and management of such areas should necessarily involve all the different protagonists, including property owners, and it should be accompanied by education and awareness raising in order to make the process sustainable.

HERITAGE AND DEVELOPMENT

The UNESCO *Recommendation concerning the protection*

of the cultural and natural heritage (1972), adopted at the same time as the World Heritage Convention, emphasizes that heritage “represents wealth, the protection, conservation and presentation of which impose responsibilities on the States”¹⁴. In this regard, it is worth quoting the Recommendation where it stresses the importance of having an overall strategy for safeguarding:

*“The cultural or natural heritage should be considered in its entirety as a homogeneous whole, comprising not only works of great intrinsic value, but also more modest items that have, with the passage of time, acquired cultural or natural value. ... The protection, conservation and effective presentation of the cultural and natural heritage should be considered as one of the essential aspects of regional development plans, and planning in general, at the national, regional or local level.”*¹⁵

Conservation of cultural heritage is increasingly seen in the context of parallel approaches that have emerged in the past decades, including the policy of human sustainable development as a complement to development based on economic factors. In fact, progress should take into account cultural, social, economic and functional resources and values, striking a balance in order to identify the most appropriate approach. Sustainable society should be based on a long-term vision and it should ensure continuity of renewal processes within the scope of social justice. The built and cultural heritage resources are a great potential, offering new alternatives and new strategies for the future. The preparation and setting up of appropriate strategies need to start from appropriate knowledge and understanding of the history and the resource potentials of an area, aiming at a balanced integration of all relevant issues within the planning process.

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¹ Viollet-le-Duc, E., 1866, *Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle*, (10 Vols.) 1854-68. (vol. VIII : 14).

² Morris, W. "To the Editor of The Athenaeum", March 5, 1877; in: Morris, W. *The Collected Letters*, Volume I, 1848-1880, Edited by N. Kelvin, Princeton University Press, Princeton, New Jersey (USA), pp. 353-354.

³ The Venice Charter 1964, Art. 1.

⁴ *ibid.* Art. 11.

⁵ ICOMOS, *Guidelines on education and training* 1993, Par. 3.

⁶ The Venice charter 1964, par. 4-5.

⁷ cf. ICOMOS, *Principles for the Recording of Monuments, Groups of Buildings and Sites*, 1996.

⁸ Feilden, B.M. 1982. *Conservation of Historic Buildings*, Butterworth Scientific. Oxford.

⁹ The Venice Charter 1964, Art. 3.

¹⁰ Ruskin, 1949. *The Seven Lamps of Architecture*: (edition of 1925, George Allen & Unwin Ltd, London) vi:xviii Vi:xviii.

¹¹ The Venice Charter 1964, Art. 9.

¹² *ibid.*, Art. 10.

¹³ UNESCO *Recommendation concerning the safeguarding and contemporary role of historic areas*, 1976, Par 3.

¹⁴ UNESCO *Recommendation concerning the protection of the cultural and natural heritage*, 1972, par. 4.



ITALY, Assisi Town: "The concept of an historic monument embraces not only the single architectural work but also the urban or rural setting in which the evidence of a particular civilization is found..."; the example of historic town of Assisi in central Italy.



CHINA, Fujian Tulou: The issue of integrity has become a key reference for the identification of heritage sites to be protected. The case of the adobe buildings of Fujian Tulou in southern China would require consideration not only of the buildings but also of their functional and visual context, the fields and the surrounding wooded hills.



IRAN, Soltanieh: The 13th-century mausoleum of Soltanieh has lost most of its external tiled surfaces. In the restoration, the problem is to find a reasonable balance between the historicized aspect of the weathered surfaces and the areas that need to be re-covered with tiles for protection and conservation purposes.



MALTA: The 16th-century fortified city of La Valletta in Malta is on the World Heritage List. However, it is only a small part of a large fortified ensemble including the Fort of Vittoriosa across the harbour. Any rehabilitation and restoration certainly needs to be undertaken with the full awareness of the integrity of the site in mind.



HUNGARY, Pecs Museum: A demonstrative reconstruction of the fragments of an archway in the museum of Pecs in Hungary, making it possible to appreciate the setting of the elements.

UZBEKISTAN, Samarkand monument: The Venice Charter recommends that any indispensable new work should be "distinct from the architectural composition and must bear a contemporary stamp". The example illustrates various restorations in a 14th century mausoleum in Samarkand. While the dome has been re-covered with new tiles, the new work is clearly evident on the front of the building.



SYRIA, Palmyra: Reconstruction of ruined monuments on archaeological sites is often a problem of measure. The scaenae of the classical theatre in the Hellenistic town of Palmyra, Syria, represent an example of anastylosis, in which restorers have been able to reuse a large number of original elements from the excavation.

GAMINI WIJESURIYA

Complimentary and contradictory aspects of international doctrines and their impact at national levels

INTRODUCTION

The conservation decision-making process is influenced by a variety of factors. Except in World Heritage matters (and in regions with conflicts) the process primarily takes place at national level within each country's cultural, political, legal and institutional framework. However, for historical and other reasons, such as a heavy flow of information and opportunities available for the exchange of ideas, the decision-making processes at national level are also heavily influenced by international doctrines or the knowledge and experience generated at international level. There have been numerous debates about the validity and relevance of international doctrines when these are translated into different cultural, political, legal and institutional contexts. They have both complimentary and contradictory effects, but they do result in new knowledge being generated at national levels. The emergence of many national charters, for example, could be considered a result of this process. Such doctrines are referred to as principles of contextual conservation in the presentation. They contribute immensely to the conservation decision-making process at national levels, and if due recognition is offered, they could also enrich the international discourse in conservation. These principles have not been sufficiently recognized in discussions of the history and theory of conservation. Furthermore, the heavy emphasis placed on international doctrines in conservation education institutions and systems hardly encourages conservation professionals to look into their own developments. The purpose of this presentation is to demonstrate the existence of doctrines at national levels, to highlight their importance, and to encourage the participants to pay attention to them, and to respect and trust them.

INTERNATIONAL DOCTRINES - COMPLIMENTARY AND CONTRADICTIONARY ASPECTS

Conservation is essentially a Western concept, and the wisdom generated in Europe began to spread all over the world from its inception. Jukka Jokilehto made an excellent presentation on this and highlighted the international doctrines and, indeed, made reference to recent developments, where conservation is considered as a cultural issue. Without a doubt, Western knowledge has spread all over the world with many positive impacts. Institutions such as the Archaeological Survey of India and Sri Lanka established in the middle of the nineteenth century by British colonial rule began to absorb this knowledge from the very early days. For instance, the most renowned scholar on Oriental philosophy, Ananada Coomaraswamy (1905), conveyed the views expressed and propagated by exponents such as Ruskin and William Morris as far back as 1905 in Sri Lanka. Sound institutions (Wijesuriya 2003), strong legislation and principles of conservation that developed in some parts of the world bear witness to the spread of conservation wisdom from the West. The 'Conservation Manual' compiled by Sir John Marshall as head of the Archaeological Survey of India in the 1930s is one early work governing conservation in that country. A former director of ICCROM, Sir Bernard Feilden, when he subsequently revised this document, retained much of its original content.

On the other hand, the relevance of the international doctrines, particularly the charters, has been questioned worldwide. As another former director of ICCROM Paul Philippot (1996 b) observed, "even if today the great currents of conservation theory- European in origin - can be considered widely disseminated, their relative importance continues to vary from sector to sector...".

Another ICCROM director, Nicholas Stanley-Price (1996), who compiled and edited 'Historical and Philosophical Issues in the Conservation of Cultural Heritage' also observes that, "countries other than Europe... approached the debate with their own sensibilities, starting from traditions completely unlike those of the West and with an altogether different conservation history."

We can provide many examples of these debates. For

instance, at a time when Ruskin had declared war against 'Restoration', the Royal Asiatic Society of Great Britain sent an expert to Sri Lanka in 1980 to prepare restoration plans for one of its ruined stupas, which had been built originally in the second century BC, then restored throughout, and finally abandoned in the twelfth century due to foreign invasions. Oertel (1903) who undertook this mission commented that, "with the recent revival of Buddhism, it is natural that ...at least one of their historical shrines at their **sacred city** be restored as near as possible to its original appearance".

These irrelevances and contradictions can be attributed to many reasons, apart from the fact that certain doctrines were propagated without providing the true genesis of them. Among other reasons, one could place much emphasis on the lack of recognition of the diversity of cultures in early principles of conservation. Heritage manifests different cultures, which are diverse by nature, and reflects the way people in different societies viewed their past and cared for what they considered as heritage. The past, which is the principal concern in the heritage conservation domain, is viewed by different societies diversely. Some scholars (Layton, Stone and Thomas 2003) suggest that "diverse range of motivations are demonstrated for preserving or destroying monuments and artefacts, simply because different communities maintain very different relationships with their own pasts".

For many, there are no strong divisions between the past and the present whereas for others the past is an already completed development in itself. Philippot (1996a) observes this in relation to the West and also sees its implications for conservation, "the past has been considered by Western man as a complete development, which he now looks at from a distance, much as one looks at a panorama. On one hand, this new historical distance has produced the conditions necessary for a more objective, scientific approach to the past in the form of historical knowledge. ...the past has been lost but continues to live through nostalgia...Romantic nostalgia of the past replaced the traditional continuity between the past and the present.....led to the revival of past styles...but also to an unfortunate confusion on preservation and reconstruction".

Principles developed on these assumptions could potentially be at variance with societies that have a different view on the past. For instance, for the Maori community in New Zealand (Matunga 1994): "the past is viewed as part of the 'living present'. This is at odds with the view that there is a firm line between the past and the present, and which often results in the relinquishing of obligation to the past in favour of the present".

I have elsewhere argued (Wijesuriya 2006) that the past is in the present when it comes to cultures influenced by Buddhism.

Continuity, or the living dimension (Wijesuriya, King & Nishi 2006), is another significant characteristic that has been overlooked by the international doctrines. Some monuments and sites we consider as heritage today have been created for communities, for the fulfilment of their spiritual aspirations and practices. They are still used for the same purposes, and have been transmitted from generation to generation. As a result, connected communities not only use them, but continuously engage in the process of their renewal. Conservation attempts at such places could be in contradiction to the principles developed with little or no concern for such continuity. For instance, there is a suggestion that, "a ruin is a number of fragments that have lost all traces of their original function and aesthetic qualities".

This may undoubtedly be pertinent and relevant in a particular cultural context, but could directly contradict some of the heritage places in ruined conditions in other parts of the world. For instance, stupas built in the pre-Christian era, some of which are now in a ruined condition, are still being worshipped by people, thus retaining at least their original function. In fact, the need for new principles for the conservation of such places has already been highlighted. Philippot (1996a) suggests, "A concern for the conservation of the particular values of a historically transmitted and still living milieu... indeed requires a new definition of the object to be restored; this definition will have to be broader and more comprehensive than the traditional one".

Religious influences, which are the basis for many cultures, may be another reason for people to take different approaches towards the conservation of their heritage. For

instance, the conservation professionals in Bhutan (Dukpa 2002) believe that, “in Bhutan, the ancient Buddhist doctrine of impermanence and change of all things in existence and the natural acceptance of decay forms a confrontation with the international approach of conservation...

Totally freezing the state of the monuments for conservation may conflict with the continual process of evolution of living cultural traditions. Preservation of the monuments is necessary but one needs to ask how uncompromising this preservation should be.

Buildings are the material representations of spiritual ideology and beliefs and thus also go through the cycle or wheel of Samsara and are thus constructed, extended, demolished and reconstructed in response to the changing needs of people and the environment.”

Societies in different parts of the world, particularly those formerly under colonial rule, have begun to ask questions such as ‘whose heritage are we preserving?’, ‘who makes the conservation decisions?’, ‘what is the relevance of heritage to contemporary life?’ and above all ‘why preserve?’. These also include the various meanings attached to some of the international terms used in conservation doctrines. In many cases, there are no direct translations. Some of the results of these debates also tend to contradict international doctrines.

NATIONAL DOCTRINES - PRINCIPLES OF CONTEXTUAL CONSERVATION

The complimentary and contradictory aspects mentioned above, have generated knowledge or doctrines at national levels. In some cases, the traditional approaches to care for heritage would also have contributed to this. Since these are more context oriented, I wish to call them doctrines of contextual conservation. While recognizing the fact that conservation doctrines can be developed at international level, one has to be conscious that their application primarily takes place at national levels, which are diverse in nature. On this basis, doctrines developed at national levels are pertinent and contextual, and are useful in conservation decision making. The other advantage is that such doctrines can be tested and further developed as in the case of the Burra Charter.

The New Zealand charter provides an excellent example of this. While also retaining some aspects of international doctrines, it has captured very important national aspirations and developed principles accordingly. The need for ‘broadening conservation concepts to accommodate cultural values of indigenous Maori community’ has been particularly recognized. The charter stresses: “more specifically, New Zealand peoples have particular ways of perceiving, conserving and relating to their cultural heritage, the indigenous heritage of Maori and Moriori relates to family, local and tribal groups and associations. It is inseparable from identity and well-being and has particular cultural meanings.” As a result, the charter aims to provide guidelines not only for conservation professionals, but also “for community leaders, organizations and individuals concerned with conservation issues”.

We can find many more examples of this nature. For instance, let us look at one example relating to restoration. The Venice Charter suggests that the aim of restoration, “is to preserve and reveal the aesthetic and historic value of the monument”.

In contrast, the principles established as far back as 1945 in Sri Lanka have added the spiritual dimension to restoration in their principles of conservation. It says (Paranavitana 1945) “restoration of ancient shrines ... has to be carried out without hurting the religious susceptibilities of the people;”, “that intervention by the Department does not affect their vested interests and traditional rights...”.

The Venice Charter in 1964 further suggests that “the process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument”.

On the other hand, the principles established in Sri Lanka as far back as 1947 had already placed restoration in a much broader context. Accordingly (Paranavitana 1947): “it has to be kept in mind that the proper restoration of an ancient monument is a work of a highly specialized nature, requiring in the person who carries it out a thorough knowledge of

the evolution of art, architecture and the culture that produced it and a feeling therefore, often to be required by a lifetime devoted to it.”

The importance of the spiritual element of heritage has made them incorporate the need to preserve such values through legislation. According to the law established in 1940 in Sri Lanka, “Any person who (a) wilfully destroys, injures, defaces or tampers with any protected monument or any ancient monument on Crown land; or (b) does in, upon to, near or in respect of any ancient monument which is held sacred or in veneration by any class of persons, any act which wounds or offends or is likely to wound or offend the religious susceptibilities of the class of persons by whom such ancient monument is held sacred or in veneration, shall be guilty of an offence...”

The emphasis placed on spirituality or the living dimensions of heritage in conservation in Sri Lanka is also indicative of one of the earliest integrated approaches to conservation. The sacred city plan (Wijesuriya 1996) developed (1949) for the conservation and management of the World Heritage Site of Anuradhapura (14 sq miles in area) in Sri Lanka can be considered as the first integrated approach to conservation of a large archaeological site/city/living heritage site. Anuradhapura has its origin in the sixth century BC and continued to be the capital of the country for one thousand five hundred years, with architecture and town planning evolving throughout. It has also been one of the most sacred places for Buddhists and was a centre of Buddhism from the third century BC. The development of the sacred city plan was achieved through planning and heritage legislation and by bringing together the communities concerned, all pertinent institutions, a multiplicity of professionals and the political leadership.

Another important aspect overlooked by the international doctrines is the longstanding traditional knowledge systems of caring for the heritage, which some recognize as traditional approaches to conservation. Every culture had their own approaches to heritage and some developed advanced principles and procedures. For instance, chronicles and inscriptions refer to the appointment of specialized officers in charge of conservation in the twelfth century AD

in Sri Lanka. They used to have specialized craftsmen to carry out conservation. The following excerpts are from an inscription of the ninth century AD (EZ Vol. 1):

- [There shall be] clever stonecutters and skilful carpenters in the village devoted to the work of [temple] renewal.
- They all... shall be experts in their [respective] work.
- ...shall be granted to the officer who superintends work.
- ...his respective duties, shall be recorded in the register.
- ...they alone shall be answerable for its correctness.
- The limit [of time] for the completion of work is two months and five days.
- Blame [shall be attributed to] ... who do not perform it according to arrangement.

Treatises on architecture of the past have provided guidelines for the conservation of objects, architecture as well as villages and cities. One such reference from the sixth century AD treatise on architecture entitled *Mayamatha* in India is quoted below:

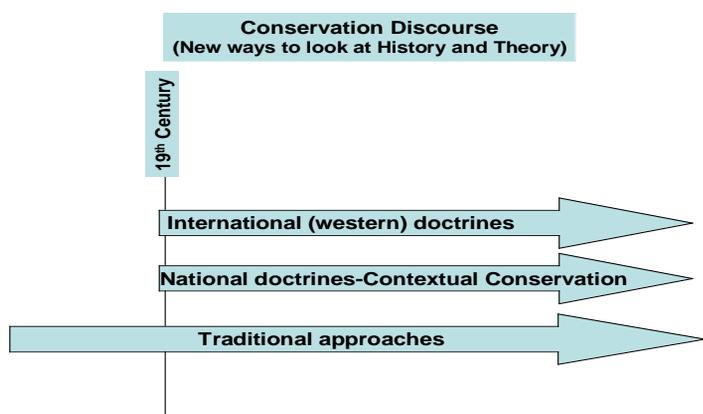
- “A temple (may be) ruined, broken down, fallen down, aged as to its materials or decrepit.
- Those (temples) whose characteristics are still perceptible in their principal and secondary elements (are to be renovated) with their own materials.
- If they are lacking in anything or have some similar type of flaw, the sage wishing to restore them, (must proceed in such a way that) they regain their integrity and that they are pleasantly arranged (anew);
- this (is to be done) with the dimensions - height and width - which were theirs, with decorations consisting of corner, elongated and other aedicule,
- without anything being added (to what originally existed) and
- always in conformity with the advice of the knowledgeable.

It has been a practice used when religious edifices are newly constructed to donate a property that will generate the income required for the maintenance of the monasteries. The maintenance includes provision of food for the inmates and the repair and renewal of buildings. This has been a regular practice in Sri Lanka (Wijesuriya 1996) since about the first century AD and some of the deeds (stone

inscriptions) written at the time of donation, specify that income from certain properties can only be used for restoration purposes. There are similar practices in other religions as well. For instance, the Waqf system in Islamic traditions provides resources for the entire sustainable care of mosques. These principles are time tested and contextual, while some may even be adaptable to the present. One of the difficulties faced by conservation professionals is the absence of direct translations of the terms and concepts used in international doctrines in their own language. The study of traditional approaches could also help to overcome this difficulty and encourage the use of linguistically, religiously and culturally appropriate terms and concepts at national level. Conversely, these can help to enrich the concepts and terms used at international level. In fact, it is interesting to note that some tend to believe that 'conservation' is the compensation for the loss of traditions.

CONCLUSION

The purpose of this paper is to encourage conservation professionals to revisit history and the theory of conservation differently, as suggested below. While learning international doctrines, one has to pay attention to the principles developed simultaneously or independently at national (and even regional) levels and their impact on the conservation



decision-making process. Most importantly, we need to recognize that national level doctrines place conservation in a particular cultural context and that these doctrines have stood the test of time very well. Where such doctrines are absent, this is also a reminder of the need to develop them by satisfying national aspirations and needs. These may be influenced by existing traditional conservation practices.

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The structure and organization of legal systems for the protection of cultural heritage

The development of the general economy of cultural property protection systems stems from the interest which a socially and hierarchically organized human community attributes to safeguarding and handing down the objects and property which characterize its culture and its history, acting as vehicles for transmitting messages making it possible to identify that community, and through which the community identifies itself. The law is therefore required to lay down the criteria for recognizing cultural property and to give it a certain degree of permanency and guarantee the protection and transmission of this acknowledged heritage. Community interest therefore takes primacy over individual interests in guaranteeing this aim of protection and transmission. It takes the form of the imposing of constraints and servitudes on private ownership of property and the possession and use of a particular cultural object, striking a balance between the prerogatives of the proprietor, possessor or user of the object or property, and the superior interests of the community in ensuring its conservation. According to this principle, the legal system also conditions the type and forms of intervention designed in particular to guarantee the maintenance and the restoration of the property and directly influence the implementation of conservation and restoration measures. These measures therefore depend directly on the heritage protection principles developed by legal systems of cultural heritage protection.

1. NATIONAL RECOGNITION OF CULTURAL HERITAGE

The right of States to determine and protect cultural property

The legal capacity of a State autonomously to define the principles underpinning the protection of its national heritage on the basis of its own history and cultural identity was sanctioned by the European Court of Human Rights in a decree of 5 January 2000. The case at issue then was whether a State had the right to impose measures to establish its national heritage and protect its cultural property. The

dispute settled by the European Court of Human Rights had been brought by the Italian State against a private individual whose plans to buy and export a work of art had been prevented by the Italian government, claiming the State's right of pre-emption. There were two issues involved: the State had prohibited the free circulation of a work of art by interfering with the exercise of the right to private ownership, regarding a work by a foreign artist with no close ties of any kind with Italy (in that case it was a painting by Vincent Van Gogh). Since then, in addition to the legal capacity of the State to enforce policies to enrich its cultural heritage, what was at stake was the basis of the State's right to act in order to keep a work of art in the country which could not be identified with the national cultural heritage in the sense of being a channel of Italy's history and cultural identity.

In its judgement of 5 January 2000 (*Beyeler v Italy*) the European Court of Human Rights upheld the application of the Italian State.¹ Not only did it accept that the protection of the national cultural heritage – which in the instant case related to controlling the export of cultural property – was a lawful means of pursuing the general interest of the national community, but it also ruled that it was lawful to host a work of art by a foreign artist on the national territory in so far as the solution adopted guaranteed the broadest public access to it. This judgement highlighted the dual character of the private interest in protecting cultural property: firstly, interfering with property rights to protect cultural heritage is lawful because it is underpinned by the general interest embodied in the State; and secondly, it is lawful to keep cultural property in the national territory even though it does not form part of the history and cultural identity of the State because this is determined by the general interest represented by facilitating access to universal culture.

The criteria for categorizing cultural property

The scope of national or infra-national legislation on the protection of cultural property is delimited by criteria for classifying the cultural objects qualifying for statutory protection. Not all cultural property is therefore protected by law. They can only fall within the scope of a statutory protection system created by heritage law if they have previously been

classified as part of the heritage. Legislation therefore combines criteria to identify this property on the basis of the historical or cultural message they represent and the interest that the international or local community attributes to conserving them. These criteria vary according to the legislation; they are formatted in such a way that they define all the items of cultural property which, wholly or partially, are the expression of the national or regional history or culture.

Historical, artistic or scientific interests, sometimes completed by archaeological, prehistoric, ethnological, spiritual, religious, traditional, anthropological etc. features are sometimes taken into account as criteria for classification purposes. They may be due to a need to preserve antiquities or because the property belongs to a particular period in history. These heritage attributes may apply to a whole ensemble of cultural heritage or be considered individually by category of items which the law identifies separately. The statutory notion of heritage law may therefore comprise various categories – a monument, a historical monument, an archaeological site, a monumental ensemble, a work of art, antiquities, archives, manuscripts, and so on. The criteria used to establish the historical or cultural message, which may be chronologically linked, may therefore vary from one category of cultural property identified by the law to another, making up the national or regional heritage.

In addition to these heritage features defined by a system of historical or cultural values, the legislation of different countries also identifies cultural property, which may be broken down into categories in terms of the degree of interest which the national or some particular community attributes to its protection. Accordingly, the law may stipulate the need for a public, private or higher interest... to guarantee its protection. But whatever language is used, it is this specific interest that determines the level of social recognition of cultural property and justifies the imposition of protection and conservation constraints on property rights for conservation purposes. It also helps to explain the breadth and scope of the sacrifice which a community is prepared to make in order to ensure that this property is conserved. This degree of social recognition equates, in broad terms, to the general interest identified and spelled out by the European

Court of Human Rights in that 5 January 2000 judgement. Legal protection is therefore the outcome of a dialectical process in which the general interest of the community is set off against the private interests of the proprietor, possessor or user of the cultural object, whose intentions are not immediately compatible with the purpose of ensuring the conservation of the cultural asset. The general interest therefore authorizes the community to impose its prerogatives on the will of the proprietor, possessor or user of the cultural object, usually by giving it a particular status – as a historical monument, national heritage, work of art etc. – signifying official recognition of the fact that it forms part of the heritage. This status will therefore apply generally, without any distinction between the public or private nature of the ownership of the cultural object in question.

By way of example, Cambodian law combines a heritage interest – that is, the cultural or historical message of the property – with a qualified interest (in this case a public interest) which determines the level of recognition which the national community affords to its protection. Thus article 4 of the Kram (law) of 25 January 1996 on the protection of cultural heritage enacts the heritage features and the qualified interest required for protecting cultural property.

Article 2 defines Cambodia's cultural heritage and article 3 specifies the scope of the law limited to the national heritage.²

In three articles, then, the Cambodian law lays down the cumulative criteria for the statutory framework governing national heritage; the latter comprises movable or immovable cultural goods, public or private property produced both by humans and by nature, having a scientific, historical, artistic or religious interest, such that its protection is a matter of public interest.

In another direction, Italy's law of 29 October 1999 governing cultural and environmental heritage (Consolidation law No. 490) lays down a set of criteria regarding the heritage features that cultural property must possess in order to be eligible for coverage by the statutory protection systems that set the criteria for determining different categories of cultural property. But the law also stipulates a minimum age for property of fifty years, which is juxtaposed on the main

criteria characterizing heritage interest.³

This way of identifying cultural property under Italian law is also used in Quebec law, which identifies different categories of cultural assets, attributing criteria to them relating to their heritage features so that they can be brought within the scope of the law.⁴

Heritage legislation therefore comprises a whole range of criteria where heritage-related features – a historical or cultural message, a qualified interest, a general interest etc – antiquity, or the fact that an item belongs to particular period in the past, can be applied as alternatives or accumulatively to define the whole cultural heritage or different categories of cultural property which, taken together, constitute the national or regional heritage.

Kenya's legislation provides an example in which these criteria are combined, thereby ensuring that the features adopted and the reference to specific dates – historical events – reflect the political dimension of the construction of the national heritage, excluding, for example, any cultural property created during periods of occupation.⁵

In Kenya's legislation, 1895 is the deadline date for classifying monuments, excluding from this definition any cultural property which, while possessing the required heritage features, was created after that chronological benchmark date. That was the year the British established the Protectorate of Kenya. The Minister may nevertheless expressly rule to include particular items in the category of national monuments without taking account of their age, but this must be declared expressly in a specific declaration waiving the general legal criteria for identifying monuments. Along similar lines, Zambia categorizes "relics" only for certain items made before 1924, the year the British took over the administration of the territory, abolishing the Charter of the British South Africa Company which had previously managed the territory after the 1885 Berlin Conference. The construction of the national heritage can therefore be driven by a political and identity-oriented plan affirming the nature of a post-colonial society.

2. FORMS OF PROTECTION AND THEIR LEGAL SUBSTANCE

(a) The general economy of forms of protection

Legal systems for the protection and conservation of cultural

heritage can be grouped into two families: constitutive systems and declarative systems. Most countries have legislation which develops forms of protection of a constitutive nature, reserving the declarative method for particular areas where it is only by generalizing protection principles that a legal rule can be applied, whose effectiveness then rests on increasing the liability of the owner or holder of the cultural objects. This applies in particular to controlling the export of cultural property, in which case, the responsibility or liability lies with the exporting party.

In their most usual form, national laws implement a constitutive protection process. This type of protection lays down criteria to determine the cultural property to be subject to constraints or servitudes for their protection. This places the responsibility of ascertaining whether the cultural property whose protection is being sought meets the statutory criteria, and hence deciding on its protection, on the public law enforcement authorities. The choice of protection is free; the decision is permissive in character. Such a system develops an incremental approach to establishing the national heritage, which is built up gradually as the protection measures are issued by the public heritage authorities.

Conversely, the declarative system automatically determines the national heritage. Like the constitutive system, the law lays down the eligibility criteria for protection, but the heritage constraints and servitudes are imposed automatically as soon as the property can be characterized according to the criteria defining cultural heritage. The imposition of constraints or servitudes in this case is mandatory, and it is the proprietor of, or the rights-holder over, the property that is required to see whether the property falls within the purview of the law. The consequences on the proprietor or the rights-holder over the property varies according to the type of legal system. The constituent type provides the possibility of appealing against the protection decision. This decision is tailored to each case so that each item of cultural property can be characterized according to the criteria laid down by the law and is notified to the right-holders (the proprietor or the holder of the rights over the property); the legal classification of the property performed by the system in this way is open to challenge, and can even be

appealed before courts of law. The declarative type does not establish such a balance between the decision taken by the public authorities and the rights of the proprietor or the rights holder over the property. Protection stems directly from the provisions of the law, and by this token cannot be challenged.

The declarative system is widely used to guarantee control over the export of cultural property: the law lays down the criteria for identifying the property subject to control or to an export ban. It is then up to the party initiating the export of the property to comply with the law. But the declarative system is more rarely devoted to the general protection of

cultural heritage – movable or immovable property – within the national territory. Only a small number of countries have adopted legislation, sometimes driven by a “Marxist” political ideology, with the declarative system to conserve the national cultural heritage. This is the case of Angola as a result of Decree No 80/73 of 3 September 1976, laying down the procedures for the conservation and protection of the historical and cultural heritage of the Angolan people (*Decreto n° 80/76 de 3 Setembro 1976 determina a forma de conservação e protecção do património histórico-cultural do povo angolano*). After listing the categories of cultural property and the heritage-based criteria for identifying them in article 1 of the decree of 3 September 1976, article 3 lays down a principle that this cultural property must be declared, requiring the owners of the property to comply.⁶

Under this system, the initial proprietor of the cultural property is dispossessed of it for the benefit of the Angolan State, but is compensated by being granted the right to keep it. Article 5 of the 3 September 1976 decree authorizes the holders – the original but dispossessed proprietors – to conserve cultural property on condition that they comply with the instructions laid down by the official Museum service.

This principle of quasi-appropriation by the State under a

legal system for the protection of cultural heritage is nevertheless fairly marginal. In most countries the statutory protection of cultural heritage does not impact on the ownership rights over the cultural asset. They only restrict the exercise of those rights by imposing constraints on the use of the property, in the form of constraints or servitudes which limit the prerogatives of the proprietor or the rights-holder and by laying down a principle of prior control, or by preventing any action being taken that might affect the integrity or alter the original heritage features on the basis of which the protection had originally been decided.

Table summarizing the legal systems for the protection of cultural heritage

	Constitutive system	Declarative system
<i>Principles of protection</i>	Incremental constitution of protected heritage. Permissive protection rule (for the authorities).	Automatic constitution of protected heritage. Mandatory protection rule (for the owner).
<i>Implementation of protection criteria</i>	The law lays down the protection criteria for protecting the property.	The law lays down the criteria under which property thus identified is protected.
<i>Responsibility for compliance</i>	The Authority ascertains whether the object meets the criteria and can decide on its protection.	The owner (or rights-holder) ascertains whether the property meets the criteria and must comply with the protection rules.
<i>Notification of protection</i>	Notification of the decision is served on the owner (or rights-holder).	The owner (or rights-holder) is entitled to be informed if the property is protected.
<i>Appeal by the owner (or rights-holder)</i>	The owner (or rights-holder) may appeal against the protection decision based on an administrative act.	The owner (or rights-holder) may appeal against the protection decision based on the law.
<i>Knowledge of protected objects</i>	Registration on the list of protected property after protection decision has been taken.	Automatic inclusion in the register of protected property as soon as the object is known.

(b) The effects of different protection systems on conservation and restoration

The status of cultural property according to heritage protection legislation influences the conservation and restoration work. The forms of protection provided by these different types of legislation lead the authorities to exercise control over activities that might impair the conservation of protect-

ed cultural property. In most cases this control is reactive, in the sense that the public authorities are called in for a particular project and supervise the work of the project author, who is required to obtain prior authorization, or at the very least, to report it afterwards. The economy and effectiveness of this system depend on the widespread adoption of protection measures and the ability of the authorities to impose them on the property owners or rights-holders. With this approach, all conservation and restoration work can be governed by the rules laid down by the authorities responsible for protecting heritage whether publicly or privately owned. These statutory conservation and restoration requirements may impose an obligation on the party responsible for the conservation and restoration project to ensure that it is done in a particular way and to use skilled professionals to perform it.

Under certain circumstances national legislation can leave the initiative with the authorities that, in the absence of a project formalized or declared by the proprietor or rights-holder over an item of cultural property, can enquire about the state of conservation of the property and impose measures to ensure its integrity.

Constraints that ensure the legal protection of cultural property therefore restrict the right of use or ownership of the property. Conversely, in the absence of any legal protection the proprietor or rights-holder is comparatively free. Most legal systems are constitutive in character, with the result that all the cultural property is unprotected, either because the public authorities take no decision to protect it or because the law only imperfectly reflects the social perception of cultural heritage, and the property concerned is not eligible for protection according to the statutory criteria, namely, the heritage-related features. Only the system of ownership of non-protected cultural property can therefore influence the way conservation and restoration operations are conducted.

Action taken on non-protected cultural property might be subject to some degree of formal control when it is publicly owned. The obligation to promote free competition might also require the authorities owning cultural heritage to put their conservation and restoration projects out to tender.

Conversely, any action planned by private owners for their non-protected cultural property is generally exempt from

Summary of the effects of forms of protection on conservation-restoration		
	Public ownership	Private ownership
Protected property (subject to protection/conservation constraints)	Regulated conservation-restoration work	
Non-protected objects	Regulated conservation-restoration work	Lack of national statutory framework

any statutory constraints.

3. THE IMPACT OF INTERNATIONAL LAW

In addition to national legislation, States may be bound by international commitments entered into, mainly in regional or international conventions to which they are signatories.

International cultural heritage protection conventions are UNESCO's, while the regional conventions are instituted by continental or subcontinental organizations, such as the Organization of American States, the African Union (AU) or the Council of Europe. These conventional cultural heritage undertakings share one common feature: they do not produce direct effects on the domestic law of individual States (with the sole possible exception – and then in only a few cases – of conventions creating a monist type legal system). Their principles cannot be directly invoked by a user or a citizen of a State, but can only be deemed effective and be relied on by citizens, to use for their own purposes, when their national legislation has transposed them and incorporated them into domestic law. The legal scope of these conventions depends on their nature as public law provisions – under international law – or their substance and framing (only the UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects adopted in 1995, most of whose provisions fall within the scope of private international law, provides the possibility of direct application in the legal system of the signatory States).

The lack of any direct legal application of conventional heritage legislation can be found, for example, in the 1972

UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, known as the World Heritage Convention: article 5(b) and (d) provides specifically that each State Party to the Convention shall endeavour to set up within their territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions, and take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage. Likewise, the UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property of 1970 provides that the States parties shall take all appropriate means to control the import or export of cultural property and appropriate measures to seize and return, at the request of the State of origin, any stolen or imported cultural property. These texts lay down the conventional principles whose effectiveness depends upon the capacity or the will of the State to transpose them into domestic law.

This is also the case of the 1976 OAS Convention on the Protection of the Archaeological, Historical, and Artistic Heritage of the American Nations, also known as the Convention of San Salvador which, in article 8, provides in particular that each state is responsible for identifying, registering, protecting, preserving, and safeguarding its cultural heritage, and to encourage the preparation of the rules and legislative provisions required for the effective protection of this heritage from destruction resulting from neglect or inadequate preservation work.

Other international rules, however, can have a greater impact on conservation and restoration. Apart from the non-binding Recommendations issued by international organizations urging States to transpose them into their domestic legislation, the charters and professional codes of conduct and best practice have more direct or immediate effects on the conservation and restoration of cultural property.

A code of conduct governs a particular profession. It is

only indirectly addressed to States and the authorities. Its purpose is to govern professional conduct. It therefore occupies a paramount hierarchical position governing the way in which the members of a profession exercise that profession and their professional commitments. Their principles and rules of conduct do not require any formal recognition or confirmation in national legislation. These principles and rules are the formalized statement of the consensus reached within a structured or organized profession regarding its ethics and professional practice. More often than not, the organization of the profession will be led by an international organization similar to the European Confederation of Conservator-Restorers' Organizations (E.C.C.O.) or the International Council of Museums (I.C.O.M.). ECCO has published *Professional Guidelines* setting out, in particular, a code of professional conduct; ICOM, which has an International Committee for Conservation (ICOM-CC), has drawn up a code of conduct for museums.

The code of professional conduct is therefore the result of a rule-setting power which a profession adopts for its membership. This specific character of ethical conduct in the field of cultural heritage sets codes of conduct apart from charters. Charters issued by international organizations are designed more to regulate an activity concerning one specific category of cultural heritage, rather than the practice of a profession, particularly in relation to conservation and restoration. The provisions laid down by the International Council on Monuments and Sites (ICOMOS) illustrate this dichotomy between codes of conduct and charters. The 1964 ICOMOS International Charter for the Conservation and Restoration of Monuments and Sites, also known as the Venice Charter, for example, is mainly concerned with laying down the principles for conservation and restoration, and only indirectly deals with professional expertise and the practise of the profession. The same applies to the International Charter for the Management of the Archaeological Heritage adopted by ICOMOS in 1990. This dichotomy in terms of the objectives of international codes of conduct versus international Charters therefore has a positive side to it. Both categories of rules are complementary, and both can therefore create a framework for

decision-making regarding conservation and restoration.

Similarly, a code of professional conduct and an international recommendation share a number of common features, in that the latter, being addressed to States, formalize the principles of professional conduct, particularly in relation to the conditions of access to, and the practise of, a profession, and invite States to incorporate these principles into their national legislation.

¹ **Judgment in the Case of Beyeler v. Italy, 5 January 2000**

112. In the instant case the Court considers that the control by the State of the market in works of art is a legitimate aim for the purposes of protecting a country's cultural and artistic heritage. The Court points out in this respect that the national authorities enjoy a certain margin of appreciation in determining what is in the general interest of the community [...].

113. As regards works of art by foreign artists, the Court observes that the Unesco Convention of 1970 accords priority, in certain circumstances, to the ties between works of art and their country of origin (see Article 4 of that convention – paragraph 73 above). It notes, however, that the issue in this case does not concern the return of a work of art to its country of origin. That consideration apart, the Court recognises that, in relation to works of art lawfully on its territory and belonging to the cultural heritage of all nations, it is legitimate for a State to take measures designed to facilitate in the most effective way wide public access to them, in the general interest of universal culture.

² **Kram du 25 janvier 1996 sur la protection du patrimoine culturel**

Article 2 : Le Patrimoine Culturel est constitué des biens culturels créés ou trouvés sur le territoire national.

Article 3 : La présente loi s'applique aux biens culturels meubles et immeubles, qu'ils soient de propriété publique ou privée, dont la protection est d'intérêt public. Sauf disposition contraire de la présente loi, celle-ci ne s'applique qu'aux biens culturels faisant partie du patrimoine national.

Article 4 : Au sens de la présente loi on entend par bien culturel toute œuvre de l'homme et tout produit de la nature ayant un caractère scientifique, historique, artistique ou religieux révélateur d'un certain stade d'évolution d'une civilisation ou de la nature et dont la protection est d'intérêt public.

³ **Testo unico delle disposizioni legislative in materia di beni culturali e ambientali, 1999**

Art. 2. Patrimonio storico, artistico, demo-etno-antropologico, archeologico, archivistico, librario

1) Sono beni culturali disciplinati a norma di questo Titolo:

- a) le cose immobili e mobili che presentano interesse artistico, storico, archeologico, o demo-etno-antropologico;
- b) le cose immobili che, a causa del loro riferimento con la storia politica, militare, della letteratura, dell'arte e della cultura in genere, rivestono un interesse particolarmente importante;
- c) le collezioni o serie di oggetti che, per tradizione, fama e particolari caratteristiche ambientali, rivestono come complesso un eccezionale interesse artistico o storico;
- d) i beni archivistici;
- e) i beni librari.

[2] Sono comprese tra le cose indicate nella lettera a) del primo comma:

- a) le cose che interessano la paleontologia, la preistoria e le primitive civiltà;
- b) le cose di interesse numismatico;
- c) i manoscritti, gli autografi, i carteggi, i documenti notevoli, gli incunaboli, nonché i libri, le stampe, le incisioni aventi carattere di rarità e pregio;
- d) le carte geografiche e gli spartiti musicali aventi carattere di rarità e di pregio artistico o storico;

e) le fotografie con relativi negativi e matrici, aventi carattere di rarità e di pregio artistico o storico;

f) le ville, i parchi e i giardini che abbiano interesse artistico o storico.

[3] Sono comprese tra le collezioni indicate nel primo comma, lettera c), quali testimonianze di rilevanza storico-culturale, le raccolte librarie appartenenti a privati, se di eccezionale interesse culturale.

[4] Sono beni archivistici:

- a) gli archivi e i singoli documenti dello Stato;
- b) gli archivi e i singoli documenti degli enti pubblici;
- c) *gli archivi e i singoli documenti, appartenenti a privati, che rivestono notevole interesse storico.*

[5] Sono beni librari le raccolte librarie delle biblioteche dello Stato e degli enti pubblici, quelle indicate nel terzo comma e, qualunque sia il loro supporto, i beni indicati al secondo comma, lettere c) e d).

[6] Non sono soggette alla disciplina di questo Titolo, a norma del primo comma, lettera a), le opere di autori viventi o la cui esecuzione non risalga ad oltre cinquanta anni.

⁴ **Loi (modifiée) sur les biens culturels au Québec, 1972**

Chapitre premier : Définitions et applications

Interprétation:

1. Dans la présente loi, à moins que le contexte n'indique un sens différent, les expressions et termes suivants signifient ou désignent:

«bien culturel»;

a) «bien culturel»: une œuvre d'art, un bien historique, un monument ou un site historique, un bien ou un site archéologique, une œuvre cinématographique, audio-visuelle, photographique, radiophonique ou télévisuelle;

«œuvre d'art»;

b) «œuvre d'art»: un bien meuble ou immeuble dont la conservation présente d'un point de vue esthétique un intérêt public;

«bien historique»;

c) «bien historique»: tout manuscrit, imprimé, document audio visuel ou objet façonné dont la conservation présente un intérêt historique, à l'exclusion d'un immeuble;

«monument historique»;

d) «monument historique»: immeuble qui présente un intérêt historique par son utilisation ou son architecture;

«site historique»;

e) «site historique»: un lieu où se sont déroulés des événements ayant marqué l'histoire du Québec ou une aire renfermant des biens ou des monuments historiques;

«bien archéologique»;

f) «bien archéologique»: tout bien témoignant de l'occupation humaine préhistorique ou historique;

«site archéologique»;

g) «site archéologique»: lieu où se trouvent des biens archéologiques;

«arrondissement historique»;

h) «arrondissement historique»: un territoire désigné comme tel par le gouvernement en raison de la concentration de monuments ou de sites historiques qu'on y trouve;

«arrondissement naturel»;

i) «arrondissement naturel»: un territoire désigné comme tel par le gouvernement en raison de l'intérêt esthétique, légendaire ou pittoresque que présente son harmonie naturelle;

⁵ **Antiquities and Monuments Act, 1983, Kenya**

Part 1-Preliminary [...]

2. In this Act, except where the context otherwise requires—
“antiquity” means any movable object other than a book or document made in or imported into Kenya before the year 1895, or any human, faunal or floral remains of similar minimum age which may exist in Kenya; [...]
“monument” means:

- an immovable structure built before the year 1895 other than an immovable structure which the Minister may by notice in the Gazette either specifically or by reference to all immovable structures in a specified area declare not to be a monument for the purposes of this act;
- a rock -painting 'caving or inscription made on an immov-

able surface before that year;
 - an earthwork or other immovable object attributable to human activity constructed before the year;
 - a place or immovable structure of any age which being of historical interest 'has been and remains declared by the Minister under section 4 (1) (a) to be a monument; and includes the site thereof and such adjoining land as may be required for maintenance thereof;
 [...] "object of archaeological or palaeontological interest" means antiquity which was in existence before the year 1800;
 [...] "object of historical interest " means an antiquity which came into existence in or after the year 1800;
 [...] "protected object" means:
 - a door or door frame carved in an African or Oriental style before the year 1946;
 - any other object or type of object ,whether or not part of an immovable structure, which being of historical or cultural interest has been and remains declared by the Minister under section 4 (1) (c) to be a protected object.
 [...]

⁶ Decreto nº 80/76 de 3 Setembro 1976 determina a forma de conservação e protecção do patrimonio histórico-cultural do povo angolano

Artigo 3

1 – Todos os organismos públicos ou do Estado, empresas privadas ou pessoas detendo em seu poder peças ou documentos abrangidos pelo artigo 1.º da presente lei, devem prestar a respectiva declaração à Direcção dos Serviços de Museologia até à data de 11 de Novembro 1976.
 2 – Qualquer infração cometida contra o exposto neste artigo implicará confiscação imediata do ou dos objectos em causa.

MINI-CONFERENCES

***Problems face to face:
the experiences
of participants***

The role of teaching and training in improving decision making

DANIELA RUSSO (ITALY) - TRAINING FOR TRAINERS

This presentation underlines the differences between conservator-restorer and 'trainer in conservation and restoration' and illustrates the characteristics. All the participants in the course for trainers in the CCR at La Venaria Reale are conservator-restorers. Each one has to learn how to deal with and master the differences between being a restorer and being a teacher. Each one has to learn the most effective ways to transmit messages within a working group, melding the ideas and concepts of both students and instructors to create a 'virtual debate'.

An important topic that emerged during the course was how to translate personal experiences into models and knowledge; knowledge going beyond simply improving 'good practices', knowledge that assimilates, interprets and communicates.

These values are based on a clear concept of the role of the conservator-restorer (What does a conservator-restorer do? What place does he/she occupy in the conservation and restoration process?). The only way we can transmit this identity to others - along with self-awareness and confidence - is if we can clarify these questions for ourselves.

This important experience underlines how true idea exchange, information, decisions begin with the individual and, consequently, with their interpersonal relationships.

These considerations create a premise for co-operation on a highly professional level, for understanding the importance of the working group, and for viewing conservation and restoration on many levels and with a critical eye to the problems and risks brought by our actions in this field.

JOCelyn CUMMING (NEW ZEALAND) - A

NATIONAL PRESERVATION PROGRAMME, WHAT ROAD TO TAKE

The National Preservation Office, Te Tari Tohu Taonga, was set up by the National Library of New Zealand eight years ago in a bi-cultural context as an outreach preservation service for all cultural heritage institutions holding documentary material. I was appointed as the first National Preservation Officer and although a rationale for the position was explicit, I was given a completely open mandate to devise a national preservation programme. Decisions on how to do this, how to set priorities, were based on a number of issues. Preservation programmes had to be delivered in such a way that the effects were long-term with the maximum dissemination possible. For this reason I decided to establish preservation training at tertiary level by working with existing tertiary institutions. Other decisions involved the provision of workshops on a range of preservation issues, for staff working in cultural institutions. Case studies will highlight this.

Decisions have also had to be made about the most effective types of delivery. What is the role of publications, of seminars, of visits, of assessments? The challenges are enormous and complex. New Zealand has only a few conservators and only a small number working in public collections. The National Preservation Office has a staff of only two people and a small budget. As well as focusing on preservation training within tertiary institutions I have focused on preservation of collections within the larger museums, libraries and archives. This decision was based firstly on the fact that their collections are large and secondly on the fact that increased preservation awareness of staff in large institutions would have a trickle-down effect to smaller institutions. This was a difficult decision to make. Smaller, voluntary run organizations felt they had the greatest needs. This was a view also held by the National Library. However, I have successfully convinced them of my approach and balanced the decision for working at the “higher end” by targeting smaller cultural institutions through special workshops and visits.

The decisions behind the programmes are constantly being reassessed especially with the challenges of digital preservation. Another challenge is also serving the needs of the Pacific Island nations.

Interdisciplinary collaboration

EMMANUELLE CADET (FRANCE) - THE RESTORATION OF THE INTERIOR DECORATIONS IN THE CHURCH OF SAINT-PIERRE IN COULOMBS-EN-VALOIS: A COMMON CASE OF THE FORMER FRENCH LEGISLATION

The church of Saint-Pierre in the village of Coulombs-en-Valois (department of Seine-et-Marne, Ile de France) belongs to a small provincial community and is classified as a historic monument. Gothic decorations (imitation stonework, friezes and figurative scenes) are present in the nave, the choir and the north chapel, in different states of conservation and the majority of them are covered with several layers of chalk.

In 1995, the architect in charge of the restoration of classified monuments in the sector requested a study to be made of the extent of Gothic paintings still covered in the whole church. In 2003, the Regional Directorate of Cultural Affairs (DRAC), delegated by the owner, put the restoration of the church interior out to tender. We created a team of independent conservators, in which our responsibilities were mutually shared, and submitted a tender that was accepted. Work began in May 2005 and a deadline of one year was given to complete the entire restoration of the church interior.

The contract specifications were of a rather general nature and the cost of the operations could only be estimated approximately. During the works, a meeting took place every two weeks with members from most of the parties involved: the architect, a curator and financial controller from DRAC, and a clerk from the local council that owned the church. As the work programme depended on the discovery of the paintings, various proposals were put forward during the initial stages, which were discussed with the stakeholders and implemented according to the budget that had been allocated. Every stage in the restoration of the paintings was linked to the progress of the other complementary operations. This case, however, was governed by the former legislation on historic monuments. As heritage legislation has been amended several times in the last few years and is still evolving rapidly in France, we wonder how this will affect the relationship between the different parties

in making decisions on conservation-restoration treatments in the future.

E. ISABEL MEDINA-GONZALEZ (MEXICO) - NEGOTIATING DECISIONS FOR THE CONSERVATION OF BONAMPAK

Bonampak, a Mayan archaeological site located in southeast Mexico, is famous worldwide for the extraordinary mural paintings that decorate Temple 1. Since their discovery in the 1960s, the conservation of these mural paintings and of the site as a whole, have posed an enormous challenge for Mexican conservators for many reasons, in particular, the conditions imposed by the tropical environment, the growth of jungle vegetation, the natural decay of the buildings, and more recently, the presence of tourism. Making conservation decisions for Bonampak is a complex matter because not only is it part of the largest natural reserve of Central America, but the Lacandonian indigenous population also regard the site as sacred and lay claim to it for political and economic purposes.

During the last two years, the Coordinación Nacional de Conservación del Patrimonio Cultural (INAH), has set up a conservation project at Bonampak, whose aims are twofold: on the one hand, to monitor the conservation condition of the mural paintings using modern scientific techniques; on the other, to develop a management plan that responds to the needs and demands of the various stakeholders involved in the conservation of Bonampak (i.e. security guards, archaeologists, conservators, scientists, nature conservationists, local communities, etc).

In May 2005, an earthquake caused damage both in Temple 1 and other buildings in Bonampak. A group of architects, archaeologists, engineers and archaeological conservators met there to assess the damage and draw up an emergency plan. This was later discussed with lawyers and administrators in order to make an insurance claim as a result of the natural disaster.

This presentation will explain how this interdisciplinary group came to decisions for the formulation of an emergency plan for the site, which was both useful for administrative insurance procedures and compatible with the future conservation and management of Bonampak.

SALWA JORAM (GERMANY) - EUROPEAN PROJECT FOR AN EXHIBITION OF CARPETS AND HANGINGS PLANNED FOR 2009

A woollen hanging from the eighteenth century belongs to the Museum of European Culture. Made of inlaid patchwork, it is one of the rare and not so well known cloth mosaics that were often produced in the Saxon-Silesian region.

These have occasionally been collected for museums since the beginning of the twentieth century.

The hanging is divided into nine large squares, showing scenes from the New Testament. The squares are surrounded by an ornamental frame including eight small circles with scenes from the Old Testament. Since it is made from pieces, cut into shape and sewn together, it is also called 'rag rug' in German.

The main material is woollen cloth, which has sometimes been used for other purposes. Its characteristics make it easy to cut the cloth into the required shape; it can then be sewn together without seams or other supporting fabrics. Finer details in the depicted scenes are enhanced by silk embroidery.

The cloth hanging is an excellent example of European cultural history. Comparable objects in Middle Europe dating from the seventeenth up to the nineteenth century are the subject of current research. Up to now more than forty objects from all over Europe have been found. It is assumed that the techniques applied were used in the Ottoman Empire.

The Museum of European Culture is planning an exhibition in 2008 in which inlaid patchworks from different European countries will be displayed. A working group meeting will be organized next year in preparation for this exhibition.

From the conservation point of view, the most challenging job is to harmonize the different interests of the various exhibit lenders. However, the interests of curators and architects must also be considered.

FERNANDA TOZZO MACHADO (BRAZIL) - RESTORATION OF THE PAINTING 'BARÃO DE ALFENAS' BY NICOLA FACCHINETTI

In 2002 an official inventory was compiled for the city of São Thomé das Letras in the state of Minas Gerais, Brazil,

which included an oil painting of the ancient landowner and patron *Gabriel Junqueira, Barão De Alfenas* painted by the Italian artist Nicola Facchinetti in 1876, and belonging to the First Church of the city. Research was conducted on other works by the same artist at the National Museum of Fine Arts in Rio de Janeiro and in a special exhibition dedicated to Facchinetti in 2004.

The restoration project began in April 2005 and was completed in July 2006. The criteria adopted for the restoration specified the use of synthetic materials resistant to humidity, based on the data received from the laboratory analyses. Both sides of the canvas, the portrait itself and the inscribed painted verso, a typical feature of this artist, were restored using techniques that recovered the badly damaged polychrome colours, preserving its original characteristics.

Conservation versus development

MUSTAFA METIN (TURKEY) - A ROMAN ROAD IN ANKARA

The capital city of the Republic of Turkey was established in the eighth century BC. In the second century BC the Roman Empire invaded and took control over all Anatolian land, and Ankara became the capital of Galatia, a province of the Roman Empire. There were undoubtedly a lot of important Roman buildings in Ankara: the Temple of Augustus, Roman baths, theatre, tombs and roads. I would like to talk about a Roman road, which was excavated by us in 1995 and 1996. The road was constructed with andesite blocks with a pavement on each side; the section of road excavated was fifty metres long and over six metres wide. After the excavation a shopping centre was built over part of the area and a committee was set up to plan a conservation-restoration project, but this came to nothing due to lack of funds. For eight years everybody forgot about the road except for the museum staff, who continued to oversee it. Last year the museum authorities submitted a landscape project to the Heritage Protection Committee in Ankara for the restoration of the Roman road.

The project will be carried out in collaboration with the Archaeology Department of Ankara University. All the parties involved in the project discussed the situation and some disagreement arose between archaeologists and restorers.

The first problem was the treatment of the destroyed sections of the road. There were two proposals: the first to reintegrate the lacunae; the second to preserve the road in its present state. In the first case, there was the problem of what material to choose to reconstruct the road: ancient or modern stone? The choice between the two was not just an aesthetic or philological problem, but also a serious economic issue. Ancient stone would be much more expensive because of transportation costs (one block weighs approximately 2-3 tons).

At the present time, almost ₹ 10.000 is needed for the restoration project and the question of what stone to use still remains undecided.

SATHYABHAMA BADHREENATH (INDIA) - THE GREAT LIVING CHOLA TEMPLES.

The World Heritage monuments, 'The Great Living Chola temples', constructed by the emperors of the Chola dynasty over a span of two hundred years, were inscribed in the list in 2004 as an extension to the Brihadisvara temple at Thanjavur. Large-scale conservation of the Thanjavur temple began around the time of Indian Independence. Their initial efforts succeeded in removing the accretionary structures that had developed over time and maintaining the structural stability of the monument. By the 1980s the temples were basically in tune with their original status.

On their acquiring World Heritage status and by virtue of the conservation works being carried out, the present significance of the temples has undergone changes. The earlier rituals of the temple are now being slowly reinstated and simultaneously it attracts a large number of visitors wanting to view the monument. With the increase of pilgrimage and tourist pressure, a number of challenges have emerged and a consensus approach has been adopted to tackle these issues. The Archaeological Survey of India, which protects the site, is constantly in dialogue with the owner, the erstwhile Raja, and with the District and Religious Endowment Authorities. For example, the continual development of the town around the temple is monitored with the assistance of the District Authorities; the vast complex with its fragile architectural features is subjected to periodic cleaning and monitoring; environmental issues such as pollution are being

addressed and the possibility of diverting the traffic is being considered.

New types of worship and the revival of the old has led to some interventions in the temples, which are not in conflict with its authenticity. In order to facilitate the high flow of visitors, a systematic approach to the sanctum has been devised and more sanitary amenities for the public have been provided. As visitors are not generally allowed to view the Chola paintings in the sanctum of the Thanjavur temple, photographic images are displayed in the Interpretation Centre.

Conserving and managing the three Chola temples is a challenging task because they are living temples whose cultural and social functions must harmonize with the authenticity and integrity of the monuments.

CECILENE MULLER (SOUTH AFRICA) -

BOSCHENDAL: DEVELOPMENT OR CONSERVATION?

The South African Heritage Resources Agency has been mandated by the National Heritage Resources in 1999 to fulfil functions at national level, which include all world heritage sites in South Africa, even if they have been placed on the Tentative List for World Heritage.

Boschendal Estate consists of historic farms dating from the late seventeenth century and forms part of the Cape Winelands Cultural Landscape that has been placed on the Tentative List. The area earmarked for development by the Boschendal Company consists of 2,240 hectares.

Development will take place in two phases: in the first phase four farms amounting to 420 hectares will be consolidated, which will then be sub-divided into eighteen “Founders Estates”, managed as a single agricultural unit cultivating grapes for Boschendal wines; in the second phase. a hotel, retirement village and commercial centre will be developed. The Boschendal Company has promised 270 hectares for community needs, 40 hectares for 500 houses, and economic benefits.

Despite the ad hoc SAHRA Permit Committee reservations about the proposed sub-division of the estate after reviewing HIA documentation, stakeholder input and presentations, SAHRA gave permission for the first phase of the development to commence. These reservations included

the probability that owners of the sub-divisions would be able to develop structures on their properties.

Development would potentially have a negative impact on the cultural and natural heritage of the property. The integrity of the landscape will be affected with the valley potentially being excluded from World Heritage Site listing.

Subsequently, however, the Cape Institute for Architecture and other relevant conservation bodies have appealed against SAHRA’s decision. The institute’s main objection is against the “impacts of the proposed sub-division upon the environment”. The institute is mounting the appeal because the other conservation bodies do not have the resources to lodge a full appeal.

The developer, on the other hand, feels frustrated by the long, drawn-out approval process due to the repeated amendments proposed by different planning bodies, already causing two investors to withdraw from the development scheme.

Thus, although SAHRA has been mandated by the act to identify, manage and conserve heritage resources in South Africa, it also needs to take the socio-economic challenges into account.

NINO ERKOMAISHVILI (GEORGIA) - SITE SELECTION FOR CONSERVATION

Site selection will focus on the Tadzrisi Monastery

Conservation Project. As part of its social and environmental obligations, the Baku-Tbilisi-Ceyhan pipeline construction project (BTC) agreed to research, protect and promote important cultural heritage sites along the pipeline route. BTC therefore funded architectural studies prior to construction works to collect basic data on one hundred and sixty monumental sites near the pipeline (Project phase II) and detailed information on twenty-two of these sites (Project phase III). Three monuments were chosen for the further discussions – Sakire Fortress, Atskuri Fortress and Tadzrisi Monastery. The approach, cost of project, conservation works schedule and safety risks were all taken into consideration. Tadzrisi Monastery, however, lies outside the pipeline corridor (150 m) and was not affected by construction works, but it has been identified by BTC and ICOMOS-Georgia as a candidate for conservation and stabilization.

The selection of the Tadzrisi Monastery site was made for the following reasons:

- Its association with famous individuals in Georgia.
- Its historical significance at a regional and national level.
- The possibility of improving relations with local village residents, who are critical of the BTC project.
- Investment in conservation activities at this site could be a community and cultural development project with positive public relations benefits, if properly promoted, for the local community, Georgians in general, interested governmental agencies and NGOs.
- The site could be an integral component of Georgia's future economic growth strategies, using heritage tourism as a basis for development.
- One of the BTC project heritage commitments is to assist in the preservation of significant cultural properties (World Bank OPN 11.03 Management of cultural properties in bank-financed projects).
- The project schedule was limited to a single field season.
- The cost was reasonable as confirmed by outside experts.
- The project did not represent a huge safety risk.
- Undertakings of this nature help to improve ICOMOS skills.

JUNKO OKAHASHI (JAPAN) - AN INTEGRATED MANAGEMENT PLAN FOR THE KATHMANDU VALLEY WORLD HERITAGE SITE, NEPAL

In the past two decades, the Kathmandu Valley has undergone rapid urban development linked to social, economic and political transformations. The principal reason for this World Heritage Site (inscribed in 1979) to be added on the List of World Heritage in Danger (2003) was the deterioration of urban morphology reflecting the uncontrolled demolition of traditional vernacular buildings and its replacement with modern or neo-vernacular buildings of incompatible shape, size and material. This trend could only be reversed through an adequate implementation of effective legal protective measures, a coherent monitoring system, technical advice given directly to the community, promotion of heritage conservation awareness among community stakeholders, and economic incentives provided by the authorities to encourage the population to continue restoration and main-

tenance of their traditional houses of architectural value. The complexity of this World Heritage property lies in the serial nature of its comprising seven monument zones, located throughout three municipalities and one village development committee, and that different management bodies, including a Royal Trust with its own building/land-use by-laws, look after the sites with different conservation approaches. Therefore, in order that the Government of Nepal might adopt a clearer coordinated/non-fragmented conservation management strategy, an Integrated Management Plan urgently needed to be set up, taking into account the values and management pattern of each monument zone. The necessity for such a Management Plan had been repeatedly stressed during past sessions of the World Heritage Committee, however the complexity of setting up this framework required a realistic coordinated effort, with technical support and a time frame. The first draft of the Integrated Management Plan was finally prepared by the Nepalese authorities between 2005 and 2006 with technical assistance from the World Heritage Centre and its international/local experts. The plan attempts to establish a policy framework for possible adoption in 2007, which encompasses actions that have been proposed by a number of UNESCO missions and World Heritage Committee Decisions in the past ten years as necessary and important for the long-term conservation of the Kathmandu Valley.

VICTORIA OSUAGWU (NIGERIA) - MANAGEMENT AND CONTROL OF TERMITE INFESTATIONS

Termite infestations have occurred at an alarming rate in the National Museum of Port Harcourt, Nigeria, attacking the buildings and other physical structures even before and ever since I became curator-in-charge of the museum in 2001.

This has led to gradual and systematic destruction/defacement of these structures, thereby destroying the aesthetic and historic integrity of the museum environment. Termite infestations have also posed serious challenges to conservation because they attack cultural property/objects in ways that are not easily detectable.

However, several concerted efforts have been made aimed at restricting the rate of infestations to ensure that our col-

lections are not destroyed. These included periodic inspection of collections both in the galleries and storage areas, buildings and surroundings; the treatment of infested areas and replacement of damaged structures. These measures, however, were only temporary and could not effectively resolve the problem at hand. Confronted with this constant damage to the buildings and in order to prevent it spreading to museum collections, it was necessary to seek a more effective approach that would ultimately depend on well-informed conservation decisions.

It was in response to this need that the management of the National Commission for Museums and Monuments organized a two-day practical project on termite management at Port Harcourt in November 2005.

The main objective of this project was to develop a sustainable termite management and control programme that could be used to combat the activities of termites within the immediate and wider environments of the museum collections. Secondly, it was to be adopted as a model to be used in other museums across the country, through informed decisions based on practical investigations.

This presentation is based on the processes of data collection, analysis, evaluation and decision making on the management and control of termite infestation drawn from my experience as a part of the team that worked on the said project.

TUNG NGUYEN THI THANH (VIETNAM) - MAKING CONSERVATION DECISIONS - A DIFFICULT OPTION

In Vietnam, the Ministry of Culture and Information decides what objects should be classified and preserved as cultural heritage. In order for a monument to be restored and rehabilitated, a project must be planned and submitted for approval by an authorized governmental department on condition that the restoration project fully respects the original state of the monument.

The biggest challenge we have to face when making a conservation decision is the conflict between conservation and development. Some people think old buildings represent poverty and underdevelopment, as in the case of traditional houses in Vietnam. Old buildings rarely satisfy new demands and functions, so that replacing old for new seems to be an

easy solution. This is the case with Long Bien Bridge in Hanoi, which was built in the 1900s and seriously destroyed during the war. It used to be the symbol of Hanoi, but now it cannot bear the weight of heavy vehicles. Some want to replace it with a new bridge that will serve as a gateway to Hanoi, while others want to preserve it and build another bridge nearby. It is still an ongoing debate. The most critical issue when making conservation decisions is the cost. The annual budget for conservation works is always insufficient. Priorities are set based on the importance of the monument in question, which is again defined by the Ministry of Culture and Information depending on the condition, value and impact on economic and social life. Funds for conservation may be made available for cultural properties, especially those at risk of collapse; others must wait or seek grants from other sources.

Making a conservation decision is often very time-consuming; in the meantime, a monument in a precarious condition may collapse. The bureaucratic procedures may contribute to the premature demise of many valuable monuments. These are challenges that developing countries have to face when making conservation decisions.

Using decision-making models: advantages or disadvantages?

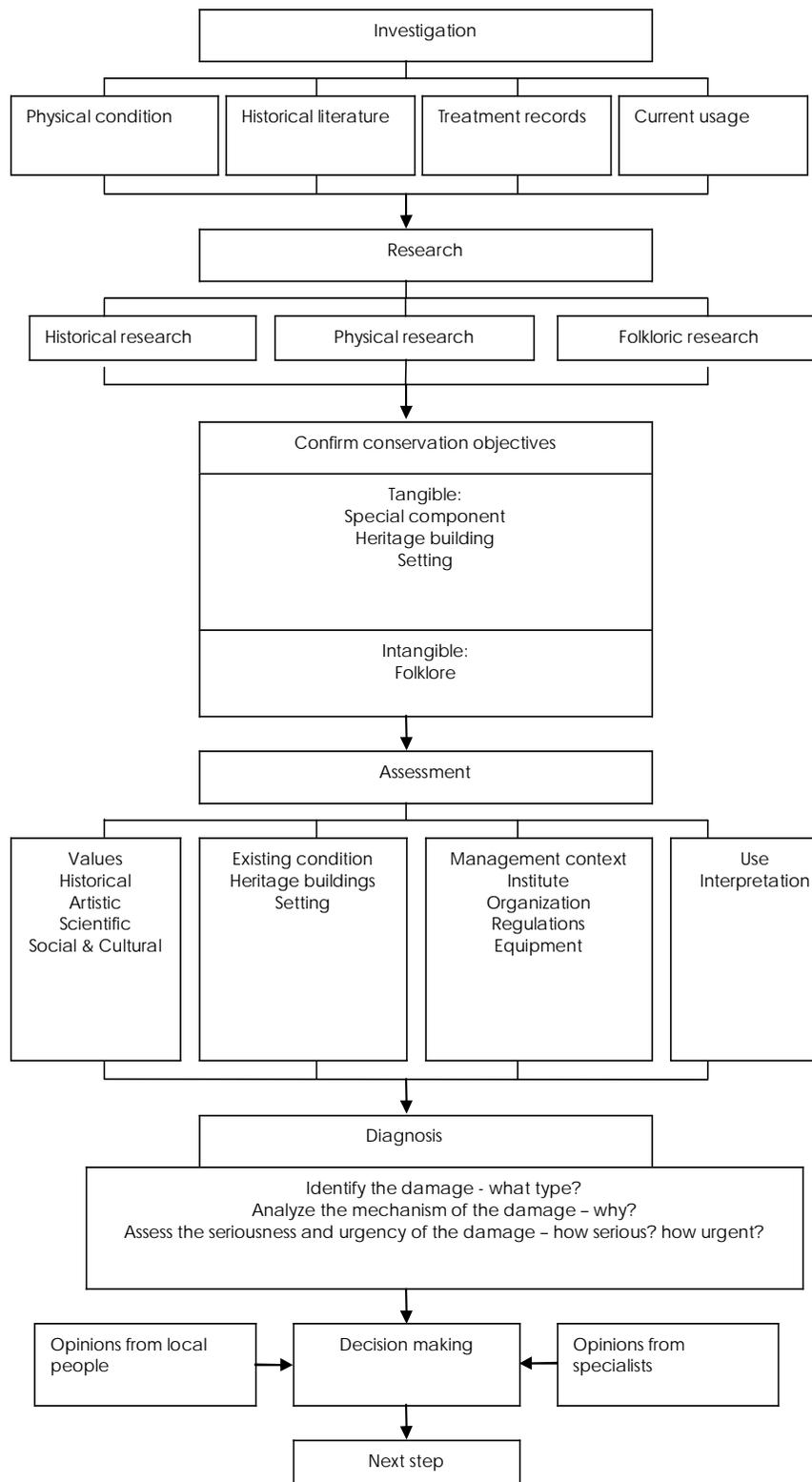
WEI QING (CHINA) - A RECENT CONSERVATION PROJECT OF AN ANCIENT TEMPLE IN CHINA ILLUSTRATES THE DECISION-MAKING PROCESS IN OUR INSTITUTE

Case study

Xixi temple is located in Lingchuan County, Shanxi Province, in a small town in China. It has one of the oldest wood structures in our country. My colleagues and I spent about one year working out the restoration plan and the conservation master plan for this heritage site. For this project, we devised a flow chart based on our practical experience. A brief introduction will explain the concept and one specific example will be used to discuss the decision-making process in detail.

Flow chart

The chart below, which focuses on decision making, forms part of our study framework for conservation projects.



WASKO JOANNA (POLAND) - MAKING CONSERVATION DECISIONS FOR A MODERN SCULPTURE "SOIL KNIGHT" BY POLISH ARTIST MARIUSZ KRUK

Modern art works present new problems for museums and conservators. The process of making conservation decisions for modern art is more complicated than for traditional art, often because of the diverse characteristics. The significance of non-traditional works of art is not always clear and

straightforward; the materials used are often untypical, delicate and liable to deteriorate more rapidly; objects may be composed of many different elements, installations, non-material features etc.

This all influences and changes the standard procedures for conservation decision making. The approach for modern art introduces a new set of criteria:

detailed examination of the object, identification of materials and technology used, collection of information from producers, determination of the meaning of a work by interviewing the artist; condition and discrepancy reports.

To illustrate the differences in approach to conservation decision making, the conservation-restoration treatment of Mariusz

Kruk's "Soil Knight" sculpture will be examined. This is a full-size standing sculpture with a framework made of thin welded reinforced bars. The sculptural form is created by a gypsum crust

strengthened with glued on grey soil. A new layer of soil is added each time the artist displays the work in an exhibition.

The main conservation problem of "Soil Knight" was the destabilization of the sculpture caused by deep cracks in the soil-gypsum crust, making it impossible for the sculpture to stand up by itself. The

main aim of the restoration treatment was

to stop any further deterioration of the work and to restore its form and function as a 'mutating' sculpture. It was crucial to examine the sculpture carefully, to obtain specific data from the artist about it, and to devise a method of stabilizing the work and strengthening the cracked crust.

HELEN HUGHES (UNITED KINGDOM) - THE LITTLE CASTLE AT BOLSOVER: CONSERVING DISCIPLINARY BOUNDARIES RATHER THAN CONSERVING BUILDINGS? A CASE STUDY.

The Little Castle is one of the most intriguing buildings in Britain. Conceived at the end of the Elizabethan era as a fake Gothic castle and completed as Renaissance classicism was being introduced by Inigo Jones.

My research brief issued in 1990 was short and simple 'Establish the original decoration of the major rooms with the Little Castle at Bolsover and suggest alternative presentations'. This instruction failed to explain that the current presentation of the interiors had been something of an embarrassment since it was carried out in 1976 when the interiors of this important building had been treated in a very heavy-handed way – panelling stripped or over-painted. Even fifteen years later there was a reluctance to discuss what had happened.

My research revealed that at that time much of the problem was poor communication between all parties involved (curators, conservators and decorators). This was compounded by the fact that the architectural historian had worked mainly from documents and stylistic analysis rather than a detailed inspection of the fabric.

My research methodology for determining the biography of historic interiors is based on the integrated analysis of the documentation and archaeological analysis incorporating architectural paint research.

The historian working on the building was reluctant to share information and did not assist me in my research. By piecing together clues from documents and physical evidence, and

dating from material analysis, I was able to provide a biography of the building, to reveal the extent of the loss of original evidence in 1976 and to provide a series of conservation and redecoration options, providing advice on what was ethically acceptable and what was technically possible.

I was then asked to direct and supervise the works programme. The Little Castle reopened to acclaim. The representation was hailed as 'sumptuous and intelligent'.

However, despite the fact that my proposals were accepted and executed under my direction there was reluctance from within my organization to publish my account. It was suggested I deliver my 'art historical discoveries' to the 'Bolsover expert' and publish 'my technical data' in a conservation journal.

KSENJA SKARIC (CROATIA) - THE POLYCHROME WOODCARVINGS OF THE CHURCH OF OUR LADY OF JERUSALEM IN TRSKI VRH

The great pilgrimage church of Our Lady of Jerusalem and its enclosure wall in Trski Vrh is one of the most exquisite examples of Baroque architecture in northern Croatia. The interior decoration, including a wall painting, five altarpieces, a pulpit and an organ, was built in less than twenty years between 1758 and 1777, which explains its extraordinary artistic unity.

In the spring of 2006, research was carried out on the painted and gilded woodcarvings, in order to work out a proposal for conservation treatment. Soon it became clear

KSENJA SKARIC The arguments *for* and *against* removing the overpainting,

FOR	AGAINST
<p>Expectations from project sponsors (a major conservation operation is more popular).</p> <p>Expectations from the local community (a major conservation operation is preferred).</p> <p>Colour unity with the wall painting.</p> <p>A sculpture from the main altar has already been restored, from which the overpainting was removed.</p> <p>The organ case has been restored.</p> <p>The painter-gilder of the original colouring is known, as well as the date of the painting.</p> <p>The original layer is well preserved in most parts.</p> <p>Many parts that used to be marbled are now monochrome.</p>	<p>It is possible to find other sponsors.</p> <p>Professional standards (minimal intervention is preferred).</p> <p>The wall painting has not yet been investigated.</p> <p>There is a wall painting on part of one of the altars, which probably dates from the same time as the overpainting on the wooden sections.</p> <p>Lack of fully qualified personnel to proceed with the other woodcarvings in the same way.</p> <p>The organ case has been restored in a rather non-professional way.</p> <p>The painter-gilder and date of the overpainting is known.</p> <p>The original layer under the gilding has not been preserved.</p> <p>The paint layers are in a stable condition.</p>

that the main difference of opinion about future treatment was the issue of whether to remove the overpainting or not. The table below lists the arguments *for* and *against* removing the overpainting, based on the premise that recognizing a problem is the first step in the decision-making process. Since this is an on-going project, the decision about removing the overpainting has not yet been made. We expect to formulate a proposal for the conservation treatment by the end of 2006.

DAVID JUANES BARBER (SPAIN) - SCIENTIFIC STUDIES IN CONSERVATION DECISIONS

In the 1950s and 1960s in France, Germany and Italy, collaboration began to take place between scientists and others responsible for cultural heritage - archaeologists, historians and conservators - to enable them to obtain the maximum information possible on the object/property in question. Stylistic considerations, aesthetic aspects/values and extensive documentary research were backed up by scientific studies to give as complete a vision as possible of the constituent materials, techniques of execution and past restoration treatments of the works under study. On the basis of this information, the selection of the most appropri-

ate conservation-restoration treatments and of the optimum environmental conditions for display and long-term preservation would be made.

However, there is a tendency to use analytical studies for monitoring all the tasks involved in the conservation process, such as the evaluation of the current condition of the work of art, the control of the restoration process, the conditions of storage and exhibition, and the evolution of the cultural heritage over time. This is a major undertaking that must be carried out with the collaboration of all the professionals involved in cultural heritage (conservators, restorers, scientists, historians, etc).

restoration painting process by Juan Conchillos (17th century) and, finally the comparison of two panels by Pieter Coecke (16th century).

Participants and lecturers



CHAPTER IV

THE OBJECT AND ITS CONTEXT

Introduction

ROSALIA VAROLI-PIAZZA

The object and its context

Being a farmer means knowing how to mix the clods of earth with the clouds.

Curzio Malaparte, *Maledetti toscani*, 1956

history [from the Latin *historia*, 'finding out, narrative, inquiry'] The aggregate of past events or human affairs, which emerge from a critical investigation meant to ascertain the truth in these and the reciprocal connections allowing for the recognition of a unity in their development (thus defined, history is juxtaposed to chronicle, which is non-critical exposition of a simple chronological succession)...

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chronicle [from the Latin *chron?ca*, 'annals, chronicles'... 'of time'] Narration of facts presented in a chronological succession (without any attempt at interpretation or critique of the events), which constitutes the primitive form of historical narration and is consequently found at the initial historiography of all populations, later acquiring particular importance during the Middle Ages.

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An object - large or small, moveable or immovable, made from organic or inorganic materials cannot be considered in isolation, removed from its context, tangible or intangible that it may be. When the object was commissioned, conceived and created it was done in relation to its maker (human being or machine). It then lived in a context, and now, at the point it relives in our consciousness, it establishes new relationships with its new public. All these form a nexus of experiences layered and woven into time, a set of relationships that fall to the historian, to the conservator-restorer, to the scientist - or anyone else with the will and capacity - to investigate.

A great figure in art history, Henri Focillon, insisted that 'History is not...comparable to a river that would carry events and the debris from events at the same speed and in the same direction. What we call history is precisely the diversity and inequality found in its currents'¹.

History and not chronicle: not a mere listing of the facts, but a **critical act** not only in the choice of the objects but most of all in the explanation of the phenomenon, in a search for the relationships and the experiences that are layered

between one another and that have reached us, in that moment when we make them live once again, when we *recognize* that object in our consciousness '...history cannot be made without critique, and critical judgement does not assure the artistic 'quality' of a work if not for the fact that it recognizes that it is put, through a series of relationships, in a specific historical situation and in the context of art history in general'².

The methods and the criteria for investigating and researching history are thus applied to art history, moving beyond a generic, and at times sentimental literary description to a true science: '*art history is the only possible science of art*'³. Forty years after Argan's writings, another great thinker, Marc Augé also poses the problem of history: this time, he denounces the fear of losing this human dimension, without which everything would be much more formidable. 'Today, an ideology of the present rages throughout the planet, and there is evidence that it parallels an effort in thinking of **the present** as history because it is working to make the lessons of the past obsolete along with any desire to imagine a future'⁴.

We must return to exercising, and to the capacity to exercise, our critical activity, without diverging and reaching super specializations that only further isolate the object, the monument or the fragment of fabric. Instead, we must contextualize it in its ancient and present history. If we look at the word **context**⁵ [in medieval Latin *texere* - to weave], its meaning is exactly what history does: it *weaves* one thing with another, by means of one or more individuals, until it arrives at us, face to face with our consciousness.

The more we divide objects up among themselves, the more we remove them from their context, the more we alienate them from their history, rendering them more and more incomprehensible. Where will their messages go? Where will their values be? Like us, they will live an unstable existence resulting from our uncertain present.

New problems are raised by the conservation and restoration of contemporary objects and of ethnographic artefacts. These objects have no past history, and only a **recent context**. We addressed these types of problems in an ethnographic context: 'the issue was raised whether to preserve

people and their traditions, or objects, or both, and how. This discussion was linked to a panel on '**use and conservation**': a red thread linked the same problem we face with contemporary art (Should we ask the artist to intervene, re-make, re-store? What are the legal problems if the object is the property of a public Institution?). It is also a possible way for conservator-restorers to take into consideration the traditional way of acting and, in some cases, the traditional material⁶. At this point we addressed the conservation and restoration of a *crèche*⁷, an object that can belong to the realm of antiquities or that can be part of contemporary tradition. This tradition can still be found in places such as Naples, and as an object it can be restored in a 'traditional' manner, as in the Museum of San Martino in Naples, or in a way that solves some of its past 'compromises', as was done for the *crèche* from Imperia at the ICR laboratories in Rome.

When we embark into study or research, do we begin with the object or the context? Each one of us probably begins with a point consonant with our education. Sooner or later, we all arrive at the same point: the careful observation of the object; we look at it, we describe it, we mentally analyze it using optical tools, with instruments and tools from the natural sciences. In the end, we interpret it along with all gathered data and we compare it to other similar or dissimilar objects. Each one of us begins at a different point: there are those who begin with the shape, those who start with the colour, those who concentrate on any sounds⁸, or on the emotions – whether intellectual or not – that are aroused in us. There are others who also grasp another vitally important aspect in any discussion about context; something that is of the utmost importance and quite ordinary at the same time: the **light**. This is perhaps one of the most difficult factors to 'capture', given the speed at which it mutates. Consequently, it is equally as difficult to repropose it when monuments are reconstructed, or even worse, when the context surrounding the monument is destroyed. Equally elusive are museum installations where the object is not only out of context, but surrounded by new and perhaps completely arbitrary parameters of height, distance and illumination.

In an unforgettable paragraph, still very pertinent today, Gombrich helps us understand the importance of light for paintings: *'The National Gallery in London has now become the centre of discussions on how many adjustments we should be ready to make when viewing an antique painting [...] From this we can infer that the restorers, in their difficult and responsible work, must be apprised not only on the chemistry of the pigments, but also on the psychology of perception – ours and that of hens. What we are asking them to do is not to bring the pigments back to their original colours, but something infinitely more delicate and clever – to conserve their (internal) relationships. Especially the impression of light, which we know depends exclusively on the relationship between colours, and not as one would expect, on the brilliance of the colours'*⁹.

Dewey's thoughts on the matter are also illuminating and in his chapter on *The Human Being*, he states '...anyone who sets about to write on the philosophy of art...' is 'obliged to reconstruct the continuity between the works of art, and the facts, the actions and the daily passions that are universally recognized as elements of the experience. Mountain peaks do not float in a void, nor are they simply placed on the earth. They are the earth in one of its manifestations'¹⁰. I believe that this course has reaffirmed that diversity is a wealth of viewpoints, but also, of contents. Reality, whether it is object or context, can offer a multitude of dimensions to investigate, which transform with time and place.

¹ Focillon, *L'histoire de l'art, Les Sciences Sociales en France, Enseignement et Recherche*, preface by C. Bouglé, Paris 193 :163.

² Argan, *La storia dell'arte*, cit, p. 6.

³ *ibid.*

⁴ Marc Augé, *Dittatura dell'incerto presente*, Festival della Filosofia, Rome, May 2006.

⁵ Context: 1. the parts of something written or spoken that immediately precede and follow a word or passage and clarify its meaning: the context of the sentence, take a word out of context... from the Latin *contextus*, from *con-* 'together' + *texere* 'to weave.' Oxford American Dictionaries.

⁶ R. Varoli-Piazza in ICOM CC Theory and History, Newsletter 2007.

⁷ *Infra*, Mercalli, Kusch, Valenzuela.

⁸ Especially for literary, poetic and musical texts.

⁹ Ernst H. Gombrich, *Art and Illusion*, New York 1960, 54-55 (From C. Brandi, *Teoria del Restauro* 1963: 73).

¹⁰ John Dewey, *Art as Experience* (1934), edition consulted NY 2005: 3-4.

MARIAN A. KAMINITZ
**Conservation
and living cultures**

INTRODUCTION

“Living culture is preserved and transmitted through its continued social practice.”¹ “By working closely and cooperatively with the relevant communities,” museums and national organizations can be key partners in the “presentation, preservation, protection and transmission”² of their intangible, and by extension, tangible, cultural heritage. This was Richard Kurin’s premise in his keynote speech, “Museums and Intangible Heritage: Culture Dead or Alive?” presented at the 21st ICOM General Assembly held in Seoul, South Korea in 2004. Specifically, he stated,

*“Intangible heritage is by definition living, vital and embedded in ongoing social relationships. ... In museums, objects become part of collections and reside under the roof and the authority of the museum. With intangible cultural heritage, the traditions exist outside the museum, in the community. They reside under the authority of the people who practice them. ... According to the new [UNESCO] Convention, they [people] must have the major role in defining their own intangible cultural heritage and how it is documented, preserved, recognized, presented, transmitted, and legally protected”*³.

NATIONAL MUSEUM OF THE AMERICAN INDIAN (NMAI) METHODOLOGY

Through its mission statement (NMAI 2007) and day-to-day practical work, the NMAI supports the indigenous peoples of the Western Hemisphere by giving them cultural ownership of their own past; enabling them to state who they are in the present; and empowering them to move towards the future by taking lead roles in conceptualizing and planning programs, curating exhibits, and collaborating with museum staff to conserve their cultural items for public display or community use.

At NMAI, sharing conservation decisions with indigenous community cultural representatives has ensured that intangible cultural knowledge is recognized, reinforced, preserved and sustained while the tangible evidence of this knowl-

edge – cultural materials – are conserved and restored in keeping with cultural protocols. This has proven to be advantageous to all parties involved. Prior work published by Kaminitz, Kentta, and Bridges, (2005) illustrates two case studies:

- 1) a loan of ceremonial regalia to the Siletz community;
- 2) a collaboration with a Passamaquody boat builder to conserve and structurally stabilize a Passamaquody birch-bark canoe in the NMAI collection.

Noting the positive social outcomes of interaction with the NMAI, Robert Kentta (Siletz) and David Moses Bridges (Passamaquody) attested to changes in their communities, citing the reclamation of intangible cultural traditions that were brought about through using and preserving tangible cultural heritage.

Referencing the impact of Siletz tribal history, from the United States Government’s designation in 1954 as legally extinct, to federal recognition in 1997, to the 1996 celebration of their dances for the first time in 80 years, Kentta, the Cultural Resources Director for the Confederated Tribes of Siletz Indians of Oregon, said the following.

“The youngest dancers at the dance house dedication will not grow up with the sense of interruption that tribal members even a few years older will never forget. They will be just as the first generations brought into the Siletz Reservation in 1856. They will never be able to imagine a time when the dances weren’t going on as a full ceremony, or at a time when the ceremonies didn’t have a home.”(Kentta 2005)

Bridges, a traditional artist and birch-bark canoe maker, noted a significant, intangible cultural impact brought about by the resurgence of birch-bark canoe making in the Wabanaki tribal communities of Northern Maine:

*“The [canoe building] programs that originated with the openings created by that initial consultation with the Smithsonian have become a community force that will insure the cultural survival of our nation. Once again we gather and work together, speak among friends and share what we have. Our collective efforts preserve the unity and foster a broader yet community based understanding that is so rare in this world and through this we are whole again”*⁴.

HAMSAML RAVEN MASK

A more complex collaborative project involving authenticity, tangible and intangible cultural heritage and protocols, and legally regulated materials was the conservation and renewal of a Hamsaml Raven Mask in the NMAI's collection, made ca. 1910, from the Kwakwaka'wakw community of Alert Bay, British Columbia, Canada (Fig. 1). During a visit to the NMAI in 2004, Barb Cranmer, the Kwakwaka'wakw community curator, and William Wasden (Wa), Kwakwaka'wakw artist and consultant, discussed this mask for inclusion in the NMAI's recent exhibit, "Listening to Our Ancestors: the Art of Native Life along the North Pacific Coast". The mask would be depicted as danced at a potlatch (Fig. 2).



Fig. 1 - Hamsaml mask, National Museum of the American Indian. Before treatment. Photo: NMAI conservation department 2004.



Fig. 2 - Edward Curtis photograph from the Smithsonian Institution Libraries showing a Hamsaml mask on a crouching dancer as it would be danced in a potlatch. Edward S. Curtis, *The North American Indian*, portfolio volume 10, plate 336, Kotsuis and Hohhuq - Nakoaktok.

AUTHENTICITY

The NMAI Hamsaml mask's construction and features indicated to Barb and William that it was made by Mungo Martin (1881-1962), an important Kwakwaka'wakw carver and artist. However, based on their knowledge of Mungo

Martin's fine work which used the traditional red and white cedar bark for top 'hair', twisted cedar bark for side edging and cedar bark for the skirt, they questioned the authenticity of these elements on the NMAI mask. The different level of craftsmanship and materials – top 'hair' made from red and white yarn, fabric edging, and a cloth skirt, all nailed and tied onto the wooden mask structure – indicated to them that these features were perhaps applied by someone other than Mungo Martin. They asked if the yarn and fabric could be taken off and replaced with new cedar bark and if the insect damaged eagle feathers could be replaced with new ones. (Cranmer and Wasden 2004)

The mask was examined by an NMAI conservator for evidence that the yarn and fabric were later additions. In all places that could be visually examined, only the twisted fabric outlining the edges of the mask was determined to have been a replacement. The yarn 'hair' "was a discreet element secured on its own framework, and ...the fabric skirt was constructed and attached in the same manner as a cedar bark skirt"⁵. There were numerous large wood screws that Wa stated would not have been used by Mungo Martin. The mask had been repainted – the white paint which normally would have been the under layer, was applied over the black lines. Repainting, refurbishment or replacement of any damaged or worn components is standard Kwakwaka'wakw cultural practice when preparing masks to be danced⁶.

Additionally, an expert in Kwakwaka'wakw culture concluded that the methods of construction were in keeping with those of Mungo Martin. Numerous construction details: the use of leather hinges at the base of the mask, a metal rod inside the beak for the rigging support, and the general sense of haste in construction were further indicators of Mungo's work. The use of alternating red and white yarns to mimic dyed and undyed cedar bark and the fabric skirt showed that the work was "done by someone well-versed in Kwakwaka'wakw mask-making traditions"⁷. Although not formally attributed to Mungo Martin, the possibility that the mask was made by him added another layer of complexity to determining with Barb an appropriate and culturally relevant course of action for its renewal⁸.

RESPECTING CULTURAL PROTOCOLS

Dancing a mask in poor condition is not culturally appropriate for potlatch dances which are events imbued with layers of intangible cultural practices such as cultural protocols, permissions, privileges, and propriety. In the Kwakwaka'wakw social structure the privilege of dancing a particular mask is acquired through marriage and kinship⁹. Barb Cranmer and her family hold such rights and privileges to the NMAI Hamsaml mask. In the exhibition catalog, she wrote, "Our ceremonial regalia and masks connect us to our ancestral roots and make us a distinct people"¹⁰. With this cultural background in mind and numerous conversations with Barb, museum curators, and conservators, three possible courses of action were proposed by NMAI:

Leave the mask alone as a work most likely done by Mungo Martin. Replace the insect-eaten feathers with new feathers; tidy and clean the yarn elements. Place new cedar bark over the original side fabric edging and existing fabric skirt. Replace all fabric, yarn and feather elements with new cedar bark and feathers. Retain the original materials at the museum with complete documentation of the original and the process of renewing the mask¹¹.

LEGALLY REGULATED MATERIALS

A final aspect of determining the mask's renewal process involved the replacement of the deteriorated eagle feathers. In the United States, the use of eagle feathers is restricted by the federal government legislation (U.S. Fish and Wildlife Service 1940). While there is a mechanism for the use of eagle feathers by Native American tribes, the replacement would be carried out on an item owned by a federally funded museum. Furthermore, the tribe in question resides in Canada, not the United States. These legal complications were added into the equation of what to do with the mask.

COMMUNITY RESPONSE AND DIRECTION

Barb responded back to the museum that her community felt only a complete replacement of all of the fabric, yarn, and feather elements was acceptable. She reiterated "that no mask would be danced in the Hamsaml mask's current condition...each piece would be brought to the best condition before it would be danced"¹². Instead of using new eagle feathers to replace the old, NMAI was allowed to use

white turkey feathers painted to replicate eagle feathers. November 8-9, 2005, Kevin Cranmer, Kwakwaka'wakw artist and cousin to Barb Cranmer, came to work on renewing the Hamsaml mask¹³. Replacement red and white cedar bark hair, skirts and twisted rope had been made and sent by Donna Cranmer, Barb's sister. Deteriorated elements, eagle feathers, yarn and cloth that were part of the mask when it was collected in 1947, were removed, retained and carefully labeled. Beneath the removed materials, empty nail holes were revealed that indicated the mask had been renewed in the past¹⁴. As new cedar bark and imitation eagle feathers were attached to the mask, Kevin told stories, answered questions and sang traditional songs. At the end of the process, he sang more songs for the workers and the mask (Fig. 3).



Fig. 3a - Kevin Cranmer singing songs while renewal of the Hamsaml mask was being completed. Conservation intern Steve Tamayo, Lakota, (left background) and Senior Objects Conservator Jessica Johnson (right foreground) worked with Kevin on the renewal of the mask.



Fig. 3b - Kevin Cranmer singing songs while renewal of the Hamsaml mask was being completed. Conservation intern Steve Tamayo, Lakota, (left background) and Senior Objects Conservator Jessica Johnson (right foreground) worked with Kevin on the renewal of the mask. Photos: NMAI conservation department, 2005.

CULTURAL AND INSTITUTIONAL PERSPECTIVES

From the cultural standpoint, to Barb it was natural and imperative to renew the mask (Fig. 4). It was interesting to

her that it took so many meetings and conversations with NMAI staff to decide to renew the mask.

*“Dancing is not only a right and a privilege for us. It is an obligation. ...Performing our dances is not just a chance to show off. It is one of the ways that we carry on our responsibilities as Kwakwaka’wakw”*¹⁵.

As the National Museum of the American Indian, when honoring community requests, we must also consider museum-related issues, such as safeguarding the materials removed from a possible Mungo Martin mask. Furthermore, rarely would we deliberately remove accessioned material and replace it with new. Learning in the process that the removed materials were probably later refurbishments helped balance that reasoning. The requested level of renewal for this mask exceeded previous collaborative conservation treatments and gave an opportunity to reassess what the purpose of the mask was for all parties. It brought the discussion back into a larger realm of the NMAI mission, “The Museum works to support the continuance of culture, traditional values, and transitions in contemporary Native life”¹⁶.



Fig. 4 - Hamsaml mask, National Museum of the American Indian. After treatment. Photo: NMAI photo services department, 2005.

CONCLUSION

Working through the complexities of collaborative conservation treatments with living cultures offers great rewards. The process brings together different essential requirements for the Museum and the Native community to achieve a common goal – to support and enhance the development, maintenance, and perpetuation of Native cultures and communities, and preserve the tangible materials and intangible

aspects of indigenous community values and cultural relevance.

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¹ Kurin, 2004: 4.

² Kurin, 2004: 1.

³ Richard Kurin’s premise in his keynote speech, “Museums and Intangible Heritage: Culture Dead or Alive?” presented at the 21st Cranmer 2005: 59.

³ Richard Kurin’s premise in his keynote speech, “Museums and Intangible Heritage: Culture Dead or Alive?” presented at the 21st ICOM General Assembly held in Seoul, South Korea in 2004 : 2.

⁴ Bridges 2005.

⁵ Chang and Heald 2005: 14.

- 6 Cranmer and Wasden 2004.
 7 Chang and Heald 2005: 15.
 8 *ibid.*
 9 Suttles 1991.
 10 Cranmer 2005: 59.
 11 Chang and Heald 2005: 15.
 12 *ibid.*
 13 Cobb 2005.
 14 Cobb 2007.
 15 Powell et al., 1991: 31.
 16 NMAI 2007.

KARIN HERMERÉN

Use and conservation of contemporary art

1. INTRODUCTION

The works of the art we encounter in public places can be placed outdoors, indoors, on the wall or be free-standing, movable or non-movable. They can be made of materials that will not last, or be placed in a bad, changing or degradable environment. The measures taken to preserve them depend on ownership and strategies for action. There are also other protagonists apart from the owner, such as the artist, the public or the relatives of the artist, who may have different opinions on if and how it should be conserved. Contemporary art poses new questions for conservation concerning legal aspects, ethics and values. To be able to preserve art the artist may have to become involved, but an essential question is also how to integrate the preservation of public art in the community, making people in charge understand that today's modern art will be tomorrow's cultural heritage.

2. CONTEMPORARY ART AND PUBLIC PLACES

2.1. CONTEMPORARY ART

Contemporary art can be made of traditional materials like stone or bronze, as well as of actually *any* other material such as plastic, blood, excrement or chocolate, all of them offering expressive opportunities for the artists. However, they also offer new challenges for conservators and others whose roles are to maintain, sustain and stabilize art (Phillips 2002: 3)¹. Moreover, contemporary artists can use different materials in unexpected ways, combining them in a non-traditional manner or using them in a new context. The result may be anything from a one-time installation with long-lasting materials to a sculpture made of parts that deteriorate quickly, making the contemporary work of art more temporary than perhaps planned. These new challenges of preservation have been discussed extensively. Materials research is carried out at many institutions and networks between conservators, artists and manufacturers are developing and expanding. Questionnaires are prepared for artists to respond to if they are still alive. Legal and ethical matters are discussed and new models for decision making are produced.

2.2. PUBLIC ART AND PUBLIC PLACES

Contemporary art can also be public art, depending on who owns it and how it is sited. A public place is a place that offers the general public more or less free access. It may be a focal point of public interest as in the case of a specific building or it may be quite anonymous as in the case of a small park.

Outdoor public places belong to everyone and no one, as does any work of art placed in them. This may pose a problem when it comes to the maintenance and long-term preservation of outdoor art, but it may also be an advantage if the public is involved. Public places are also contemporary. Time and the environment change them gradually. If the surroundings of a work of art, designed for a particular space, change beyond recognition from their original state, it may be questionable as to whether it is correct to preserve the work of art in that particular place or whether it would be better maintained if moved elsewhere. Changing the artist's intention could have legal implications. The problems regarding conservation and long-term preservation of contemporary art, whether in public places or not, differ according to size, movability, ownership, legal regulations and placement. Indoors, the contemporary work of art is usually movable, and the problems that concern material and conservation are of a legal and ethical nature. Outdoors, the contemporary work of art is usually immovable, and the problems are of a specific environmental and long-term maintenance nature.

3. CONTEMPORARY ART AND INDOOR PUBLIC PLACES

3.1. IS IT POSSIBLE TO CHANGE AND REMAKE PARTS OF CONTEMPORARY WORKS OF ART?

In 2003, Kulturmagasinet, the museum of Helsingborg, Sweden, acquired a work by David Svensson, an artist interested in light and space, and different kinds of optical phenomena. For a few years, part of these explorations involved making paintings without supports, i.e. no linen, canvas or wood. Instead, he spread long bands of acrylic paints on the floor. When they had dried, he wove them together into a web that was then mounted on a wooden frame, usually made of oak, or sometimes stretched over a wooden support. The work "Screen" ("Skärmvägg"), mounted on a wooden frame, was painted in 2001 and measures 229 x 360 cm. It was exhibited immediately after being purchased. Quite soon during the exhibition, it was noted that

the whole web was far too heavy for the construction to support it, consequently it bulged at the base and some of the bands looked as if they were going to break. It would have been easy just to make fillings with paint and strengthen the construction, or even better, to replace a few of the bands, but this would have raised some legal and ethical issues about what a conservator may or may not do (cf. 3.4.).

3.2. LEGAL ASPECTS²

Usually "restoration is undertaken in order to maintain the integrity of the work as initially conceived"³ or as it was created by the artist. If an old work of art is damaged, the conservation is usually straightforward, meaning that the damaged part is conserved and restored. However, as already stated, contemporary art poses other kinds of problems. Its physical identity may change, even suddenly, in a short space of time because of the materials used or because it was designed to exist for only a limited time span. The immaterial identity of it, what it "is" or "means", may also change, due to the changing context in which we regard it⁴. Conserving contemporary art may mean renovating, replacing or remaking parts of it, as with the above-mentioned "Screen". But in doing so, how do we know whether we are respecting the artist's intention? Some materials in contemporary art deteriorate quickly. The deterioration or change in appearance of the work of art may be part of the artist's original idea, but then how do we know if it really was the artist's original intention or whether he has changed his mind over time? If the latter were true, would that matter? If we try to preserve the work of art by restoring it, is it the form, material, idea or other things that matter? Doing the wrong thing, even with the best of intentions, may mean violating the artistic intention or the artist's good name, which are both protected by copyright law through the artist's right of integrity (*droit d'auteur*). The law says that the artist has the right "... to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honour or reputation"⁵. The law is based on the assumption that the personality of the artist is reflected in his or her work of art, and that the originator of the work therefore should be protected against material or immaterial exploitation and name attribution and integrity, the latter of concern for restoration⁶. If the artist objects to modifications, or to a

restoration made by a conservator, and if the artist's intentions have become known, it might indeed be said that restoration amounts to violation of the artist's right of integrity, as restoration then alters the intended appearance of the work⁷.

3.3. ETHICAL ASPECTS

When a contemporary work of art is to be conserved, the ethical aspects concerning intervention, material and method may differ from the conservation of an older work of art⁸. In old art, as long as the representation is preserved, intervention with regard to the material characteristics of the work does not have to take place at the expense of the meaning of the work of art. In contemporary art, meanings are mostly specific to the artist (or object) in question. Materials and techniques also carry their own meaning. The less traditional the material used is, the more it contributes to the meaning of the work⁹. If conservation is done in the wrong way, there is a risk that the meaning of the work of art is changed or damaged. If parts of the work have to be changed in order to preserve it, this would mean that we have to choose between different values, such as the original traces of the artist's hand or the conceptual meaning of a material and its treatment. This raises questions concerning identity and intention. If the identity of a work of art lies in the material, it would be easy to replace a certain amount of the original work as long as the same kind of material was used. But what if, after some time, all parts of the work of art are replaced, as could well occur with "Screen" (see 3.1.)? Would we still consider it the same work of art? If identity is created by the artist's hand, that is, the original work of art as it was left by the artist, then a minimum of intervention or even "doing nothing" may be an option for conservation. If identity is provided by the artist's intention, any conservation treatment could be used as long as the artistic intention is respected. But other considerations have to be taken into account:

- a) How do we know or decide what the original appearance of the work of art was? Both the object and its surroundings keep changing.
- b) How do we know or decide what the artist's intention was? We know continuously more and more, as does the artist. The question "how do you now think you thought at that time?" could be difficult for anyone to answer.
- c) If we manage to master (a) and (b) – what will follow con-

cerning appearance, content, value and what do we do with this knowledge?

Different decision-making models have developed to serve as new codes of ethics for the conservation of contemporary art, e.g. that of Ernst van de Wetering¹⁰. Before treatment, consideration should be given not only to material and immaterial data, but also to any discrepancies between its condition and meaning. Aesthetic factors, authenticity, historicity, functionality and the artist's opinions are taken into account to lessen the discrepancy and determine the different conservation options. The consequences and risks that the treatment will have for the meaning of the work are analyzed. Information, collected systematically and written down, facilitates the long-term preservation for us and for future generations. It helps when discussing future costs with purchasers and owners, and when preparing what measures to take if the work of art deteriorates or is damaged. It also raises awareness of artistic intention as well as of ethical and legal questions amongst the general public.

3.4. CONSERVATION OF "SCREEN"

Before any conservation treatment started on "Screen" (see 3.1.), the artist was invited to the museum in Helsingborg to answer questions about the materials and techniques he had used, his reasons for choosing them, his opinions on conservation treatments (materials and methods), whether he considered change as damage, the preservation of value, and considerations on authenticity, functionality and aesthetic values. As with many artists, he was not very interested in spending much time on something he had already completed, but it interested him to take part in the discussion about the long-term preservation, and the respect for his work that it signified. For the artist, it was far more important to keep the original appearance and materials of the work than who performed the task of making and gluing the colour bands. In other words, he was happy to let the conservators do it. So even if there was no actual need for re-making bands of acrylic paint, it was sufficient to re-stretch and reattach the web to its wooden frame. The artist's opinion on how it should be done and when, with what and how it should look, what is important and what is not, has now been recorded for future reference.

4. CONTEMPORARY ART AND OUTDOOR PUBLIC PLACES

4.1. LONG-TERM MAINTENANCE OF PUBLIC ART IN PUBLIC PLACES

As stated in 2.2., any work of art placed in an outdoor public place belongs to everyone and no one. This makes special demands on the people in charge of its long-term maintenance and consistency in preservation programmes.

It is necessary to have a strategy with well-defined needs, what treatments should be given priority, and with an organization to take care of the operational work. It is also necessary to have a plan for unforeseen damage and long-term preservation. The first part of that plan could be to identify future needs (by studying city-planning, the material of the work of art, etc.) and to prioritise them and the actions that need to be taken. The second part would then be to identify who is affected by the actions taken, whether there might be a conflict of interests between the different parties (general public, artist, conservator), what responsibilities or rights each party has, and how they might cooperate. The third part would be to implement long-term strategic maintenance and also examine the possibilities of raising funds to sponsor it. Sometimes, more unconventional methods could be used. There was an appeal in the local newspaper of a Swedish town to “adopt” a public work of art, to take responsibility for its “wellbeing”, report graffiti, damage and other things. It was possible to choose a sculpture of one’s own. In the first twenty-four hours, the newspaper received more than two hundred responses. Public art usually lives an anonymous life, but this example shows that there is a latent interest in these issues. Conservators, artists, politicians and other people involved have to work with dialogue, education and media, and also share responsibilities with new groups of people to involve others in the conservation of art in public places.

4.2. PUBLIC PLACES IN CHANGE

As already stated in 2.1., a public place is also contemporary. Time may change its content. If a work of art was made for a particular place, and this place changes (destruction of surrounding buildings, new use of the environment, etc.), the artist has to show that his/her right of integrity has been violated, that the changes alter the intended appearance of the work. This could be hard to prove, but considering this could be part of

an overall strategic plan for long-term preservation.

5. USE AND CONSERVATION

The heading of this paper, the relationship between “use and conservation”, implicates some kind of clash of interests, which are not always easy to unite. “Conservation” is guided by certain (or someone’s) interests, while “use” combines with and is partly guided by other factors (availability, democracy, cultural/political purposes, etc.). The works of art in a museum are, for instance, protected against the aggressive effects of daylight and UV radiation. The public may complain about poor lighting, while the conservators would opt for even less light for the sake of material durability. In this case, the opinion of the conservators, the preservation of the works and the possibility for future generations to see them are prioritised. In the word “use”, there are certain values that the user or purchaser wants to promote or achieve, such as knowledge of the artist or of art history, beauty, well-being, partnership, justice, solidarity, creation, openness, transparency and effectiveness. In order to make a decision that will satisfy all parties, it is important to have as much knowledge as possible, and to know exactly which values are to be prioritised and who makes the decisions. Identifying different issues and addressing them independently will help us to discover contradictions and will also help to improve future practical conservation methods and long-term maintenance of works of art.

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¹ Phillips, Patricia C. (2002): 3–8.

² Dreier, Thomas (1995) : 105–123.

³ *ibid.*: 105.

⁴ *ibid.*: 120.

⁵ *ibid.*: 112.

⁶ *ibid.*: 107.

⁷ *ibid.*: 122.

⁸ The word ‘ethical’, or ‘ethics’, suggests a set of standards by which a particular group or community decides to regulate its behaviour – to distinguish what is legitimate or acceptable in pursuit of their aims from what is not.

⁹ Foundation for the Conservation of Modern Art 1999: 164.

¹⁰ Foundation for the Conservation of Modern Art 1999: 164–165.

SIMON WARRACK

Involving the local community in the decision-making process: the German Apsara Project at Angkor Wat

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The GACP (German Apsara Conservation Project) has been working at Angkor Wat for more than ten years and the first aim has been the conservation of the decayed sandstone surfaces of the carvings that render this massive temple so unique. The decay of the exposed sandstone, in some parts of the temple, has caused the complete loss of the carving and the results of the research carried out under the supervision of the Project Director Prof. Dr. Hans Leisen of the University of Applied Science, Cologne have enabled the staff of the project to develop specific methods and materials for the conservation of the sandstone.

While the main mandate of the project is the conservation of the sandstone reliefs and the training of the local staff, at the same time, given the fact that this temple is still in use and is therefore a living site, a special component of the project has been the involvement of the local community in the conservation process and therefore in the decision-making process. It was their ancestors who created the temple, and since they have a deep reverence for these ancestors, it is only natural that this facet of the site should be an integral part of the whole conservation process. This short paper will examine the lessons learnt in sharing the conservation experience in a culture very different from that of the project specialists with the stakeholders and will in particular tell the story of a conservation operation of a very significant religious object inside the Temple of Angkor Wat, the statue of Ta Reach.

As every conservator knows every site and every object has to be treated in its own context and in a way specific to its requirements and this is never truer than in the context of working with communities. In this case the conservators are working with a community that is part of a culture from the other side of the world, which means that particular care has to be taken to study and analyse the context that is

alien to our own and precautions have to be taken.

In working with a community like this in a culture that is so different from our own it is very important to transmit the right messages to the members of the community right from the beginning, so an elementary awareness of local traditions and taboos is essential.

For instance in the specific case of Cambodia it is important to take off one's shoes before entering a home and not to touch children's heads. These are easy mistakes to make and are innocent but while the local people will almost always be too polite to reprove you for your "impoliteness" it alienates you further from the people and reduces the possibility of true dialogue. It is a good idea to always try and accept, and enjoy, the food and drink that is offered and to accept invitations for dinner or other forms of hospitality. It is important to smile and never get angry and indeed one thing that Europeans find particularly difficult is to slow down, to respect the way that the local people will approach a question in what might seem a very roundabout way and above all to respect and enjoy silence. Often there may be long pauses and silences between a question asked and the answer and Europeans find these pauses difficult and often try and prompt or rephrase the question. It took a long time to learn to wait but once we had learned we found that we were greatly respected for this capacity and even told that maybe in a previous life we had come from Cambodia. It is advisable to dress casually but not sloppily, otherwise they will respect you less, but also not too formally otherwise they will feel alienated. However, you should also remember that you are from another culture; this is how you will be perceived and for them you actually represent that other culture. There is no sense in trying to pretend you are something you are not and they will not respect you for it. They will respect you for listening. An elementary knowledge of some words in the local language is important since it shows that you are making an effort but at the same time it is also extremely important to have a translator who you can trust. They do not necessarily have to be experts in the field of conservation, in fact, sometimes it is better to have a translator who knows nothing about your subject since then they will not add anything

of their own. In a number of countries I have found that with translators who are well versed in conservation practices, they tend to put in a great deal of their own knowledge in the translation and consequently do not directly transmit what you are saying.

In the specific case of working with the community in Cambodia we have the good fortune of having been there for more than ten years and this has helped us build up the trust and friendship that is essential to this process. The first phase of the project was the formation of a team of workers who we would train as conservators and this early stage was absolutely crucial since, in a developing country with little resources, the possibility of training and employment has a special value. We were working on a site that was near a small village (Bakong near Rolous) and while we were given some staff by the conservation authorities we were careful to ensure that we would be working with the people from the village in a significant way. So we met the village leaders and involved them in the recruitment process. The village leaders not only know who are the best workers in the community but also who has a greater need, and they ensured that a good cross section of the village was included in the team and we actually ended up employing the village leader himself as well. This ensured that there was an immediate tangible economic benefit to the local community and made them very supportive. This, in turn, meant that the site was better protected since it became the source of income and welfare to the community and as the increased conservation activity was also accompanied by an increase in the amount of international visitors, it meant that there was a knock-on effect and the rest of the community also benefited since they were able to sell more local produce and souvenirs. In the early stages of the programme there was still poor security and a risk of looting but this was greatly reduced once the local community became involved, since they had a vested interest in protecting the monuments that now represented the source of their economic, as well as their spiritual, welfare.

This first selection process was carried out in 1994 (on behalf of the Royal Angkor Foundation, directed by HE Janos Jelen from Hungary) and the team was created for

the conservation of the Temples at Preah Ko in the district of Rolous, which is about 20 km to the east of Angkor. In 1997 Prof. Dr. Hans Leisen and the GACP took over and, while work continued at Rolous on a reduced scale, new research and conservation activities were begun at Angkor Wat. When the new team was formed for the work at Angkor everyone who we had trained since 1994 was given the opportunity to join even though it was quite far to travel from Rolous to Angkor (given the state of the roads in 1997). A significant number of them joined the Angkor Project and formed the core of a new team. Many members of the first group from 1994 work with the GACP to this day and some of their children have also joined as trainees. So there is a strong community basis to the team that has, in a way, also given the European conservators the possibility of joining the local community and therefore of gaining a level of trust that is essential in the sharing of decisions and the preparation of conservation programmes. One of the more significant operations carried out from this point of view was the conservation and restoration of the statue of Ta Reach, which stands in the West Gate of the Temple of Angkor Wat. This is a nearly four-metre-tall stone figure with eight arms, which is said by many to represent Vishnu. Research has since shown that this is unlikely and that the statue is more probably a Lokeshvara from a later period; but regardless of this, the statue was clearly a very important part of the local spiritual life, so when the technicians of the GACP were requested by the Heritage Authorities (APSARA Authority) to survey the state of preservation of the statue following the appearance of cracks in the shoulder, one of the first activities that was carried out, in tandem with the scientific research, was making contact with the local spiritual leaders. Every day gifts and donations are made to the statue and our team told us that this was the most venerated of all the statues in the temple, so it was clearly essential to involve the local people in the decision-making process from the outset since this was such an important part of their spiritual community. We went with a number of friends out to the villages near the temple where the local spiritual leaders live and there we learnt that this statue was not only venerated by the

Buddhists but, more importantly, it was part of a more ancient animist cult called Neak Ta, which involves the worship of the spirits and the ancestors. This statue represents the King of the ancestors and spirits. While every house and village has its own little Neak Ta shrine, this statue is the focal point of the whole Neak Ta cult and every Cambodian visiting the temple will always stop and pray before it and make a donation. Simple folk might leave three or five sticks of incense while more prosperous businessmen might leave whole roast pigs in order to ensure good fortune in investments. As couples prepare for the marriage ceremony they will always stop and pray here and people even rub the ankles of the statue to bring luck in the National Lottery.

However we were not only concerned in gleaning knowledge but, given the importance of this statue to all of them, we also wanted to know how they felt about us carrying out a conservation/restoration operation on such a sacred object. Was it correct for us to touch it, or to dismantle broken parts and also would they approve of the removal of the cement replica head and the return of the original that we had found in the cellars of the Royal Palace in Phnom Penh?

They were surprised to be consulted, and very happy, and gave us a great deal of advice as to how we should approach the conservation operation. They were concerned that we should limit the drilling of holes for pins and dowels as far as possible since this might be offensive, for obvious reasons, and we assured them that we expected to carry out very little since there were many original holes created during a sixteenth century restoration which we intended to use again. Three of the arms of the statue were presently made of concrete from a previous restoration in the 1980s and were damaging the original stone, as were the rusting iron dowels inside them. They agreed that this “alien” material should be removed and requested that we make new arms out of the local sandstone, which was more authentic, local and was thus imbued with the spirits of the ancestors. This type of integration is not always approved of by European conservators since it is often seen as a falsification or replica and in most museums new arms would not be carved and attached to an ancient stat-

ue. However, in this case, the statue is a piece of living heritage that is in use, so the situation is different. It would have been totally against the will of the community to remove the arms and leave the statue with these evident lacunae and so we agreed to include the attachment of new arms in local sandstone in our proposal. They also asked us, as far as possible, to use other natural materials. Given that we were evidently making compromises, they too were willing to compromise, which was why they always stated that we should “as far as possible” use local materials. We were able to respect this not only for the sandstone of the arms but also in the case of the consolidation of the lacquer that covered much of the surface of the statue, since we had found someone who was still producing the lacquer in the original way. However, we were obliged to use epoxy resin for the attachment of the heavy fragments and we reinforced them with stainless steel or fibreglass dowels. Finally we agreed to erect special scaffolding that gave access to worshippers at all stages of the conservation operation, having programmed the latter so that it fell between the most important festivals of the Neak Ta calendar. At the end of one of these village meetings the local leader (or Achar) invited us to attend a ceremony, which was being held the next day in front of the sanctuary. This ceremony revolves around a man who acts as a medium for the spirit that is embodied by the statue and in the course of the ceremony he goes into a trance. While he is in this trance, a woman whispers in his ear and tells him what is happening in the community and he reacts accordingly. To our surprise we found, from our friends who were translating, that the woman was telling the King of the Ancestors and Spirits what we intended to do to him, including the fact that we were going to remove three of his arms and his head. He immediately became very disturbed and began to cry until she whispered again in his ear that we were going to give him new arms that would make him stronger and were going to bring back his original head. So we were now not only including the local community in the decision-making process but also the local deities. Fortunately they approved and he became greatly reassured and even joyous and began to dance.

One of the more serious problems associated with this conservation programme was due to an administrative anomaly. When the Angkor Archaeological Park was inscribed on the World Heritage List a special authority was created, by Royal Decree, to manage the site. This well-intentioned idea, however, had the effect of removing the management and administration of the Angkor Site from the Ministry of Culture and Fine Arts, which then found itself in charge of all the heritage in Cambodia bar Angkor. Clearly this did not bode for a good working relationship between the two institutions.

Our problems lay in the fact that prior to the formation of the APSARA Authority, the head of the statue of Ta Reach had been removed to Phnom Penh for security reasons and had been deposited in a box below the throne room of the Royal Palace, which is outside the area administrated by the APSARA Authority and falls under the auspices of the Ministry of Culture and Fine Arts. We found ourselves in a situation where the body was under the APSARA Authority and the head was under the Ministry. In this delicate situation we, as Foreign Consultants decided that the most correct way to proceed was to remain firmly within our technical field. This heritage was all Cambodian and the decisions had to be taken by the Cambodians, so it was essential that there should be no sign of any foreign intervention or pressure on either party. We therefore prepared three proposals, all of which were technically feasible, and presented them for approval to all the authorities. Only one of these proposals included the return of the original head, the others proposed the conservation of the concrete head or the removal of the damaging concrete and the presentation of the lacuna. We expressed no clear preference or opinion except that we, as technicians and guests at Angkor, were willing to carry out whichever technical proposal the authorities decided to choose.

At the same time the word was spreading among the local communities that the statue of Ta Reach was to get his head back and in a period prior to local elections this became an important issue. Suddenly none of the politicians wanted to be seen as the one who had refused to return the head of the most important statue in the country to its rightful place.

Permission was granted.

It was granted because of the key role played by the local people and it was also returned because we made a very clear statement to the National Authorities that they were the key protagonists in the decision-making process.

Obviously we encouraged them in a certain direction by the way in which we proposed the restoration work, but they were definitely involved and essential to the whole decision-making process from the beginning to the end and this was greatly appreciated. Furthermore, the way we had made the proposals absolutely reflected the wishes of the local spiritual community and was our way of genuinely involving them in the decision-making process.

The operation of the transfer of the head from Phnom Penh to Angkor was shrouded in secrecy since none of the authorities wanted anyone to know that such a valuable object was being transferred across the country by road. In fact, we were only told that we would be able to act when it had already arrived in the APSARA Authority Depot and that, at that point, we would have to reattach it the next morning. We were duly informed one Saturday night that it had arrived: we had already prepared the scaffolding and loosened the concrete head so that this operation could be carried out quickly and the next morning we set off at six with a military escort.

However, when we arrived at the West Gate we were all surprised to find that there were more than two hundred people sitting in front of the sanctuary where they had prepared altars, a choir of Buddhist monks and a small orchestra to welcome the returning head. The various authorities accused each other of leaking the news, but the fact is that there is no such thing as a secret in Angkor and the locals had been informed, probably by a guard in the depot, and had spent the whole night preparing the ceremony. The head was removed from its packaging and perfumed and blessed as were all the people attending the ceremony. We were more than happy to take part in this whole process because at that moment it was very clear that the piece was no longer anything to do with us or any of the authorities, but was the property of the stakeholders who had turned out in force to see it returned at last.

It was the first artefact to be actually returned to the site and it is hoped that this highly successful operation will now be followed by others since it is a sign that there is security and effective management at the site. The return of the head and the restoration of the statue brought a noticeable increase in the veneration of the statue and we followed up the operation with a series of meetings with the community to assess the impact and to keep them involved in the process. They are definitely very happy about the restoration and say that there has been an impact on the community at various levels. The people who already took an active role in the veneration of the statue are, of course, happy and have prepared new vestments and altars to permit the correct worship by more people, but they also told us that the younger people in the village have a revived interest due to the fact that so much attention has been focused on this operation, not just by local authorities but also international agencies.

Finally they told us why the medium, who had so impressed us in the early ceremony, had not been present at the return of the head. It transpired that, in spite of his qualities as a medium, he had not known that it was coming back on that day and had been in the neighbouring province in Battambang where he had been booked to carry out a Neak Ta ceremony. He had been shocked to find that for the first time in his life that he was unable to go into a state of trance and he was very worried that he had lost the capacity to embody the spirit until he returned to Angkor and discovered that the ceremony for the return of the head had been held at the same time, so evidently Ta Reach had chosen to attend that ceremony rather than his less important one in Battambang.

The repercussions of this particular conservation operation have not only been positive for the local community but also for the GACP. While the quality of the conservation science of the project has earned international recognition in the conservation world this special operation, backed by the technical solidity of the project, gave the reputation of the project an added boost. The involvement of the local community has permitted the GACP to create an effective conservation team with a high sense of loyalty to the proj-

ect and has had a noticeable impact on their careers and professional lives as well as their credibility within the community. The team are always part of the conservation decision-making process and are now in a phase in which they are being prepared for a much greater degree of independence from the International Consultants. There is no doubt that the programme would have been less successful without the degree of involvement and sharing among all parties that characterised the evolution of the project; and in the specific case of the restoration of the statue of Ta Reach, the success of the restoration programme actually hinged on the involvement of the Cambodians in the decision-making process at every level from the villages right across to the Ministries.

MONICA MARTELLI CASTALDI

New criteria for the maintenance of cultural heritage

INTRODUCTION

Searching for a general definition of “*maintenance*”, all descriptions use few repeated and clear terms: the *process* of preserving something, *preventive measures* to avoid failure, the *provision* of financial support...

It is interesting that the three basic issues without which any preservation or protection of cultural heritage can be ever done, are clearly highlighted by the three terms, so frequently used in the above definitions: maintenance is a *process* that has to consider *preventive measures* and needs constant economic *provision*. Moreover, the synonyms (prolongation, support, provision, periodic operations) and antonyms (break-down, discontinuation, neglect) for ‘maintenance’ continue to enhance the idea of *continuity*, which, as we will see later, is the only possible path to follow. Maintenance has always been part of human life; any object or structure, even the human body, needs to be kept in good condition, to make it possible to continue using it.

The modern concept of maintenance was developed for industry, but even the definitions pertaining to this are quite enlightening as a way to approach our heritage¹: the word *care* and *systematic inspection* are used, and the important concept of *limit* is introduced by the idea of “maintaining in *satisfactory* operating conditions”, which implies that it is acceptable and reasonable that human endeavours are weak when confronted with the slow continuous hazards of natural decay. Maintenance has been introduced into cultural heritage conservation in the last forty years, to be later followed by the concept of *preventive conservation*. Not much can be found on the matter of general principles; there are many papers, discussions, reports and methods, but they refer to specific materials or objects. Most of the available information concerns three main categories: architecture, paper and books, and to a lesser extent, musical instruments. Even in official international documents (charters, recommendations, treaties, etc.), maintenance and preventive conservation are mainly

envisaged in relation to monuments and architectural conservation². Today, however, preventive conservation is a leading issue in all branches of cultural heritage. Useful scientific and technical knowledge continues to increase but is often incorporated slowly or incorrectly into current practice, or not at all. Despite the best intentions, museums and institutions may apply unrealistic standards, guidelines, or lists of best practices with no clear sense of priority, or of realistic expected benefits. With limited resources, decision makers are immediately confronted with difficult choices in planning conservation strategies³.

MAINTENANCE IMPLIES A COLLECTION OF PROCESSES TO HELP KEEP AN ORGANISM ALIVE

Special objects exhibited in special museums do not represent common cases of cultural heritage. There is no point in discussing theoretical parameters that have to be respected, or situations in which adequate environmental and climatic conditions can be easily created. We want to analyse the possibilities of ensuring the survival and transmission of cultural objects under widespread everyday conditions. Most countries have a clear understanding of their cultural patrimony but the possibilities of protecting it are always restricted by complicated political, bureaucratic and economic factors that, in the opinion of conservation professionals, inevitably lead to careless decision making.

The minimum measures to be taken to protect cultural heritage must be sustained by public institutions and have to take into consideration that the funds made available by governments for the preservation of cultural heritage are generally and unfortunately insufficient, with no exception.

Other workable solutions have to be found for the professionals involved in the field. Curators, conservator-restorers and architects responsible for the restoration of a monument, or even archaeologists or art historians, need to know there is a way of safeguarding the precious objects they deal with everyday, which are of historical importance to the country and, at the same time, a valuable means of explaining the past to children and students, building up their identity. A heritage object is aged, and given that man’s weaknesses have never changed over time, we can very probably assume that it has experienced a difficult journey. Therefore it is not only a

metaphor to compare it with a human being who, in his old age, still has some resources but lacks the stamina of youth. Conservation of cultural heritage has to be carried out in a modest way with self-effacing interventions. Like elderly people, cultural objects or monuments need to be *escorted* during their lives and guaranteed prevention, presence and continuity, in order to detect and anticipate possible problems and be able to intervene if necessary. While this is still possible in a protected context (museums, churches, public buildings, etc.), it would be naive to expect the same for a monument or object exposed to natural elements in an open-air environment.

In archaeological sites knowledge and methods of conservation face a real challenge. Preventive measures are often only interesting theories; modern materials and instruments may be ineffective or of no use at all. Human experience and intuition play a crucial role in this case. Being in contact with the object every day creates a close relationship, a subtle delicate space in which the real needs become clear and prominent.

Continual observation under diverse climatic conditions allows conservator-restorers to understand priorities and choose the simplest solutions. The only method that can ensure the survival of any cultural object is being there, observing, and ready to intervene. In recent years, fortunately, most of the important projects related to the preservation of cultural heritage have explored the wide range of issues that must be taken into account, and have begun to involve, from the very start, the different disciplines that can contribute to resolving the problems. But, for less significant works, this is still unusual and has not yet become current practice.

HOW TO PROCEED

The principal issue is to **know the object in question in depth**. Observing and understanding as much as possible about the way an object has been constructed and the technique of execution, is fundamental for any type of artefact or monument, whatever its dimension. If we can identify the original materials and how they were combined and used, we will be able to detect the exact position and action of the decay inside the object and, consequently, intervene at the right level, with minimal measures and in an effective way. If the treatment is carried out in this way, it may be considered

durable, and will age together with the object becoming an integral part of it without creating stress.

Interdisciplinarity is needed to be able to gain a comprehensive knowledge of the object, as well as obtain a clear conception of the conservation work required. This does not necessarily mean that a long and costly diagnostic phase is required, but it is important to recognize that scientific assessment is necessary. In the case of large collections, and complex monuments or sites, an interdisciplinary team will allow initial decisions on various issues to be made in the best way; the results will then be reproduced and used in other similar situations.

There are, however, some variables to be taken into consideration when making conservation decisions such as the diverse exposure to atmospheric agents, the uneven movement of waters above and below ground, the orientation of masonry structures with respect to the sun, as well as the presence of restoration materials used in previous treatment operations. Works will have to be planned with these possible particular circumstances in mind.

The second important issue is to **understand the causes of the decay**. In order to do this, the forms and effects of deterioration have to be carefully observed under diverse climatic conditions and at different times of the day. The analysis of these will determine whether the process of decay is still active or whether it has stabilized. The possibility of comparing the object with former images, recorded descriptions or other forms of documentation from the past is vital, because this can give a clear idea of the evolution of the decay and will help identify the most likely causes. Observation must be constant and any changes regularly monitored especially in case of large complexes (collections, sites, palaces, etc.). Regular inspections are useful not only to update the above information but also to intervene without delay.

Cultural properties need **immediate help to avoid further damage**. If the deteriorating process is active, the next step is to identify the easiest and most economical way to eliminate or contain the source of decay. At the same time, the stabilization of fragile areas and reinforcement of constituent materials is essential. The object in question will then react more positively to any further deteriorating action. These procedures

imply using materials and techniques that are the same as or compatible with the original ones, and creating continuity by integrating repaired areas with original surfaces. As emergency or maintenance programmes go hand in hand with the removal of the causes of deterioration, the work must be done rapidly and efficiently using materials and methods that do not create complications for future restoration works. Reversibility is not just a rule to apply, it is a constant thought that accompanies the daily preparation of materials and determines how they are applied. The process of stabilizing the object in emergency protects it from further damage but also helps to gain time, creating a breathing space for planning a more comprehensive and long-term conservation programme. One of the obstacles of this *modus operandi* is the **legacy left by previous conservation treatments**. They were generally carried out with the intention of achieving a long-lasting result, countering any effects from weathering and strengthening the object. These criteria were certainly wrong. The only possibility of ensuring a long-term conservation treatment is by making it as compatible as possible with the original material; in other words, a matter of weakening rather than strengthening. Treated areas must be allowed to behave in the same way as the original surrounding surface. The whole entity has to be reinforced, if possible, but with materials and methods that respect the chemical and physical properties of its individual components, and are compatible with the deteriorating factors that the object will continue to be exposed to. Old conservation treatments frequently create problems, because they were not envisaged as something that strictly depends on the object, together with the context in which it subsists. Miracle treatments do not exist; the quality of a conservator-restorer lies in his/her ability to treat the object with humility, not to overindulge it but listen to its needs. Once the object has been studied and the origins of decay have been detected, it is important to **identify the priorities**. Several factors come into play and it is important to set *primary criteria*: intrinsic value of the surface (particular techniques employed, artistic or historic value of the decoration), risk of loss, level of seriousness of the decay, risks connected with the presence of visitors (danger for the visitors, or caused by them to decorative features or objects). Then *secondary*

criteria come into play: presence or absence of roof coverings, safety measures in storage facilities (intervention on sheltered surfaces is less urgent); special types of risk (broken gutters, structural collapse, water infiltration, pests, etc.); coordination with other teams or consultants' activities (taking advantage of existing scaffolding for other works); climatic factors that require changes in programme and management, delaying works; general economies to reduce costs e.g. moving materials, etc.⁴

We are aware that the ideal solution for the object is almost impossible to achieve. We can do our best for the overall context in which it is placed, but we will certainly have to make compromises. Economic factors, time, and responsibilities for the final decisions are also key elements that oblige us to opt for the least risky decision.

Bearing all this in mind we have a choice of actions that can be made. One alternative is to **consider the possibility of a more efficient allocation of funds**. Emergency treatments followed by continuous care, if done according to specific criteria, can be a valid policy to ensure the preservation of large collections, monuments or archaeological sites. This could be an important new way of conceiving conservation even though the distribution of labour and materials needs to be carefully monitored⁵. In the case of extensive conservation-restoration works, it is essential to start with an accurate analysis of the object and its surrounding context. The conservation solutions will have to take into account the need for enhancement and optimum use on the part of the public. Maintenance and/or emergency works also need good planning, but this has to be swift as there is no time for contemplation when the object in question is seriously endangered. Estimates must be quickly prepared, analyzing the work load according to the number of working hours or square metres to have an idea of the overall cost, time required and type of expert personnel needed. From the managerial point of view, maintenance or emergency works and continuous care in general may not seem necessarily advantageous. Although less costly than a total restoration programme, they still involve considerable financial outlay (works management as well as qualified personnel for control, supervision, etc.) However, much can be achieved in this way even though the results are not easily

detectable in the short term. The only way for this system to be valid is to ensure a continuous presence for an extensive period, until the object adapts to its new stability, and the institutions in charge become accustomed to a new way of spending resources.

THE INTERNATIONAL CONTEXT

In 2001, following a study on the responsibilities of professionals, a text on *Recommendations and guidelines for the adoption of common principles regarding the conservation-restoration of cultural heritage in Europe* was published⁶. The European professional body of conservator-restorers, E.C.C.O.⁷, highlighted eight essential steps to be considered in any conservation-restoration programme. For each one of these steps (maintenance is one of them) a decision has to be made, responsibility has to be assigned and economic provision must be ensured. The document establishes a sound base not restricted to any specific material or field, embracing all the processes of preserving an object or monument, including preventive measures and maintenance, and integrating restoration principles into conservation and value-enhancement projects (cf. Appendix II).

As mentioned in the introduction, maintenance is a *process* that needs *continuity*. We must be aware that the whole notion of protection of cultural heritage is ineffective if it does not have adequate legislative support. No prevention, conservation or restoration treatment is useful unless a subsequent programme of *continuous care* has been planned. This should become mandatory for any institution or professional involved in the preservation of cultural heritage; it should become a *way of life*. The European context illustrates the importance of having a common basis for the protection and conservation of cultural heritage as well as the vital role played by the professionals in charge of conservation works. The *European Union* adopts regulations that can be directly applied in member states, as well as directives that must be incorporated into domestic law by member states within a certain time span. The distribution of powers between member states and the European Union is expressed in the subsidiarity principle: the powers that have not been delegated to the European Union continue to be exercised by member states, considering that the objectives of the envisaged activities will be better

achieved by each individual state than at EU level. The cultural domain and, more particularly, the measures to protect and enhance the value of the cultural heritage thus fall within the sphere of each individual state. On the other hand, European Community legislation enforces standards that directly influence the professional practices of the conservator-restorer. These standards relate mainly to systems for the recognition of diplomas and qualifications, as well as to the conditions established by member states for entering and practising the profession. The profession of conservator-restorer of cultural heritage is thus enclosed within this ambivalence: entering and practising the profession is conditioned by rules originating in the EU, whereas the statute of the cultural assets to which they apply and the standards of conservation-restoration are governed by national provisions, controlled by individual states and likely, for this reason, to be subject to considerable diversity from one country to another. The legislative activity of the *Council of Europe* in the cultural heritage domain is, instead, more intense and comprehensive, and in tune with recent changes in the perception of cultural heritage. Although most of the cultural heritage field seems covered, certain sectors have been insufficiently considered. This is the case with the conservation-restoration of cultural property.

POSSIBILITIES FOR THE FUTURE

In view of this situation, renewed action has been planned over the next few years: the cultural heritage division of the Council of Europe is ready to support the development and adoption of "*Recommendations for conservation-restoration of cultural heritage*" and has entrusted professionals, through their European representative body, E.C.C.O., with the task of producing these recommendations on a partnership basis and overseeing their adoption, together with ICCROM and hopefully in collaboration with ENCoRE⁸.

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¹ In *Federal Standard 1037C and from MIL-STD-188*; *Department of Defense Dictionary of Military and Associated Terms*, 'preventive maintenance' has the following meaning: the care and servicing by personnel for the purpose of maintaining equipment and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects. Maintenance, including tests, measurements, adjustments, and parts replacement, performed specifically to prevent faults from occurring.

² Catherine Heim, *Reasoned Study on the documents concerning the protection of the cultural heritage* E.C.C.O. - ICCROM, May 2007.

³ Risk management can be understood not only as the management of rare catastrophes, but also as the management of slow continuous hazards, and everything between. It becomes an integrated view of all expected damages and losses to collections.

⁴ HCP The *Herculaneum Conservation Project* - A simple mathematical system has been created on the archaeological site so that priorities do not become subjective: interventions indicated in the first decay survey and in the following periodic updates correspond to 'points' of serious danger on a map, and have to be dealt with immediately. Each intervention point corresponds to a chart in which information is listed for the identification of the area, and schematic indications of the decay conditions surveyed during the site visit. The chart is filled in by a conservator-restorer and then catalogued on the basis of *intervention priority*, a number that emerges from a calculation of values, which correspond to various primary and secondary parameters. On the basis of the number obtained, the chart is filed as of immediate, mid or low priority, and works begin at an opportune moment.

⁵ cf. Appendix 1 for an example of methodology and basic criteria (CD-ROM).

⁶ E.C.C.O. APEL Recommendations and Guidelines, cf. Appendix 2 (CD-ROM)..

⁷ E.C.C.O. European Confederation of Conservator-Restorers' Organisations.

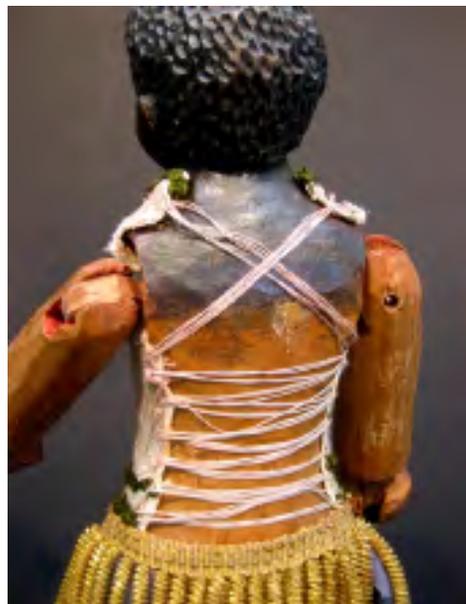
⁸ ENCoRE - European Network for Conservation-Restoration Education - the European organization that represents most of the educational institutions teaching conservation restoration at Masters and PhD level

CLAUDIA KUSCH, MARICA MERCALLI,
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The Crèche¹ at the Civic Painting Gallery in Imperia: the restoration of a multi-material work

The crèche group conserved in the Civic Painting Gallery in Imperia, Italy, is a highly interesting group of small statuettes made over various periods. The oldest and artistically most important part of the group is by the sculptor Anton Maria Margalio and his workshop, active in Liguria between the late 1600s and early 1700s.

The Istituto Centrale per il Restauro (ICR) has been involved in the restoration work on the crèche over the past four years, and this project has been an important educational experience for the degree course students at ICR². The project has been exemplary of multidisciplinary collaboration among various professionals: art historians, restorers from various disciplines, biologists, chemists, physicists, and architects. With the completion of the restoration and conservation of the crèche group, the final installation must address a series of problems centred on the future conservation of the group. A primary goal is to ensure that the



installation provides for the full enjoyment of the work within the Imperia Painting Gallery; not an easy task due to the fact that is now in a museum setting and thus entirely outside its rightful context.

With these goals in mind, a display enclosure is being designed that will address all the technical requirements set down by the ICR Physics Laboratory for the proper conservation of these delicate objects.

The Imperia crèche is a multi-material work consisting of positionable carved wooden mannequins with painted hands and faces. The carved bodies of the figures are only roughed in as they are clothed and hidden by the cloth garments. The materials used in the work include glass for the eyes and the beads, metallic threads used as decoration on the garments, leather for some of the shoes and clothes, organic fibres used in some of the baskets and for one of the necklaces, and paper, which served to pad some of the garments and was used for the numbered inventory labels on the statuettes. It is precisely the heterogeneous nature of the structural materials, exacerbated by the fragile, organic materials that directed the guidelines and the methodological choices in this restoration.

DIFFICULTIES IN PLANNING COORDINATED TREATMENTS

The restoration of a multi-material work poses many problems. Planning and coordination are two of the elements that often make this type of treatment more challenging than even the poor state of the object itself.

The heterogeneous nature of the structural materials makes for a complex treatment that goes beyond the competence of a single restorer. It is therefore necessary to involve various professionals in order to evaluate, plan, and carry out the most appropriate treatments.

The project includes a definition of criteria for documentation and methodology. As our first experience with this type of object, it was immediately clear that the documentation, especially regarding the technical execution of the work, would have to be systematized. This entailed creating a codified system for significant data, which could be congruously applied to all the objects in order to obtain a global data set, essential in view of the division of labour on the work. Numerous specialists working in close collaboration were required for both the planning and implementation of the project, especially during the initial stages. This provided for a unified approach in the restoration treatment and allowed for the work to be carried out based on priorities dictated by the objects themselves. Consequently, the actual treatment could not be divided into the various materials and shipped out for work to different laboratories.

This approach encouraged constant comparison, accompa-

nied by careful and critical evaluation of the choices being made. The professionals involved in the project come from various disciplines and the process often led to a revision of some previously made choices based on new exigencies requiring different compromises, and understandably, longer-than-normal execution times.

The precarious condition of the wood and textile elements required the clothing to be removed from the statuettes. The total removal of the garments was not always necessary, but even partial removal allowed us to study the statuettes, assess their condition and study the technical execution and construction of the clothing and mannequins.

The restorers in the polychrome wood sculpture laboratory and the textile restorers collaborated very closely. Not only were these two materials the most prevalent, but even more importantly, the undressing and redressing of the figures were the most delicate moments in the entire treat-



ment, requiring the 'side by side' presence and collaboration of both groups of experts.

Once the initial phase of the treatments on a first lot of five mannequins was completed, both wood and textile restorers were then able to intervene on the parts made in glass, paper, leather, etc. This was possible due to the relatively good condition of the five pieces, coupled with the limited and repetitive nature of the most frequent type of damage. The experience gained from the object was transformed into a wealth of information and professional enrichment for all involved.

THE WORK AND THE EXECUTION TECHNIQUE

The articulated mannequins measure between 22 and 55 cm. On an average, they are constructed from eleven parts and carved from lime-tree wood, a timber quite well suited for carving. The joints are constructed using disk pins made from walnut, a harder wood that is more suited to the mechanical movements of the limbs and that allows for a wider range of movement. None of the pins were glued in, and they were simply inserted into the corresponding slot. This choice guaranteed mobility of the joint, notwithstanding its relative weakness. The only areas that are carefully modelled are the head, the sternum, part of the chest, the hands and the forearms. These pieces are all carved and the figure is made realistic with paste glass eyes. The small, spherical eyes are inserted into a hole in the wood and held in place by the ground preparation that also models the eyelids. The ground and layers of oil-based paint are very thin in order to avoid hiding the perfectly carved details. The mannequins were dressed immediately after they were painted. These steps followed each other so closely that we often found impressions of the fabric on the paint film.

Unfortunately, none of the garments dated from the same period as the statuettes, and the original appearance of the group can only be hypothesized by comparison with other seventeenth-century Ligurian crèches.

The existing clothes do not show any chronological congruity and there is no systematic redressing that can be attributed to a specific historical moment. Rather, there appears to be a slow, continuous renewal and re-adaptation stemming from maintenance, reuse, overlapping and partial substitutions. During the re-adaptation or making of new garments, the new clothing did not necessarily conform to the original models, demonstrated by the necklines on the female figures that hide the more abundantly painted areas. Generally, the garments are simply made, with greater attention given to the overall aesthetic effect and the areas in plain sight. The clothes are made from different types of fabrics ranging from the simplest linens and coloured cotton sateens to pieces of worked and brocaded fabrics, often of mediocre quality. The decorations are made with metallic

thread braid, trims, lace and sequins. Garments such as cloaks, coats and full dresses are often machine-sewn. Hand stitching was used on the seams for some of the linen petticoats or undervests, which may be the only remnants of the original garments. Some of the pieces of clothing, such as leggings, knickers, sleeves, undervests and bodices were sewn directly onto fabric support bands attached to the mannequin's torso. These seams were rapidly and carelessly sewn, similar to the construction of the garments covering other clothing in poor and precarious condition. We perceived that at a given point in the crèche's history it was important to save time making the clothing, and to allow for simpler, faster dressing and undressing of the figures. After the statuette was dressed, it was fixed onto the base that had originally simulated rocky terrain.

PRIOR TREATMENTS AND CURRENT CONDITION

Only a few of the certainly numerous prior treatments are documented³. Many different incidents occurred when the crèche was prepared for its annual Christmas display, to then be dismantled and stored until the following year. The original bases and often even the shoes on the female figures are missing, which inevitably shortened the statuettes. This type of damage stems from the fact that the Nativity scene made ample use of moss to cover the ground areas. Humidity in the moss caused biological attacks resulting in the deterioration of the bases and shoes.

Transformations occurred that were most likely in response to damage rather than to intentional changes in the scenic display. For example, the positions of the figures on horseback were modified by nailing their feet to a base and adding a shim under their heels when the horse was damaged and had to be removed from the scene. Many of the female figures are shorter due to the elimination of their damaged shoes.

The total absence of original costumes is most likely related to the missing bases and shoes. The most plausible hypothesis is damage from a traumatic event such as a biological attack caused by the use of moss or a similar element. The condition of the single pieces of clothing vary notably from one another. All the garments show signs of incorrect use, handling and storage, exacerbated by the presence of dust,

creasing, unstitched portions, rips and tears; those made in silk are very fragile and are in an especially precarious condition.

TREATMENTS AND THE REASONING BEHIND THEM

The first operation required for many of the materials was to disinfect the objects in a controlled environment. The conservation methods used on many of the individual materials are well known. This restoration project is interesting because of the choices made in the planning process and the close collaboration among the various specialists.

Before the clothes could be removed from the statuettes, the painted layers on the bodies had to be locally fixed.

This was carried out at the same time as the removal of the clothing. At times, the process slowed down and directed individual choices. In some cases, where the removal of some portions of the garments had been avoided, it was necessary to revisit these areas in order to carry out conservation on the wood support, or to examine the technical execution. Although we attempted to leave the modifications and integrations made over the years intact, we decided to intervene on the moveable joints. The joints in the mannequins are not only crucial to the movement necessary in dressing the statuettes, but also important for positioning the figures each year in a different display. Consequently, we decided to preserve and regain the full use of the joints. All the broken or missing joints were replaced with new ones made from the same wood species. Similarly, the missing arms, hands, legs or shoes were also remade. This choice was based on the fact that these elements were made in series, and not only do they complete the form, but they also support the clothing.

These elements were remade in lime-wood and the chromatic integration was done using watercolours, applied in small dots (pointillist technique) on a ground-fill made of gypsum and animal glue. Any and all of the former repairs that were still functional at a conservation and aesthetic level were maintained. Even the previously restored bases were preserved, limiting intervention on them.

The equilibrium of the structure was originally obtained by nailing the support bases onto the display. It was now necessary to give stability to the statuettes without changing the

structure. Consequently, we added an almost invisible Plexiglas base, which also aided in safely moving the structure. The aim in treating the textile elements was to maintain the current balance in the clothing by conserving the materials using consolidated and accepted criteria and methods. It was also important to preserve and re-establish the aesthetic enjoyment of each individual statuette. Even though the *leitmotiv* for the treatment was to rigorously conserve the current status of the garments, in some cases we encountered problems or made discoveries that forced us to compromise these initial choices. Occasionally, we found previous items of clothing underneath more external garments that we decided to re-use. In other cases, we decid-



ed to substitute articles of clothing that had been hastily re-worked in more recent times.

Upon completing the conservation treatments on the wood and textile elements, the simultaneous re-assembly and dressing of each mannequin was carried out. Many of the elements, such as the sleeves on coats, shirts, dresses and all the trousers, could only be placed onto the dismantled limbs, which were 'dressed' and then re-assembled and connected together.

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WORKING GROUP

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¹ Generally refers to any depiction of the birth or birthplace of Jesus; especially, a three-dimensional representation of the birth of Jesus, traditionally installed at Christmas time with statuettes depicting the main figures in the event described in the Gospels and set in a landscape representative of the grotto in Bethlehem; also, a painting, sculpture, that represents the Nativity scene.

² Precious collaboration was provided by Claudia Kusch, Laboratorio Arakne, who executed part of the work for the Municipality of Imperia.

³ In 1939, the woodworker G. B. Massabò was entrusted with the maintenance treatment on the work, as evidenced by an article in the newspaper, "Giornale di Genova": "We found a talented artisan, woodworker Massabò, who with patient work...using file and chisel, remade the hands and feet of the damaged figures so they could resume their places as: the shepherd with his staff, the piper with his instrument". The same article records that a Miss Carow donated scraps of silk to mend the clothing... in *Il presepe di Imperia* edited by Marica Mercalli, Mariateresa Anfossi, Imperia 2003, pp. 36-37.

GIULIA CANEVA

Plant biology for cultural heritage

INTRODUCTION

As a result of increasingly numerous initiatives facilitating dialogue among only seemingly distant cultural contexts, the relationship between scientific and humanistic disciplines, especially in the cultural heritage sector, is now firmly united. Since the 1970s and 1980s, much has been written on the different aspects of scientific diagnostics dealing with the deterioration of materials used in cultural properties and the problems in improving conservation and restoration for environmental heritage. Over the past decade the research applied to these sectors has grown, and consequently, these types of problems have received greater attention. Publications inherent to this topic, however, are scattered throughout a broader category of literature, which is often not easily accessed and has narrow specificity. It is thus fundamental to the activities of the working group on applied botany at the Italian Botanical Society (Società Botanica Italiana) to produce texts giving a general overview of this sector by coordinating the various specialists who have furthered research in these specific sectors on a national level. The following paragraphs give an indication of how the most relevant problems on the topic are articulated, and they identify the core of the didactic-scientific programme (Caneva et al., 2005, Caneva, 2005).

BIODETERIORATION AND CONSERVATION

The initial topics of discussion in biology applied to cultural heritage deal with the analysis of deterioration caused by biological agents on cultural properties (Fig. 1). The general mechanisms of biodeterioration are presented, and within the various types, specific reference is made to those groups most frequently involved in deterioration.

The chemical-physical and biological deterioration most often encountered in this sector is analyzed by looking at the various environmental conditions that characterize the locations of cultural properties (libraries, archives, museums, hypogea, churches, outdoor environments, etc.), and by investigating the different geographical contexts on a macro-

scale. It is therefore important for anyone working in the conservation of cultural property to acquire some fundamental notions of basic ecology. This is especially important in defining the ecological requirements of various organisms and the influences that environmental parameters can have on them. If ecology is the scientific study of the interrelationship of organisms and their environment, then the *ecology of biodeterioration* deals with the relationships between organisms that can attack materials and the environmental factors that condition their development.

In order to evaluate true deterioration phenomena, systematic and taxonomical knowledge of various living organisms is the basis for all physiological and ecological studies. In dealing more specifically with the problems of deterioration of cultural heritage, we have approached the topic from different viewpoints in order to more clearly address conservation needs.

We must examine the alteration phenomena specific to the different materials and, at the same time, consider the problems specific to biodeterioration according to the types found in the environment, their influence based on geographic location, and consequently, the macro-climate. Based on current scientific knowledge, we have attempted to address the different problems associated with treatments applied to conservation and restoration. The application of preventive conservation strategies is especially important because it is the only possible long-term solution. To this end, various methods for controlling biological deterioration such as biocides and physical control methods were analyzed, providing indications on the use of diagnostic techniques.

KNOWLEDGE AND DEVELOPMENT

In a global perspective of cultural heritage, a number of topics stand out even though their potential importance and application are not yet fully appreciated. These are topics that can also be applied to the territorial level.

Plant biology contributes greatly to the understanding of structural materials used in cultural properties. These contributions include anatomical morphology for the identification of the plants themselves and its relationship to the study of xylology, palinology, archaeocarpology, the study of fibres

and the phytoliths, the study of botanical depictions in art, dendrochronology, and their implementation and development in the field (Fig. 2).

Aside from the true monuments of nature such as fossilized forests, monumental trees, etc., our knowledge of nature has helped make significant contributions to prominent gardens, botanical gardens, and culturally and environmentally significant nature museums. The underlying principles in UNESCO conservation strategies demonstrate that natural phenomena and the efforts behind their development are in themselves cultural property in the broadest sense of the word. These phenomena include man's relationships with nature, which are dealt with in the field of ethnobotany and, on a broader level, by historical botany.

It is important to emphasize the vital role played by plants in the landscape. It is equally important to understand how plant ecology, archaeobotany and the historical-archaeological approach to studying plants contribute to environmental planning.

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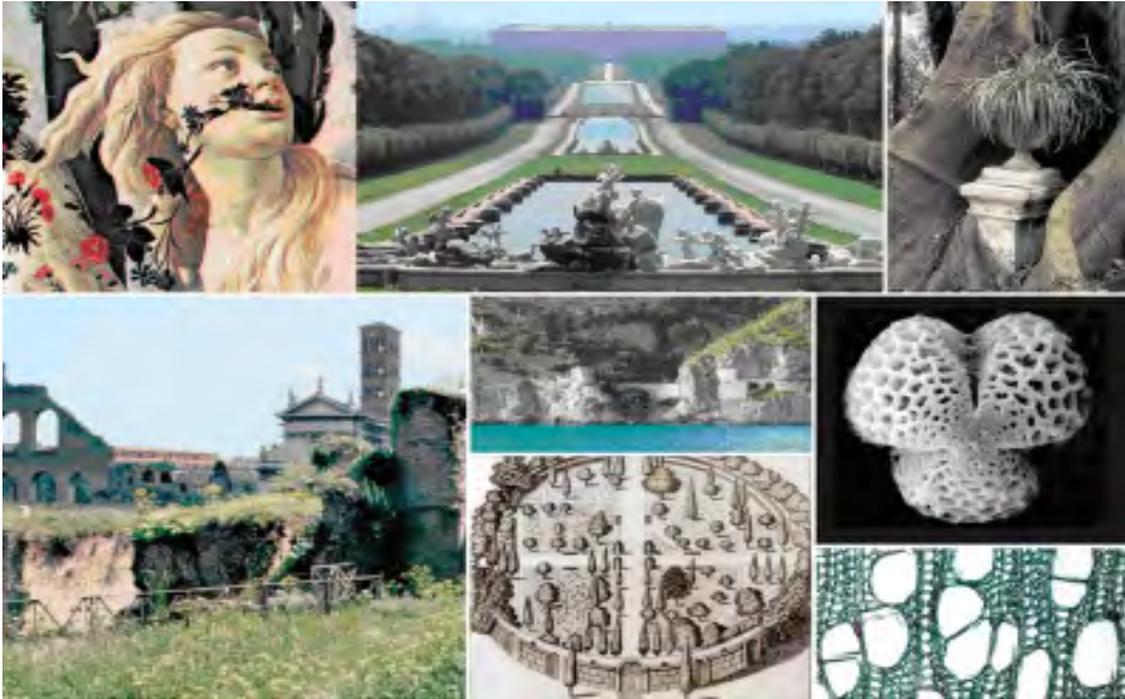


Fig. 1 - Examples of various organisms and the resulting biodeterioration processes.
 Above: Fungus attack on a painted wood panel (*Enthroned Madonna with Saints*, by Mariotto di Nardo, Florence); algal and bacterial alterations on wall paintings (*Crypt of the Original Sin*, Matera); damage resulting from root thrust (Cobà, Mexico).
 Below: Fungus attack on parchment; bacteria, algae and lichens under optical and electronic microscope [from the frontispiece to Caneva G., Nugari M.P., Salvadori O., (Ed.) 2005 – *La biologia vegetale per i beni culturali - Vol.1 (Biodeterioramento e Conservazione)*. Ed. Nardini, Florence: 1-396].



Fig. 2 - Different examples of the role of plant biology in understanding and advancing cultural heritage.
 Above: Phyto-iconology in art - Botticelli's *Primavera* (Galleria degli Uffizi, Florence); historic gardens - La Reggia di Caserta; monumental trees in the Orto Botanico in Palermo.
 Below: Archaeological parks - Il Palatino (Rome) -Landscapes of cultural interest - The Amalfi Coast and the Furore Fjord - UNESCO sites of historical-natural interest: Orto Botanico in Padua - Pollens and wood for understanding art and archaeological materials [from the frontispiece to Caneva G. (Ed) 2005 - *La biologia vegetale per i beni culturali - Vol.2 (Conoscenza e Valorizzazione)*. Ed. Nardini, Florence: 1-500].

CHAPTER V

THE OBJECT AS A SOURCE OF INFORMATION

Introduction

ROSALIA VAROLI-PIAZZA

The object as a source of information: how do we examine it, how do we look at it?

'True philosophy is that which permits us to re-learn how to see the world'.

Maurice Merleau-Ponty

'Marco Polo is describing a bridge, stone by stone. However, which of the stones is the one that holds the bridge? Kublai Kan asks. The bridge is not held by this or that stone, Marco Polo replies, but by the lines of the arch that they trace. Kublai Kan is silent, thinking about it. Then he adds: Why are you talking about the stones? I care only about the arch. Marco Polo replies: Without the stones you don't have the arch.'

Italo Calvino, *Le città invisibili*

After recognizing and choosing an object to study, after unravelling it from the confusion of its context, after holding it and perhaps running our hands over it, what do we need to understand about that object? Which piece or part has opened a chink in our consciousness, or rather, in the memory of our cultural identity? Since antiquity, there has been much research, study, and thought about perception in general and about how our different senses perceive the same object. I look and I see, or do I think I see? What do I see and what does each one of you see? Undoubtedly different things, if we add the other senses to this, touch, smell, hearing – not to mention the 'sixth' sense – things get more complicated, and perhaps we feel like we need to create a database to keep track of them! But perhaps reality does not want to be 'organized'! Perhaps we try to *re-cognize* those aspects we see at that moment because those are the qualities we need to see. Should we use our mind or our brain? The function or the organ? Where is memory kept? How can we *re-cognize* an image, a melody, an odour? These questions could go on forever, and to address them we would have to re-open the debate between philosophy and natural sciences. At the centre of all this, we must try to keep the most important thing: the object we have chosen to conserve and pass on. In 1709, Berkeley queried¹: if I open the window and my eyes **look** out, why don't I have the power to decide what

to **see**. Does whatever strikes our retina enter our mind, our consciousness? What emotions will be generated by the object we have **chosen** to **see**? And what if it is the object that chooses me? I may have passed in front of a monument hundreds of times, but on a particular day I notice a part – even an important part – that I had not seen before. To better understand this, we will investigate the mechanism of **perception**. But as we investigate, should we rely heavily on the natural sciences, or should we delve into the depths of thought and consciousness, calling upon the human sciences?

*'You see, Carmine, if you go to a window and look out on the panorama, the intuition of that panorama is instantaneous due to perception, which immediately organizes it in your consciousness. Only by closing our eyes can we impede the inner formation of that knowledge, only by interrupting our existential nexus with that landscape. But if you are a painter, and as you gaze over the panorama, you feel a special interest in that landscape stirring within you, an imperceptible, yet fundamental, change occurs inside you. It might be vaguely similar to what happens when you adjust binoculars: the landscape jumps towards you with new clarity; but in this case, not with greater optical precision, but rather with a greater inner definition of its appearance. This second vision can be called phenomenal, and it is not the same as the first existential vision you had. It will not destroy the former vision, nor will it be diminished, but in a certain sense it will not be as alive within you, because it will place itself decidedly outside your reach; but even so, it will take on a determination, an exigency, a steadfastness that it did not have when it appeared to you only as empirical fact.'*²

This great *maestro* of art history, Cesare Brandi, raised the problem of the creativity of the image within the artist's mind. He was fully versed in the philosophical theories of the day on this subject³ and consequently, on how we receive the image in our consciousness. His theory of restoration originates from these principles. Although we may not be aware of it, each one of us has a wealth of **unwritten knowledge** accumulated from our work, study and experiences; knowledge we know how to use very effectively, especially in emergency situations. How can we discover and share our **hidden patrimony** with others?

After perceiving, seeing and observing something, we often want to document it. Why is this? Is it a way to own or to possess it? Is it a way to stop time? To remember? There are so many questions, and so many ways to **document** something. The etymology of this word clarifies its original meaning: to show or teach. But how can we document? What should we use? Should we use our senses, that is, through stories, through descriptions, with poetry and other intangible means? Or should it be done using something tangible: a mark or a sign. 'Two branches emerge from the original stump that is the image: the first...develops into language and writing... the second branch is the image itself, and from it an exact mirror image develops: its arrival point will thus be art's pure reality.'⁴ Drawing from the philosophers Kant⁵ and Heidegger⁶, Brandi analyzes the mechanism for approaching reality in this passage, which he verifies using the entire range of art history, from prehistoric to contemporary images, and even children's drawings.

Once again, we are a threesome: me, the object and the medium for receiving and transmitting it. I have to be aware that every time I deal with an object, every time I document it, I am making a choice. I **interpret** the object and its message, just as when I play or sing a musical score: the marks and signs before me can mean nothing, or, they can communicate a series of sounds, perhaps a melody, but nevertheless, a message. That message, that sound is dependent on the instruments I have to see them, to interpret them, to narrate them or to reproduce them. We have to be able to **listen to** those signs, to **see** those sounds. To help in this, we introduced an effective, and well-received, exercise: the participants were divided into small groups of three to five persons, and they had to imagine they were the objects that they physically held in their hands. After careful observation, they had to recount their individual 'history', beginning with their material state, the shaping and modelling, how they were admired and then sold or given away. Were they a well cared for object or one abandoned and forgotten until the moment when someone *re-cognized* it, cared for it, researched it and re-presented it? By identifying with the object being studied and observed, the participants were forced to be 'on the other end', the recipients

of different levels of care. It is possible we might have to deal with a fragment that we do not recognize, but that fragment also has a story to tell. If we can recognize it and join it together with similar fragments, we might be able to reconstruct its history, like a mosaic. In and of themselves the words in a dictionary may not be very interesting, but when combined and constructed together we can create a sentence, a novel, an article, poetry. Large or small, in or out of context, made of organic or inorganic materials, once my consciousness chooses the perceived object as something cultural, it becomes a *monument*, a 'reminder'⁷. Even if it is in pieces, it will continue to communicate with us if we so desire, even if it is 'drawn apart' (*dis-tracted*) from its original context it can still communicate its new and different life, its 'isolated' life. Take any object whose existence began in a house, on a street, as part of a cultural or natural landscape. Now it is in a museum, in a beautiful display case with a microclimate and universally and scientifically sanctioned state-of-the art illumination: what will be its new message? **New technology** and technical advances can be of great help in the transmission of objects and their documentation, but our attention level has to remain high: it isn't the number and the quality of the analyses made, or the amount and the quality of the documentation that lead us to understand the essence of the object or to a correct and functional diagnosis for the conservation of our cultural property. One final thought: photography and film, the image in rapid motion, are relatively recent innovations. At one time in history, we were accustomed to looking and reflecting, trying to see, to understand and perhaps automatically memorize, 'keeping something in mind' over long periods of time. Now, everything is done quickly and hurriedly. We have entrusted our memory to 'post-its', to mobile phones, to computers, to the Internet! We function only on short-term memory! At one time images were fixed: monuments, paintings, illuminated manuscripts, drawings, photographs. Now, they move in increasing speed and number. Most of our ancestors did not know how to read or write, they learned from the repetition of oral history or from images viewed during sacred rituals⁸. But these images, for the most part devotional, were fixed, and they

could be looked at over and over again; there was time for reflection and discussion. Perhaps someone read and described while others listened. In 1967, Marshall McLuhan and Quentin Fiore wrote *The Medium is the Massage*⁹. They warned us about the challenges of the new *media*, the manipulations, the *massaged* mind: ‘you are changing...your family is changing...your work...your neighbours...’ This is all marginal in today’s ‘civilized’ world: images are neither mimetic nor symbolic, they are always *manipulated*, and they are in constant movement. Consequently, we have to develop a new way of looking, a way of perceiving reality and telling it apart from pretence, a new way of remembering. ‘The book is an extension of the eye.’¹⁰ Today, we could reword this by saying: ‘Screens – bombarding us with their images, whether from the home computer or from advertisements – are an extension of the eye’. We no longer know how to use the eye for the critical observation of, reflection on and analysis of the objects we try to approach in order to understand their most profound meaning. Have we ourselves become passive objects to be observed by a large eye that follows us everywhere, almost obsessively? Let us try to regain our abilities to see and to look so we can better understand the patrimony we need to conserve and transmit, to discern what is worth elaborating, to *re-cognize* the *messages* and the *values* to pass on to our successors.

¹ G. Berkeley, *Philosophical Commentaries. Essays Towards a New Theory of Vision. Theory of vision vindicated*, London 1948; Italian trans. G. Amendola, *Saggio sulla nuova teoria della visione*, Lanciano, 1931: ‘When I open my eyes in broad daylight it is not in my power to choose what I shall see’.

² C.Brandi, *Carmine o Della pittura*, Firenze 1947: 12

³ Croce (1866-1952), Husserl (1859-1938), Heidegger (1889-1976), Sartre (1905-1980).

⁴ C. Brandi, *Segno e immagine*, Milan 1960 (ed. consulted Palermo 1996:14).

⁵ E. Kant (1724-1804).

⁶ Heidegger (1889-1976).

⁷ Rosario Assunto, ‘Monument’, in the Encyclopedia of World Art, X, 1965: 272-298. ‘The term monument...is used to designate an object that transmits the memory of a person or a past event’.

⁸ Only a few decades ago, before mass literacy and especially in Tuscany, the ‘*patrimony*’ transmitted from father to son was the memorized version of the ‘Divine Comedy’. This work was written by Dante Alighieri (1265-1321) in the 13th century and contains more than 14,000 hendecasyllabic verses!

⁹ Marshall McLuhan, Quentin Fiore, *The Medium is the Massage*, New York 1967 (This is the original and correct title of the work; it should have been ‘message’, but due to a printer’s error, it came back ‘massage’ and the author decided to leave it like that).

¹⁰ *ibid*: 34-37.

Tacit knowledge as an instrument to maintain, share and develop acquired abilities

INTRODUCTION

The subject of this essay is *knowledge*; the question that arises spontaneously is *why*?

It seems relevant to respond to this question:

- because *knowledge* is real life;
- because, as a whole and individually, we are bearers of *knowledge*;
- because most of our knowledge is tacit (i.e. implicit) - in many cases, we don’t even know we have it or how to master it.

The ‘*why*’ refers to ‘now and here’.

Firstly, ‘**why now?**’ - because since the mid-1980s *knowledge* has become a subject of much analysis within the socio-economic community. The rationales behind these studies were of different natures and the relevant research has moved in many directions, giving rise to a multitude of approaches recorded in books, articles and discussed in congresses of various disciplines, resulting in the emergence of a community of worldwide experts still working on the subject. Some of the results identified the roles of *knowledge* in different operative contexts; these roles will be referred to later.

Before returning to some of the concepts and critical thinking shared with the SDC06 participants, it is worth recalling the two kinds of knowledge. Knowledge is an ensemble of data, information, competence, feelings and its boundaries are always expanding, whether we like it or not. It is a mixture of personal experience and external codified information of every type.

We can identify two strictly interconnected but often-separated contributions: tacit (i.e. implicit) and explicit knowledge, as defined by I. Nonaka and H. Takeuchi (1995).

Here we will try to draw the more significant aspects for the context of the course to support the description of the mechanism of knowledge building.

Implicit knowledge is subjective, not easily visible and expressible, highly personal, hard to formalize, and difficult to communicate and share. It supports ideals, values and emotions, and is deeply rooted in individual actions and experience. As a matter of fact, it is the knowledge of experiences - experiences acquired through the body: looking, seeing, listening - simultaneous knowledge, acquired here and now, as it is strongly dependent on observation and is analogue knowledge, deriving from practical experience.

Explicit knowledge is objective. It is the knowledge built through rationality, elaborated by the mind. It is sequential because it is based on the there and then, that is to say, following a logical path. It is digital, in the sense that is supported by theory (mathematical, philosophical, social, economic...).

The main points of interest in this article refer to the needs and mechanisms of knowledge development and augmentation; possible ways of facilitating its enrichment based on the existing accumulated knowledge within individuals and organizations; how new knowledge building might be properly addressed; as well as what strategies to adopt to avoid losing any implicit knowledge and succeed in retaining it on the eventual demise of its bearers (this is the case with many craftsmen and their artefacts, including some forms of restoration).

And now **'why here?'** - because the introduction of such a subject in a course about conservation decisions was suggested for the strong impact that personal and organizational *knowledge* has on the above decisions, mainly in those about art and the relevant artefacts. In fact, conservation decisions have to be taken after a rational assessment of all the knowledge/data available, in order to make a choice that embraces all the parties involved, and not only from a mere artistic point of view. As a matter of fact, the focus here is mainly on implicit knowledge, the type of knowledge that is difficult to transfer to the environment.

THE FOCUS ON IMPLICIT KNOWLEDGE

How and when we do use implicit knowledge? Two episodes from the SDC06 course provide good examples of what we intend by implicit knowledge and its use.

Implicit knowledge, as already mentioned, is the type of knowledge that is hard to articulate with formal language. It is personal and embedded in individual experience, involving intangible factors such as personal beliefs, perspectives and value systems. The description of the elephant by different blind people in the Indian story presented by Rosalia Varoli-Piazza is a good example of how we judge on the basis of implicit knowledge. Each blind person touching a different part of the elephant's body, unable to get an overall description, compares it with the **models** residing in his/her mind and the end result is a conglomerate of personal experiences, nothing to do with the real animal. When Nicola Bonini takes into account the rational choice and the intuitive choice (often the anomalous decision) when making a decision, he speaks of the two types of knowledge used in the process; the first due to explicit knowledge, the second to implicit knowledge. What is surprising, at first glance, is how fast the personal decision is made and how long it takes to find the rationales, if any, behind the choices. The immediate decision is the one taken on the basis of culture, personal beliefs, values, and models. In brief, intuitions, which cannot in any case be completely explained, are the type of decisions mainly made by managers and this is the reason for their reference to conservation experts. But once the decision has been taken it is essential to share its rationale with the other experts in order to compare it with their points of view, to participate in a brainstorming session, to establish a common orientation due to common knowledge, a decidedly greater knowledge with respect to the original knowledge of each brainstorm participant. What is interesting, to be able to understand the different roles that the two kinds of knowledge play in order to increase continuously at personal and organization level in a complete and positive combination, is the mechanism of knowledge conversion.

THE POWER OF SHARING - THE FOUR MODES OF KNOWLEDGE CONVERSION, HOW TO MOVE FROM PERSONAL TO COMMON COMMUNITY KNOWLEDGE

As far as the detailed virtuous cycle of building knowledge is regarded, reference may be made to the fundamental analysis reported in one of the more lucid documents on

operational knowledge written in the last few years - the Knowledge-Creating Company by Nonaka and Takeuchi. Their studies, though focused on the manufacturing sector, are a clear key to reading the phenomenon and applying it to any other environment.

What we intend to share with the participants, at their request, is the mainstay of the interconnections between personal knowledge and organizational knowledge, i.e. community knowledge, and the way of exchanging the implicit knowledge of the individual (and also of the community) to create new explicit common knowledge and to retranslate it into implicit knowledge, which is the sum of the new community implicit knowledge and the new implicit knowledge of each of the many individuals in the community. Although we may repeat what has been said before, it will make the explanation clearer.

The personal **implicit** knowledge is built sharing experiences, learning by observation and practice, in much the same way the apprentice learnt from his master in ancient times; it grows in a field of interactions without articulation, it asks for strong personal participation (cf. the artistic schools of the Renaissance); we are in presence of a sympathized knowledge shared through **socialization**. The step of transforming this into **explicit** knowledge is the hardest in knowledge transfer, first of all because the need to make it explicit does not originate from its bearer, who often doesn't even know he has it, but comes externally from others. It is a social interest of the community for whatever aim, mainly in order to carry out a common project. Due to its nature, implicit knowledge cannot be precisely formulated, and can only be described using analogies, models, or metaphors, becoming clear to the individuals who adopt these tools to formulate hypotheses, pose questions, demand answers, and share emotions and experiences. It requires close dialogue with the implicit bearer as well as collective reflections with both him/her and within the interested community, as it appears to be shared through **externalization**. One way of externalizing the success of a community of practice and communicating the acquired knowledge to the company has been adopted by some organizations using storytelling by one of the team experts. The personal involve-

ment and passion in the experience proposal, as a result of personal and common team values and emotions, persuade the listeners to ask for explanations, to investigate on the basis of personal experience, to give more detailed descriptions, and to clarify concepts by comparing models and hypotheses. Externalization is a way of passing from **implicit to explicit** knowledge, new knowledge that has to be integrated with the existing knowledge.

It is less difficult to clearly describe the results of the above-mentioned brainstorm, than those of a formal document of whatever nature, comparing, exchanging, combining these results with the explicit preceding knowledge, in brief, codifying the whole and linking them to the many contents of disposable existing knowledge through a process of networking the newly created knowledge with the existing. In this case, the sharing is the result of a **combination**. On the SDC06 course, a good example of combination emerged during the mini-conference, when at least two subjects were discussed and proved to be of common interest: *termites*, or any insects endangering heritage artefacts, and *bureaucracy*. The common interest in each subject stimulated further study and the desire to exchange experiences between the different parties.

At this very point the initial personal implicit knowledge is transformed into community explicit knowledge, from one to many, the knowledge becomes a common treasure. However, in order to avoid the risk of its crystallization and to promote its continuous development, thereby stimulating creativity and innovation, the path of transformation of knowledge cannot stop at this step and the common explicit knowledge has to be put into operation. Using the acquired knowledge, it means embodying it into implicit related knowledge, that related to learning by doing. The sharing of knowledge becomes **operational**, and it gives rise to new **implicit** knowledge, that captured by the **community** through the doing in common, as well as that of **each member** of the community which is by definition different from one person to the next and from the common knowledge, given the difference in personal emotions, values, and models. The sharing is due to a process of **internalization** and an example of how this process works may be seen in the

Questions and Answers session at the end the mini-conference, where participants focused their questions on the two nominated subjects. The answers were explicit knowledge shared by each participant, who, if interested, was prepared to apply the new knowledge to their working environment, and in doing so, continue the learning process.

CONCLUSION

Returning to the issues addressed in the introduction, it is clear how important it is to be innovative and creative in each field of study and operations. The four modes of knowledge conversion represent the virtuous cycle to broaden and disseminate knowledge, and furthermore clarify the personal and community roles of knowledge. Each phase of conversion indicates how to approach the knowledge according to the different conditions and requirements in order to identify the proper strategies to succeed in the future. Particular interest needs to be focused on the first phase and the relevant process of socialization because it is one of the main risks in conservation, that of losing the implicit knowledge forever due to the disappearance of many professionals; precious knowledge, which once lost, cannot be regained.

DINAH EASTOP, KATRIINA SIMILA

Documentation as process and outcome

INTRODUCTION

Objects are sources of knowledge and enjoyment. This paper focuses on a documentation exercise developed by the authors¹ to show how views of objects vary and why it is important to recognise this variation. Documentation, which is an important part of conservation practice, can be viewed as both an outcome (the resulting documents/records) and a social process (the action of documenting).

As a process, documentation involves:

- Making or selecting a system of classification.
- Classifying, i.e. placing the object in that system or in another system, or making it an exception.
- Making the record of the object.
- Ordering the record within other records, and retrieving it.

The person doing the documentation (the documenter) has to choose (or adapt) general systems of classification and the particular categories into which the object fits. For example, a certain type of small cloth object has been excavated: some have been used as bags and some as hats. Thus, a similar object donated to a collection without any contextual information could be categorized either as a hat or a bag. If it is categorized as a hat, the implicit classification system is one of clothing. If the same object is categorized as a bag, it may stay within the garment class as a costume accessory, or it may be placed within an alternative class such as storage or transport. The choice of classificatory system often becomes important when the record is stored (filed for retrieval), because the selected terminology will be crucial for facilitating or blocking processes of building and linking sets of data through cross-referencing.

THE DOCUMENTATION EXERCISE

This documentation exercise is in two parts. In the first part, each course participant is asked to document an object; in the second, the participants work as a group to analyse the resulting documentation.

For the first part, the participants remain seated at their tables, which are arranged in a large oval or circle. This enables everyone to have a clear view of the middle of the room and of each other. During the exercise, the participants are asked to stay in their seats. Each participant is provided with a one-page documentation form. The form has space to write the name of the object, a large space in which to draw the object, a place for the documenter's name and for the date of the recording. The object is placed in the middle of the room, so everyone can see it from a distance varying between 2 - 4 metres. Each participant is given approximately 15 - 20 minutes to fill in the form, by writing down the name he/she would give to the object, drawing the object, adding his/her name as documenter and the date of the exercise. In the second part of the exercise, the facilitator collects together all the completed documentation forms. They are then spread neatly in rows (in random order) on a large table, and the participants are invited to look at them. There is usually quite a lot of laughter with the participants commenting on the drawings. After this initial reaction and comment, the facilitator encourages discussion about the names given to the object and the various ways in which the object has been represented. The participants seem to enjoy this discussion, which takes place in an informal atmosphere, with everyone standing around the table looking at the forms. This generates further discussion about the process and outcome of documentation.

WHAT IS IT?

One of the first questions asked in the group discussion is *What is the object?* This is not an easy question to answer because the object selected for the exercise is hard to identify. The fact that the facilitator may not be able to identify the object helps to arouse mutual curiosity². For example, it is not clear which is the front or back of the object; perhaps it is upside down. Another question is *Where does the object start and finish?* Some of the drawings will include the cardboard tube; others will not record it. Is the cardboard tube part of the object or is it a mount? If it is a mount, is it of any significance? The difficulty in identifying the object results in many different names being recorded

on the forms. The name given to the object depends on the observer's own experience of things that look like it. Each person will try to link the object with his/her own experience and will therefore try to fit it into his/her own system of classification.

WHAT'S YOUR POINT OF VIEW?

Asking the participants to document the object from their work stations/tables means they become more aware of the effects of their 'points of view' - both physically and metaphorically. The physical viewing point of each participant is fixed in the room and therefore in relation to the object. Each person can only document his/her own view of the object, i.e. what can be seen from where he/she is sitting. The effect of this physical 'point of view' stimulates discussion about the effects of other 'points of view'. For example, an architect's view of the object is likely to be different from that of a conservator or a curator. Each specialist is likely to be interested in different aspects of the object, and therefore to see and record different features as significant. Each person will also describe the object in different ways, again according to his/her experience and institutional perspective (Drysdale 1999). This diversity of view (both physical viewpoint and professional perspective) is reflected in the different drawings and diagrams produced by the participants. Differences in colour perception and in the words used for colours are likely to be noted in the discussion too.

WHY ARE YOU DOCUMENTING THE OBJECT LIKE THAT?

The variety of ways in which the object is represented on the forms leads to discussion about the purpose of documentation. The quick pace of the exercise makes it obvious to everybody that none of the forms should be considered as a finalized, complete record, so the temptation to 'find the winner' is small. In spite of the unfinished nature of the documentation, it is obvious that each documenter has made specific choices. The advantages and limitations of the various approaches are discussed, in order to underline that documentation is always ultimately subjective, and that there is no one right way to document. Some participants will have noted the colours of the object; some will have recorded its various components; others will have recorded

its size. During the group discussion, the facilitator asks which of the documentation forms would be most helpful for different situations, e.g. when planning the storage of the object (e.g. when finding a box of the right size) or when planning an integrated pest management strategy (e.g. identifying the keratin-containing components). Another question could be: *Which drawing would you choose for an Interpol poster if the object were stolen?* Discussion of each situation is likely to result in a different choice of drawings. In this way the often unstated rationale behind documentation choices becomes clearer. Looking at the documentation created by the participants highlights the variety of representational styles. Some drawings will be naturalistic, life-like sketches of the object; others will be simplified diagrams, with features viewed as significant by the documenter clearly identified. Each professional group tends to have its own style or conventions of representation. There is also a strong focus on digital imaging techniques. This apparently simple drawing exercise offers the opportunity to discuss the strengths and weaknesses of different systems, and demonstrates that fundamental decisions have to be made whatever the system of making and storing the data. The differences in the location (the physical viewpoint) from which each documenter looks at the object during the exercise, can be seen to reflect similar diversity in professional positions and institutional settings. This diversity creates different kinds of distance or viewpoint from which an object is seen. Recognising this factor is very helpful for the interdisciplinary field of heritage conservation.

SUMMARY OF EXPERIENCE AND CRITICAL REFLECTION

The exercise works because it replicates the four-stage process of documentation in a way that clearly shows each stage of the process. We see that the facilitator determines Stage 1 (*making or selecting a system of classification*) by deciding the format of the documentation form. Stage 2 (*classifying*) is seen in the names selected for the object, and by the later group discussion of naming, and of designating the front, back, top and bottom of the object. Stage 3 (*making the record*) is the work of each participant. Stage 4 (*ordering the record*) has two stages. There is the initial re-ordering when the documentation forms are laid out for

group viewing and discussion. Later, once the exercise is over, each participant takes his/her form and adds it his/her own course files. The generic heading given to each course worksheet (including the documentation form) encourages participants to view the documentation form as a record within the larger set of course records. The inclusion of this account of the exercise in this CD is another stage in the documentation process. The documentation exercise should not be considered in isolation because it is linked to the broader theme of understanding and documenting the 'life cycle' of objects and their various uses in the past and present (Clavir 2002). The exercise was developed as part of a wider strategy to demonstrate how objects are categorised differently depending on their 'life stage' and institutional setting, which often reflects broader social, political and economic contexts. 'Biographies' of objects can be a useful way of thinking about and documenting changes in the materials, structure, condition and social significance of objects and collections (Eastop 2003). Here it should be noted that classification systems have provenance and life cycles too.

Drawing links many disciplines, and looking at all the documentation forms together promotes group discussion in a friendly way. The exercise is therefore good for fostering a relaxed and cooperative style of working in a culturally mixed group (where cultural diversity may reflect differences in profession, institution and perceived status, as well as ethnicity and nationality). This exercise seems to work well because it is perceived as non-threatening and fun, while provoking lively debate on important issues. It also provides a mechanism for those less confident in talking and speaking to demonstrate their observation and documentation skills; it may therefore be useful to do the documentation exercise during the first third of a course. The exercise is not expensive in time, money or facilities. This exercise encourages awareness of documenting and the outcomes of documentation. The lively discussion of the documentation (the forms filled in by the participants) demonstrates that 'documenting' is an actively contested, social process. In this exercise, participants are actively engaged in showing how views of objects change, depending on:

- ways of seeing (including the physiology of perception);
- the physical point of view (positioning);
- the professional point of view;
- how the aims of documentation are understood;
- the system of classification (e.g. a system designed primarily to identify an object's location in a museum, compared to one designed for condition assessment and monitoring);
- and styles of representation (e.g. stylized diagrams versus life-like sketches).

Recognising that there are different points of view is an important step in sharing conservation decisions.

ACKNOWLEDGEMENTS

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¹ The exercise was developed initially for the CollAsia 2010 programme.

² At the time of the exercise described here, neither author knew what the object was.

WEBBER NDORO

Documentation for cultural heritage

The role of documentation and inventory of cultural heritage to enhance its conservation and management has always been recognized. The two are indispensable tools for the purposes of identification, interpretation and physical preservation of the cultural heritage phenomenon. Yet there are various levels and scopes for documentation within the field of heritage depending on the purpose of the exercise. Apart from this, the level is also determined by the scale or scope of the site or object and the type of heritage in question. Its size and complexity mean that the methods to be used must differ. The methods to adopt for an archaeological site, for example, are different to those of a cultural landscape or a museum exhibit.

It is also apparent that the professional background of the recorder has an impact on the level and scope of documentation and inventory. For most conservators, the obsession with the *before* and *after* scenario seems to be paramount. There is also an aptitude to document the deterioration of things and this then tends to focus the attention on the material aspects of the heritage. Architects, on the other hand, seem to be more interested in redesigning, restoring and rebuilding. Their documentation therefore generally focuses on the original plans and designs and how these may have evolved over time; hence the preponderance of plans and section drawings in heritage records largely done by architects. Instead, historians and archaeologists seem to be more concerned with those aspects of the heritage that impart information on past events and social behaviour. Similar situations also exist with anthropologists who deal with heritage. Apart from their concern for past events, they seem to stress the use and story behind the heritage phenomenon. The contextual approach is also an issue in the documentation and inventories done by the archaeologists and anthropologists.

The ideal situation for the documentation and inventory of heritage is a multidisciplinary approach. However, this is rarely achieved since we normally record the heritage for

our own uses (from a personal standpoint), hence the bias that exists in most of our documentary records.

DOCUMENTATION AT TWO LEVELS

With regard to the documentation of sites, records at national level generally contain basic information concerning:

- Legal status of protection
- Ownership
- Date of recording
- Registration number
- Name of recorder
- Photographs
- Name, location, orientation, type, significance and physical condition.

The Midas manual refers to this information as the core data for any sites (Midas, 1998).

At site level, cultural heritage type specific information on buildings, rock art, cultural landscapes, sacred forests etc. tends to form the bulk of recordings; thus they will differ



Lamu - The complexity of documenting historic towns

according to type. The information on preservation maintenance etc. will also vary in terms of depth and scope.

DOCUMENTATION AT NATIONAL LEVEL

Most documentation at national level is made through inventories. Inventories can be described as the basic form of recording but they too can be complex. In most countries it is a legal requirement, through the legislation concerning the protection of heritage property, that it be inventoried, registered and kept in a kind of list, thus establishing a basic national recording system or register at state level, which can be used to systematically record information that may

come in from a number of sources. The records of the inventory are then standardized to ensure that users can benefit from the information. It is important to note that at national level the inventory may not only be used by heritage practitioners but also by others, for example, for risk/impact assessment (Darvill and Fulton, 1998).

We may perhaps think of an inventory as a basic list, but for it to be useful it has to be organized. It needs a method and a standard way of recording information. One of the most well known heritage inventories in the world is the World Heritage List. The list contains basic standardized information on each property that qualifies for the list. For practical purposes, documentation at national level facilitates the following:

- Identifying a country's heritage resources.
- Carrying out audits of the heritage it is supposed to look after. For example, recording changes in the use or abuse of the same, monitoring conservation condition, etc.
- Ranking the heritage in order to set priorities.
- Evaluating national assets.
- Helping plan for the heritage.
- Allocating resources.

Thus an inventory is a basic tool for the management of any resource. It is only when properly listed, identified and classified that protection can be given.

We also document at national level so as to make informed decisions on the heritage itself or things around it. The national inventory can help other professionals who are not heritage managers to consider protecting the registered heritage properties when making decisions for local authorities, for public amenities and for urban planners. National property inventories form the basis of any impact assessment studies. Thus inventories are useful not just for planning purposes but also as a tool for improved resource management and for research projects. They can help in the following areas:

- Enhancing information retrieval.
- Providing a common format for heritage to ensure sharing of data.
- Promoting consistency within a given recording system.

DOCUMENTATION AT SITE/OBJECT LEVEL

At object or site level, the reason for documentation varies. It may be for acquiring knowledge needed to advance our understating of the heritage, its history and values. It could also focus on promoting interest and participation by the wider communities. Just as at national level, documentation also helps to make informed decisions on the management and conservation of the heritage. More specialized documentation would probably also help in subsequent interventions or alterations of the physical aspects of the heritage.

Management purposes

At this level, documentation should provide enough information for heritage professionals to be able to assess the risks faced by the heritage. It could also lead to quantifying treatments and providing long-term planning records. At basic site level, it can provide for the planning of many things like impact assessment and rates of deterioration.

Investigation

When recording for investigation purposes the documentation should enable us to:

- Describe the material and techniques used.
- Indicate the nature and extent of deterioration or alteration.
- Determine what other specialist investigations might be required.
- Record the effects of past management strategies and conservation treatments.
- Determine cultural values and their evolution over time.

Such investigations would also be determined by the needs of the site/object.

Treatment related

In most cases documentation is undertaken when treatment is perceived for the heritage site or object. Documentation is therefore deemed to be the initial step in the rescue or treatment operation. In this case, it is important to produce an accurate record of the current condition before any operation is carried out. This will help in determining the course and nature of treatment and also in identifying priorities. Previous works and treatment operations also need to be documented.

VALUE-BASED RECORDING

Most documentary records are material focused since the main objective concerns the physical nature of a site or object. This, in some instances, has limitations in that the site or object may be more important in terms of its significance. The object may be of different shapes and made of different materials but may, for example, fulfil some function during a ritual ceremony. Thus, any documentation that emphasizes the shape or original material will not be able to register the essential value of the object. There is therefore a need to consider the non-material aspects. It has been stated many times that the tangible can only be interpreted through the intangible. Very often the tangible heritage does not speak for itself and recording the intangible values of a site or object can be very challenging, particularly if we are working in societies different from our own, as with a Christian recording Hindu heritage, for example. As scientists, we may also not believe in some of the issues in play, for example, when recording associative cultural landscapes, at times spiritual areas may be at variance with temporal ones. The physical dimensions of a sacred forest may not be intelligible or logical; they may fluctuate on a seasonal basis. In short, how do we document something we don't understand, we cannot see and we don't believe in? This is where multidisciplinary approaches to recording would be very useful; having a social anthropologist in the team might be helpful in recording intangible values and other aspects.



Banizon-Benin - Anthropologists more interested in the story behind the site and its artefacts

DETERMINING THE GOALS AND TYPE OF DOCUMENTATION REQUIRED

It is very easy in the field of heritage conservation and management to spend all our time documenting a site or object. There are many examples of projects that concentrate on the production of quality documentation, meanwhile the site or object progressively deteriorates. However, in the real world there are limitations in terms of time and resources. Thus the first step perhaps in carrying out a documentation or inventory project is to define the goals or aims of the exercise clearly. Why is it being done? What are the goals of the exercise and how will we know that we have achieved these goals? The project goals will determine what kind of information is collected. They should be determined by needs; needs arising from the assessment of the cultural values of the site/object, as well as those of management and custodianship. These goals and needs should not be determined by technology, for example, just because we have acquired a photogrammetric camera or a Geographic Positioning System.

Some possible goals are:

- Understanding the extent and nature of the site/object.
- Compiling an inventory of the site in order to update the national register.
- Assessing the cultural significance.
- Assessing the current condition of the site/object.
- Providing planning information for urban planners.
- Understanding the evolution of the site/object.
- Assessing the physical condition and conservation problems.
- Assessing management needs.
- Monitoring physical changes
- Extracting specific information for the production of interpretative material.

These are only suggested goals. What we need to do is to look carefully at the needs of the particular site or object in question, as well as realistically examine our resources and priorities. When we have selected our goals we will be in a position to look at the type of documentation needed and design appropriate recording methods and forms to fulfil these goals.

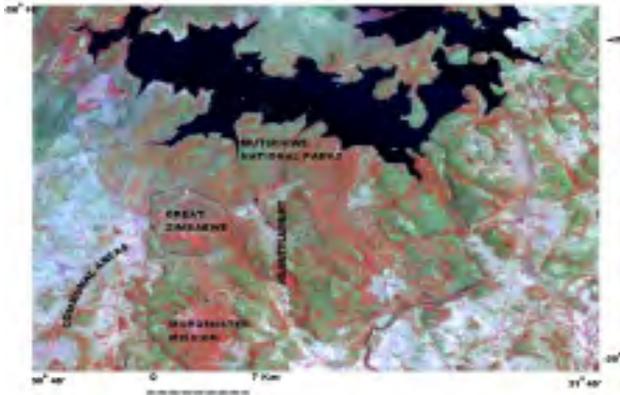
The more clearly stated the aim of the undertaking, the more chance we have of achieving results and, of course, the results will vary according to the aims. Making these aims explicit cannot be over-emphasized; documentation exercises end up on people's shelves not being consulted simply because they give professionals more than they need or want to know or they do not provide the vital information in an accessible form.

The way to do this is to decide exactly what types of documentation are necessary and turn these into a set of goals for our documentation project. The goals we decide on will depend on the needs of the heritage organization and on the resources available.

- If there is no adequate record of the site, then this will be a high priority, especially if the site is threatened or records are required by law.
- If the records provide basic information, which is adequate for identification, we may focus on more detailed documentation of the physical condition of the site.
- If we know little about the cultural context or significance of the site, we may focus on a detailed recording programme involving certain attributes that will provide us with more information.
- If there appears to be new information in the community about a specific site, we may document this information as part of our work.

However, we need to acquire a basic set of data before we begin work on more detailed, ambitious or selective documentation. We will therefore look at core data standards as well as the general and specific needs of the object or site. It is also critical to consider who else will want to use the information apart from yourself or your team. How are they also going to access the records? Documentation is a time and resource consuming exercise. It is crucial to have a clear idea of the expected outcome before undertaking it. The next step, once the goals have been determined, is to select the most appropriate documentation methods. These should be based on the expected use and the level of accuracy required. For example, will a sketch plan be sufficient for the objective or do we need architectural drawings? The question of time must also be

considered – how quickly do we need the information and where can we get it? Generally the more time we spend, the more costly it becomes. It is equally important to consider what has previously been done before embarking on the project; past records may exist in archives or elsewhere.



Satellite images - Good for large-scale cultural landscape documentation

JOSÉ LUIZ PEDERSOLI

Scientific analysis and techniques: benefits and limitations

Making decisions about the conservation of cultural objects is a challenging process. It involves addressing complex questions related to the significance and the relative values of those objects to different groups of stakeholders, their material behaviour, the various risks they are exposed to, and the time frame to be considered; all that embedded in institutional contexts with legal and political commitments, and with typically limited resources.

Conservation decisions require holistic thinking and shared responsibility across all relevant disciplines and sectors. It is also important that those decisions are *informed* ones, that is, decisions underpinned by evidence. Evidence here includes (art) historical information, scientific data on material properties and on environmental conditions, the outputs of stakeholder and context research, conservation surveys, risk assessment, cost-benefit analyses, etc.

Complementary to their contexts, cultural objects themselves are a rich source of evidence to inform decisions about their own conservation. Careful observation by (art) historians, conservator-restorers, and professionals from related disciplines working with cultural heritage provides valuable information on elements of style, age, authenticity, conservation condition, vulnerability to different hazards, and conservation needs.

Scientific analysis and techniques offer a wide spectrum of possibilities to further probe into, and learn about the material aspects of cultural objects beyond what can be achieved by the human senses. These include:

- Seeing the invisible – through imaging beyond the visible region of the electromagnetic spectrum, typically in the infrared and ultraviolet regions. This allows the visualization of ‘hidden’ near-surface underlying features like under drawings, inclusions and voids by infrared imaging techniques, and visual enhancement of surface features like textures, defects, and contaminations by ultraviolet imaging. Visual discrimination between materials that look the

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same but absorb differently in the infrared or ultraviolet regions is possible by using false colour imaging techniques.

- Zooming in – through optical, electronic, and scanning probe microscopy, allowing magnifications of the order of up to 10^3 , 10^6 , and 10^8 , respectively.
- Looking inside – visualization of the internal structure of opaque and multilayered materials through the application of different radiographic and tomographic techniques (e.g. X-ray radiography, neutron tomography, etc.).
- Colorimetry – consistent and quantitative colour description and communication by using colorimeters or spectrophotometers.
- Chemical ID'ing – chemical characterization of materials and their mixtures by using separation and identification techniques like chromatography, spectroscopy, etc.
- Forecasting – estimation of likelihood or rates of deterioration or alteration processes, as well as of the results of possible preventive and interventive conservation measures, through artificial ageing of model systems and originals (micro-scale), environmental monitoring, etc.

In order to improve the quality of conservation decision making through the use of scientific information, it is important to recognize the benefits and limitations of scientific analysis and techniques. This can be achieved through improved collaboration and communication with scientists, and by strengthening one's own scientific literacy. Misunderstanding those benefits and limitations typically leads to perceptions like 'science can solve everything', 'science depends on having state-of-the-art equipment' or 'science is dangerous or useless'. A simplified summary of the benefits and limitations of applying scientific analysis and techniques to inform conservation decisions is presented in Table 1.

Recognizing the benefits and limitations of scientific tools is necessary but not enough to inform conservation decisions in a useful and efficient way. Indiscriminate use of scientific analysis and techniques is often ineffective to that end, if the

fundamental questions to be answered, the conservation context and its specificities, and the types of decisions ahead are not clearly communicated and understood.

Table 1. Benefits and limitations of scientific analysis and techniques for informing conservation decisions.

BENEFITS	LIMITATIONS
Enhanced visualization range	Performance limits of analytical methods: <ul style="list-style-type: none"> • resolution power • representativeness of results (sampling requirements) • selectivity and specificity • detection and quantification limits • accuracy and precision
Information on structural and optical features	
Information on chemical and biological composition	Destructive sampling or analysis still often required
Several non-destructive or micro-destructive analytical methods available	
Informed predictions of probable behaviour under different conditions (storage, display, use, during and after treatments, transit, etc.)	Uncertainty of predictions
Proposal of solutions based on informed predictions and systematic testing	Uncertainty about the results of proposed solutions
	Access (costs, expertise, facilities)

Scientific analysis and testing should be used as one of several equally important components of integrated, interdisciplinary approaches that comprehensively address the conservation challenges and needs of cultural objects in their respective contexts, taking into account the interests of all stakeholders (Fig. 1). Scientists like myself have a significant role to play in contributing to further integrate science into conservation practice, by improving our 'conservation literacy', by critically and continually assessing conservation needs and scientific outputs in close collaboration with colleagues from other concerned disciplines and sectors, and by communicating scientific issues clearly and reciprocally. It is also important not to forget that this role is played within a multiplayer, multilevel universe of conservation decisions (Fig. 2).

CONCLUSION

Science should have equal weighting in conservation decision-making processes. The inputs from all disciplines involved should be of equal importance, and similarly, the responsibility for any decisions made should be equally shared. The benefits and limitations of science should be clearly understood by all those involved in conservation decision making. Reciprocal understanding and transparency across scientific and non-scientific disciplines and professionals is an effective way of improving the quality of those decisions. ICCROM’s Sharing Conservation Decisions Course provides an optimum forum for conservation professionals, both participants and lecturers, to openly discuss and further understand the role of science in conservation decision

making. Dissemination and replication of this type of experience is surely a powerful way of strengthening interdisciplinary approaches worldwide to better safeguard our cultural heritage.

Fig.1 - Scientific analysis and testing as an integrated component of a comprehensive, interdisciplinary approach to address conservation needs for the benefit of societies (heritage users).

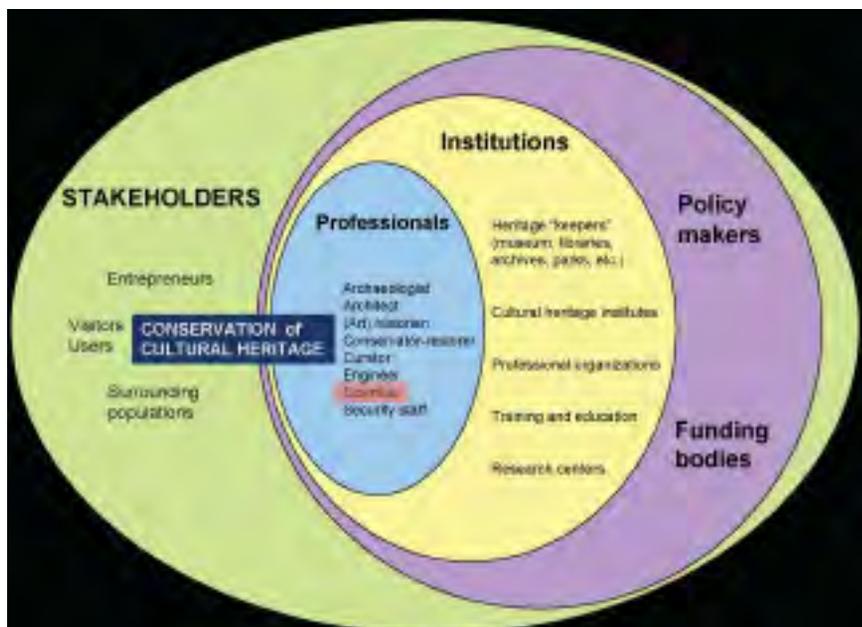
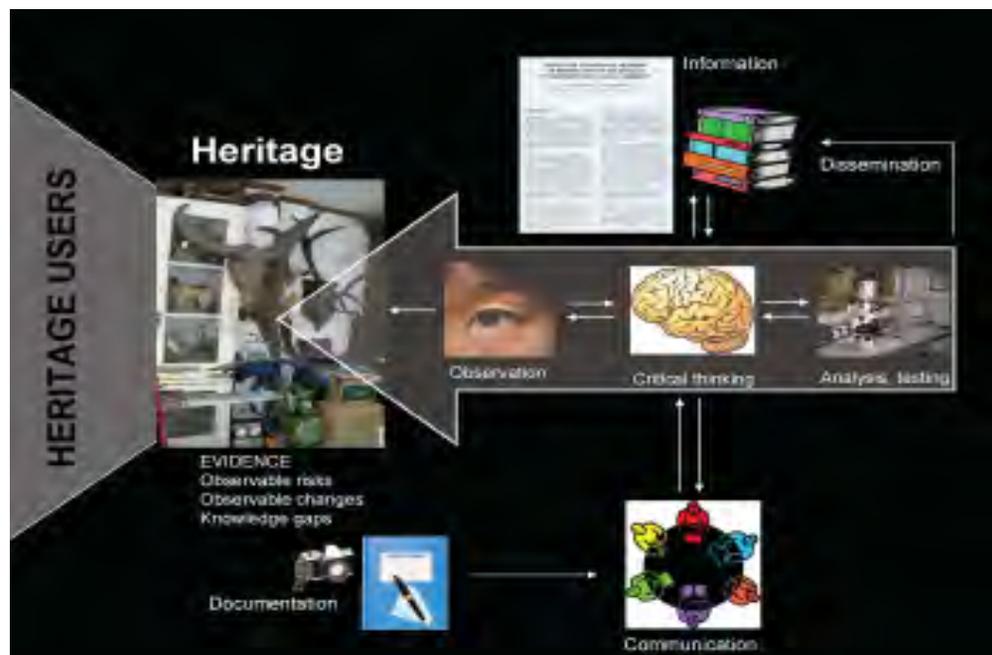


Fig.2 - The multiplayer, multilayered universe of conservation decisions.

Research and new technologies

The title and topic of this essay bring to mind an IIC conference organized in 1961: *'Recent Advances in Conservation'*¹. Quickly glancing over the titles of the works presented at that conference, one notices how often the words *new* or *advanced* are used: *new solvent type, new methods for the consolidation...*, *new picture varnishes, some new experiments in conservation, advanced methods...* What was 'new' forty years ago is most likely no longer 'new' today. But this is relatively unimportant. The point I would like to reflect upon is the growth of a strong tendency towards innovation coupled with exploration into constantly more advanced methods and applications.

We have always searched for the most innovative approaches and solutions available to science and technology in order to better address the pressing need for investigation in the field of conservation of cultural heritage. This process has advanced, involving many scientific and engineering sectors. Since the 1970s, levels of sophistication have advanced due to systematic importation of investigative methods from the field of medical diagnostics, and even more recently from the use of aerospace methods and technology.

Today, it seems natural to use *smart sensors, nanotechnology, microelectronics and optoelectronics* (and the list goes on). It is important to underline the contributions that these technologies make and have made in the field of conservation science in obtaining the largest amount of significant information without in any way altering, modifying or compromising the integrity of the objects being studied. Even though this has been a gradual, uninterrupted process it has nonetheless been a fairly slow process. One of the main obstacles has been that most of the available technologies were not developed for use in cultural heritage, but were imported from other fields of research. Adaptation to conservation needs has meant new studies, controlled experimentation and necessary modifications.

As a result of the rapid growth and implementation of

advances in the fields of nuclear, computer and electronic disciplines during the 1950s (especially in the health and industrial sectors) an important, innovative criterion was introduced: the use of *non-invasive diagnostic techniques*.

Many years would pass before this type of investigative technique was also applied to works of art. The only exception was the use of radiography. The first conference on the use of non-destructive techniques in the field of fine arts took place in 1973².

Since then, new technologies have made a fundamental contribution to conservation science, attracting the interest of individuals from the most diverse scientific disciplines, and creating the current scenario characterized by highly-effective interdisciplinary collaboration³.

Our aim is not to list the most advanced new technologies that are currently in use. Nonetheless, it is useful to briefly synthesize the stages in the technological development process over the past fifteen to twenty years by using some examples employing the technique of X-ray fluorescence spectrometry⁴.

During the 1980s, the equestrian statue of Marcus Aurelius in Rome was restored⁵. *Micro samples* were taken in order to analyze the composition of the alloy. The samples were treated and examined in the laboratory using X-ray fluorescence⁶.

During the 1990s, studies on the condition and state of preservation of the Chimera of Arezzo⁷ were carried out. Ten years after work on the *Marcus Aurelius*, the evolution was evident and micro-sampling was replaced by the use of *portable instrumentation* that could be used on site⁸.

In 2000, studies were carried out on the Capitoline wolf in Rome⁹. The advances in the development and use of X-ray-fluorescence technology are more than evident. The alloy was analyzed using truly portable instrumentation, attesting to the complex evolution from the use of **sources** to the more recent development of **detectors** with the miniaturization of the instrumentation. The instrumentation employed was a Silicon Drift Detector (SDD)¹⁰. A similar example (always in relation to the X-ray fluorescence technique) can also be used for studying pigments used in mural paintings.

In the 1980s, during the restoration on the ceiling of the

Sistine Chapel in Rome, micro-sampling was used to identify pigments. The micro-samples were examined using an optical microscope with polarized light, and the pigments were identified using atomic absorption spectrophotometry for the analysis of the metallic elements¹¹.

In the 1990s, the analysis of pigment samples from the wall of the Last Judgment in the Sistine Chapel employed a completely different system from the one used for the ceiling. *In situ* measurements were taken using a portable X-ray fluorescence unit equipped with a Mira laser¹², analogous to the one used on the Chimera of Arezzo.

In 2000, as in the case of the Capitoline wolf, a portable spectrometer based on a Silicon Drift Detector was enormously useful for studying a fresco by Lorenzo Lotto in Bergamo (Church of San Michele al Pozzo Bianco, 16th century). These examples clearly show a fundamental change in methodology, moving from a **traditional approach** in the analysis (sampling, observations under the microscope and wet-analyses using Atomic Absorption) to **non-destructive analytical methods** made using instrumentation *in situ*.

However, it is important to note how different the information acquired is, and we must understand both the positive and negative aspects of these different methods.

With regard to the above-mentioned examples, the portable X-ray fluorescence spectrometer does not require any physical samples be taken, and consequently, a greater number of analyses can be made resulting in more representative data. Additionally, the response times are markedly reduced.

We should ask ourselves if the information we obtain with these techniques meets our investigative goals. It should be noted that in terms of pigment identification, the XRF spectrometer is not always the appropriate tool. It only identifies the presence of metallic elements and consequently may not be decisive. Using only the presence of metallic elements to identify a pigment, present in large quantities or in trace amounts, may be limiting. Information may be lost, such as the size of an individual pigment particle, the chemical (changes) and optical (colour change) alterations, data that is closely tied to the appearance of the painted surface. What, then, is the advantage of these new techniques?

It is certainly important to be able to screen the metals present, and based on this preliminary data, to limit the number of *samples* to only pertinent areas. Essentially, this is the main advantage because it restricts the number of invasive actions, a fundamental precept in our approach to analytical investigations.

In the light of these considerations, we can ask: *what is the true added value in this innovative trend? What synergies exist between the quality of the diagnostic process and conservation treatments?*

In going from strictly technical aspects to more general considerations, a few perplexities may surface when we consider the effects of this constant process of innovation. If we examine the main topics of many of the conferences dealing with conservation, we see with increasing frequency that these topics can be grouped into three main categories:

- those concentrating on *materials characterization and diagnostics*;
- those describing *restoration treatments but without the necessary diagnostic premises*;
- and those that apply highly specific and targeted *analytical techniques*.

More specifically, the **first category** includes all those topics listing a **long series of analyses and results**, and that omit any type of final evaluation on the data and/or neglect to demonstrate the specific use of the data in making conservation choices.

The **second category** of topics (lacking in any diagnostic premise) refers to those '**amazing**' restorations resulting from treatments where the process used to make conservation choices was not clear.

The **third category**, which constitutes the majority of cases, refers to **analytical techniques**. In terms of methodology, these are certainly interesting and innovative, but more often than not, they are motivated by **benefits to other analytical solutions** and often ignore the relative costs involved. They never indicate any possible analytical pathway that may help in solving specific conservation problems using only the proposed technique.

Based on these results, we do not want to imply that the

innovative processes should not proceed. On the contrary, they must continue, but with increased emphasis on greater benefits. Apart from initiating possible synergies, I believe that we must ask ourselves: is there any analogous process in place today for developing *treatment methods for restoration*? Does an analogous evolution exist for the development of new restoration materials?

We certainly cannot answer this question here. Our intention is to stimulate thought and reflection in order to provide a starting point for further discussion.

In the most specific sense of the topic 'Investigation and New Technologies', we must also take into consideration the relationship between the *physical sciences* and the *historical-humanistic sciences*. To do this, we will use an essay written by the art historian, Roberto Longhi¹³, dealing with two specific cases.

The first case refers to the '*Lady with the Unicorn*' (1505-1506) by Raphael¹⁴. During its lifetime this work was repainted, transforming the main female figure into a Saint Catherine. In the early nineteenth century, Giulio Cantalamessa pointed out the non-homogeneous qualities in the painting of the Saint, especially in the areas around the hands and the spiked wheel. This opened the way in the twentieth century for Roberto Longhi to propose an attribution for the painting. Not only did Longhi identify Raphael as the *maestro* responsible for the work, he also showed extraordinary intuition in surmising the appearance of the original painting, which was subsequently fully supported by radiographic investigations and the restoration in 1935¹⁵.

The second case discusses Mantegna's '*Death of the Virgin*' (1462-1464)¹⁶, in the Prado Museum, and its famous *reunion* with '*Christ with the Virgin's Soul*'¹⁷ resulting from Longhi's profound stylistic, religious and iconographical reflections.

In the case of the work by Raphael, it is difficult not to extol the important role of the radiographic or reflectographic techniques in that early period (1928) when only a risky cleaning operation would have been able to identify the repainted areas. Technology notwithstanding, Longhi never hid his reluctance and hesitation.

I do not believe that any amount of technology could substi-

tute the cultured, in-depth process of critical reflection used by Longhi for the Mantegna works in recognizing the disruption of an original unity. I believe that Longhi's own words most appropriately demonstrate how pertinent this component is:

'There will most certainly be a moment in time when we will call for help from the restorers and their tools, the clicking away of specialized instrumentation. And there most certainly are many instruments, machines and tools that lay claim to having once and for all resolved the question of the state and condition of paintings, and that the intercession of the viewer, the critic, the historian, the connoisseur is now superfluous.

But, I do not think it wise on our part to abdicate so easily, and I believe this will never happen. The instrumentation does its work extremely well, but it will always be up to us to provide indications to the technician on the moment and on the exact points it should be used. Our eyes are charged with the careful checking and controlling of the work done by the machines, and the observation and evaluation of this work in relation to the artefact.

We should never forget that the eye is a tool whose precision surpasses any other mechanism: only the eye is equipped with a critical conscious, and it truly knows and understands the history of art'¹⁸.

Even though we are in agreement with this view, it does not imply our total relinquishment of the exact disciplines and of conservation science.

¹ *Recent advances in conservation*, contributions to the IIC Rome conference, 1961. International Institute for Conservation, Great Britain, London: Butterworths, 1963.

² Various authors, *Proceedings from the international congress, Applicazione dei metodi nucleari nel campo delle opere d'arte*, Rome, Accademia Nazionale dei Lincei, 1973.

³ 'Obras de arte y técnicas de investigación no destructivas: un binomio imprescindible', Borrelli, E., Alonso, M., In: *9 congreso nacional END*, Vitoria Gasteiz, Spain, 1999, p. 253-259.

⁴ X-ray fluorescence analysis uses the X-ray emissions stimulated from metal in alloys or from metals in individual pigments by high energy X-rays. High energy X-rays cause electrons closest to the nucleus to be ejected. Then as electrons further from the nucleus fill the gaps caused by the ejected electrons, secondary X-rays of an element, called X-ray fluorescence, are emitted and can be measured with a detector. These secondary X-rays identify the particular metal element. The identification of single metal ele-

ments can assist in the identification of specific pigments; for example, mercury in cinnabar, or lead in white lead.

⁵ 2nd century BC.

⁶ *Marco Aurelio: mostra di cantiere*, Istituto Centrale per il Restauro, Italy, Roma: Arti Grafiche Pedanesi, 1984; *Monumento equestre di Marco Aurelio: rapporto sugli studi e ricerche svolti dal CISTeC nel periodo 02/01/95 - 31/10/96*, Università di Roma "La Sapienza". CISTeC. Rome, Italy, 1996.

⁷ An Etruscan sculpture (5-6th century BC) discovered in 1553 in the countryside of Arezzo and restored by Benvenuto Cellini. Museo Archeologico, Florence.

⁸ Device with radiogenic tube and HP(Ge) planar detector (Liquid Nitrogen cooled) resolution 195 at 5.9 keV. See also *La Chimera d'Arezzo*, Nicosia, Francesco (ed.); Diana, Maurizio (ed.), ENEA, Italy, Florence: Arti grafiche "Il torchio", 1992.

⁹ Bronze, 6th century BC. In December 2006, the book by the restorer, Anna Maria Carruba, *La Lupa Capitolina - Un bronzo medievale* (De Luca Arte Edizioni), was published. The author maintains that the famous statue is not Etruscan, as believed until now, but rather Carolingian or Romanesque. Important information has emerged as a result of the many chemical and physical analyses made on the work. The scientific analyses support the newly proposed dating, which are based on technical characteristics gathered from direct observation of the work and from a comparison of the casting characteristics of classical Etruscan, Greek and Roman bronzes with medieval bronze statuary, studied with the support of literary sources and analysed in historical and artistic studies.

¹⁰ Peltier cooling system, energy resolution 155 eV at 6 KeV.

¹¹ 'Ricerche tecnico scientifiche sugli affreschi di Michelangelo', Gabrielli, N., Morresi, F., in *Michelangelo e la Sistina*, Fratelli Palombi ed. Rome 1990 pp. 115-121.

¹² 'Analisi Non Distruttive di elementi chimici eseguite sull'affresco del Giudizio Universale di Michelangelo', C. Falcucci, Sebastiano Sciuti, in *Michelangelo: la Cappella Sistina. Documentazione e interpretazione*. I: Novara: Istituto Geografico De Agostini, 1999.

¹³ *Storia del restauro e della conservazione delle opere d'arte*, Conti, Alessandro, Milan: Electa, 1988.

¹⁴ Museo Galleria Borghese, Rome.

¹⁵ <http://www.mostraraffaello.it/opere1.htm>

¹⁶ Tempera on wood panel 54 x 42 cm.

¹⁷ Ferrara, Pinacoteca Nazionale.

¹⁸ Conti, Alessandro, Milan: Electa, 1988. op. cit.

STEFAN MICHALSKI

How science contributes to risk-based decision making (RBDM) in museum lighting

LIGHT-FADING DATA AND LIGHTING GUIDELINES

Museum collections provide ample evidence that the sensitivity of materials to light varies by many orders of magnitude. Of course, many inorganic materials are not expected to be sensitive at all (stone, metal, ceramics, glass) but within the organic materials that we expect to be sensitive we can find objects that don't appear to fade at all, e.g., engravings on paper, versus objects that fade so rapidly we can personally notice the change, e.g., color photographs. Every conservator has stories or images of things in this latter category, and will use them to warn about the general risks of fading.

For the entire twentieth century, the colorant industry confronted this range in sensitivity and quantified it. A practical sensitivity scale ("lightfastness") was developed for textiles by 1924. Since the 1950s, lightfastness testing has been routine in the paint industry, as well as for artists' paints. The multi-volume Colour Index has compiled such data since 1925. There was also no lack of conservation scientists publishing on the rate of historic colorant fading: Stromberg in the 1950s, Padfield and Landhi in 1966, Feller and Johnston-Feller throughout the second half of the twentieth century. I have provided reviews of all of this literature and its implications for museum collections (Michalski 1990, 1997) and made a plea to consider it as part of the lighting decision (Michalski 1990), but aside from a few museums such as the Victoria and Albert that have developed lighting guidelines linked to sensitivity data, most still adhere to the simple rules that emerged in the 1970s - use 50 lux for paper, textiles, and similarly "sensitive" materials, and 150 lux for paintings.

Several reasons have contributed to the avoidance of quantified lighting decisions. The data is uncertain, and still requires an expert for its interpretation. Implementation of such an approach object by object becomes unmanageable in practice, and strategies for reducing this complexity are still in debate. In my experience, however, the most

important avoidance is probably philosophical – individuals do not want to tacitly “approve” future damage to their collections. It is less painful to make decisions based on the risk of inadequate public access (we need 50 lux to see objects minimally well), than to confront its twin, the risk of damage.

RISK-BASED DECISION MAKING

Risk-based decision making, or risk management (Antomarchi et al 2005) confronts explicitly the acceptance of future damage to collections. It does so in order to rationally minimize the sum of all damages and losses to the collection, in other words, to deliver the collection to some future point in time with as little loss as possible.

EXAMPLES OF LIGHTING DECISIONS USING SCIENCE

BARNETT NEWMANN’S “VOICE OF FIRE”

Barnett Newmann’s painting “Voice of Fire” was purchased by the National Gallery of Canada in 1989 for \$1.8 million. The purchase provoked a national debate over government spending, with predictable battle lines drawn between those who appreciated modern art and those who did not. It has since settled into being a respectable tourist attraction, and a very profitable investment.

At the time, a small conservation crisis arose for the gallery. The only space available for display of such a large painting was in a “public space,” where the architect had designed more daylight than permitted in “display spaces.” The conservator asked me discretely for an opinion on the risk to the painting if it was displayed at 600 lux rather than “conservation” levels of 150 lux. Fortunately, there was no need for time-consuming analysis, since the same conservator had conducted an artist’s interview earlier, and was able to provide the identity of the two colorants used for the painting. I could look up the colourants in Levison’s landmark 1976 text *Artists’ pigments : lightfastness tests and ratings : the permanency of artists’ colors and an evaluation of modern pigments*. As with many daylight studies of lightfastness however, it is not an easy book to interpret when one is attempting an absolute prediction of fading rather than simply a ranking of relative durability. My knowledge of both colorimetry and exposure studies was essential in order to convert the data into a prediction of fading, but in the end I

could estimate that given the 600 lux of UV filtered lighting, the weakest of the two colorants (an excellent and expensive cadmium red) would, at the worst, fade one just noticeable step in approximately five hundred years of display.

I stated that this was a smaller risk than even all the other small risks that were already deemed acceptable by the gallery, such as the yellowing of the medium in 50 years (which the lighting would reduce!), likely vandalism of art on open display, and likely accidents during the many moves of same period. At the very least, I could state that the gallery could leave the controversial painting on display where it was for a decade or more while it reconsidered its lighting options, without any risk of fading.

PENCIL MARKS ON A MAP AND THE VICTORIA CROSS

I was part of a conservation survey of all military museums in Canada during the 1990s. I went into the field as a surveyor to gain experience during development of the systematic approach that later informed our approach to risk management (Antomarchi et al 2005). One of these museums was housed in a recently completed facility for the military unit it represented. Its most important artefact was a Victoria Cross awarded to an officer of the unit during World War I. The Victoria Cross is the highest award for bravery in the British Commonwealth, a powerful symbol to foster *esprit de corps* in any unit that holds one, and a highly coveted collector’s item. The medal itself was kept in a secure vault, but an artefact specific to the act of bravery was placed in a highly visible location near the entrance to the building, illuminated at several hundred lux by daylight. It was the officer’s field map, showing his blue pencil markings of plans made the day before he won the Cross. My assessment was that without difficult and time-consuming analysis, the blue pencil markings must be presumed to be no better than #1 on the ISO Blue Wool scale (Michalski 1987, 1990). Whereas coloured pencils can be less sensitive than #1, many are not, and until proven otherwise, one must presume the worst. In the current lighting situation the estimated rate of fading was one noticeable step each month, and total loss in little more than three years! The pencil markings still existed only because this display situation was new, and

the case was only exposed to indirect daylight. Until the expansion of the museum, the map had probably been folded, and probably in storage. My advice was to remove the artefact immediately, and to consider a good replica. Replicas of the Cross and other precious medals were already in use due to theft risks. High sensitivity colorants, i.e., the #1 to #3 range, are still at significant risk even with so-called “conservation” light levels. A colorant with sensitivity ISO #1 illuminated at 50 lux will fade one noticeable step in about one year, and will lose almost all colour in ~30 years.

LESSONS FROM THESE AND OTHER EXAMPLES

We have seen an example of very low sensitivity to light (the *Voice of Fire* painting) and an example of very high sensitivity to light (the map with blue pencil markings). In both examples, scientific knowledge permitted a risk-based decision very different from the normal guideline that “all objects be displayed at either 50 lux or 150 lux.” One could even say that once the knowledge was uncovered the museum was forced ethically to make a very different decision from normal guidelines. The gallery could not deny the public access to an important painting bought with public funds just because the conservation rule of 150 lux was being broken, since there was no risk.

The military museum could not jeopardize a map with evocative and ephemeral pencil markings that had survived almost a century (by being folded) just because the conservation rule said 50 lux was “safe” because in fact, the risk was great. The science behind the risk analysis of lighting is not simply the data, which is often incomplete or abstruse, but its interpretation. Despite our attempts to develop tools to aid this process for conservators, such as the review articles noted already, the CCI light damage slide rule (now out of stock), and the CCI light damage poster (now out of print), it is clear that what is needed are better risk analysis tools. Two are emerging.

The micro-fading apparatus developed by Paul Whitmore at the Carnegie Mellon Institute allows one to measure the fading rate of a microscopically small spot directly on the object in question. This method bypasses all the analytical and interpretive tangles of an indirect approach. The tool is

too expensive for most museums (~\$50k), but for large museums, and for regional or national agencies, it will become an indispensable tool for risk analyses of important objects that must be displayed. My institute is finalizing a web-based light damage calculator. It will be linked to a database of sensitivity ratings of colorants, presented and organized in a manner to allow non-technical users to find the probable colorants in their objects, and to find the probable change in colour as a result of the lux level and display schedule that they select. This eliminates all the searching and calculating that has previously hindered most users from making risk analysis of museum lighting. As results from the micro-fading apparatus accumulate in this database, uncertainty of the risk analysis will diminish.

CONCLUSION

As with most applications of scientific knowledge to decision making, the problem with risk analysis of museum lighting has been comprehension and interpretation of scattered data. In the past an expert was required, such as myself, but soon I hope to see all that acquired knowledge in a complex model hiding behind a friendly web page.

Before the lecture I thought of these two examples as interesting but perhaps too superficial. Participants in the course however, expressed gratitude in their evaluations for the “practical” nature of the talk. In hindsight I believe that the resonance was not just about making fading science accessible, but about applying it directly to dilemmas faced routinely by those who care for collections “in public trust.” Risk-based decision making sounds bureaucratic, but it is simply a formalization of the human need to sometimes make intelligent, informed, ethical decisions, rather than follow the rules.

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AGNES W. BROKERHOF
***Towards risk-based
decision making:
some personal reflections***

THREE SHARING CONSERVATION DECISIONS COURSES

LATER....

Looking back on three SCD courses, I can see a development in teaching decision-making models from my first course in 2002 to the third one in 2006. It seems to be as much a personal development as a reflection of the changes in our working and thinking.

2002: THE DECISION-MAKING MODEL

In 2002 the emphasis was laid on illustrating what colleagues and I had done in the Netherlands with the 'Decision making model for the conservation and restoration of modern art' (Foundation for the Conservation of Modern Art 1997). A model developed in the Netherlands for modern art as part of a national project that had its grand finale in the conference 'Modern Art who Cares' in 1997; at first sight a very modern model, but actually a revival of work that had been done in the 1970s by Ernst van de Wetering and others on decision making about the conservation of non-Western, ethnographic objects. Both in modern and ethnographic art, one has to understand the meaning and values of the objects before you can interpret material changes. Are they really unwanted, and thus damaging, or might they add value to the object? The decision-making model is therefore based on the discrepancy between the condition and the meaning of the object. Only if a discrepancy exists, is there a conservation problem and the challenge to solve it.

The model was discussed with the participants and illustrated with its application on the conservation of a collection of fluid preserved specimens, to show that although designed for modern art, the model can be applied to any object or collection (see also van Dam 2004 and Wisse et al. 2005). It was the time that Powerpoint was the medium for presentations and my teaching skills were limited to presenting what I had learned and discussing and comparing that with the course participants afterwards. This approach

was somewhat in contradiction with that advocated by the decision-making model itself, which is all about sharing opinions and discussing issues until decisive arguments can be clearly formulated. I also fear that the decision-making model as such might not have stuck with the participants as much as the gross pictures I showed them of seventeenth-century human specimens, artistically stuffed in glass jars filled with discoloured alcohol. The appearance and condition of the specimens were much more confrontational than the meaning and values of the collection....

2004: FIRST STEPS OF RISK ASSESSMENT

In 2004 the modern arts model had made way for the larger model of Risk Assessment. In between the two SCD courses, I was fortunate to participate in the 2003 ICCROM course 'Preventive Conservation – From current issues to common strategies', where Robert Waller introduced the CPRAM method to assess risks for collections (Waller 2003). As a result we at ICN had performed our first proper risk assessment together with Waller and Museum Amstelkring - 'Our Lord in the Attic' in Amsterdam (Brokerhof et al. 2005). The risk assessment was conducted to determine priorities in preventive conservation and provide possible arguments for expanding the museum. I could now share my experience in making decisions with the participants in a larger context. The didactic approach had also changed. Thanks to the PC03 course, which was not only about the current issues in Preventive Conservation but also about the various teaching techniques, I had learnt much about teaching mid-career professionals. It is not about presenting knowledge, it is about offering a platform to expand one's own knowledge by doing and discovering, by connecting new information with personal experience. It is not about passively absorbing information from someone else, it is about actively building knowledge. The teaching in the 2004 SCD course also became a duo act together with Stefan Michalski who did an exercise, 'Diving in Judgement time', in which the group has to identify a number of risks in a photograph of a museum storage facility and then score these risks like figure-skating judges holding up numbers. The exercise, together with a presentation on how this approach can be used in practice, gave a good impression of the strength of collec-

tion risk assessment.

2006: TOWARDS RISK-BASED DECISION MAKING

When the third SCD course came round at the end of 2006, I had developed further experience both in doing risk assessments and risk management and in teaching aspects of it in various forms and exercises. So I was able to do an hour and a half practical teaching session on risk-based decision making. It must be mentioned here that since 2004 we had taught the ICCROM-CCI-ICN-CMN course on 'Preventive Conservation – Managing risks to collections' in 2005 and 2006, which involved considerable preparation, and long deliberations on teaching objectives and on the most suitable educative manner to adopt in order to achieve them (Antomarchi et al. 2005). Working together with very experienced teachers also helped improve teaching skills each time. Because to be honest, where I come from I am a scientist; I have been taught how to conduct research but not how to be a good teacher. It is only through being given the opportunity to work together with good educators that I have been able to develop my teaching skills.

So, in a heritage world where risk assessment and risk management are gaining momentum and where risk-based decision making is becoming a term for general use, the SCD06 course was able to profit from our latest developments, both in content and in teaching methodology. The objective of the session in risk assessment was to provide the participants with a taste of the real thing. They had to carry out a risk assessment and think about options to manage those risks to experience the power of the risk management approach as a tool in the decision-making process.

One of the things that has developed over the years in the ICCROM courses is having a 'participants' collection'.

Participants each bring an object, which they use to introduce themselves, their country and their culture. The collection of objects stays in the classroom throughout the course and is used in exercises or to give examples. The group had to assess the risks to this collection and suggest options to reduce them. Although still using Powerpoint as a black-board, the session was entirely interactive this time.

Risk assessment is all about estimating the expected loss of

value over a certain period. Therefore, one needs to know the value of the object or collection before being able to assess any loss. Fortunately the SCD course is very value-focused and the participants had just been practising writing a statement of significance. It proved to be relatively easy to draw up a statement of significance for the participants' collection (which is not the same as that for each separate object). While I gave a short introduction into the basics of risk and risk assessment, two participants who were managing a collection of sweets had the chance to increase or lose their collection by answering or guessing the right answer to a series of questions I put to them. The questions ranged from 'what number will show up on my dice?', a question for which one has a 16% chance of getting the right answer (the same uncertainty for everyone), to 'how many people live in New Zealand?', a question that could be answered correctly if our managers had the knowledge, or were willing to buy the right answer from our New Zealand participant. Looking at how much the collection managers were willing to bet on their giving the correct answer and win sweets, gave the group a feeling for the concepts of 'Probability', 'Uncertainty', and related 'Consequence' (of collection loss).

After the introduction to the methodology, small groups of two or three participants were asked to look at a specific risk that we had identified for the collection in the classroom: for example, the fading of the objects due to the existing lighting; loss of objects due to theft by insiders; or loss of value due to the fact that the collection was not registered or documented, a so-called dissociation risk. The small groups had to determine the magnitude of their specific risk using the ABCD-scales that Michalski has developed (Michalski 2005). This semi-quantitative way to assess risks requires scoring four components:

- A. How often, or how soon, does the event or damage occur? (which can score 1 point for 10,000 years to 5 points for 1 year).
- B. How much value is lost in each affected artefact? (which can score 1 point for no noticeable loss to 5 points for total loss).
- C. How much of the collection is affected? (which can

score 1 point for a minute fraction of the collection to 5 points for the entire collection).

- D. How important are the affected artefacts? (which can score -1 point for less than average to 4 points for the one or two absolute treasures in the collection).

The order of magnitude of the risk is a combination of all four factors. In this method, the numerical estimates of the four factors are added: $MR = A+B+C+D$, with a maximum score of 15 points.

Whichever system for evaluation is used, the result of a risk assessment is a more or less rational ranking of risks, based on their expected magnitude. This allows for setting priorities in treating or reducing the risks. The group had scored nine specific risks which could now be compared and discussed. Usually the starting point for risk mitigation is looking at the biggest risks first and thinking of options to reduce them, but it can also be cost-effective to look for commonalities, finding common causes or common solutions so that efficient mitigation options can be identified. A risk may also seem big but with a large uncertainty in the estimated numbers. In that case it may be better to invest in research to reduce the uncertainty. It may turn out that with better understanding of the risk, the magnitude is found to be smaller, or even acceptable, after all. In only ninety minutes the participants could not be expected to assess the risks and provide the optimal solutions for the collection.

However, the exercise made clear to the group that after ranking the risks and inventorying options to reduce them, and with the aid of cost-benefit analysis, it becomes possible to select the relevant risks and treat them adequately and cost-effectively. Instead of following best practice solutions for known and experienced problems, often developed by others for very different circumstances, tailor-made solutions can be developed for the risks that really matter in a particular situation. What is more, the argumentation for cost-effective options to reduce the risks can be expressed in a language that decision makers and museum managers understand. A manager can deal with predictions of loss of value of the collection, expressed in terms of money if needed. Moreover, the language of loss of value or loss of

collections can be spoken and understood by the entire cultural heritage community. Being forced to think about the reason for the existence of our collection, its values and the possible losses, the process of carrying out a risk assessment usually leads to increased awareness about the collection and working procedures, and to increased respect for each other's knowledge, throughout the entire organisation. It also confronted the participants with the knowledge required to do a risk assessment: not only technical and material knowledge, but also about the collection, its reason for existing and the protagonists involved in determining the values.

CONCLUSION

Looking back on the three SCD courses I have taught in, while putting my thoughts to paper, shows that I at least have come a long way; from a gross Powerpoint presentation to a highly interactive, playful building experience exercise. After the last course the participants should have a fair understanding of how risk management can be used as a decision-making tool in the larger system of collection management. I do not expect that they are now able to carry out a proper risk assessment; that was not the objective of the session. If they would like to do that, ICCROM has another great course!

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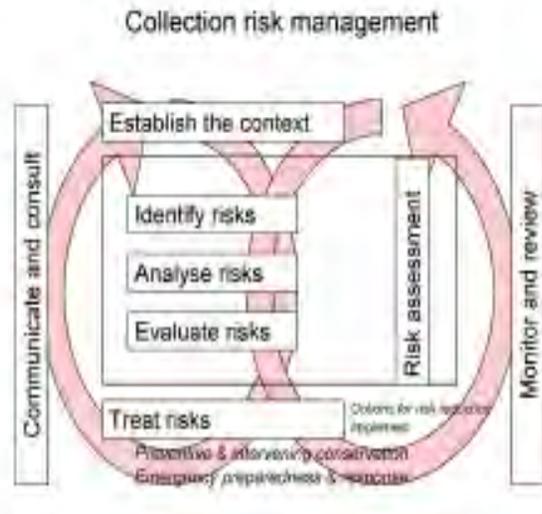
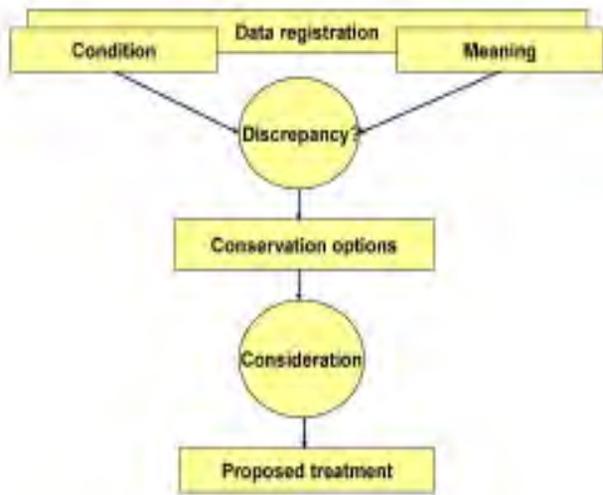


Fig. 1 - From the Decision-making Model for the Conservation and Restoration of Modern Art...
 (reproduced with permission of Foundation for the Conservation of Modern Art/ICN, Amsterdam)

...to the the Risk Management Process
 (reproduced with permission of Standards Australia International Ltd, Sydney)



Fig. 2 - From looking at intriguing pictures
 (Specimen of child's arm by Frederik Ruysch, Photo Anatomical Museum LUMC, Leiden)



...to doing a risk assessment exercise
 (participants of ICCROM course in action)

CHAPTER VI

LEARN FROM THE EMERGENCY

Introduction

ROSALIA VAROLI-PIAZZA

Decision making in emergency situations

Using the history and facts surrounding two devastating events in Italy, we attempted to understand the mechanisms and the knowledge that can be used in emergency situations when cultural heritage and identity are threatened. The two events we focused on left deep lacerations in Italian cultural heritage: the 1966 flood in Florence, and the earthquake that hit Umbria and the Marches in 1997, severely damaging the Basilica of St Francis in Assisi. Both these catastrophes are part of the **identity** of these communities in addition to being disasters to national and universal heritage. What mechanisms are consciously and unconsciously activated, when and how does knowledge fit together in a solidarity relationship with know-how and experience where everyone involved should have a well-defined role, which at times is more creative than bureaucratic?

Knowing how to **listen** and knowing how to **see** are the most effective tools for formulating an emergency and risk plan that is based on past experiences from both the distant and recent past. The process must include a critical analysis of available data, the identification of human resources and the proper tools to utilize.

In these situations, the contributions made by **volunteers** were of paramount importance, and numerous individuals came to lend a hand. When even drinking water is often at a premium, it is very important to have a pre-formulated plan on how to use these individuals, how to deploy them and what tasks they can be given under the surveillance of personnel trained for this type of responsibility¹.

In the past, we have seen that traumatic and dramatic situations, such as the events presented and discussed by the course participants, sparked new proposals and suggestions significantly changing the course of history of conservation for our cultural heritage.

Over the past few decades, concepts like *preventive conservation* and *risk management* (the slow but relentless action of light on organic materials is, nonetheless, a risk)

have become a reality, opening the way for theoretical-practical courses².

Notwithstanding their relative costs and complexities, operational tools can be studied and debated. One such tool is the *Risk Map* conceived in the 1970s by the Istituto Centrale per il Restauro following the earthquake in the northern Italian area of Friuli, and re-elaborated in the 1980s³ using updated instruments including geo-referencing, which entails plotting cultural property on satellite maps of the territory.

But, do we truly put into practice what we learn from these tragic events? In moments like these a powerful collaborative force is set in motion, and marvellous ideas emerge.

Once we return to our respective institutions, however, it is no easy task to get approval from our own boss, from the general director, from the minister and from the government for those projects and *legislative instruments* that give operational impetus, whether at national or international levels, to the preparation of personnel and the creation of vigorous and rapid operational structures.

Someone is embittered and disillusioned; why is it that still today we have not done what seemed to be the simplest and most reasonable thing after the disaster in order to avoid future catastrophes?

This is the way history works: more often than not, we record only a few events; the 'winning' ones! But we also know that through perseverance, and often great pains, we can obtain what we believe is necessary⁴ for safeguarding the *cultural heritage of all humanity*, as stated in the 1954 Unesco Convention at The Hague⁵.

We need to continue to persevere together, because eventually we will accomplish what we believe in. Towards this end we must work together, even over distances, but always steadfastly: *'Drops of water carve out stone'*⁶!

¹ e.g. the Civil Defence Unit in Italy: www.protezionecivile.it

² e.g. the ICCROM courses in Preventive Conservation beginning in 1976, and in Risk Preparedness in 2003.

³ *infra*, C. Cacace.

⁴ *infra*, P. Camera.

⁵ The Convention for the Protection of Cultural Property in the Event of Armed Conflict, The Hague (Netherlands), 1954 (<http://portal.unesco.org/culture>).

⁶ *'Gutta cavat lapidem'*, Ovid (Latin poet, BC 43- AD18), *Ex Ponto*, IV, X.5; a phrase quoted by many other Latin authors that was very 'successful'.

SIDOTI ALESSANDRO

The National Library of Florence: difficult decisions following the 1966 flood

The National Library of Florence suffered such extensive damage due to the flood on 4 November 1966 that we can say that this event has now become part of Florentine history. What really made the difference compared to later floods is that the one in Florence was the first of its kind. Before 4 November 1966 the concept of facing emergencies in libraries was still at a very early stage and the Biblioteca Nazionale Centrale di Firenze (BNCF) was completely unprepared for an event of this size. Two of the main antique collections, the Palatina and Magliabechiana library, housed in the basements (to protect them from the Second World War bombings) were badly flooded, although fortunately almost all of the manuscripts were unaffected¹. However, it was not just the library that was unprepared; also the Italian Ministry of Cultural Heritage lacked the know-how to deal with such a disaster. Luckily, the BNCF was headed by an outstanding director, Emanuele Casamassima, who clearly understood the situation and realized that the need for help was much greater than first anticipated. This was the first difficult decision to be taken: was the library able to cope with the disaster or did it need additional help and to what extent? Casamassima shouldered the responsibility of accepting volunteers to help the staff extract books from the mud and participate in the first recovery operations. He managed to liaise with the Committee to Rescue Italian Art (CRIA) to seek international help, as the recently formed Istituto Centrale per la Patologia del Libro (ICPL) could not cope with the quantity of volumes.

THE BRITISH TEAM

Fortunately the British Museum responded to the international appeal for help by sending a highly qualified team to the National Library. The team, led by Peter Waters and Roger Powell together with Tony Cains, Christopher Clarkson and Dorothy Cumpsty, arrived in Florence towards the end of November. Peter Waters soon realized that this was a situa-

tion that required a new approach, but what was it that he and his colleagues were going to work on? The books had been sent to dry out in various places such as tobacco and ceramic kilns throughout Italy. The materials were in an



extremely poor condition as some of the books had been soaked for days leading to the formation of mould and damaging the paper fibres. They were almost all covered in mud, their edges were very brittle and brown from

the gelatin sizing. Many of the antique materials were suffering from the drying methods used² and, in particular, stiff leather and parchment covers were drying very unsatisfactorily. The second difficult decision had to be taken: all the books needed to be pulled³ to allow the paper to be dried separately from the cover and the boards, which were retaining too much water and preventing the inside of the books from drying out evenly⁴. This was a difficult choice and would probably not be repeated today, but one has to bear in mind that there was no previous experience in dealing with a situation of this kind and many of the decisions taken were “experimental”. However, the first to embrace this unconventional approach was Peter Waters, who questioned the decisions made by Casamassima and managed to convince the director to progress from only drying and storing the badly-dried distorted books (unable for readers) to setting up a huge restoration workshop from zero. One of the main concerns of the team that came to Florence was the lack of knowledge on the part of the Italian volunteers and craftsmen: many of (if not all) those involved in the work were totally untrained and this was complicating the *system* that Waters wanted to set up. The other problem was the language: many of the helpers were highly skilled foreigners but most of the untrained volunteers were Italian with very little or no English⁵. The need for extra assistance was immense and the *system* was to train five

people each week (by the year 1968), yet it was not possible to fully train a restorer in such a short amount of time. The team therefore decided to split the operations involved in restoring a book into a sequence (i.e. pulling, mending, sewing, binding), each operation creating a separate department within the library workshop, so that each person working there would only carry out one single operation. Waters also divided the books into various categories⁶ so that books from more or less the same period would be bound in a similar manner. The whole idea was to create something like an assembly line. One of the important changes in the working procedures devised by the English team was that every book was described and photographed before being restored, and the use of a *slip* was introduced on which symbols were drawn to further divide the material on the basis of its conservation problems. The *slip* later evolved into the so-called 100 boxes report designed by Peter Waters and Tony Cains and originally



drawn and handwritten by Waters' wife, Sheila. The idea of using symbols was to help overcome language difficulties; during the early stages of the system people were

coming from all over the world to help. The team wisely devised a special symbol much like a no-entry sign indicating that "this is a fine book and should not be handled by volunteers", as not all those involved were able to deal with every book.

WHICH BOOKS SHOULD BE RESTORED FIRST?

This was a difficult question as at the very early stage many of the books were still unidentified. As the catalogue was also flooded, it was not possible to prioritize at this point. Later on, the decision was made to try to restore at least one copy of those volumes that existed in different editions, in order to take readers' needs as well as the biblio-

graphical factor into account. By the end of 1967, the dried books were being returned and the director, Emanuele Casamassima, was determined to no longer use the basement, so he converted the main reading room into the conservation workshop, thereby closing it to readers. The recovery plan was evident to everyone; the library was trying to stand on its own feet again and yet was not hiding its head in the sand.

THE LIMP VELLUM PROJECT

The flood not only introduced the concept of conservation to what had formerly been referred to as rebinding⁷, but also represented an opportunity to study vast numbers of bindings exposed to severe stress, which would inevitably reveal the strengths and weaknesses of the different binding methods. By the end of 1967, Chris Clarkson realized that limp vellum bindings survived the flood much better than their stiff counterparts, especially in the case of small-sized books. It also became increasingly evident that some of the early sixteenth-century techniques were able to produce a much more durable book: the method of sewing every single quire and lacing all the bands and end bands sewn into every fold, relying very little on the use of adhesive, made a considerable difference to the durability of the book. The flood experience acted as a turning point for the whole field of book conservation⁸. Most of the techniques adopted are now considered standard, but at the time they were new and experimental.

ASSISTANCE FROM ABROAD

Apart from the books being restored locally, the library was sending books out to other institutions willing to help, and this eventually spread the word on how the books should be restored and encouraged institutions to seek a common approach to restoration.

FORTY YEARS ON

During the early 1970s, the National Library workshop consisted of around one hundred and twenty personnel. The initial project was to complete the flooded material in twenty-five years. Unfortunately this was not to be and many volumes are still awaiting treatment⁹. One of the critical factors is the decreasing number of staff now employed in the workshop. Many of them were hired together and have

now retired together; furthermore, as the crisis became less serious, many were transferred from the restoration workshops to the library offices. As already mentioned, the library was hiring five new workers each week in 1968, but it has taken fifteen years to hire the last five conservators, and all this has reduced the current number of staff employed to twelve. It is obvious that the assembly line could not function with such a small number; most of the personnel have been retrained to carry out all the different tasks involved in restoration.

Another factor to be considered is that all the conservation efforts at the National Library were focused on the flooded



material - so what about the rest? It was simply left untouched, meaning that many of the current library holdings are now in poor condition. The necessity to get on with the flooded material eventually resulted in outsourcing the restoration work, so that library conservators now face new problems like quality control and all the red tape involved in outsourcing projects¹⁰. The conservation workshop was moved out of the library (due to lack of shelf space) in 1997 and with it the flooded material that is no longer stored in the building; the library basement is now in use again (though now for storing the foreign publications that each National Library is expected to retain).

CONCLUSION

The experience gained and lessons learnt from the 1966 flood disaster at the National Library of Florence can be considered the precursor of modern book conservation. It triggered off a new approach to book conservation all over the world, and yet the restoration work resulting from the flood has still not been completed and today's situation of

understaffing and diminishing funds for libraries in Italy is itself becoming an invisible flood that could eventually inflict more damage than that of 1966.

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¹ Extract from the survey by Emanuele Casamassima, January 1967: 1.200.000 bibliographical units comprising:

Books: 300,000

Newspapers: 20,000 titles amounting to 400,000 volumes;

Magazines: 10,000 amounting to 60,000 volumes;

Miscellaneous publications: 400,000 pamphlets and extracts;

Theses in French and German: 40,000 volumes.

Catalogues and inventories: all catalogues and inventories both bound and in card form (10,000,000 cards) were damaged.

Materials and systems: central heating plant, telephone system, pneumatic mail, lifts, sanitary amenities were all seriously damaged. 24,000 metres of shelves, 5,000 filing cabinets, cupboards, tables, chairs etc. were destroyed. The just over two-month-old Mechanographical Centre of the Italian National Bibliography was also damaged.

Building works required: total overall cleaning; re-plastering of walls; repair to doors, windows and floor surfaces at underground and ground level.

² At the very beginning, the volunteers tried some drying techniques that proved to be more damaging than useful, using talc and sawdust that inevitably combined with the mud to form a very hard compound, which was difficult to remove.

³ At the beginning of the drying work, books were pulled when they were still wet and this led to an incredible amount of spine damage, which lessened considerably when it was decided to pull the books only when dry.

⁴ In the early stages of the flood rescue operations the bindings were taken apart without considering how to reattach them to the book and this resulted in several hundreds of unrecognizable covers, which are now termed 'mute' as it is not possible to identify which book they belonged to.

⁵ Barbara Giuffrida helped as a working translator.

⁶ A number relating to the printing date was given to every book.

⁷ There is no evidence of the use of the term "conservation" relating to library material before the 1966 flood.

⁸ Peter Waters moved to the Library of Congress, Anthony Cains to Trinity College Library in Dublin, and Chris Clarkson to the Library of Congress and to the Bodleian Library in Oxford.

⁹ **Summary of the flooded antique collections dated September 2006**

Fondo Magliabechiano

Flooded	Restored	Washed	To be washed	Missing
57072	32743	13613	1216	4024

Fondo Palatino

Flooded	Restored	Washed	To be washed	Missing
10159	6003	2749	493	282

Fondo Palatino Cartella

Flooded	Restored	Washed	To be washed	Missing
587	504	—	5	78

Banchi

Flooded	Restored	Washed	To be washed	Missing
1093	272	233	334	148

Miscellaneous Magliabechiano publications

Flooded	* Restored	Washed	To be washed	Missing **
42012	11781	59	30172	—

*The number of flooded miscellaneous publications cannot be precisely calculated, so only identified publications have been indicated.

**The number of missing miscellaneous publications cannot be calculated, as the identification of material without shelf marks is still in progress.

¹⁰Almost all the outsourcing projects concern flooded material, as this type of material requires more standardized operations and facilitates cost assessment.

PAOLA CAMERA
Florence 1966:
comparing experiences

November 2007: the flood that hit the city of Florence in November 1966 is commemorated with videos, exhibitions, restoration and debates. All over Italy, 4 November 1966 was truly a dramatic day, especially for the cultural and environmental heritage belonging to the cities of Venice and Florence. The memory of those tragic events lives on. Everything changed, nothing was ever the same: a true *ground zero*; two cities of art, custodians of an inestimable patrimony that renders them unique and invaluable. In 1966, they were left vulnerable, impotent, pummelled by the devastating force of the water and the oppressive mixture of mud, oil and fuel oil that in only a few hours penetrated and ravaged their ancient core - forever. Both cities experienced violent floods, without warning or alarm; both succumbed to delays in assistance, rescues that were both slow and contested, and forty long years of restoration. Some of the restoration is still being carried out¹; other recoveries still have to begin. Questions are still lingering, and there is bitterness about not having foreseen what may have been foreseeable. We immediately perceived that this profound, vast and problematic topic could provide fertile terrain for discussion, idea-exchange and investigation for our enthusiastic international professionals; a unique opportunity to delve into a collective and current topic dealing with the safeguard and protection of cultural heritage in natural disasters and emergency situations. We concentrated on Florence: during the course we planned to spend three days in the city, attending some of the commemorative programmes and immersing ourselves in the atmosphere they recreated. On 2 November 2006, in the conference hall at the Opificio delle Pietre Dure Restoration Laboratories in Florence, the participants in *Sharing Conservation Decisions 2006* were transported forty years into the past: we watched and listened to the documentary film made only a few months after the tragic event by the Florentine director, Franco Zeffirelli, with the original English narration by the British actor, Richard Burton². We all watched and listened with astonishment, silence, and emotion as we were cata-

pulted back into that disaster; the loss of human life, the sacrifices of shattered lives, our attention especially focused on the city's art treasures, irreparably damaged rare testaments to our universal history. There were one thousand four hundred devastated works. Of this number, two hundred and twenty-one were panel paintings, four hundred and thirteen canvas paintings, thirty-nine frescoes, and one hundred and twenty-two sculptures. The Museum of the History of Science was in shambles, the collection of antique musical instruments destroyed, the *Crucifix* by Cimabue and the frescoes by Paolo Uccello were desecrated, the entire Etruscan section of the Archaeological Museum was almost completely wiped out, the State Archives - where the history of Florence was gathered in three hundred rooms - was in ruins, six thousand volumes and illuminated chorals from the Opera del Duomo were under water, one million three hundred thousand works from the Gabinetto Vieusseux, the Synagogue and the Accademia dei Georgofili libraries were damaged, and nine departments at the University were flooded irreparably. Those works scream out, they cry, and with their resuscitated echo they summon back millions of people, the volunteers from around the world: the Angels of the Mud. An extraordinary wealth of human might, knowingly co-ordinated, and set onto the path by the decisive and efficient spirit of great minds in the field of cultural heritage: Ugo Procacci³, Superintendent of the Florentine Galleries, Umberto Baldini⁴, Director of the Restoration Laboratories, Emanuele Casamassima⁵, Director of the National Library. They took their place alongside the Florentines, the military, the firemen, the civil defence workers: the students who came from all over the world, meeting once again in 2006, now as adults, ready to celebrate that day together after forty years. Roberta Ronconi⁶, who gathered their stories about the event, writes that they number almost two thousand; they fill the Salone dei Cinquecento in the Palazzo Vecchio with their memories. What later turned into history, was in that moment, instinct. *'Forty years ago this sea of men and women formed line after line of mud-encrusted arms, of calloused feet, long hair and bare hands excavating in the bowels of the National Library, or lowering themselves*

down into the underground caverns in the Palazzo Vecchio. Hand after hand, illuminated text, sixteenth-century manuscripts, parchments, Renaissance paintings re-emerge into the air. The essence of an entire civilization with an immense culture was buried, and only thousands of dirty arms could save it. No water, no light, no food. Only the united instinct and enthusiasm of youth fighting against nature.'

There were many angels present with their memories. Susan, a girl from London who was in Florence studying at the time; she resisted her parent's pleas to return home, and instead she stayed. She spoke on behalf of the all angels: *'I would have preferred to remain anonymous, even if I am happy to be with you here today. But during those days my friends and I – even if we sensed that what was happening would be part of history – we just did what had to be done. It was spontaneous; no one thought about recognition, we only thought about how to help those who needed it, and to save what could be saved of a city that we loved, and which we all still love so much: because it is the birthplace of our civilization and our culture.'*

'Run! The world is about to lose one of its most precious jewels!' After the appeals from Radio London⁷, entire high schools, universities and institutions organized trips for the young people ready to arrive in Florence from throughout the world. Perhaps there were two thousand, perhaps many more. All called by an instinctive force, by the desire to save our common history, a history with roots so deep they went beyond every division of class, race, language, age. There were no longer any barriers between persons. Suddenly, everyone was equal, everyone united, as they had never been before. This is the strongest memory; this is what makes that bit of their lives unforgettable.

'I came from Venice where I was studying architecture, and there, too, the water was dangerously high', recalls Sergio Staino. *'I wanted to get to my family, to see how they were. I just took off and left; there was no electricity and the trains stopped long before they reached Florence. When I finally arrived, there was a ghostly atmosphere, the city was immersed in darkness and mud'. But nothing could stop them, those angels. 'We had just recently learned how to*

travel, to get around using any possible means' continues Staino, 'we had begun to roam around Europe, and I think this was one of the reasons that so many young people came to Florence. It was the first generation to become aware that Europe belonged to all of us, distances began to lose importance; rather, they were precious to us, a time for discovery, a dimension of travel. An ideal was behind the incentive that brought us en masse to Florence, the desire to participate, the sense of solidarity in what was the first experimentation of the student movement of 1968.'

The sense of solidarity and generosity that pulls people together during times of emergency is certainly extraordinary, just as during the disaster caused by the earthquake and tsunami that hit Southeast Asia on 26 December 2004. Jacques Diouf, the Director-General of the FAO, stated: 'the donor response to the tsunami disaster was huge, but there were still delays in getting help to the people who needed it most. What the world needs is a standby global disaster fund that would make immediate intervention possible.'⁸

Under international law, the protection system for cultural property in crisis situations is laid out in The Hague Convention dated 14 May 1954, which at the time was enacted specifically for the case of armed conflict⁹. This convention is a fundamental step in the process of safeguarding heritage in emergency situations. It is characterized by a particularly modern approach that is attested to in its preamble, which states: '...damage to cultural property belonging to any people whatsoever means damage to the cultural heritage of all mankind, since each single person makes a contribution to the culture of the world.'¹⁰

This statement introduces the notion of heritage that is common to all mankind, a single, indivisible patrimony. The declaration necessitates two distinct actions: the necessary compliance of international norms by the legal system in each nation, and the institutionalization of the duties in the co-operation and solidarity among nations¹¹. Unesco has worked assiduously in this direction employing two main instruments: the Conventions (official and binding agreements for the signatory nations), and the Recommendations (comprehensive moral commitments). Unesco's *super partes* role and its constant commitment to supporting the

safeguarding of cultural heritage, especially during crisis situations, make it an invaluable resource in situations like the 1966 flood, where it instituted the International Campaign for Venice and Florence¹².

In 1996, along with other prestigious non-governmental organizations working for the protection of cultural heritage (ICCROM, ICOM, ICOMOS, ICA, IFLA), Unesco instituted the *International Committee of the Blue Shield*. This committee has become an international point of reference in both conflict situations and in natural disasters. The latest accord was signed on 28 September 2006 at The Hague.

It is apparent that the division of duties requires setting up National Committees that administer and co-ordinate the various organisms involved directly and operationally. This encompasses working with the armed forces, the superintendencies, the non-governmental organizations, the civil defence units, as well as cultural volunteers and the direct administrators of cultural assets (museums, religious institutions, etc.). The Deputy General of the International Council on Archives, George Mackenzie¹³, stated: 'the vision is that in time the Blue Shield symbol should become for cultural heritage protection what the Red Cross is for humanitarian protection'. In the words of Chris Lamb¹⁴, Head, Humanitarian Advocacy Department, International Federation 'one of the key "ingredients" for a successful disaster cooperation is local community involvement. Disaster preparedness and response programmes which actively involve the community to find local solutions are vital for effective disaster management.' From this, it is evident that any intervention must follow two interconnected guidelines: a forecasting and preparation of organizational and operational prevention and protection measures correlated by intervention plans, and, a dissemination function (part of the measures called for in the conventions), aimed at specialized training for military and civil personnel, and for public awareness. Only through these measures can we effectively safeguard our common heritage during war and natural disasters; events no one would wish for, but nonetheless, we must be prepared to face.

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¹ This is very difficult to do. According to Matilde Simari, functionary for the stores of the flooded works, there is still no exact and updated list for those works still to be treated.

² "Per Firenze", director Franco Zeffirelli, 1966, Rai Teche.

³ Ugo Procacci (1905-1991), Florentine, art historian, leading figure in the safeguard of Italian cultural heritage, especially in crisis situations, such as post-World War II and the Florence flood.

⁴ Umberto Baldini (1921-2006), art historian and expert on the Italian theory of restoration. He received his degree in art history under Prof. Mario Salmi; he was an inspector for the Florence Superintendency, and in 1949 he was named director of restoration. As director, he was called upon to manage the dramatic crisis in artistic patrimony during the flood.

⁵ Emanuele Casamassima (1916-1988), director of the Biblioteca Nazionale (National Library) in Florence during the flood.

⁶ Ronconi Roberta, <http://www.lavocedifiore.org>, 5.11.2006.

⁷ Beginning on 27 September 1938, BBC Radio London broadcast a series of programmes addressed to listeners in continental Europe. The Italians most likely initiated the idea for this type of programming. In Italy, a successful programme in Arabic was transmitted to the British colonies in the Middle East, where the upper-middle class had become fervent listeners. BBC transmissions in Italian began with the Munich crisis, in 1939. After the outbreak of hostilities, Radio London increased their airtime to 4 hours and 15 minutes by 1943. The success of the Radio London transmissions is attributed to the fact that rather than tightly controlling the propaganda transmissions, the British War Ministry left it to an autonomous entity, the BBC, with its distinctive independent journalistic style, separating news from editorial commentary. The BBC continued to transmit *L'Ora di Londra* in Italian every evening until 31 December 1981, when the programme was dropped in spite of the many protests.

⁸ *Tsunami un anno dopo: dai soccorsi alla ricostruzione*, Rome, 15 December 2005, edited by Luisa Guarneri, <http://www.fao.org/newsroom/it/news/2005/1000190/index.html>

⁹ Brocca Marco, La protezione dei beni culturali in caso di conflitto armato, <http://www.aedon.mulino.it/archivio/2001/3/brocca.htm>, number 3, 2001, ISSN 1127-1345.

¹⁰ The Hague Convention (<http://www.aedon.mulino.it/archivio/2001/3/conv.htm>) is the first international legislation in the long evolution of human rights entirely dedicated to the protection of cultural heritage during armed conflicts. It was drawn up by Unesco in the post-World War II years, when the tense climate was

ideal to sustain the strong commitment needed in dealing with the disasters of the world war affecting historic and artistic heritage (e.g. the Abbey at Montecassino, Dresden Cathedral). The Convention was backed by the experiences at the Nuremberg Tribunal, where the perpetrators of the destruction and looting of cultural property were persecuted and punished as war criminals. The Convention has been in force since 7 August 1956. On 8 March 2001 the convention was ratified by 101 States and protocolled by 83 States. (See the table on the status of ratifications at www.unesco.org).

¹¹ This statement shows great cultural tolerance and integration, rendering the convention a sort of Charter for global culture, (J.H. Merryman, *Two ways of thinking about Cultural Property*, in *American Journal of International Law*, 1986, 4, 837) superseding the European-centred vision of culture and art as being dormant, 'acknowledging that all peoples contribute to worldwide culture' (A.F. Panzera, *La tutela internazionale dei beni culturali in tempo di guerra*, Turin, 1993, cit. 31).

¹² Gazzola Pietro, cf. bibliography.

¹³ G. Mackenzie, *The Blue Shield: symbol of cultural heritage protection*, 68th IFLA Council and General Conference, August 18-24, 2002.

¹⁴ C. Lamb, *Natural Disaster Preparedness and Response Measures*, Statement delivered by Head, Humanitarian Advocacy Department, International Federation, to the United Nations Economic and Social Council Substantive session of 2001, Geneva, 13 July 2001

Risk Map methodology

The Risk Map for cultural heritage is an informational system based on a physical and logical structure for data acquisition. The system provides for analysis of the data and assists in studying methods for managing territorial information by linking it to phenomena that can endanger and damage cultural property. The cultural heritage types used in the Risk Map are divided into three main categories: archaeological assets, architectural assets/monuments and structures containing or housing historical-artistic assets. The cartographic base for the graphic elaborations and plottings encompasses the whole of Italy, with the municipality being the smallest territorial module (Fig. 1). The Risk Map plots the extent and characteristics of cultural property within the territory.

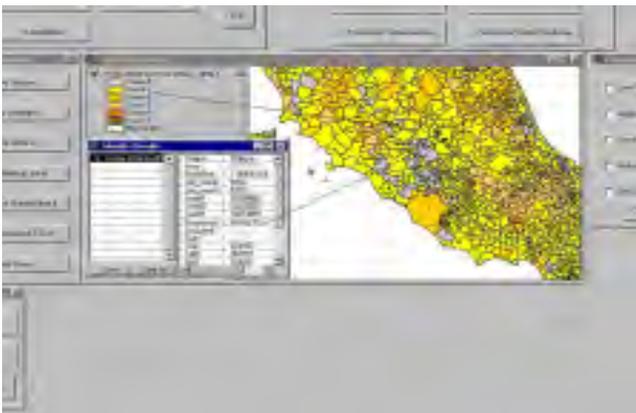


Fig. 1 - Thematic map of the distribution of cultural property by municipality; distribution of cultural assets in the municipality of Spoleto in Umbria.

Although the map represents only an initial indication of the entire cultural patrimony, it nonetheless provides a reliable assessment of the distribution of the quantity and types of cultural property (Fig. 1).

The colours represent the value categories used to indicate property density. This system allows for a series of statistical comparisons facilitating a regional, provincial and municipal census of Italian cultural heritage. It is also possible to obtain immediate information on the various types of property (architectural, archaeological, museums, etc.) and/or on their different functions (civil, religious, military, etc.). Another important aspect in the elaboration process for the Risk Map is the concept of *territorial risk*. The assessment of this risk is based on factors pertinent to the territory where the

cultural property is located, and it is an indicator of the probability that an event of a given intensity, over a given time period would cause damage to the property in question. In this category, three risk domains are identified: environmental-air-quality risks, static-structural risks and human risk factors.

- *Environmental-air-quality risks*. Climate and pollution factors cause the deterioration of materials. Consequently, the best possible overview of environment-air-quality risk must include three distinct and independent indicators of 'chemical-physical' risk - erosion index, blackening index, and physical stress index.
- *Static-structural risk* (Fig. 2). Many natural phenomena impact the static efficiency of a structure. We have chosen six, main phenomena synthesizing static-structural risk - seismic activity, landslides and soil instability, floods, coastal dynamics, avalanches, and volcanic phenomena.
- *Human risk factors*. Human phenomena can be divided into two types: direct action such as theft, vandalism and visitors, and indirect action as a result of population changes and tourism. There are, thus, three thematic areas - dynamics in demographic density, stress from tourism, and theft liability.

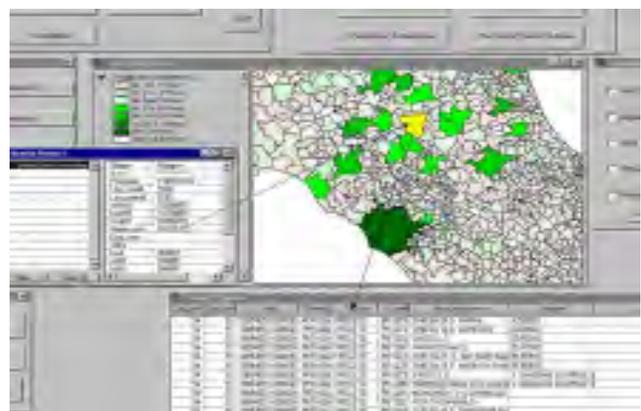


Fig. 2 - Thematic map synthesizing structural dangers in the municipality of Spoleto in Umbria.

VULNERABILITY

Vulnerability represents the condition of the cultural asset. It is statistically calculated on a consistent number of variables, obtained by a series of card entries describing the conservation and preservation conditions of the asset. These registry card entries are then collated by the Istituto Centrale per il Restauro. The guidelines established by the Istituto

Centrale del Catalogo e Documentazione (Central Institute for Cataloguing and Documentation) were used for the identification registry, while the sections surveying actual damage present on the property had to be newly created. Vulnerability was divided into three categories specific to architectural assets (overall, superficial, static-structural) and only one category for archaeological assets (overall). Another extremely important aspect of the Risk Map is the ability to geo-reference the indexed asset, placing it in its territorial context and providing information on all those factors that may affect its conservation, or may represent spe-



Fig. 3 - Thematic map of cultural property based on territorial geographical location on the basis of vulnerability.

cific types of assets. Fig. 3 illustrates some of the archaeological sites in the territory having different types of coverings, and which constitute one of the variables used in calculating the vulnerability index for archaeological property.

Risk

The final result of this distribution is the calculation of risk generated by a function associating the vulnerability of each asset to the local risk situation based on the territorial location of the asset.

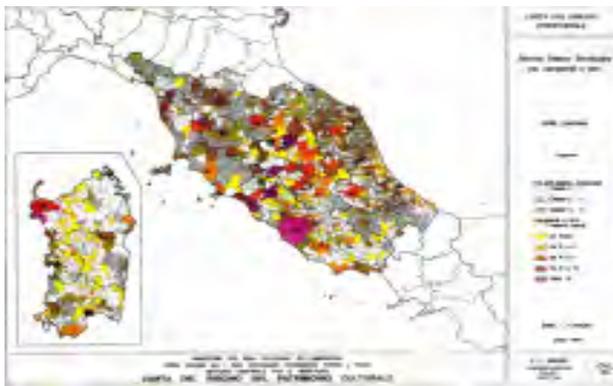


Fig. 4 - Thematic map of static-structural risk for bell-towers and towers.

Fig. 4 illustrates a cartographical representation of two, superimposed mappings: the distribution of bell-towers and towers with the relative static-structural risk, resulting in a risk map of the static-structural risks to bell-towers and towers. It should be made clear that the risk is not a measurement of probability of a disastrous event, an index that would require the exact cause-effect identification of all the phenomena under study, but rather an in-depth examination of the conditions that are dependent on the phenomenologies that can be damaging to the cultural property.

Consequently, in the Risk Map a verification model is studied that applies the concepts of:

- levels of mapping reference;
- ways of selecting and organizing risk data;
- ways of mapping cultural property;
- elaborating danger, vulnerability, and risk data.

This allows for the precise identification of the asset and its condition, as well as its vulnerability and, consequently, its level of risk (Fig. 5). All the information on a specific cultural asset can be consulted by means of a data bank linked directly to the visual maps. Each time the risk or vulnerability

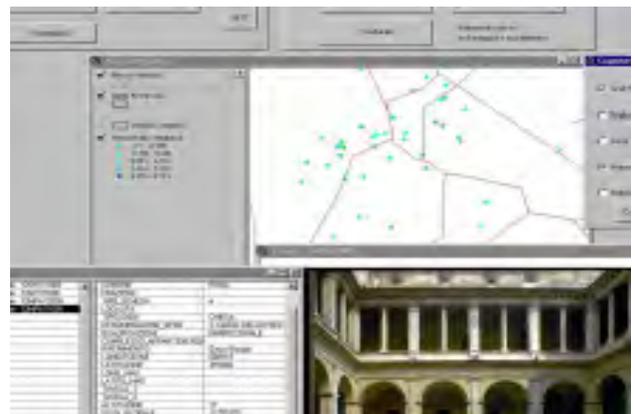


Fig. 5 - Data extracted from the Risk Map Oracle databank using a spatial query for the church of Santa Maria della Pace in Rome and image of the registry entry card.

database is updated the thematic categories can be re-designed online. The risk map can be used to access all the environmental, structural and territorial information providing a reference base that can help in planning and organizing prevention and maintenance. The Territorial Information System set up by the Istituto Centrale per il Restauro furnishes a technological support tool for scientific and administrative activities to those individuals charged with safeguarding cultural patrimony. It is important to bear in mind that the

project was developed from Cesare Brandi's concept of 'preventive restoration' and is the operating tool for the preventive and conservation maintenance programme initiated by Giovanni Urbani.

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The religious artistic nude amid sneers and glory

*'Yet such a dreadful error had been wrought
That it fell to Daniele to be the tailor
Who, for that Judgement, fashioned the pants'*

Salvator Rosa¹

In 1555, a century before Salvatore Rosa (1615-1673) composed these lines, Pope Paul IV asked one of Michelangelo's disciples, Daniele da Volterra, to 'clothe' the naked bodies in the fresco of the Last Judgement in the Sistine Chapel.

One hundred years later, it was still sneered at and written about! Even someone as immodest as Pietro Aretino denigrated the masterpiece completed in 1541, by describing it as worthy of a brothel, not a Papal choir².

Over the ages, Michelangelo's nudes were not the only objects of recriminations and condemnation. Girolamo Savonarola, the severe Dominican monk, had already railed against the shameless lack of modesty in religious works. 'Do you think that the Virgin Mary went around dressed in the manner you paint her? I tell you, she was dressed as a poor person... You paint the Virgin Mary dressed as a prostitute'³.

Why is there so much recrimination in Christianity about the naked body when we proclaim the beauty and goodness of Mankind created as man and woman in God's likeness⁴, and, during the Renaissance, elevated it as a measure of universal harmony⁵? Why is it so difficult to accept even the nudity of the infant Christ, the thirty-year old who was baptized and crucified, the emblem of the new Adam, obedient to the point of being crucified in redeeming that ancient disobedient ancestor⁶? In the story of Genesis, the original nudity is a sign of harmonious rapport with God; the naked man trying to cover himself is a symbol of lost harmony, defiance towards the Creator! In the new covenant, the Word-Child, baptized and crucified naked, proclaims the re-establishment of original innocence: the tree of the knowledge of good and evil turns into the venerated wood of the cross, the tree of life. The Tempter serpent is transformed into the loving image of the Son of Man hanging from this tree, a self-Sacrifice for Mankind⁷.

Someone understood all this, and reacted accordingly.

Inspired by the prologue to the Gospel of St John, Tertullian wrote *Caro, cardo Salutis!*⁸ Origen tells us that the Greek philosopher, Celsus, disdained Christians as '*philosomaton genos*, a flesh-loving crew'⁹ because they believed in a God-Man and awaited the resurrection and final redemption of the body¹⁰. For Christians, the eternal Logos was not only the archetype of the body, but it lived within the body, defining it through the most beautiful image it could offer to its listeners: the temple of the Spirit¹¹. Jesus abolished the categories of pure and impure as applied to both human and savage creatures under ancient law; only the heart of man can be impure, if and when it is used inappropriately¹². The contamination in Christian ascetic practices stemmed from the inability of a few to completely wean themselves away from Jewish behaviour and from the encounter with high, Gnostic and Stoic Greco-Roman culture¹³. E. R. Dodds explains it in this way: 'Other men in this time were enabled to endure themselves by making a sharp dichotomy between the self and the body, and diverting their resentment on to the latter. That dichotomy comes, of course, from classical Greece and is the most far-reaching, and perhaps the most questionable, of all her gifts to human culture. But in our period it was put to strange uses. Pagans and Christians (though not all pagans or all Christians) vied with each other in heaping abuse on the body; it was "clay and gore", "a filthy bag of excrement and urine"; man is plunged in it as in a bath of dirty water. Plotinus appeared ashamed of having a body at all; St Anthony blushed every time he had to eat or satisfy any other bodily functions. Because the body's life was the soul's death, salvation lay in mortifying it; as a Desert Father expressed it, "I am killing it because it is killing me." The psychophysical unity was split in two not only in theory but in practice; one half found its satisfaction in tormenting the other.'¹⁴ In this gloomy description of ideas about the body, Origen, following the example of Plotinus who refused to celebrate his own birthday, encouraged his Christian disciples not only to ignore the day of their birth, but to even detest it in Holy Spirit¹⁵. Still a youth, Origen even castrated himself, only to later regret the act. Pachomius forbid his monks to look at

each other as they ate¹⁶. Jerome advised that the girls in his entourage should never take baths lest they should see their own bodies naked¹⁷.

By the end of the fifteenth century, Francis of Assisi (1182-1226) was associated with the great names in the golden age of the Italian and European humanistic Renaissance:

Dante, Giotto and Petrarch. Guided by the monks at Montefalco, Benozzo Gozzoli painted the portraits of these founders of Renaissance literary and pictorial civilizations under the image of St Francis receiving the stigmata¹⁸.

Whether with pen or brush, each of these artists paid homage to the honour and glory of the great man and saint from Assisi, whom they saw as a milestone in Italian and European history¹⁹. Bonaventure of Bagnoregio saw Francis

as the glorious rainbow set in the darkness of the clouds to reconcile humanity with God, man, and all material creations²⁰. Before Francis, no pagan or Christian ascetic

had ever dared to call and treat his own body 'brother' even when sin and sickness reduced it to looking like an 'ass'²¹. J. Von Schlosser underlined the importance the Saint gave to his body as the link between his own inferiority

shaped on the Gospel, and the exterior world of animate and inanimate creatures²². Renaissance naturalism – with its pagan contaminants – was born Christian and Franciscan²³,

having as its underlying base the inseparable trinomial values: God, Man, Nature, celebrated in verse by the manifesto of a new humanity, the Canticle of Brother Sun (1225-1226), articulated in the vernacular because it was born as a popular pastoral²⁴. Addressing the naturalistic factor, Jacob

Burckhardt, one of the pillars on the early Christian and Italian Renaissance civilization, said this about its general acceptance: 'To the Italian mind, ... nature had by this time lost its taint of sin, and had shaken off all trace of demoniacal powers. Saint Francis of Assisi, in his Hymn to the Sun, frankly

praises the Lord for creating the heavenly bodies and the four elements'²⁵. If it is true that the material world, corporal life included, had been demonized for a few thousand

years, Francis was the one who exorcized it! His belief as new Christian creator begins: 'Lord, King of heaven and earth, to you we give thanks, through your holy will and through your only Son together with the Holy Spirit you

have created all *things spiritual and corporal*, and in your image and likeness you have placed us in paradise'²⁶.

In our discussion of the nude, we cannot help but reflect on the topic of nudity in the St Francis's spiritual experience.

The *Legenda* by Bonaventure of Bagnoregio was written upon request of the General Chapter and delivered publicly in Paris in 1266. It was the most widely read and studied of

all Franciscan texts and the most commonly used as a reference guide in the Franciscan art world. Bonaventure, theologian and Francis's biographer, recounts the dramatic

episode of his family and the penitential turning point of twenty-five year old Francis: 'Having been taken before the bishop, and without delay or hesitation, without waiting and

without a word, Francis stripped himself of the clothes he wore, and gave them to his father (...) Then, possessed by a fervent spirit, he laid aside *even his undergarments and he*

*was completely naked before all (...)*²⁷. Francis's public gesture, juridically valid because conducted openly in the Bishop's reception room, was emblematic of his birth into a

new life in the Spirit; and this was not an isolated incident in the ascetic-mystic life of the *Poverello*²⁸. As he lay dying, he said to the brothers around him: 'When you see I have

reached my end, place me naked in the earth'²⁹. For Francis, nudity was a symbol of absolute poverty, and consequently a religious manifestation of his wavering faith in

God's mercy. Nudity also gradually becomes a reverse penitential path, a sign of entry into the original Eden before the condemnation for having rebelled against the Creator: 'In my

judgement, the saint had returned to original innocence, and when he so desired even the cruel elements became mild with him'³⁰. In the Book of *Genesis*, nudity is a sign of

absence from sin; clothing is a sign of sin, of disharmony with the Creator: before the Sin, 'The man and his wife were both naked, yet they felt no shame'; after the Sin, 'the Lord

made for Adam and his wife garments of skins, and clothed them'³¹.

Francis's theology of the body was based on the Book of *Genesis*, and it is even more apparent with the incarnation of the Word, returning the order of primordial justice: 'He sayeth unto them...But I tell you...that from the beginning it

was not so'³². In *Admonition V, 1*, Francis addresses a fol-

lower of Christ, in whom 'all things were reconciled to God': 'Be attentive, oh man, to how many excellent things the Lord God has placed in you, since He created and formed you to the image of His own Beloved Son according to the body, and to (His) likeness according to the spirit'³³.

In the chapter on emulating the mortification of Christ placed naked on the pillory by Pilate, Bonaventure's Francis appears naked in the square before the cathedral in Assisi: 'He tied a cord around his neck and, naked, clothed only in undergarments, and in sight of all, he let himself be led to the rock where criminals were placed'³⁴. And in the first-hand retelling of Francis's death, Bonaventure writes: 'Francis lay down naked on the bare earth: in that last hour when the enemy could still release his anger, he could have wrestled with him naked body against naked body'³⁵.

The extent of Francis's conviction in favour of a healthy and justified nudity cannot be fully expressed by simply recalling the episodes where he is naked. His demonstrative examples were accompanied by a verbal teaching not present in previous ascetic Christians. Up to a certain point in his life, Francis refused to take the medicine prepared for him by Brother Elias, who he regarded as his 'mother'. Even though his body needed the cure, Francis would not take it because he did not want to go against God's will. We accept the good that God gives us, shouldn't we also accept the bad? (*Job 2, 10*) Are not illnesses, as is death herself, our 'sisters'³⁶? Finally, convinced by Brother Elias that herbs and medicinal stones were also sent by God to relieve His own beloved children, Francis took them, with an apostrophe about the infirm body: 'Rejoice, brother Body, and forgive me: there, now I am ready to satisfy your want, I willingly undertake to listen to your laments'³⁷. His very human request asking his body for forgiveness is mirrored in his request for sweets, made to Jacopa dei Settesoli, as death approached³⁸. After years of ascetic struggle in moral ambivalence about his body – capable of both grace and sin – Francis confesses to a brother monk: 'I can give account, my son, that he [my body] was obedient in everything; he spared himself from nothing, but instead hastened to carry out every command. He did not retreat from any

labour, he refused no sacrifice that was possible to obey. He and I are in full accord to serve our Lord Jesus Christ without hesitation'³⁹. In Francis's life, his body is not an enemy, but the faithful 'brother' to his soul. It should be remembered that this positive Franciscan sense about the body was also communicated to the masses through the preaching of the monks, the same monks who guided the artists and who commissioned so much art in thousands of churches throughout Europe.

Francis's Christian adventure ends on the mountain at La Verna, compared in mystical literature to the evangelical Tabor, the site of the transfiguration and the highest glorification of the body in the Christian sphere⁴⁰. The height of Francis's mystical ascension is his body adorned by the stigmata, viewed by his contemporaries as 'precious and brilliant gems' rather than humiliating wounds⁴¹. His body marked by the stigmata remains as the dominant and most typical image of Francis of Assisi in both literature and iconography; Francis, more than any other believer before or after, involved his own body in the adventure of the spirit. Is it purely by chance that the first and oldest monumental cycle at Assisi, the parallel stories of Christ and Francis (after 1263), are taken from the episode of the *ostension* of their naked bodies? At the beginning of the central aisle in the ancient crypt leading to the *corpus beati Francisci* (the holy body of Francis), the monks who commissioned the cycle invite pilgrims and visitors to contemplate the images of Christ, stripped of his clothes before he is crucified, and of Francis who removes his clothes saying: *Nudus, nudum Christum sequar!*⁴². The interest taken by Francis's first biographer, Thomas of Celano, in the saint's physical appearance and physiognomy should thus not surprise anyone. Celano left us a detailed *portrait* that is not present in mystical literature, which seldom focuses on a saint's body. We know everything about Francis's body: he was small in stature, his face oval-shaped and prominent, his forehead smooth and low; his eyes were black; his hair was black, his eyebrows straight, his nose symmetrical, thin and straight; his ears were upright, but small. His teeth were set close together, even, and white; his lips were small and thin; his beard black, but not bushy. His neck was slender, his shoulders straight, his

arms short, his hands slender, his fingers long, his nails extended; his legs were thin, his feet small. His skin was delicate, his flesh very spare (...) ⁴³.

CONCLUSION

The two most important studies on the artistic nude in general, and on the religious nude specifically, were written by Kenneth Clark and Leo Steinberg ⁴⁴. The former abounds in Classical and Christian iconographical documentation on the *adult nude*, while the latter sensitively documents the *infant nude*. In these few paragraphs it is not possible to trace the entire history of the *realistically* depicted naked body, starting with the *Crucifixes* by Giunta Pisano (Assisi), by Cimabue (Assisi, Florence, Arezzo), by Giotto and Giottoesque painters (Florence, Rimini), by Donatello and Brunelleschi (Florence, Padua), by Grunewald (Isenheim), along with the famous *Last Judgements* by Giotto (Padua), Cavallini (Rome), Signorelli (Orvieto), by Michelangelo (Rome) and the Mannerists, as well as the surprising *Torment of St Lucy* by Altichiero (Padua) and the famous Adam and Eve by Masaccio (Florence).

When he inaugurated the restored Sistine Chapel, Pope John Paul II commended his predecessors, Julius II, Clement VII and Paul III Farnese, benefactors in the commissions for the chapel, for decorating the space without puritanical qualms. The Pope ended any and all voices that might denigrate the naked body by his praise of Michelangelo: 'The Sistine Chapel is precisely - if one may say so - the sanctuary of the theology of the human body'

¹ S. ROSA, *Poesie e lettere edite e inedite* (1695), edited by G.A. Cesareo, Naples 1892, 237.

² R. and M. WITTKOWER, *Nati sotto Saturno. La figura dell'artista dall'antichità alla Rivoluzione francese*, Turin 1996, 195.

³ G. SAVONAROLA, *Prediche e Scritti*, edited by M. Ferrara, Milan 1930, 387.

⁴ *Genesis*, 2,25. In his homily inaugurating the restoration on the Sistine Chapel, Pope John Paul II states: 'It seems that Michelangelo, in his own way, allowed himself to be guided by the evocative words of the Book of Genesis which, as regards the creation of the human being, male and female, reveals: "The man and his wife were both naked, yet they felt no shame".' cf. PREFETTURA DELLA CASA PONTIFICIA, *L'Appartamento delle Udienze Pontificie*, edited by R. Panciroli, Vatican City, 2002, 140.

⁵ 'Their (of young men athletes) physical beauty is an image of divine perfection; their alert and vigorous movements an expression of divine energy' (K. CLARK, *The Nude*, Middlesex, 1956).

Between 1496-1506 the *Divina Proportione* by the Franciscan mathematician, Luca Pacioli (+1517), circulated among painters not only in Italy, but throughout Europe.

⁶ 'We must admit that nudity has always created problems in

Western Christian civilization'. (WITTKOWER, 197). In the Eastern world this has never posed a problem due to the absence of nudity even in the images of Jesus as a child, who is always depicted in a hierarchical and solemn pose dressed in ceremonial garments that even cover his feet. 'In Otto Demus' words: "The Byzantine image...always remains an 'image', a Holy Icon, without any mixture of earthly realism. But for a Western artist nurtured in Catholic orthodoxy - for him the objective was not so much to proclaim the divinity of the babe as to declare the *humanation* of God. And this declaration becomes the set theme of every Renaissance Nativity, Adoration, Holy Family, or Madonna and Child.' cf. L. STEINBERG, *The Sexuality of Christ in Renaissance Art and in Modern Oblivion*. New York, 1983, 9; O. DEMUS, 'The Methods of the Byzantine Artist', in *The Mint*, 2 (1948) 69.

⁷ *John* 3, 14; *Romans* 5, 17; *Philippians* 2, 8; *Apocalypse* 22, 2. The emphasis that Renaissance preachers put on the pre-eminence of the Incarnation, defined by the Franciscans as *summum opus Dei*, and the dominant theme in art, 'wants to view all the subsequent events of Christ's life as articulations of what was already inchoately accomplished in the initial moments of man's restoration, which was the incarnation in the Virgin's womb...Whatever injury man and the universe had suffered in the Fall was healed...when the Word assumed flesh.' From J. W. O'Malley (STEINBERG, 10). It should be borne in mind that in planning and executing the decorations on the vault of the Sistine Chapel for Julius II, Michelangelo was guided by two Franciscan theologians: Giorgio Benigno Salvati (conventual) and Pietro Galatino (observant). cf. H. PFEIFFER, *L'immagine di Cristo nell'arte*, Rome 1986, 93.

⁸ *De resurrectione carnis*, 38. Tertullian wrote another treatise centred on Christ's body: *De carne Christi*

⁹ ORIGEN, *Against Celsus*, 7,36. I quote from the apostolic constitution (1966) by PAUL VI, *Paenitemini*, note 48, in the text: 'This exercise of bodily mortification - far removed from any form of stoicism - does not imply a condemnation of the flesh which sons of God deign to assume'.

¹⁰ These are basic doctrinal points on the dignity of the human body, constantly affirmed and reaffirmed by Church teachings, legitimizing those who commissioned the depiction of the nude in religious art: 'For this reason man is not allowed to despise his bodily life; rather he is obliged to regard his body as good and honourable since God has created it and will raise it up on the last day'. (VATICAN COUNCIL II, constitution *Gaudium et spes*, 14).

¹¹ *Matthew* 26, 61.

¹² *Mark* 7, 21.

¹³ E.R. DODDS, *Pagani e Cristiani in un'epoca di angoscia. Aspetti dell'esperienza religiosa da Marco Aurelio a Costantino*, Florence, 1970, 1-35.

¹⁴ *ibid.* 28-29.

¹⁵ *ibid.* 22, note 62.

¹⁶ *ibid.* 28-29, note 83.

¹⁷ *ibid.* 29, note 83.

¹⁸ cf. images in, E. LUNGI, *Benozzo Gozzoli a Montefalco*, Assisi, 1997, 30.42.

¹⁹ Dante Alighieri celebrated him as the sun rising in the East that awakens as a new day in the history of mankind (*Paradise*, XI). To this ancient testimony, we also add E. Auerbach's modern one: 'I, like many others, have tried to demonstrate the importance St Francis of Assisi's actions on the *renewal* of fantasy and the rebirth of sensitive intuition; something that has been known for a long time by historians of figurative art. (*Studi su Dante*, Milan 1971,25).

²⁰ *Legenda major*, prologue and chapter VIII, 1.

²¹ THOMAS OF CELANO, *Vita II*, 703. 713. The mortification of Francis's body was not motivated by the vilification or Manichaeian scorn of it, but by the desire to synchronize it with the spirit, rendering it similar to the body of the Crucified Christ: You must treat brother body with restraint...The heat of the spirit had so refined the body that, just as the soul thirsted for God, in innumerable ways it also craved for the holiest of flesh.' (*ibid.*).

²² cf. *L'arte nel Medioevo*, Turin, 1961, 85.

²³ '... the realism of Renaissance painting justified in the faith. (...) The image, then, is both natural and mystical, each term enabling the other. But this reciprocal franchise is peculiar to the Catholic West, where the growth of a Christian naturalism in painting is traceable from the mid-13th century.' (STEINBERG, 11-12). This author relies heavily on the theological writings of Bonaventure of

Bagnoregio (+ 1274) in his mediations on the Christian nude. The Franciscan from Bagnoregio is commonly held to be the theologian, who more than any other, looked after and dealt with the aesthetic aspect of Christianity.

²⁴ ANON., *Compilazione di Assisi*, 83.

²⁵ *La civiltà del Rinascimento in Italia*, Florence, 1980, 271; cf. also E. GARIN, *Il Francescanesimo e le origini del Rinascimento in Italia*, in AA. VV., *Proceedings of the 4th Conference on Umbrian Studies*, Perugia, 1967, pp. 113-32; H. THODE, *Francesco d'Assisi e le origini dell'arte del Rinascimento in Italia* (1895), Rome, 1993; J. WHITE, *The Birth and rebirth of pictorial space*, London 1967; J. STUBBLEBINE, *Assisi and the rise of vernacular art*, New York, 1986.

²⁶ *Scritti*, Regola del 1221, 23,1. The text recalls the ones from the Lateran Council IV (1215) written against the Cathars.

²⁷ *Legenda major*, 2,3. In the Upper Church in Assisi, Giotto admirably translated Bonaventure's text about 'Francis who strips naked', providing a lesson for subsequent artists on how to paint the human body in a new, realistically vigorous language. '... whatever he depicted had the appearance, not of a reproduction, but of the thing itself, so that one very often finds, with the works of Giotto, that people's eyes are deceived and they mistake the picture for the real thing.' (G. BOCCACCIO, *Decameron*, 6,5).

²⁸ cf. term for 'body': 'Corpo' in the subject index in AA. VV., edited by, *Fonti Francescane*, Padua 2004, 2175-76.

²⁹ CELANO, *Vita II*, 217.

³⁰ CELANO, *Vita II*, 166.

³¹ *Genesis*, 2,25; 3,21. See JOHN PAUL II, *Omelia in occasione dell'inaugurazione dei restauri della Cappella Sistina* (8.4.1994), in VARIOUS AUTHORS., edited by R. PANCIOLOI, *L'Appartamento delle Udienze Pontificie*, Vatican City, 2002, 140.

³² *Matthew* 19,8.

³³ *Colossians* 1,20; FRANCESCO D'ASSISI, *Scritti: Lettera a tutto l'Ordine*, 13; *Ammonizione V*,1.

³⁴ *Legenda major*, 6,2. During the height of the Tridentine repression of the nude in art, the conventual Franciscan, Pietro Ridolfi, remembers and reproduces this episode in his *Historiarum Seraphicae Religionis libri tres*, Venice, 1586, 102. cf. M.R. MILES, *Achieving the Christian Body: Visual Incentives to Imitation of Christ in the Christian West*, in H. J. HORNIKS – M. C. PARSONS, *Interpreting Christian Art*, Macin – Georgia, 2003, 1-23.

³⁵ *Legenda major*, 14,3.

³⁶ *Legenda major*, XIV, 2. The faithful depiction of the relationship of Francis with his body in life and death (Assisi, Padua, etc.) has also made the public familiar with the image of the sick and dead body reduced to a skeleton. cf. P. MAGRO, *La prima e la seconda morte. Dal Cantico delle creature all'iconografia della Basilica di San Francesco ad Assisi*, in AA. VV., *La Signora del mondo*, Proceedings of the international conference on Danza macabra and Trionfo della morte, Clusone 30.7-1.8.1999, Clusone, 2003, 25-42 (illustrated); P. ARIES, *L'uomo e la morte dal Medioevo ad oggi*, Bari, 1979, 128, 130, 140.

³⁷ CELANO, *Vita II*, 211. The extensive bibliography of the 'infirm body' of the Saint is also a unique and incomparable phenomenon in religious hagiography. cf. O. SCHMUCKI, *Le malattie di Francesco durante gli ultimi anni della sua vita*, in *Francesco d'Assisi e francescanesimo dal 1216 al 1226*, Proceedings from the 4th International Congress, Assisi 15-17 October 1976, Assisi 1977, 315-362 (with further bibliography).

³⁸ *Scritti*, *Lettera a Donna Jacopa*, 6.

³⁹ *Legenda major* 14, 1.

⁴⁰ Francis of Assisi is the only saint named by John Paul II in the homily for the inauguration of the restored Sistine Chapel: 'In witnessing to the beauty of man created by God as male and female, it also expresses in a certain way, the hope of a world transfigured, the world inaugurated by the Risen Christ, and even before by Christ on Mount Tabor. We know that the Transfiguration is one of the main sources of Eastern devotion; it is an eloquent book for mystics, just as for St Francis Christ crucified contemplated on the mountain of La Verna was an open book.' (*Homily*, 140)

⁴¹ CELANO, *Vita II*, 117.

⁴² The ascetic-penitential phrase dates to St Jerome, one the saints most often depicted naked in Christian iconography. See, *Epistola ad Rusticum*, 28. It is obvious that in Christian hagiography the naked body is most often depicted in the penitent saints (John the Baptist, Mary Magdalene...) and in the scenes of martyr-

dom (Peter, Bartholomew, Lawrence, Agatha, Lucy, Sebastian...). In hagiographic literature this is also confirmed in the depiction of the archetypal martyr: the naked Crucified and Resurrected Christ.

(CLARK, 216-263).

⁴³ CELANO, *Vita I*, 83. See, MILES, 7-13 ('The art of imitation'). The portraits of St Martin of Tours and of St Bernard of Clairvaux, drawn by Sulpicio Severo and Guillaume di Saint Thierry respectively, and well-known by Celano, are barely sketched in.

⁴⁴ Cited above in notes 5 and 6. Steinberg bases much of his theology of the nude on the Franciscan Bonaventure of Bagnoregio (see pp. 10, 12, 119-20). Clark, when he deals with the nude in *pathos*, recalls the role played by Francis and the Franciscans in the adoption, promotion and diffusion of the theme in European art: 'In evolved Gothic, the head (of the Crucifix) drops further, the emaciated body sags, the knees are bent and twisted: it is a hieroglyphic of pathos. In Italy this image of the Crucified appears at the same time as the rigid, hieratic figure; but when the followers of St Francis, in their eagerness for a human, emotional Christianity, preferred the more poignant image of the dead Christ, it seems to me probable that they looked for their iconography, as they did for their architecture, to the more fervent and vital rhythms of the north' (223-225).

⁴⁵ cf. *Homily*, 140. The restoration, completed in March 1994, left on the original 'pants' dating from the 16th century. The ones added later, about forty in all, were removed.

Assisi: community in emergency

Our experience in Florence introduced us to emergencies resulting from a flood. In the Italian region of Umbria¹ where Assisi is located, there is another type of natural disaster to contend with: earthquakes.

September 26, 1997 at 11:43 a.m., a powerful earthquake hit the Italian regions of Umbria and the Marches, causing the collapse of part of the frescoes and the ceiling vaults in the Upper Basilica of San Francesco in Assisi. Unfortunately, this disaster also caused the death of four people: two technicians from the Italian Superintendency and two monks. The earthquake also brought about the collapse of a portion of the frescoes on the vault in the first bay: *St Jerome* (attributed by some to a young Giotto), the *Four Doctors of the Church*, the figure of *St Matthew*, and the vault with the *Four Evangelists* by Cimabue, as well as the vault depicting the star-studded heavens, repainted during the 1800s. Eight figures of saints and other decorative elements crashed to the ground from the arch on the inner facade and from the vaulting rib. The Basilica was closed until 29 November 1999, undergoing conservation and restoration treatments. The first interventions after the earthquake were to secure the sacred building and collect the thousands of painted fragments from the debris. Collection efforts were hampered by the continual aftershocks. In all, over three hundred thousand fragments from the large arch with the saints and the web with *St Jerome*, the heavenly sky and the web with *St Matthew* were entrusted to an interdisciplinary team under the guidance of the Istituto Centrale per il Restauro in Rome². This first phase was followed by work involving the sorting and classification of the fragments based on shading, colour, and construction and/or painting technique. After completing this phase of the work, photographic comparisons were made. Based on the breakage points, there was an attempt to identify possible attachment points. Colour photographs made before the earthquake proved to be indispensable in this phase of the work. These photographs were printed on an enormous, one-to-one scale image where the placement of the

fragments could be tested in different positions, like a huge jigsaw puzzle. The fragments were then reassembled, followed by the conservation treatments and the positioning of the reconstructed fragments on the ceiling³.

This brief introduction helps to demonstrate the usefulness of this complex case in studying and understanding the need for interdisciplinary collaboration. Archaeologists contributed to techniques for gathering and identifying broken fragments; art historians assisted in the iconographical and figurative identifications; conservators were able to read the signs and clues held within the material and to carry out the restoration; the stabilizing and consolidation of the architectural structures was the task of the engineers and architects; and specialists in computer technology applied to cultural heritage were in charge of digitalizing all the images.

It was a lengthy, demanding process, but the results speak for themselves: on 26 September 2001, eight saints were repositioned onto the large arch (*St Rufinus*, *St Victorinus*, *St Benedict*, *St Anthony of Padua*, *St Francis*, *St Clare*, *St Dominic*, and *St Peter Martyr*). A year later, on 26 September 2002, the web with *St Jerome* was put back into place: about eighty thousand fragments on a surface covering eighty square metres. The inauguration of the web with *St Matthew* and the vault with the star-studded heavens took place on 5 April 2006. Today, during our visit to the Basilica, we have the opportunity to admire and discuss close-up the wise and patient work accomplished by dozens of scholars and specialists dedicated to the project christened *'the worksite of utopia'*⁴ where each and every participant was an integral element in its final outcome. How was all this possible? In addition to the team of scientists, the overriding element contributing to the success of the work was the context in which it evolved and the synergy created by the stakeholders. The final result was possible due to the environment created by the religious community at Assisi, those who embrace Assisi as a living monument, a fervid centre of spirituality and international communion. Padre Pasquale Magro, director of the museum and the convent library, welcomes the SCDO6 group with a question: *Why are we working so hard? For what purpose?* The answer lies in Assisi's history and in its physical location.

Assisi is the heart of the Franciscan order, and Umbria is the territory of Assisi. In Italy, this is a special place, the capital of the religion of the common man, the place where religious sentiment gave inspiration to St Francis in his views on the relationship between God and Man.

Padre Magro tells us that the frescoes in the Basilica are like books. These frescoes have been 'read' more than any other written or printed book. For this reason, the religious community of monks feels a great responsibility for their care and safety. We use the frescoes to guide the minds and hearts of the people, Padre Magro explains. Attentive observation shows us that the reading and understanding of the architecture and the decorative pictorial cycles in the Basilica are inseparable. It begins with the aspirations of the patrons and the executors to erect a temple dedicated to God in memory of St Francis, whose earthly remains rest in the crypt under the Basilica. We must understand that the key to the reading of the entire structure and its art is its religious identity and its underlying function as a church-reliquary. Padre Magro⁵ tells us that even the direction in which the Basilica was built is symbolic: *'...when viewed in relation to the cardinal directions (north-south, east-west), the sanctuary is a symbol of the human and material cosmos recreated in the incarnation of God's Word-Wisdom. If we look at the orientation of the structure, the crypt facing east-west, and the church above, crowning the crypt from west to east, the different function of each of these spaces is clearly revealed: it forms a church-reliquary for St Francis. The pictorial cycle covering the walls of this medieval duplex reads in a clockwise sense: the dark crypt positioned towards the west (where the sun sets), the luminous upper church facing towards the east (where the sun rises). This double direction symbolically alludes to the dual paschal mystery of the death and the resurrection of Christ and Francis.'*⁶

Padre Magro suggests that the key to interpreting the double direction of the Basilica can be found in the fusion of a Greek tradition, where the majority of the temples to the gods faced east while those to heroes or to the dead faced west. At Assisi these two classical building patterns are paraphrased and courageously translated into Christian spirit. The Church's evangelical message and the events

organized at Assisi in recent years are examples of new ways to communicate in order to reach the people; communication that opens the way for Assisi as a global meeting place for different religious faiths. The call for help during the earthquake emergency came from here, from Assisi; a call that involved vast numbers of volunteers.

The volunteers we met at Assisi are quite different from the ones we encountered in Florence. The disaster in Florence occurred exactly forty-one years ago and since then the figure of the volunteer has evolved and become more specialized. Knowledge and experience are important in disaster situations, even in sifting through debris. Before the firemen in Assisi could gather up the rubble, they were given a short course on the technical and formal characteristics of the materials they would be working with. They practiced how to recognize, identify and handle painted plaster fragments, under the constant supervision of expert personnel. This was especially important during the very delicate operations of sorting, screening, selecting, storing, archiving and documenting the work. Recent contributions on this topic show that there is a specific need for training and organization in this sector. Luciano Marchetti⁷ points out that *'in safeguarding cultural heritage, the defence of our cultural assets during catastrophes and in crisis events still needs to be developed; it is often unclear who is in charge of the operation and what the procedures are for containing damage.'*⁸

Only after a disaster hits is this question addressed in a serious and concrete manner. In disaster situations, it has been shown that timely provisions are essential in dealing with the major, continual aftershocks. To this end, the *National Commission for High Risks*⁹ works to evaluate the relative risks in safeguarding cultural heritage, and to promote the study and development of risk prevention and protection plans. The *Deputy Commissioner for cultural heritage*¹⁰ is charged with activating emergency treatment operations meant to contain any further damage to the historic-artistic patrimony already affected by the seismic disaster that took place in Umbria and the Marches. Especially noteworthy, is the *Working Group for the Protection of Cultural Heritage from Natural Risks*¹¹. This group is made up of the Ministry for Cultural Heritage and Activities, the national corps of fire-

men and the Department of Civil Defence. The duties of the working group are: to formulate proposals and suggestions for the collaboration between the Ministry for Cultural Heritage and Activities and the Department of Civil Defence in emergency situations; to define effective theoretical-practical training programmes for in-career training of personnel and to carry out exercises centring on the protection of cultural heritage in civil defence emergency cases identified by various risk scenarios¹²; to elaborate guidelines for planning security measures specifically aimed at the protection of cultural heritage; and to set up projects surveying safety conditions, resources and the level of vulnerability of national cultural heritage¹³. It is clear that these are meaningful and valuable directions. The collaboration between the Ministry for Cultural Heritage and Activities and the Department of Civil Defence is especially significant, because it finally places them in line with directives from the various international agencies regarding personnel training, emergency planning, inventory taking, etc. The increased sensitivity to the problem of safeguarding cultural heritage by Civil Defence must involve volunteers. Volunteer personnel have always been a precious and irreplaceable resource in dealing with emergencies, and with Italian Law 225/95 their organizations were given the role of a 'nationally operative structure'; thus, an integral part of the civil defence system and the institutionalized forces of the national fire-fighters, the armed forces, the police forces, the forest rangers, regional, provincial, municipal technical personnel, state administrations, and other public entities.

All the professional categories in today's society are present within volunteer organizations, including those specializations necessary for dealing with cultural heritage¹⁴.

Following the recent reforms in administrative decentralization in Italy, the autonomous functions and responsibilities of the local civil defence units have extended to the immediate municipalities and territories, making the role of the volunteer increasingly important. As Marco Brocca¹⁵ points out, the work of the local civil defence units and the volunteers within them are sanctioned even by the Italian Constitution (Art. 118 c. 1 and 4). The objective is to create a permanent service in each township prepared to

respond to the needs of the civil defence (vertical support) by utilizing active and organized citizen groups, fully integrated with the institutional forces present throughout the territory (horizontal support). Thanks to dynamic interdisciplinary efforts and a common goal, Assisi is proof of the importance the community plays in transforming utopia into reality.

¹ Plan for the 1975 Programmed Conservation of Cultural Heritage in Umbria, supported by Giovanni Urbani was the first experiment for the global evaluation of deterioration factors throughout the entire territory. It was validated during the earthquakes in Friuli (1976), and Irpinia (1980). Using this experience and methodological approach, the Risk Map for Cultural Heritage was established to furnish those involved in the protection of cultural heritage and the Central Administration with the necessary tools to support the administrative and scientific activities.

² ICR has more than fifty years experience in the restoration of wall paintings, and also draws from its experience in reconstructing fragmented paintings gained throughout its history, and specifically from the post-war reconstructions of two famous wall paintings: the Ovetari Chapel with works by Andrea Mantegna in the Church of the Eremitani in Padua, and the Mazzatosta Chapel painted by Lorenze da Viterbo in the church of Santa Maria della Verità in Viterbo.

³ Various authors, *Guida al recupero, ricomposizione, e restauro di dipinti murali in frammenti: l'esperienza della Basilica di S. Francesco in Assisi*, 2001 Rome.

⁴ G. Basile, P. Nicola Giandomenico (edited by), *Dall'Utopia alla realtà, notizie dal cantiere dei dipinti in frammenti della Basilica Sup. di San Francesco in Assisi, 2000-2002*, Assisi.

⁵ P. Magro, *Il Simbolismo teologico dell'orientazione della chiesa di S. Francesco in Assisi*, 1993, Assisi.

⁶ cf. footnote 4.

⁷ Luciano Marchetti is the current Regional Director for Cultural and Natural Heritage for Lazio.

⁸ L. MARCHETTI, Protezione dei beni culturali in relazione alla Convenzione dell'Aja e alle Raccomandazioni del Consiglio d'Europa, in M. CARCIONE (edited by), *La protezione dei beni culturali, Uno scudo blu per la salvaguardia del patrimonio mondiale: atti del III convegno internazionale sulla protezione dei beni culturali nei conflitti armati*, Padua 19-20 March 1999.

⁹ Project and consultation section of the National Service for Civil Defence ex art. 9 law 225/92, of Section VIII.

¹⁰ Established by the Ministry of the Interior, ordinance no. 2668 of 28 September 1997.

¹¹ Decree by the Ministry of the Interior in concert with the decree on cultural heritage no. 4236 of 24 November 1999, reconfirmed to allow for completion of its work before 30 December 2002, with decree no. 133 of 21 January 2001.

¹² Based on this model there have already been practice sessions during the course held by the Civil Defence Units in Florence in 1996 and in Venice in 1997. During these sessions a possible catastrophic scenario was defined and based on the risks to each building, and cultural assets were evaluated. Action proposals were prepared to reduce the probability of serious damage to the safeguarded assets. The importance of these exercises was also stated in the previously mentioned legislative decree from 7 September 2001, no. 343. In Art. 5 section 4 the Department of Civil Defence is requested to promote periodic practice sessions.

¹³ To this end, the Working Group in question, recognizing that the detection of damage resulting from crisis events is effective only if it carried out in a timely manner and on the basis of uniform criteria, developed two models (one for moveable assets and the other for churches) that were approved by the inter-ministerial decree of 3 May 2001, giving the superintendencies and emergency structures a unified tool for surveying the damage over the

entire national territory.

¹⁴ Among the associations that are particularly sensitive to volunteer action for safeguarding cultural heritage, is the Legambiente, which initiated "Salvalarte", now in its sixth year. Not only does it work for the promotion of cultural heritage, but since 1999 was one of the first to set-up training courses and practice sessions preparing groups of qualified volunteers who are ready to protect cultural heritage in every type of emergency.

¹⁵ Brocca, Marco, *Riflessioni sulla tutela dei beni culturali in caso di conflitto armato. La disciplina d'uso dei beni culturali*, in *Aedon Rivista di arti e diritto* on line, number: 2 September 2006.

JANE THOMPSON, SARAH COURT

Learning together: the Herculaneum Conservation Project

1.0 INTRODUCTION TO THE HERCULANEUM CONSERVATION PROJECT

The Herculaneum Conservation Project¹ is a public/private initiative launched in 2001 for the conservation and enhancement of the archaeological site of Herculaneum.² This ancient Roman city in Italy was destroyed and buried along with Pompeii by the volcanic eruption of Mount Vesuvius in AD 79. It has a history of excavation dating back to the early eighteenth century. The project was set up by David W. Packard of the Packard Humanities Institute³, together with Pietro Giovanni Guzzo of the Soprintendenza Archeologica di Pompei⁴, to take the measures necessary to provide a response to the serious condition of the site after decades of neglect. Andrew Wallace-Hadrill, Director of the British School at Rome, was invited to direct the project, with the guidance of a Scientific Committee of international distinction, with the aim of reversing the phenomenon of spiralling decay that was afflicting the archaeological structures and find long-term strategies that could ensure the survival of this ancient city. Thanks to donations by the Packard Humanities Institute to reimburse the cost of conservation works carried out within the Soprintendenza's works programme and through the creation of a small team of conservation specialists that advised the heritage authority, the tide gradually began to turn.

In the summer of 2004 a third partner, the British School at Rome⁵ joined HCP and signed a sponsorship agreement with the Soprintendenza that allowed the private partners to provide operational support to the heritage authority. Now able to commission site-works directly and avoid the delays of the procedurally-heavy public-works administrative route, the impact of the injection of external philanthropic support was optimised. A larger project team was established made up of both independent specialists and contractors appointed by the private arm of the collaboration and the public officials working for the Soprintendenza.

The overall aim of the project is to support the Soprintendenza to safeguard and conserve, to enhance, and to advance the knowledge, understanding and public appreciation of the ancient site of Herculaneum and its artefacts. In 2006 the main objectives were better defined (and approved by the scientific committee overseeing the project) as follows:

- to slow down the rate of decay across the entire site so that it can be maintained in future on a sustainable basis;
- to test and implement long-term conservation strategies that are appropriate for Herculaneum and potentially applicable to other, similar sites;
- to provide a basis of documentation of Herculaneum so as to facilitate its future management;
- to acquire new archaeological knowledge about Herculaneum derived as an integral element of the activities devoted to its preservation;
- to conserve, document, publish and improve access to the artefacts found in excavations at Herculaneum;
- to promote greater knowledge of and discussion about Herculaneum among the scientific community, the local population and the general public.

2.0 LEARNING TOGETHER, A CASE STUDY AS A CONTINUOUS THREAD: THE HERCULANEUM CONSERVATION PROJECT IN 'SHARING CONSERVATION DECISIONS'

The potential of Herculaneum and the HCP as a *case study* for training activity within an ICCROM course was identified for the first time at an exciting and critical moment in project development at Herculaneum. Collaboration with Sharing Conservation Decisions 2004 (SCD04) began as the operational scope of this innovative public/private initiative had just been radically increased. This new HCP / ICCROM partnership for training purposes was to prove surprisingly influential in HCP project development.

Involvement of Herculaneum and HCP as a case study in the 2004 course was limited to a single day. However, planning of the day was carried out in such an open way that, with the help of the course organisers, the HCP core team of specialists could understand the role of the case study within the course and tune the content to the participants' needs⁶. The case study exercise was constructed so as to

resonate with themes from the wider course material and thus attract an incisive contribution from the participants⁷. Their feedback highlighted many aspects that the project had still not addressed sufficiently in late 2004, community links and outreach being prime examples. Participants' input actually shaped project thinking, both in an immediate and in a longer-term way. This reinforced HCP in the view that community involvement and outreach was not something to be put off until time allowed but an inherent part of the sustainable conservation strategy under development. More generally, the involvement of eighteen international heritage specialists in HCP even for a single day constituted an injection of new ideas and helped ensure recognition both of the need for continual dialogue with those working elsewhere and of the project's potential and its wider responsibilities.

As a result of how positive the 2004 collaboration had been for the project, when HCP was approached by the course planners for involvement in SCD06 there was no hesitation in enhancing this partnership with ICCROM. The course organisers had clearer and more ambitious plans for how to best integrate the various case studies into the intense course. Some case studies were constructed as a few days of full immersion. Instead, the breadth of issues raised by Herculaneum and the Herculaneum Conservation Project led us to experiment with the idea of making the site and its problems not just a one-off case study but a continuous thread throughout the course.

2.1 HERCULANEUM AS A RECURRING THEME

The SCD04 visit and subsequent involvement in other ICCROM courses⁸ had demonstrated that Herculaneum has attributes which ensure that as a case study it does not overly favour certain participants (for example, conservation professionals working with immovable cultural heritage). The intact nature of the remains, the wealth of artefacts and the site's relationship to the modern town and the wider cultural landscape⁹ meant that the site poses problems that are not unique to archaeological sites and could provide interest value to a range of participants (such as curators, historians, scientists, managers and conservators). Using HCP's work as a springboard for discussion meant partici-



Fig. 1 - Examples of carbonized wooden furniture from Herculaneum, a site which provides some of the best preserved organic material from the Roman period. Photo: Sarah Court/HCP

pants did not depart from zero and could address the site's problems in a more concrete way and form a more elaborate critique.

As the course strategy took form, natural opportunities emerged in the programme where it made sense to introduce Herculaneum, briefly or more thoroughly, depending on the aspect being explored. Caution was necessary from both course organisers and HCP team members to ensure that as a primary case study for SCD06 it was never presented either as a paradigmatic model to copy or as an exhaustive, complete picture of heritage problems. As course plans evolved, the Herculaneum 'continuous thread' in reality broke up into stages: a series of presentations briefed participants; a site visit triggered dialogue and evaluation processes; a workshop activated the participants; and two seminar sessions required participants to analyse the case study against their own experience.

3.0 RECORDING, INTERPRETING AND RECOUNTING: TRACING THE DIFFERENT LIVES OF HERCULANEUM FROM ANCIENT TIMES TO MODERN DAY

3.1 INTERPRETING THE PAST

Tracing the survival of the city of Herculaneum and its artefacts from ancient times to the current day constitutes a vivid history, enriched by a wealth of documentation relating to every period of its life.

It can be recounted in a number of ways: as a scene of catastrophe in the AD 79 eruption; as the 'lost' civilisation mentioned in classical texts, accidentally rediscovered in 1709; as the open-air museum of Roman daily life where the

preservation conditions of the volcanic material that fell on Herculaneum also preserved organic materials (e.g. cloth, foodstuffs, wood, etc; Fig. 1); as the place where modern archaeology was 'born' with the first systematic excavations in the 1700s; as an instrument of political will in various periods (the most poignant being Fascist enthusiasm for classical models which sustained the first decades of Amedeo Maiuri's excavation campaign 1927-1961).

For an audience of conservation specialists the site also needs to be recounted as the place where conservation and excavation, restoration and maintenance took place simultaneously on a large scale and in a systematic and well-documented way for the first time: Maiuri's campaign brought the city back to life and left conservation professionals who came afterwards a very coherent legacy¹⁰.

For conservation specialists, it is also a place that is somewhat emblematic of one of the failures of the heritage sector today. City life was devastated by the eruption of AD 79 but the fabric of the ancient city of Herculaneum survived nearly two millennia, to then risk devastation for a second time in the late twentieth century. This was not due to a catastrophe such as a volcanic eruption: it was due to decades of the most basic form of neglect, the failure of routine maintenance programmes. Herculaneum demonstrates effectively how 'sharing conservation decisions' is vital to ensure the right routine steps are taken at every stage to safeguard cultural heritage and that failure to do so can



Fig. 2 - . The problems of decay in Herculaneum: Humidity (and resultant salts) and vegetation
Photo: Sarah Court/HCP

wreak more havoc than a natural disaster (Fig. 2).

These diverse readings of the history of the site shape our interpretation of its significance today. Together with the historical documentation available and the study of the site itself, they form the basis for formulating new strategies for safeguarding the site and this process is not static: specialists working at Herculaneum have to constantly review their

understanding of the past and try to revise conservation strategies accordingly. The formulation of new conservation strategies is then itself a source of new documentation to allow those who come afterwards to trace what has taken place.

3.2 RECOUNTING AND RECORDING THE PAST

In order to allow the SCDO6 participants to actively contribute to a workshop and exercises as part of later stages of the case study it was necessary to provide a concentrated induction to this process of recording, interpreting and recounting. Placing HCP team members and participants on an equal footing in the context of the first unit dedicated to communication techniques encouraged dialogue and discussion from the outset¹¹.

With this basic groundwork covered, the next insight into Herculaneum could be far more specific and in-depth. Voices from the public and the private arm of the HCP partnership were chosen: Maria Paola Guidobaldi, the Soprintendenza's Site Director for Herculaneum, and Jane Thompson, the Project Manager who works for the private arm of HCP. They gave a joint presentation on the history of the archaeological site of Herculaneum in terms of the relationship between ownership and Italian heritage legislation in each era, and the relative excavation and conservation measures taken¹².

The presentation recounted how approaches to the site evolved over time, from the rediscovery of the city in 1709 some 20m underground to public management in the twentieth century. In particular, the changing perception of 'ownership' was highlighted. During the exploration of the ancient city from 1738 onwards under royal patronage emphasis was placed above all on retrieving finds. However, there was also an attempt to establish the urban layout of the city: it was systematically explored with tunnels and 'mapped' using Swiss mining techniques creating precise surveys and making Herculaneum a pioneer in the discipline of archaeology and heritage documentation policies. The site was also ahead of its time in providing an example of the impact of 'notoriety' on cultural heritage: Herculaneum became a destination for Grand Tour travellers and influenced European architectural movements of the

day. In an era in which much cultural heritage was still viewed as the property of individuals, notoriety led the numerous artefacts to finish up without reference in private collections around the world, and many are still there today. It also introduced the idea that, though property of the Bourbon Kingdom of the Two Sicilies (later incorporated into the unified Kingdom of Italy), the standing archaeological structures had a collective value above and beyond their material worth and travellers should be allowed to view them: a precursor to 'public' ownership.

The gradual transfer of ownership and management of the site to the State as Italy became a single nation brought advantages but also new challenges. The well-maintained archives are one testimony to the numerous benefits of systematic public management for the last hundred years. However, the periodic impact of political agendas on decision-making for the site have been a source of some of the more dramatic chapters of its history: not just the Fascist example mentioned above but also the more recent 1990s campaign to uncover the Villa of the Papyri. Here, enthusiasm for new discoveries prevailed, resulting in the channelling of central government funding into a vast new excavation at the exact moment when the nearby main archaeological site desperately needed urgent conservation measures and was starved of them due to the limited resources available to the heritage authority.

3.3 SHAPING THE FUTURE BASED ON THE PAST

From the 1960s onwards the site had fallen increasingly victim to certain limitations within public policy and this had led to the failure of maintenance programmes and, in turn, the rapid decay of the structures and decorative features¹³. By the 1990s, numerous areas of the site had been closed to the public and the site's most unique features were in jeopardy. With new operational autonomy gained in the late 1990s, the heritage authority began to readdress the balance and it was in this favourable setting that the 'Herculaneum Conservation Project' was launched in 2001, increasing the resources and expertise available to address the problems. Legislative developments in 2004 allowed the project to increase its scope with the innovative application of new Italian sponsorship laws¹⁴ and thereby help



Fig. 3 - SCD06: The House of the Bicentenary
Photo: Jane Thompson/HCP.

the public authorities in the area in which it faced most difficulty: operational flexibility, productivity and innovation, particularly in the area of ordinary and extraordinary maintenance. What makes this approach different from previous sponsorship initiatives in Italy is that it is not simply a financial donation or a one-off flagship project.

HCP's activities are integrated into the heritage authority's programme very closely, improving effectiveness, addressing the site's problems in an inclusive manner and ensuring that some of the mistakes of the past that have resulted from external pressure and bad decision making are not repeated. In this way, project strategies are evolved in unison to be sustainable by the heritage authority beyond the life of the public/private partnership¹⁵.

4.0 EVALUATION AND ANALYSIS

4.1 DOCUMENTATION AND CO-RESPONSIBILITY IN DECISION-MAKING Since the 1960s not all excavation and conservation campaigns had delivered complete documentation to the Soprintendenza archives at Herculaneum: the importance placed by HCP on consulting historic records and on delivering good quality documentation to the heritage authority in a manageable form is an example of a lesson learnt from the past. When the time came for the participants to formulate their own interpretation of the site and its problems, much worth was given to the role of documentation in improving decision-making. An on-site introduction to a broad selection of HCP documentation and results was offered with information manager, Ascanio D'Andrea, on hand to answer enquiries about archiving strategies and GIS initiatives.

The site tour itself was also structured in a way to highlight

another factor detrimental to the site if neglected: the importance of *shared* decision-making involving a broad set of conservation professionals. The participants were divided into small groups and accompanied by a diverse sample of HCP specialists while they visited the site so that a broad range of issues would be addressed and participants could witness some of the interdisciplinary debates that lead to decision-making. A variety of buildings and conservation problems were presented (Fig. 3). An attempt was made to highlight the dual approach to the site: the initiatives that operate on a site-wide scale (mapping of decay, emergency campaign, maintenance) and those which take place in more restricted areas but addressing specific problems in greater depth (case study project, site trials of conservation techniques, etc.).

4.2 EVALUATING A SITE AND A SITE STRATEGY

Workshop questions, issued before the site visit, brought the participants attention to risk evaluation and, as an extension of that, the relationship to the local community. The threat of a new volcanic eruption sat beside the negative implications of failing to overcome the local community's distance from the site.

In addition, participants were asked to carry out a basic review, identifying the aspects of HCP's approach which were working and the challenges that remain. The emphasis on co-responsibility and a step-by-step approach was congratulated while it was agreed that the challenges of visitor management and communication strategies were yet to be sufficiently addressed on site and HCP's contribution could be important. The difficulty of guaranteeing continuity and the maintenance of good standards via the successful transmission of knowledge and experience and skills to those responsible for the site in the future was also highlighted. The feedback was pulled together for assessment in a session hosted by the *International Centre for the Study of Herculaneum*. The results are to be found in Appendix I. The discussion highlighted the difficulties raised by language within the heritage conservation profession and the numerous assumptions about meaning that make terminology often become a barrier rather than an opportunity to improve debate.

4.3 MANAGEMENT TOOLS AND FUNDING SOURCES: PRO-ACTIVE PRIVATE PHILANTHROPY IN THE PUBLIC HER- ITAGE SECTOR

Astrid Brandt-Grau¹⁶ delivered SCD06 participants a series of talks and exercises on management tools for resources analysis and project monitoring to facilitate good decision-making. It was agreed that, given the participants relatively in-depth knowledge of HCP the project could be used as an example, with support from the HCP Project Manager. While the management tool itself was of interest, it was an example of Herculaneum as a case study somewhat failing. The extreme risks and constraints any project has to contend with and, moreover, the particular complexity of the public/private initiative made it hard for participants to contribute. However, the results which the analysis delivered were easy to decipher and allowed many participants to grasp the aim of the exercise and illustrate the worth of the monitoring tool.

Another session was dedicated to funding issues, and the experience of HCP was used in discussion to illustrate the difficulties faced in making private resources an effective source of support within a very top-heavy public heritage system which has no precedent for private involvement. The potential of private/public collaborations to raise the attention given to improving procurement models for contracting conservation works and consultancy was highlighted: establishing effective and reliable expenditure models could create trust and galvanise the private sector into greater investment in publicly owned heritage. Several participants provided interesting examples of the relationship between the public and private sector in their own countries.¹⁷

5.0 CONCLUSION: HOW TRAINING PARTNERSHIPS CAN BREATHE NEW LIFE INTO A CULTURAL LANDSCAPE

HCP has now collaborated with five ICCROM training courses, two of which have been Sharing Conservation Decisions.¹⁸ We inevitably tend to evaluate the success of these collaborations from the perspective of what the HCP project team, what the archaeological site of Herculaneum and what the local community of Ercolano gain.

Adopting the Herculaneum case study as a continuous thread throughout the course certainly allowed participants

to be so involved that discussion slots, even if limited, were enormously fruitful. The recurring contact and familiarity with the project team allowed conversations and discussions to take place between the HCP team, SCD06 participants and ICCROM staff that do not happen so easily in the 'single visit' approach to case studies in training courses.

Involvement in ICCROM training courses produces a whirlwind of extra work for an already overworked project team. However, involvement also provides a unique and stimulating forum in which to review our work with the help of a high-quality panel of experts from all over the world (the participants) and whatever HCP gives to ICCROM training courses it always takes back just as much. Involvement in SCD, a course in constant evolution and refinement which addresses difficult topics such as communication and decision-making so effectively, goes one step further: the benefit for the project team, the archaeological site and the local community is even greater since these are the topics that are normally the most neglected.

Partnership in training activities can breathe new life into heritage projects and into the cultural landscape within which they are set. Herculaneum has demonstrated this: the SCD04 and SCD06 collaborations helped form the strategy behind the creation of the *International Centre for the Study of Herculaneum*, a study centre dedicated to Herculaneum's heritage and its preservation,¹⁹ by making the local city council and the heritage authority recognise the potential of the archaeological site as a mechanism to trigger wider initiatives in the community and introduce external partners who could bring new energy and help forge change.

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¹ 'HCP'; www.herculaneum.org

² The 1997 UNESCO inscription of Pompeii, Herculaneum and Torre Annunziata on the World Heritage List defined them as follows: "The towns of Pompeii and Herculaneum and their associated villas provide a complete and vivid picture of society and daily life at a specific moment in the past that is without parallel anywhere in the world."

³ A philanthropic foundation; www.packhum.org.

⁴ The heritage authority responsible for Herculaneum; www.pompeisites.org.

⁵ A Rome-based research institute; www.bsr.ac.uk.

⁶ In planning the day, course organisers were always keen to debate all aspects of the course and gather HCP team input on many issues, making the collaboration of far greater worth to HCP than it might have otherwise been.

⁷ The emphasis of the afternoon workshop after the site visit was the evaluation of decision-making processes within HCP and the involvement (or lack of) of principal stakeholders and other interest groups and an attempt to express them graphically. Many participants provided positive examples for community involvement.

⁸ "Architectural Records, Inventories and Information Systems for Conservation: advanced international course in architectural conservation", Rome, 2005; "ATHAR Conservation of Archaeological Sites", Tripoli, Lebanon, 2005; Course on the Conservation of Built Heritage, Rome & Ercolano, 2007 (planning stage only preceded SCD06).

⁹ The Vesuvian area has undergone extensive and problematic urbanisation over the last forty years but still conceals extraordinary cultural riches: for example the other Roman sites buried by Vesuvius and the Golden Mile of 122 Bourbon-period villas which runs along the northern edge of the archaeological site.

¹⁰ See Camardo, D. (forthcoming).

¹¹ HCP (and indeed other course resource people) was treated as a 'participant' from day one and Sarah Court, HCP Research & Outreach Coordinator, gave a brief talk introducing Herculaneum and HCP within the two-day mini-conference: the ancient city was illustrated and placed in context and the conservation problems of the archaeological site were introduced; the three main stakeholders were identified and the HCP's scope was illustrated with a precise outline of project objectives.

¹² The unit dedicated to "Cultural project: conservation decisions in context" was chosen and specifically the section dedicated to "protection methods and their legislative system". The presentation was entitled: Herculaneum: the relationship between ownership in each era and the relative excavation and conservation measures taken, evaluated with reference to Italian heritage legislation (24 October 2006)

¹³ See: Zan, L. and Paciello, L. (1998) : 7-39.

¹⁴ The new sponsorship law: Codice Urbani law 449/1997, article

43; law 109/1994, article 2, 6 as substituted by law 166/2002, article 7; Decreto Legge 42/2004, article 120; Decreto Legge 30/2004, article 2.

¹⁵ It is foreseen that HCP will only continue for a limited period, leaving the Soprintendenza in its role as long-term guardian of the site. Results already suggest that it will prove an interesting model that could influence future management strategies for other heritage sites across Italy since the integrated approach ensures that only the strengths of each partner are brought to the collaboration. The collaboration unfolds close to the core of the public authority's decision-making mechanisms favouring long-term sustainable conservation strategies within a structured vision.

¹⁶ Astrid Brandt-Grau is from the Institut National du Patrimoine, a principal partner of SCD06.

¹⁷ Examples included cases: in Europe and South America where the public body had become entrepreneurial in the hunt for new resources: in Asia where the public body sometimes maintained a semi-private operational arm to maximise flexibility, distributing activities between the mother organisation and the private offshoot according to type; in parts of Great Britain and the United States where the entire responsibility for heritage was distributed out to private specialists via elaborate appointments that transferred liability for decision making away from the small central organisations.

¹⁸ See note 8

¹⁹ In 2006, the Comune di Ercolano (city council), the Soprintendenza and the British School at Rome came together in 2006 to form the *Associazione Herculaneum* and successfully applied for public funding for a launch project for a study centre in Ercolano. The study centre's three-year launch programme places enormous importance on using Herculaneum as an open classroom, on outreach and local community initiative 9/12/2007

Paris: particular case studies

The study tour was organized by the Institut National du Patrimoine in Paris¹. It aimed at presenting and discussing three large scale projects of management of challenging collections and the related conservation decisions: the recently opened Musée du Quai Branly (ethnographic collections), the storage areas of the Musée des Arts et Métiers (science and technology collections), the Museum d'Histoire Naturelles (natural history collections), with particular emphasis on comparing the evolution of their holders and their exhibition design concepts. On the first day participants were welcomed at INP for a round-table discussion on education and training of curators and conservators in France. The debate, which was stimulating and very useful, compared the situation at international level through the first-hand experience of participants.

The morning session continued at the Quai Branly Museum, where the team involved in the museum project explained the objectives, the different phases of its realization and the target groups involved. The visit to this new museum was a huge discovery for everyone and the possibility of seeing 'behind the scenes' under the exceptional guidance of Mr M. Mohen, including a visit to the storage facilities to see how they had been organized, made it a unique occasion. The museum, designed by architect Jean Nouvel as "*a building nestled in the landscape and awaiting discovery, intended to serve as a home to these different forms of arts rather than as an example of Western architecture*"², and created in order to bring the collections of non-European arts together, in particular the African, Oceanic and American collections, formerly housed at the Musée national des arts d'Afrique et d'Océanie and those from the ethnology laboratory of the Musée de l'Homme, first of all aims to recognize the role their artistic expressions occupy in European cultural heritage. Called "a bridge museum", a museographic, scientific and cultural institution dedicated to the dialogue between cultures and civilization, a multifaceted cultural institution, the museum engages the visitor

and envelops him/her in its well-designed and methodologically structured fabric as if within a forest of trees and greenery. The principal space is a long, fluid building raised on piles³. It is clear that this museum was designed as a new type of cultural institution, with a dual purpose: to conserve and exhibit the collections, and to stimulate research and education. The museum will also run a performing arts programme of theatre, dance and music, designed to resonate with the wide range of exhibits on display. This will enhance the role of the site as a convivial "cultural city" of non-Western arts showcasing non-European populations; an area where cultures, civilizations and individuals meet and mingle; an ideal place for our group members who, after presentations, guided and individual visits, were able to discuss what they had seen and heard with the museum team. This moment, given the diverse multicultural and multidisciplinary nature of our group participants, was extremely rewarding for all of us.

The following day, participants had the opportunity to visit the new storage facilities of the Musée des Arts et Métiers⁴, located in La Plaine Saint-Denis. This space was created in order to serve three basic purposes: preservation, with over 5,000 m² of storage spread over two levels; the processing and preservation of the collections, with the restoration workshops covering an area of 600 m³; and lastly for study and historical research, essential for improving the documentation on the objects. The storage facilities of the Musée des Arts et Métiers were really interesting because they were able to build a specific structure for storage using standard equipment and participants were enthusiastic to see, explore and compare new storage solutions.

After an interesting visit to the department of conservators at INP, the group had the opportunity to visit the National Museum of Natural History, its restoration laboratory, and, in particular, the "Grande Galerie de l'Évolution" under the expert guidance of the director Mr. Michel Van Praet. He took the group into the restoration laboratory where technicians were reproducing the skeleton of a dinosaur for a didactic exhibition, using a special material. The visit was really fascinating and offered our group of professionals an

insight into how vast and far-reaching the world of ‘works of art’ has become.

The visit continued in the museum, highlighting the Galerie de Zoologie. The Galerie, built by Jules André, was inaugurated in 1889, at the same time as the Eiffel Tower, and with the same success. It underwent a metamorphosis in 1994 to become the Grande Galerie de l'Évolution, under the direction of the architects Paul Chemetov and Borja Huidobro, associates of the director René Allio.

The re-structured museum presented its zoological collections from a new and dynamic standpoint: the evolution of life. They form a spectacular ensemble (3,000 specimens exhibited in the central hall alone; 7,000 in the whole Galerie), installed in a space of 55 x 25 m and 30 m in height. The 6,000 m² of permanent exhibition space is divided between the central hall and the intermediate and upper balconies. Special exhibitions are presented in the Hall of Endangered and Extinct Species, as well as in the Hall of Discovery.

Blue lighting, mounted fish, the reconstruction of a giant squid: here we are, plunged into the diversity of marine environments! A remarkably well-restored herd of animals seem determined to forge ahead in a straight line: this is how the varieties of land-living species are represented.

Move along beside them, close your eyes and listen to musical sequences, or stop for a moment to watch a film or consult an interactive programme... Everything here recreates the history of the transformation of the species since the origins of life some four billion years ago. Everything raises the question: what is Man's responsibility? What future does the planet have?

The museum is an impressive example of a didactic approach, using applied methodology to raise awareness: for instance, the Hall of Discovery makes the youngest visitors aware of the notions of time and species, the starting point for learning about the mechanisms of biological evolution. Here they can enjoy a hands-on learning experience with entertaining materials and the opportunity to observe, classify and ask questions.

The highlighted themes were vast and needed more time for discussion; personally I found it really interesting to com-

pare the buildings containing these collections from the point of view of structure and use, and explore the solutions adopted in new buildings, such as the Museum of Quay Branly and the Musée des Arts et Metiers, as well as the adaptations made to a historical building like the National Museum of Natural History. Perhaps this topic could be explored further during the next course!

¹<http://www.inp.fr>

² Andreadis, *Ianna*, *Chantier ouvert au public*, Musée du Quai Branly, 2006 : 31.

³ It overlooks an 18,000 m² garden planted with 180 trees growing over 15 m tall in order to conceal the building. A ramp leads to the 6,500 m² main gallery: the museum's central exhibition area, where 3,500 objects will be on permanent display alongside thematic presentations: 2,000 m² have been set aside for these temporary exhibits (ten annually). The museum will also feature a 500-seat amphitheatre opening into a luxuriant green setting, and a 120-seat cinema.

⁴ The Musée des Arts et Métiers is a museum in Paris that houses the collection of the Conservatoire National des Arts et Métiers, which was founded in 1794 as a depository for the preservation of scientific instruments and inventions. It was founded on October 10, 1794, during the French Revolution. It was first proposed by the abbot Henri Grégoire as a “depository for machines, models, tools, drawings, descriptions and books in all the areas of the arts and trades”. The deserted priory of Saint-Martin-des-Champs was selected as the site of collection, which formally opened in 1802. Originally charged with the collection of inventions, it has since become an educational institution. At the present time, it is known primarily as a continuing education school for adults seeking engineering degrees, proposing evening classes in a variety of topics. The collection of inventions is now operated as the Musée des Arts et Métiers. Since its foundation, the museum has been housed in the deserted priory of Saint-Martin-des-Champs on Rue Réaumur in the 3rd arrondissement of Paris.

CHAPTER VII

TOOLS FOR THE FUTURE

Introduction

ROSALIA VAROLI-PIAZZA

Tools for the future

If sleep is the culmination of physical relaxation, boredom is the culmination of mental relaxation. Boredom is the dream bird that hatches the egg of experience... His nesting places—the activities that are intimately associated with boredom—are already extinct in the cities and are declining in the country as well. With this the gift for listening is lost and the community of listeners disappears. The art of storytelling is lost because there is no more weaving and spinning to go on while they are being listened to... The more self-forgetful the listener is, the more deeply is what he listens to impressed upon his memory.'

Walter Benjamin

We are approaching the end of our twenty-five day course. It has required long planning and preparation, and a great deal of commitment by many people with high expectations, especially by the participants. We asked ourselves: all these people, mid-career professionals from distant places, who leave their work for an extended period, who will return home to find a backlog of work waiting for them – what will they bring back to their own institution, to their colleagues at work? They'll certainly recount their adventure, their many impressions – both positive and negative – their many memories and photographs, reams of photocopies...and they'll arrive with a few new ideas. All well and good, but what will they bring back to their supervisor, their boss? What will they report? During the last week of the course we tried to provide operational tools for the future. We need to know how to formulate a **conservation project** so that it is accepted by various sectors of society, so that is tenable on a legislative level, but so that it can also generate an **awareness of the values** that surround us, and to which we are committed to pass on. Our purpose would then be twofold: conserve the patrimony and produce **tangible and intangible wealth**. But in order to produce wealth we must begin with the wealth we possess, whether it be tangible or intangible. Who will bear the **costs**, even though at times they can be quite contained: the community? And how will the income be generated? Will it come from volunteer organizations? Using what tools and with what goals? More and more frequently, anyone who finances a project or an activity wants to be an **active partner**. How can we communicate with these new people

and entities? How can we involve them and collaborate with them so that not only do we have common goals, but also common methodologies and knowledge? We have to ask ourselves: who and where are these **stakeholders**?

Perhaps they are even closer than we imagine. We are all stakeholders. In different ways we all are the owners, if not the possessors, of the cultural inheritance we received and for which we have an obligation to know, **share** and conserve for future generations.

Even though income from tourism is on the rise, **economic resources** are increasingly harder to procure. We have to learn how to optimize these funds and at the same time we must learn how to come by them. We need to know how to contact a sponsor, a politician, how to speak his language, how to communicate that he will help save 'cultural heritage' (something he perhaps knows little about and that holds little interest for him). But we also need be able to explain the direct and immediate benefits that can be realized with his sponsorship. For example, great benefit can be gained from supporting on-going research; it can provide increased visibility and image, access to a category of individuals and entities involved in the important problems of cultural heritage; and it can contribute to possible economic returns from a diversified tourism.

We must therefore collaborate closely with those who know the mechanisms of fundraising, whether in the private or public sector. One path is to tap into the great number of resources provided by the European Community, even though its mechanisms are lengthy and complex.

We asked ourselves the following questions:

- What are the mechanisms and goals behind the recent creation in Italy of so many different types of civil and banking foundations?
- Is the Government prevented from or incapable of continuing in the tutelage and the administration of its own cultural patrimony?
- There is a change in the perception of value: when an asset is in our possession, does it have a greater perceived value¹?

Where does this leave us?

- Some mechanisms are changing: for example there are no

longer 'blanket' financings, resulting from an incapacity/absence to make decisions, attempting to satisfy everyone, and often made under policies of patronage. Now, projects are structured over the medium and long term in order to obtain more effective results.

- Increasingly, we have to pull together several sponsors, each having their own well-defined targets.
- In bringing together various private entities to facilitate more effective and efficient action, we may risk distorting the ultimate benefit of this partnership: in favour of whom?
- One solution is to combine the efforts of public-private sponsors to achieve our goals². There is a new concept and role in the 'public' safeguard and protection of natural and cultural heritage. The public is no longer just the State, but the multiplicity of players in society involved in the investigation and resolution of a common problem³.
- As in antiquity, there are an increasing number of citizens who care for the shared and communal assets: these are **active citizens**, as opposed to the normal citizens, or to the parasites in society⁴.

The **public** should not be viewed as being out to disturb the peace of the scholars or destroy natural and cultural sites. The public should become our closest ally in the defence and conservation of the 'patrimony of humanity'⁵. The *Office International des Musées* (O.I.M.), created in 1926 for the purpose of acting at an international level to safeguard cultural heritage⁶ and the predecessor to Unesco and ICOM, stated in one of its first publications, 'the public should not be divided into the invested and the layman'⁷.

TERMINOLOGY GLOSSARY

Why, for the nth time, would we want to tackle the huge problem of terminology? For the simple fact that if we don't agree on the meaning of the terms we use we can't communicate, and there would be total confusion!

Due to the international nature of the course, we had to choose one working language: English. For some this was their native tongue, others came with varying degrees of proficiency in this language, an aspect that could create difficulties among the instructors, students and co-ordinators. Before the start of the course, we asked all the participants

to explain in their own words a given number of terms⁸ that would be useful for the SCD staff in preparing the course and for the participants during the course. There was no attempt to reduce our work into only one language or a single term, but we wanted to communicate understanding each other and what was meant by a given term. This exercise contributed both to the course content and to improved dialogue. The Greek philosopher Zeno stated: '*The reason we have two ears and only one mouth, is that we may hear more and speak less*'⁹.

There have been many studies on the mechanisms involved with understanding language and the meaning of its terms; many of these are philosophical texts dating to antiquity¹⁰. The philosophical aspect of language has brought about important discoveries and initiated on-going debates¹¹. We must keep this in mind in trying to work on a glossary and the terminology used in the field of conservation and restoration, especially when we are working with terms in many different languages. There is still a real need for this. It has been a topic of discussion ever since the formation of ICOM¹², and since then, there have been various dictionaries¹³; but the need still remains.

We should not forget that our way of speaking, including our pronunciation, is an acknowledgement of our cultural identity, and we must not lose it. We know how important this factor is in reconstructing the identity of a war-torn population, where the material symbols may have been destroyed in the conflict.

I believe it is important to look for the etymological roots of our respective languages because they help in understanding the underlying meaning of the term, the differences between one language and another, and as a result, any conceptual variances. These diversities can be put to use in effectively collaborating and enriching our understanding, to avoid misunderstandings and conflicts especially in a multi-ethnic and multi-cultural context.

But we should also remember that language is a living element, and as such is subject to change. The root word is the headwater of the term, but we should not get pulled off course by the current of schematisms. We need to investigate its flow, its history, so we can navigate in the

direction of better reciprocal understanding.

Thus, we need to **translate**¹⁴ into our language to better understand the nuances of the conversation as well as its concepts and messages. But we know that translation is, inevitably and intrinsically, also a sort of deception. This is why, as much as possible, we must communicate 'what we mean' by a given term.

USING THE WEB TO STAY IN TOUCH

On the ICCROM website, under SCD, there is a place where the participants and instructors from all the *sharing* courses can keep in contact with one another¹⁵. It seemed important to attempt to use this means of communication in order to evaluate the past activities, but also to see if it were possible to be used as a tool for effectively exchanging information, for discussion, for addressing the most serious and pressing issues. The webpage is still under construction, and for the moment we can give no additional information.

CONCLUSION

At the end of this kind of course and as we prepare to depart, will we have packed away more certainties or problems? Is it better to return home with solutions or questions?

Our hope is that we have pulled together a few ideas and methodological starting points that can be used in our future work. And perhaps we have changed some attitudes about our neighbours, whether they are close colleagues or the general public.

Perhaps we have seen that so much terminology, and especially so many antinomies, like mind and brain, moveable and immovable, tangible and intangible do not exist in reality but were created out of practical use, and...sometimes cause great harm. Dividing, separating, specializing without seeing anything further can make us lose track of reality, which is context. We should bear in mind that even in the UNESCO Convention for safeguarding intangible cultural heritage – or inheritance – one of the first things mentioned is the tightly woven interdependency between tangible and intangible culture¹⁶.

As many scholars have said before us, only in that moment, when the object is *re-cognized* in our consciousness, is it worthy of being safeguarded and passed on to our succes-

sors. And this is not dependent on its materials, its shape or the fact it may have been hidden from sight for many years.

When we evaluate an activity that is 'constantly re-created by the community or different groups'¹⁷, we understand that it is impossible to separate the expressions of cultural *identity* and cultural *continuity*.

Paul Philippot stated that, even before being a technical problem, restoration is a cultural problem, and the former is nothing more than a consequence of the latter¹⁸. Let us, then, take time for reflection, in order to be able to see what we are looking at.

¹ D. Kahneman, (Nobel Prize in Economics) www.Economics.harvard.edu.

² ICCROM, in partnership with the Rathgen Research Laboratory of the National Museums of Berlin, the German National Commission for UNESCO, ICOMOS and the Getty Conservation Institute (GCI), held a two-day international seminar on 'Public-Private Partnership (PPP) in the Management of Cultural Heritage Assets' (15 - 16 June); ICCROM Forum on the topic of 'Privatisation and Conservation of Cultural Heritage' took place from 13 to 15 September 2007 in Catania, Sicily, Italy.

³ Marianella Sclavi, *Il caso Chelsea*, *La Repubblica* 24.6.2006.

⁴ Gregorio Arena, *Cittadini attivi*, Rome-Bari, 2006.

⁵ Definition in the Convention for the Protection of Cultural Property in the Event of Armed Conflict adopted at The Hague (Netherlands) in 1954 (<http://portal.unesco.org/culture>).

⁶ After the *Conférence internationale pour l'étude des méthodes scientifiques appliquées à l'examen et à la conservation des oeuvres d'art*, held in Rome from 13 to 17 October 1930 most of the contributions, submitted anonymously, were collected in vols. 41-42, *Conservation et Restauration des Peintures*, Paris 1938.

⁷ In the first article *Doctrina générale de la conservation des peintures*, *Mouseion*, vol.41, 1938, p. 16.

⁸ Some of the terms given to the participants were: deterioration agents, purpose, condition of the object, conservation, conservator-restorer, documentation.

⁹ Philosopher from the 4th century BC in Diogenes Laërtius. VII, 23.

¹⁰ T. De Mauro, *Terminologia*, in *Enciclopedia Universale dell'Arte*, XIII, 1965, 818-828.

¹¹ John R. Searle (University of California, Berkeley) was awarded the prestigious 'Mind and Brain Prize, Italy' in 2006 by the Centro per le Scienze Cognitive dell'Università degli Studi in Turin, Italy, 'For the significant insights and the remarkable theoretical and technical advancements in the study of the mind and of the nature and structure of language in its social reality'.

¹² ICOM News, 1, Paris 1 October 1948.

¹³ For example the *Dictionarium Museologicum*, ed. ICOM Budapest 1986, in twenty languages. Herein, Thesaurus of the European Heritage Network, http://www.european-heritage.net/sdx/herein/national_heritage/search.jsp?action=thesaurus.

¹⁴ T. De Mauro, *Capire le parole*, chap.6, *Sette forme di adeguatezza della traduzione*, Bari 1994.

¹⁵ www.iccrom.org/sharing

¹⁶ UNESCO, Convention for the Safeguarding of the Intangible Cultural Heritage, 17 October 2003, Preamble. <http://www.unesco.org/culture/ich/index.php>.

¹⁷ *ibid* art.2 Definition.

¹⁸ P. Philippot, *La conservation des oeuvres d'art, problème de politique culturelle*, in *Annales d'Histoire de l'Art et d'Archéologie*, Vol. 7: Section d'Histoire de l'Art de l'U.L.B., 1985, p.7.

ROBERT GOWING

Maximizing scarce resource. Funding for building conservation projects

Most heritage projects rely on external funding. On initial inspection, there are a myriad of potential funding bodies ranging from government and government-supported, through charities, to private individuals or organisations. However it can be extremely challenging to work out which funding stream is relevant to the project, and even how much money may be needed. A small minority of heritage-led organisations employ dedicated staff (often known as the Development Office) to secure funding for projects and other works, but for most privately initiated conservation projects, understanding and organising the necessary resources needs to be integrated into the project development. Assessment of potential sources quickly reveals that the bulk of funding opportunities are necessarily particular to individual countries or regions. Moreover, the remit of funding streams rarely remains static, but rather changes with shifts in priorities and available resources. Instead of looking at the specifics of different funding streams, this session considers in a more general way the different approaches to funding and funding processes, and how we can maximise the resources that are available whilst still maintaining the integrity of a project. This course is international in outlook, so although the session uses the UK as an example, it does not give a detailed evaluation of specific funding opportunities in the UK. Rather, the present funding arrangements of English Heritage – the Non-Departmental Public Body and lead advisor to Government on the historic environment in England – provides an initial framework to present the relationships between public and private funding bodies, and the specific nature of funding sources (this would be of limited use anyway, since government funding in the UK is currently in a period of flux, with changes in government inevitable, and other national initiatives such as the London Olympics taking priority). General discussion and exploration of a number of illustrated cases highlight a

number of important challenges facing both those responsible for heritage projects, and those who monitor and administer funding. The session will be considering:

THE NATURE OF FUNDING BODIES

- Who/what are potential funding sources? (private/ public, individual / organisational, as well as local, regional, national and international);
- How can we determine their specific funding areas and priorities – their aims and objectives (including mission statements), their previous funding history?
- Clarifying the different types of funding, eligibility criteria and conditions – including match / multiple / philanthropic / capital / maintenance grants, the need for community engagement, post-project conditions, and the level of direct acknowledgement (ranging from nothing to permanent endorsement);
- How funding bodies interrelate through targeted funding, and through shared management and monitoring, to spread limited resources.

DETERMINING FUNDING REQUIREMENTS

- Conflicts between project development and available resources, and the importance of gathering information early to avoid funding shortfalls later in the project
- Multi-phased and lengthy projects – which often don't align with the funding systems

APPLYING FOR FUNDING

- Which comes first, the project or the funding stream?
- Considering eligibility requirements for funding streams (knowing your funding body).
- Form filling – presenting what is required both for the project and by the funding body.
- Match or partnership funding – the timing of multiple applications and the way in which they can be used to build up the necessary resources

ALLOCATING RESOURCES

- Roles and responsibilities before, during and after a project.
- Adapting to changing priorities of funding bodies and of projects – reviewing and assessing processes.

WIDER RESOURCE ISSUES

- Funding is more than just cash – the value of expertise,

advice, training and community involvement

- The importance of communication throughout the project feedback to funding partners and the need to engage with the public
- Looking beyond the project – sustainability and long-term management

BACKGROUND PREPARATION

During this session, we will be comparing public funding sources for the conservation of the built heritage in England with those in other countries. For this, participants will need to understand the situation in their home countries, and be able to answer the following questions:

- What are the main sources of funding for built heritage projects in your country?
- Are these sources mainly private or government-supported?
- Is funding mainly for capital projects or maintenance projects?
- What are perceived to be the greatest challenges in obtaining suitable – and adequate – funding for heritage projects in your country?

The case study sheets provide a short summary of the project and details for online material. Further general information related to funding systems within England can be found at:

English Heritage: www.English-Heritage.org.uk

Funds for Historic Buildings: www.ffhb.org.uk

Heritage Lottery Fund: www.hlf.org.uk

PROJECT NAME

**ST. MARY'S CHURCH, HOUGHTON-ON-THE-HILL,
(NORFOLK), UK
(ORIGINALLY GRADE II* LISTED, REVISED TO GRADE I
IN 1997)**

PROJECT TYPE

Building conservation project and the conservation and care of wall paintings (1992-2007)

SITE DESCRIPTION

CHURCH: Late Saxon/early Norman parish church dating from the end of the 11th century (c.1090). The church consists of a small chancel (re-built in 18th century), original 11th century nave (with minor alterations), and a west tower (added in 15th century). The main body of the church is constructed of coursed flint rubble approximately 0.9m thick, and there is the inclusion of re-used roman brick for corners and quoins. The nave has a steeply pitched tile roof.

WALL PAINTINGS: Nave walls retain up to seventeen distinct plaster layers, at least four retain painted decoration. Earliest wall paintings are coeval with the original construction (c.1090), onto which there is a later medieval scheme (possibly 15th century); a post-Reformation scheme of decoration (late 16th -18th century); and later pigmented lime-wash layers. The wall paintings are all applied to lime plaster. The earliest decoration includes underdrawing in red applied into the wet plaster, with other areas utilizing a lime-wash ground (suggesting the plaster had already carbonated). The pigments are typical of early medieval wall paintings in Britain (red and yellow earths, lime white, cinnabar, and red lead (the earliest recorded example in Britain). Due to their fragmentary and partially concealed state, the full palette and painting technique is not entirely clear. Later paintings are applied onto additional layers of lime-sand plaster or thick limewash layers.

DATING AND PROVENANCE

The building and the wall paintings were independently assessed by eminent specialists, who both indicated a c.1090 date for the original building.

OWNERSHIP

This site and building is owned by the Church of England. Its care and management are the responsibility of the Parish Church Council for North Pickenham (the nearest local church), who have delegated the general care and maintenance of the building to a Charitable Trust (Friends of St. Mary's).

CONSERVATION HISTORY

The church when examined in 1992 was in complete ruins: partially roofed and covered in extensive ivy growth, with severe structural cracks in the walls, and all the main windows missing. The local government agency selected the church for stabilization repairs as part of a wider project to secure important ruined churches in the area (which had funding in place). Primary works were therefore driven by building repairs, with certain efforts made to minimize further loss or damage to the historic fabric. In the course of the primary building repairs, important wall paintings were discovered within the nave, and the project were reviewed to take into account the conservation needs of the interior decoration.

CONSERVATION ISSUES

In particular, issues to be addressed included the impact of bringing a ruined building back into use; the need for detailed diagnostic investigations to determine appropriate conservation and management decisions; the extent and type of further building repairs in relation to the use of the building; and the coordination of different interest groups (including funding bodies and statutory authorities).

KEY DECISION-MAKING FACTORS

Initially - the need to undertake fundamental structural repairs to the ruined building to make it stable and secure was the primary issue, and drove early intervention to the building.

Discovery of internationally significant wall paintings necessitated a more strategic approach to the conservation of the site, including detailed diagnostic investigations, and the production of a detailed conservation and management plan for the site. All decision making has been overseen by a technical steering group (comprising representatives from all stakeholder groups), with major decisions referred to an

appointed Expert Panel.

FUNDING CHALLENGES

Initial works to the fabric of the building formed part of a local funded initiative, but was limited to basic stabilization of the building. The discovery of the wall paintings in 1995 prompted a complete shift in approach, necessitating extensive investigative research and expanded consultation - all of which required collaborative work and additional resources. In addition, changes to the long-term use of the church resulted in its re-classification, which impacted on funding sources (eligibility criteria), as did the ongoing repairs to the church. Between 1992 and 2006, the project sourced funds from over 10 different bodies, as well as extensive private sponsorship.

ENTITIES INVOLVED IN THE CONSERVATION-RESTORATION PROCESS

Parish Church Council (PCC) and their church architect (professional advisor): direct responsibility for the building and production of the conservation and management plan

Diocese Advisory Council (DAC): responsible for granting permission for works to the building and its contents (when designated as a Place of Worship)

Norfolk County Council: local authority with statutory powers for listed buildings (when designated as secular), operating body for ruined churches scheme (jointly funded with English Heritage), and advisor to the church for grant applications

Council for the Care of Churches: advisor to the DAC, provided funding for diagnostic investigations

English Heritage: statutory advisory body and liaison with designation review, provided technical advice and support, and is a joint grant giving body

Heritage Lottery Fund: grant giving body

Courtauld Institute of Art: provided specialist and technical support in relation to the wall paintings, and undertook certain aspects of the technical investigations

ACCESS ISSUES

The church is accessible through a designated key holder within the parish. The church is well advertised in the local and community tourist offices, and is located along a designated public walking route through the county. Access to

the church is constrained by the lack of services (there is no power, and there are no toilet facilities).

COMMUNITY INVOLVEMENT

There is a small but vibrant local trust (the Friends of St. Mary's), who are keenly interested in the preservation and care of the church, and who organise regular events, tours and activities in association with the local parish community, and the adjacent Houghton Farm (which is now an arts centre).

Local community and parish, tourists travelling through the area, enthusiasts for religious buildings and their decoration

BIBLIOGRAPHIC REFERENCES

D. PARK AND S HEYWOOD, 'Romanesque wall paintings discovered in Norfolk', in *Minerva*, 8/2 (March/April 1997), p 8-9.

D Watt, 'The consolidation and repair of St. Mary's Church, Houghton-on-the-Hill, Norfolk', in association for Studies in the Conservation of Historic Buildings ASCHB Transactions, Vol. 22 (1997), p 31-39.

There are numerous unpublished conservation and condition survey reports relating to this church. Copies are held by English Heritage, and the church (through the PCC).

WEB SITES (ALL ACCESSED 20 JULY 2007)

www.hoh.org.uk (official website for the church, produced as a part of the Heritage Lottery Funded conservation project)

www.norfolkbroads.com/interest/secretchurch.html (general tourist site which provides a history of the church and surrounding area, with some pictures)

www.paintedchurch.org/hought.htm (private site dedicated to English wall paintings, with a detailed entry for this church)

www.saintmaryschurch.org.uk (unofficial church web site with information on the history of the site, and detailed pages describing the story of its restoration)

PROJECT NAME

**ALL SAINTS' CHURCH, THORNEY HILL,
(HAMPSHIRE), UK
(GRADE I LISTED CHURCH)**

PROJECT TYPE

Building conservation project and the conservation and care of wall paintings (1998-2007)

SITE DESCRIPTION

CHURCH: designed by Detmar Blow for Lord Manners (of the nearby manor house Avon Tyrell) in 1906-8. All Saints Church is built of rendered and painted brick, with Caen stone (a French limestone) dressings. The vaults are reinforced concrete with a timber boarded roof structure above. The roof to the cupola is lead, as was the main roof but this was stolen and the roof recovered in aluminium. The parapet gutters are lead lined and the downpipes are cast iron. The cornices are painted timber and the two pairs of external doors are oak. The windows have plain leaded lights set in metal frames.

Internally the concrete vaults are plastered but have stone ribs. The walls are faced with Caen stone finely dressed ashlar, and the floors are stone and slate, with some areas of carpet. There is a stone font and a marble altar with lion supports.

WALL PAINTING: 'Te Deum' executed by the Scottish Arts and Craft movement artist, Phoebe Anna Traquair (1852-1936) in 1920-22. The wall painting is painted onto a thin plaster skim (possibly gypsum), which was applied to the ashlar facing of the apse. There is a thick zinc white ground layer (possibly with a barium white extender), although it may be that the paint was actually lithophone (zinc sulphide and barium sulphate), which was becoming more readily available and popular. While the methods used in Thorney Hill were not recorded, her traditional mural painting techniques were published elsewhere, and indicate the use of thinned oil paint, combined with small amounts of beeswax (although analysis suggests only sparingly). The painting retains substantial gilding, and there are areas of pastiglia for the dado decoration and certain haloes.

DATING AND PROVENANCE

The mural is signed at the top of the wall: 'This wall from floor to dome has been designed and painted by me. I fear the wall is damp. Phoebe A. Traquair. July 1922.'

OWNERSHIP

This site and building is owned by the Church of England. Its care and management are the responsibility of the Parish Church Council for Thorney Hill and Bransgore, who are advised by a church architect (Columba Cook).

CONSERVATION HISTORY

In the late 1980s, the church was forced to replace a stolen lead roof with aluminium. In addition, limited building works were initiated following a small fire just prior to the theft. Concern over the condition of the wall paintings was raised in the early 1990s, and internal staining of the ashlar suggested problems of water ingress. Previous treatments to the wall paintings concentrated on serious delamination and detachment of the plaster (in the 1970s and following the fire), and more recently there have been a succession of interventions aimed at dealing with serious salt-related deterioration (flaking, powdering and delamination of the surface).

CONSERVATION ISSUES

The continued and active deterioration of the wall painting is of grave concern to the parish, for which previous temporary actions have had only limited success. Clarification is needed on the causes of ongoing deterioration, and there is a need to coordinate building repairs with internal conservation.

KEY DECISION-MAKING FACTORS

Conflicting opinion as to the primary source of moisture ingress have necessitated additional investigations, along with an assessment of internal environmental conditions (related to the current heating). Temporary interventions have aimed at holding vulnerable areas, and using areas of loss to encourage preferential crystallisation of salts, and any proposed intervention therefore needs to identify and eliminate the moisture source prior to addressing remedial treatment.

FUNDING CHALLENGES

Due to the urgent nature of the roof faults, the Church

became eligible for the main Places of Worship Grant Scheme (a joint English Heritage and Heritage Lottery Fund Programme). This scheme offers funds in two stages: the first for investigative works to better understand the problems; and the second stage for the agreed repairs.

ENTITIES INVOLVED IN THE CONSERVATION-RESTORATION PROCESS

Parish Church Council (PCC) and their church architect (professional advisor)

Diocese Advisory Council (DAC): responsible for granting permission for works to the building and its contents

Council for the Care of Churches: advisor to the DAC

English Heritage: statutory advisor and joint grant giving body

Heritage Lottery Fund: grant giving body

ACCESS ISSUES

The church is accessible through a designated key holder within the parish. Religious services are carried out in the church every other Sunday, as well as ad hoc events.

Community involvement

There is a small but vibrant local parish, who are keenly interested in the preservation and care of the church.

Beyond the local community and parish, the site is an attraction for tourists travelling through the New Forest, and for architecture enthusiasts.

BIBLIOGRAPHIC REFERENCES

E. CUMMING, Phoebe Anna Traquair, Edinburgh, 1993.

There are numerous unpublished conservation and condition survey reports relating to this church. Copies are held by English Heritage, and the church (through the PCC).

WEB SITES

www.mansfieldtraquair.org.uk is a Charitable trust established in the early 1990s to preserve the monumental scheme of wall paintings by Phoebe Traquair in a church near Edinburgh, and includes images of her work, as well as details of the recent conservation works in Scotland.
<http://www.stmarysbransgore.co.uk/tour.htm> (official parish website which provides a brief history and numerous photos)

The forgotten stakeholder. A lesson by Gael de Guichen

As the 2006 SCD was coming to a close, after exchanging and discussing ideas on sharing decisions, after everyone involved in the conservation of cultural property had been heard, the course participants were asked about the ownership of cultural property and its stakeholders, on the uses of heritage and on the meaning of 'conservation and restoration'. All the participants came up with different definitions on the topic and on treatments to cultural property, including a few unique notions about 'when' to intervene and with what results. What essentially emerged was that cultural heritage is a manifestation of man's material, social and spiritual life, encompassing both historical and natural environments, bound together by the idea of 'transmitting the past into the future', and coupled with the idea of everyday use. An important factor in the conservation of cultural heritage is being aware of the range given it by the public. The challenge for cultural property is to retain its contact with the public in a dimension that has lost relevance because it is routinely familiar ('culture has survived for hundreds of years, it will always be around'). But it also suffers from an ascribed distance, a distance paradoxically imposed by the actions taken to safeguard it, and often shielded by a restricted circle of experts. The professional participants in the course were called upon to elaborate two questions: the first deals with their social responsibilities as protagonists in the field of cultural heritage; the second addresses how the public views the caretakers of this heritage and what it actually comprises. The participants grappled with these questions, coming up with key words and phrases such as, 'preserve', 'collective memory', 'cultural identity', and 'quality of life'. In terms of how the public sees the cultural caretakers, the brainstorming sessions revealed that in the eyes of the observers, conservation and restoration are connected to a concept of working within a group, of artistic activity carried out with passion, creativity, care and patience. On the other hand, the discussion brought up the commonly held idea that cultural caretakers

are the only ones with the right to touch and make use of cultural property. There was a sense that this is often done without any explanations, which impedes closer contact and use by the public due to the time and costs involved in the recovery of the works. Consequently, the general consensus about those who work directly with cultural property is eroded. The sense of 'res publica', of ownership and belonging, is lost. The objects and artefacts are thought to 'belong to no one', or even worse, to an institution removed from daily reality. Through the decisions shared during all the phases of the tutelage and guardianship of cultural property the responsibility for its administration can be restored to the public. Public involvement can facilitate understanding and appreciation for conservation and restoration operations, and most importantly, can contribute in efforts for maintaining the work already carried out. It is a slow process made up of shared objectives, of shared responsibility for the inevitable changes in a restored work, of a communal awareness of the uniqueness and fragility of cultural heritage. Any project on cultural inheritance must therefore be synonymous with accessibility and comprehension so that the direction is clearly communicated, so that a cultural asset in danger of extinction can be safeguarded, so that as many people as possible can use and enjoy it. This need and concern for transmitting the greatest possible amount of information to the public directed us to examining the inevitable contrast between *conservation/communication*. At one extreme, the most effective conservation safeguard would be to 'lock away' cultural property, cutting off any type of communication. The other extreme provides for 'total' communication that would result in rapid deterioration of structural materials, and consequently, the loss of the message preserved by the object itself.

One of the most sharply focused aspects in planning for the safeguarding of cultural property, therefore, centres on appropriately calculating and allocating communication/use and conservation/limitation. This means that the broadest message can be transmitted to the greatest number of individuals, and the necessary conservation conditions can be maintained when these elements are in equilibrium.

An example of this balance is seen in the Lascaux grottoes situated in central-western France and discovered in 1940. The history of their conservation bears witness to the complex decisions made by both conservation professionals and representatives from the local communities, threatened with serious economic repercussions if the grottoes were to close.

The images of the animals that decorate the walls and ceilings in the grottoes were made by applying the colours directly to the rock surface, without any type of plaster ground. These paintings are between fifteen and twenty thousand years old, and they survived most probably due to movements in the earth that caused them to be sealed for thousands of years. This resulted in a sort of 'vacuum' conservation of the caves, preventing the deterioration of the paintings because there were no climatic or atmospheric variations.

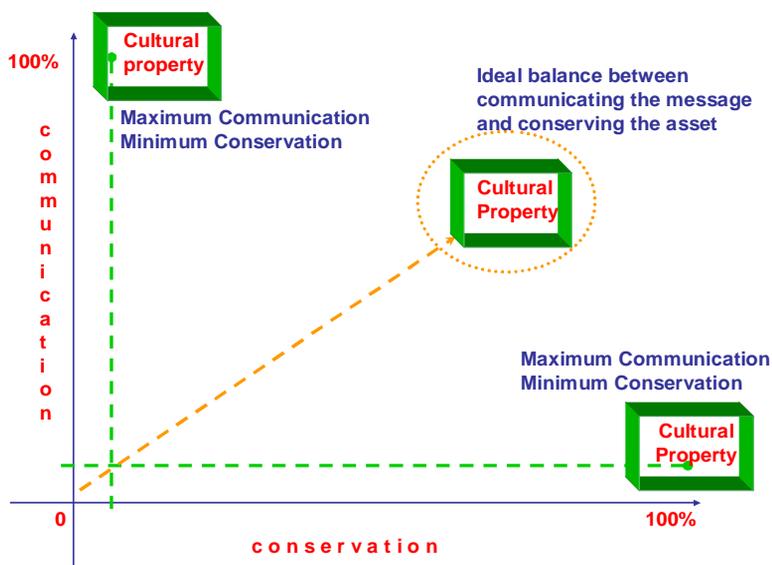
The opening and subsequent visits to these grottoes precipitated the development of biodeteriogens and accelerated chemical-physical degradation, resulting in various stages of deterioration, thus placing the conservation of the paintings in jeopardy. The infiltration of water and condensation produced by the air circulating between the interior and exterior of the grotto caused significant jumps in the thermo-hygrometric balance within the caves. With the influx of tourists, this thermo-hygrometric imbalance was brought to exponential levels, and the transit of people also brought in seeds and spores. Consequently, the grotto walls were attacked by lichens (on the dry rock) and by moss and algae on the damp surfaces. Chemical processes such as oxidation are constant, resulting in progressive darkening of the images, to the point where they are difficult to see.

During the 1960s, after careful evaluation of the 'anthropic' impact on the conditions of the painted walls, it was necessary to limit access to the grottoes except for a few scholars and researchers in order to maintain a constant climate inside the site. Eventually, it was announced that a copy of the Lascaux cave had been made for use by the public. An artificial grotto, identical to the original was

built and decorated by various painters who faithfully reproduced the painted images, thus allowing the many tourists to at least visit the reproduction.

After lively debate on this conservation choice, the group was encouraged to provide 'a defence' of the two extremes: 'Lascaux for all', and 'Lascaux forever'. One side took the stance that the public should have immediate use and access to the grottoes; the other side argued for the closure of the site until new, future methods of conservation could be developed. The goal of this session was for the participants to become 'totally immersed' in the role of stakeholders, bearing in mind the consequences and effects that every 'conservation' intervention has on both the object and its environment, which includes the local communities and the visitors. This process helped to underline the strong points in each position, and at the same time linked cultural heritage to the concept of a collective and territorial cultural identity.

A strong sense of identity and union was observed in the debated contrast between use/communication and conservation, and even though the scales tipped towards conservation, the assertion of self-identity through cultural property, which both sides of the argument espoused, confirms the process favouring the maintenance and life of the asset. The shared concept emerging from this exercise demonstrates that even though the public has perhaps been a forgotten stakeholder, it has not vanished from the administration and promotion of cultural properties, but rather, it is becoming its primary sponsor.



ASTRID BRANDT-GRAU
***Strategic planning
and conservation:
concepts and tools for SCD***

The “Sharing Conservation Decisions” course of ICCROM was a unique opportunity to introduce and test concepts and tools for strategic planning used in other fields like research and innovation, geopolitics and sustainable development and even the military sector.

With the introduction of the concept and practice of preventive conservation in the field of collection and site management, the notion of predictive planning has also been introduced. This notion is at present well shared by all the protagonists working in the field of conservation of cultural heritage. In what way does strategic planning with reference to the concept of prospective differ from predictive planning? The prospective attitude aims at giving advice for an action by anticipating what could happen in the future. In the field of prevision, the future is unique and certain, whereas in the field of prospective the future is multiple and uncertain. The prospective attitude is preactive (one is prepared for changes) or even proactive (one provokes changes), whereas the predictive attitude is much more a reactive attitude (one acts to face changes).

The prospective attitude becomes strategic when one asks the following questions: What can I do? What will I do? How can I do it?

The tools for strategic planning aim at stimulating imagination, reducing incoherence, creating a common language, and structuring collective thinking. These tools have to be used in a collective way, like a prospective workshop, because the main benefit from them is the appropriation of new concepts by the group to guide action in the future.

To reach this aim, one has to ask the right questions, define the problem well and choose the most suitable tools.

The participants of a prospective workshop should have a common experience, should know about the sector in which the prospective workshop is conducted and think together about desirable and possible changes.

A scenario is an entity characterized by the description of a

situation in the future and the progress of events, which will induce changes that achieve the future situation. The objective of scenario building is to construct representations of the future situations and the way that will allow their achievement. Two types of scenarios exist: 1) the explorative one where one imagines a probable future after the analysis of the past and present trends (preactive attitude), 2) the anticipative one where one imagines an alternative future and builds representations that could be possible, desirable or feared (proactive attitude).

One has to bear in mind that a scenario does not represent a real future, but is a means to represent the future.

Five conditions are necessary to build scenarios:

- relevance : choose the right item;
- coherence : verify that the hypotheses are not contradictory;
- likelihood : verify that the hypotheses are possibles or probables;
- transparence : the process should be well explained and documented;
- importance : the item should be challenging.

To build up scenarios one needs to:

- construct the representations of the present state of the system and its environment by determining the key variables (internal and external) and by analyzing the key protagonist strategies (objectives, problems and means of action);
- explore the probable future situations and reduce uncertainty by constructing five or six hypotheses reflecting a trend or a breakdown situation;
- describe the events leading to a new situation.

The variables, which can be either influent or dependent, have to be well defined by the group. To describe the relationship between the different variables (“influence-dependence chart”) one has to fill up a matrix. In this matrix one has to answer the question whether a direct influence exists between two variables *i* and *j* and whether this influence is weak, medium, strong or potential. The analysis of the role of the key protagonists explores the convergences and divergences between protagonists regarding a certain number of stakes and associated objectives. Some of the

protagonists may control the key variables; they are dominant. It is important to know them to try to influence the system.

To build up scenarios the last step consists in exploring the possible future situations in a systematic way by studying all the relevant combinations of the variables of the system leading to five or six hypotheses.

It is essential to formulate the right hypothesis and to appreciate the coherence and likelihood of the possible combinations.

A scenario is not self-sufficient. It makes sense only regarding the results and the consequences for the action.

The use of the tools depends on the item, the context, the available information and the constraints of time. Complex prospective analysis can last from several months to several years. That is why the involvement of the hierarchy is essential for the outcomes of the prospective workshop from the beginning to the end of the process.

In the case of the "Sharing Conservation Decisions" course at ICCROM, the new concepts and tools for strategic planning were illustrated by the Herculaneum Conservation Project. The project manager, Sarah Court, was present in the last phase of the scenario building process answering the questions of the course participants, who had been given the opportunity to visit the Herculaneum site several days before.

Most of the course participants were not aware of strategic planning concepts and tools and discovered that this approach allows a better analysis of a project and its environment. This approach also makes it possible to question generally accepted ideas and to distinguish between what is important and what is not. It is fundamental to know the key variables and key protagonists to try to influence the system and to create a desirable situation for the project management and the sustainability of the project. The participants of the workshop shifted from a passive and reactive attitude to a preactive and even proactive attitude.

Two half days were not sufficient to really build up a scenario for the Herculaneum Conservation Project, but it was possible to familiarize the group with the concepts and tools of strategic planning and to let them communicate on

a project, to find a common language and to anticipate the future by appropriation.

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