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Training Strategy in the Conservation of Cultural Heritage Sites.

TRAINING STRATEGY IN THE CONSERVATION OF CULTURAL HERITAGE SITES

This paper has been prepared by ICCROM in consultation with the World Heritage Centre and the Physical Heritage Division of UNESCO, ICOMOS, ICOMOS-CIF, ICOM, OWHC, and other organizations. The aim of the paper is to propose a policy for the development of a coherent training strategy in the conservation of cultural heritage sites, with particular attention to World Cultural Heritage Sites.

Background

World Heritage Convention

Awareness and training are generally included in UNESCO's Recommendations and Conventions as part of the necessary measures to take to guarantee an appropriate protection and conservation of heritage resources on a permanent basis and in accordance with modern scientific methods. The World Heritage Convention recommends the establishment and development of training centres and encourages scientific research in the field of conservation. International assistance can be granted by the World Heritage Committee in several forms; amongst them is *"training of staff and specialists at all levels in the field of identification, protection, conservation, presentation and rehabilitation of the cultural and natural heritage."* (Art.22,c) According to article 23, the Committee *"may also provide international assistance to national or regional centres for the training of staff and specialists at all levels ..."* According to article 24,*"International assistance on a large scale shall be preceded by detailed scientific, economic and technical studies. These studies shall draw upon the most advanced techniques for the protection, conservation, presentation and rehabilitation ... consistent with the objectives of this Convention."* (Art.24) Furthermore, international assistance can be provided to increase public awareness about the significance of heritage resources and of the dangers that threaten them. (Art.27-28) The paragraphs 95 to 99 of the *Operational Guidelines* give further instructions concerning the preparation of training requests for assistance available from the World Heritage Fund. In 1995, out of the total of circa 2.9 million US$, the Committee has allocated the sum of US$ 452,000.00 for training purposes, shared by programmes related to cultural and natural heritage. However, it is noted that this sum is only a small part of the total amount that needs to be spent, but that it can have an important leverage effect due to contribution made by partners - in the cultural field especially by ICCROM. Most funding has generally been given in the form of scholarships to technical, scientific and management personnel working in relevant national or local authorities, and responsible for the protection and conservation of heritage sites.

Conservation as a cultural problem

The preservation of the world's cultural heritage has been one of the leading objectives in the activities of international organizations committed to culture already in the 1920s with the League of Nations, the International Office on Intellectual Collaboration, and the International Office on Museums. Such concern has taken an even more important profile after the ravages of the Second World War; preservation of cultural heritage has been an essential function for UNESCO (founded in 1945), and for the specialized organizations, the intergovernmental ICCROM (1956), and the non-governmental ICOM (1945) and ICOMOS (1965), created by UNESCO.

The international concern is a result of the development of a modern historical consciousness of the values of heritage which has evolved over the past two and a half centuries. Such consciousness is based on the truthfulness and genuine authenticity of heritage as a source of historical and cultural information on the culture and place concerned. Through its authenticity the cultures and properties gain universal significance as part of the world's universal heritage. This issue is the fundamental condition for international activities; recently, the principle is expressed in the 1994 Nara Document on Authenticity (par. 9/Nov.94):

Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity.

Conservation education and training

The definition of cultural heritage and the needs for its conservation depend on the historical and cultural consciousness in each cultural area. International statements and recommendations, such as those of UNESCO and ICOMOS, are an expression of such consciousness and such needs at an international level. The recommendations are conceived as a guideline for the development of awareness at the regional and local levels and for the establishment of appropriate conservation policies and management structures. Education and training are the principal tools for this activity. It is the task of the educational system in each country to consider the needs of the preservation of cultural heritage, and to implement appropriate actions. (World Heritage Convention, art. 5.) Conservation is defined in the 1993 ICOMOS *Guidelines on Education and Training in the Conservation of Monuments, Ensembles and Sites*, as follows (par. 3):

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.

Following from the great variety of heritage resources, the cultural identity of each area, and the particular conditions of each site, the specific type of care and cure will vary from case to case. Conservation is however based on principles that are referred to in international recommendations. The universality of these principles is in their character as a methodology based on a critical process. Considering World Heritage Sites in particular, and taking into account that they represent different cultures in the world and different types of heritage, different sizes of sites, as well as different administrative, social and economic conditions, strategies for education and training should be seen as a process that takes these conditions into account.

The aim of the present document is to outline the principal elements that need to be considered in this process. The aim is also to propose guidelines for the development of a strategy for conservation training.

Education and Training: Target Groups and Forms

The aim of training is to guarantee that conservation management is applied to heritage resources taking into consideration the qualities and values of each site, as well as their specific condition, the cultural, social and economic context, and the risks

that each site may meet. Education and training should provide the appropriate critical approach and skills that are required by the professions, crafts, or administrations involved; training should facilitate collaboration between different disciplines, and communication with the general public. While education and training should be understood in relation to specific needs in each area, the response may be obtained in different forms. A key issue in relation to awareness is to create a market for conservationists, to prepare and approve a career structure, and help qualified professionals and craftspersons have a reasonable income.

Target Groups

The following definitions on conservation education and training and relevant target groups were formulated during the Training Session of the 1995 Bergen meeting of the Organization of World Heritage Cities:

*The aim of **conservation education** is to make target groups conscious of getting an overview; general education does not provide the qualification for a specialist. Education needs the mass media to be efficient. There is a need to involve 'animators', pressure groups and associations. Collaboration is necessary between different types of institutions, including museums. Groups to be educated include the following:*

- *Politicians and decision makers*
- *Investors and promoters*
- *Administrators and Property owners*
- *Children, young people and students*
- *General public*

*The aim of **conservation training** is to provide a variety of disciplines the necessary skills to carry out relevant responsibilities at a qualified level. There is a basic need between all groups identified below to be capable of teamwork and cross-disciplinary communication. There is a need for an in-depth involvement, and the capacity to say what to do and what not to do. The rate of change is fast in the present world, and there is thus a need for continuous training and updating. People with appropriate qualifications can become 'animators', and encourage the formation of pressure groups to favour conservation movement.*

- *Specialists*
- *Technicians, builders, craftspersons*
- *Managers*
- *Trainers of professionals*
- *School teachers*

Conservation of cultural heritage is a specific discipline. It requires specialized training in addition to normal professional or vocational preparation. Each specialist will contribute in the process of conservation from his or her own particular specialization, but, at the same time, they need to be seen in a common approach. Conservation training should be considered an interdisciplinary activity, where each profession is integrated into the whole, and learns collaboration and communication. In Europe, treatment and rehabilitation of existing building stock forms a major part (50%-70%) of current building practice, and therefore many universities already include relevant issues in the curricula of architects. Specialized conservation training is necessary to be able to work on heritage resources of exceptional significance, and to have in-depth knowledge on structures built in materials difficult to find or produce today, or often in a precarious state. It can be obtained partly through academic study, and partly through continuous research, meetings, and conferences, as well as experience in field work.

Project teams and site managers

The qualification of the members of project teams and site managers depends on the definition of the site. In the case of small building worksites, the site manager may be

a contractor, an engineer, or a building technician, while the project would be prepared by a conservation architect in collaboration with engineers, historians, recorders, etc.. Especially in the case of larger areas, and according to the character of the area concerned, the site manager may be an architect, surveyor, engineer, or a planner. In the case of historic towns or larger rural areas, the management would be the responsibility of a team referring to the relevant municipal or communal department(s). The basic training of such professionals would be carried out at the university level. Several countries, including Europe and America, do provide or have access to such training in architecture, engineering, city planning, sciences, but there are regions, such as south Asia or Sub-Saharan Africa, where only few countries have it.

- Architects should have their first degree at the university; this should already include knowledge of the history and technology of historic structures, and awareness of the principles and practice of conservation. After graduation, there should be a period of some five years of field work in order to allow for a selection process and to find those who would be mature for conservation work. The specialization for conservation architects is estimated to take one or two years of post-graduate/mid-career training.

- Engineers should have special training to understand how historic structures work. They should be trained to make visual inspections, to report on the health of historic buildings, to propose alternative solutions that are structurally compatible, and if possible reversible, and which do not damage authenticity. This would require attendance of multi-disciplinary post-graduate courses with special options.

- Specialist advisors, including archaeologists, art historians, architectural historians and heritage recorders, should be trained to evaluate and document the morphology and typology of historic structures and areas, and they should have responsible roles in the conservation team. Archaeologists should examine historic buildings in detail before any conservation project is developed in order to ensure that the maximum amount of original material is retained. Art and architectural historians should be able to make measured drawings and learn to understand buildings as structures. Such training, particularly in developing countries, could be made through short courses.

Conservator-restorers

"The activity of the conservator-restorer consists of technical examination, preservation, and conservation/restoration of cultural property." This statement is given in the definition of the profession by ICOM in 1984. (Published by ICOM, and, in ICCROM Newsletter, No. 12, 1986) These professionals work in museums, in heritage protection services, as well as in private. Conservator/restorers must work in close collaboration with curators, scientists, and often also with architects. The definition emphasizes that conservation treatment is performed on *irreplaceable originals*, and that therefore a careful methodical and scientific examination, documentation, research, and monitoring are the basis for any intervention.

Middle-level technicians and conservation crafts

The middle-level technicians are usually trained in technical or vocational schools. They will act as foremen, and are thus responsible for supervising and directing the execution of conservation works on buildings or ruins. They may also manage small

construction firms, and become contractors. Their proper training is fundamental in the chain of conservation process. Far too little attention has been given to this so far. Training should provide the elements of conservation theory, a good knowledge of the history of technology relevant to the cultural area, knowledge of materials and causes of their alteration, techniques of intervention, capacity of technical documentation, and organization of fieldwork. Training at this level would be carried out at the national level, with possibility for workshops on sites. Manuals and technical guidelines illustrating the field of knowledge required will be necessary to be produced in the language of the country.

There are certain skills, such as building crafts, that are traditionally learnt through apprenticeship either locally or in the province or region concerned. Many countries still have such 'living' traditions, although, increasingly, these skills are learnt in schools. In the traditional society, such technicians - apart from masters - would generally remain in their region; in the industrialized world, even long travel is sometimes undertaken in order to find employment. It is observed that in the context of urban conservation and improvement of infrastructures many different types of technical skills will be essential, such as plumbers, road workers and others.

- Training is based on substantial on-site practice and experience in chosen skills with some theory according to the type of work. In conservation, the scope of craft skills ranges from the simple repair and maintenance of domestic properties to the most complicated work requiring highly specialized skills.
- Guidance by trade masters is essential to ensure continuity, and it could be promoted through site workshops. Exposure to conservation training of such masters is important.

Administrators and town-planners

Environmental education and the development of awareness with administrators, town-planners, and politicians is a key task. Importance should be given to recognition of the value of time, and the capacity to make timely decisions. In particular with the enlargement of the concept of cultural heritage, the inclusion of historic towns and cultural landscapes in specific categories of protection, the role of authorities responsible for legislation, norms, and planning decisions is crucial. In many countries, professional conservationists do not have an easy access to the decision making process. Collaboration and communication also in this regard is of great importance. This may best be done either through official channels, such as ministries of public works, and associations of mayors of historic cities (e.g., OWHC, or similar national networks), or through public campaigns by raising the awareness of population (including programmes for different levels of schools).

- Administrators should have enough education and training to make them aware of the significance of qualities in historic buildings and historic settlement structures.
- The local authority and particularly mayors are in a key position in the decision making process regarding planning; therefore their sensitisation and appropriate information is essential.
- Town-planners should learn to start from a study of the morphology and typology of historic areas, and to recognize the existing situation, before proceeding to formulation and testing optional future possibilities, and reviewing such options in light of experience and continuous monitoring process.

Planning and management of historic settlements should recognize the qualities and values in the existing situation; any new projects or treatment of existing fabric should be planned in view of their durability, versatility, quality, as well as low energy consumption. Gradual changes should be favoured over radical large-scale interventions, fighting excesses of speculation, and taking into account the improving of social economic conditions and the quality of life.

Research, documentation and monitoring

Cultural heritage is the product of generations of activities, and there is therefore a 'cultural distance' not only between different cultures in a specific moment, but also in relation to historic time. One could say with good reason that 'the past is a foreign country' (D. Lowenthal). Conservation is therefore a cultural problem; it requires maturity and understanding. On the one hand, it demands direct knowledge of the heritage that has the characteristic of being unique; conservation treatment must be based on a survey and critical analysis both of the resource and its context. On the other hand, the cultural dimension of heritage, its particular qualities and associations, and the values identified with it, influence conservation treatments to be carried out following specific methodologies. It is essential to consider heritage conservation as a continuous learning process, that needs to be documented, diffused and debated.

Research, co-ordinated documentation and monitoring are all essential activities and closely related with training. Research is required already in the phase of survey and inventory of heritage. In addition, humanistic and scientific research require appropriate means at the different levels according to the range of heritage and the specific needs in the area. These would include documentation centres, such as libraries and archives for source material and records, as well as conservation facilities ranging from craft shops to various types of conservation laboratories. (Feilden-Jokilehto, 1993) Needs for research should be identified in relation to conservation management, e.g., understanding the significance of the heritage resource, the behaviour of its structures and materials, and appropriate treatments. Research is required at all levels, including art- and architectural history, archaeology, materials sciences, structural behaviour, building functions, historic urban or rural areas, etc. The activities should be planned in long-term and short-term programmes, and properly co-ordinated. The results should be documented and made available both to those responsible for heritage sites, and to training institutions.

A clear policy for information management is already necessary to keep track of the treatments that have been carried out in time. The relevant databases should be organized in a co-ordinated way so as to reduce duplication of effort on the one hand, and to facilitate consultation on the other. The present computer facilities and especially the possibility to use international telecommunications and networks (Internet) are today offering advantages that were not available a few years ago. Documentation is essential also in view of forward planning and disaster prevention. In particular, a regular monitoring activity, to keep a record of behaviour and changes as well as to anticipate trends, should be integrated into conservation management. Regular inspections, surveying, and monitoring are the instruments to make a realistic learning process feasible in relation to the conservation of cultural heritage sites. Their proper organization and co-ordination is an essential part of site-training. Documentation of results of training programmes will also allow for the building up of experience and know-how in the field of teaching. Such records will facilitate the

teachers to learn from previous generations, not to have to reinvent issues that have been normal practice in the past.

Monitoring is an essential part of the management process. For buildings, monitoring is based on regular inspections (in England such inspections by professionals are obligatory for churches at least every five years), reporting and documentation. This will establish a realistic basis for the preparation of maintenance and repair plans; works should be grouped as: immediate, urgent, necessary, desirable, and items to monitor. Sir Bernard Feilden has said: "The item 'monitor' is a great protection to the historic architect and to the building itself - as it means that this item is watched and unnecessary work avoided. Some authorities expect complete answers and even guarantees which cannot, and should not, be given. Such authorities need education in the nature of historic buildings if their historic values and authenticity are to be preserved." (Feilden, 1993, 66) Monitoring is equally essential as part of the urban or regional planning process, and should involve continuous and repeated observations on the behaviour and conditions of the fabric of the area, and the development of trends. In particular, monitoring should focus on the historical and cultural qualities of heritage sites, and, in case of World Heritage, to verify that the criteria for which such site was inscribed are maintained.

Career structures and training typology

Career structures: The methods of training conservationists should be based on clearly identified and suitable career structures. Such careers should take into account the necessary time required for maturing of the individual. For architects, this should be carried out in a series of steps, and would normally include:

- *training at university,*
- *practical experience in design and field work after graduation,*
- *attendance of one- or two-year training to specialize in conservation,*
- *practice, research, and refresher courses and workshops on specific issues,*
- *eventual contribution to training of others, conferences, publications, teaching.*

Similar career structures can be built for other professionals, such as engineers, town-planners, art- and architectural historians, archaeologists. The training of curators, conservators and restorers should be based on basic vocational training, with additional courses of specialization and professional improvement.

Vocational training: The profession of the conservator-restorer needs to have an appropriate recognition, and consequently identification of an appropriate career structure. In Italy training of restorers is carried out over a period of four years by an appropriate state institute; this is normally preceded by initial practice in a chosen field. In Sweden, such training is of a multi-disciplinary character, and has been integrated with the possibility to proceed to higher degrees. To a great extent, however, systematic training is lacking, or it is done through private initiatives where the quality is not necessarily controlled. An important type of training for conservator-restorers will be internships in qualified institutions, and apprenticeship with trained professionals.

Mid-career training programmes should be multi-disciplinary, and would thus allow exchange of experiences and understanding of different approaches. The recommended number of participants in such courses will be in the range of 15 to 25. The difficulty is the relatively long break in professional practice, which is primarily an economic issue. One could break down such training into smaller units over a longer period of time. This could be done, e.g., by reserving one-day sessions weekly,

or concentrating classes into intensive periods, such as two to four weeks, at reasonable intervals. These alternatives are generally possible in large cities with an adequate catchment area. Generally, there should be incentives that encourage practitioners, and would include a thesis, and the possibility of qualifying for a master's degree or doctorate.

Short courses and workshops, one or two weeks long, can be useful in order to update on specific concepts, theory and ethics, site work, maintenance, rehabilitation, presentation, new developments and techniques. Potential forms could include case studies by professionals, or thematic study tours (even by boat). These time limits would allow employees to get leave from their administrations. Summer courses can be useful for teachers in schools of architecture and practising professionals. Short courses can serve for sharing information, and they may change attitudes, but in isolation they can not build up culture. It is to be noted that some countries, e.g., Africa, do not recognize training shorter than six months as part of the career of public officers. It would be desirable to investigate possibilities for building such courses systematically into a coherent training process, and to contribute to continuous professional upgrading over a long period of time.

Case Studies can be a form of on-site training, and can be introduced also in the form of short course or workshop for multi-disciplinary teams. The aim of such case studies would be to introduce the team to the particularities of a specific site, and to carry out practical work possibly in small groups, such as historical and archaeological research, recording and documentation, technical, scientific and functional analyses, and preparation of specific conservation/restoration projects. Such case studies can be organized as a series of summer schools on a specific site, as a team effort to discuss the problems of a particular site, or as part of a longer training programme.

Internships are a concrete way to allow students to experience a specific reality. This form of training is certainly not sufficiently utilized at present, and there is a need to investigate possibilities for developing this approach. Such internships should be organized on a reasonably systematic basis in order to make them efficient, and in order to save in professionals' time. Such training is actually organized, e.g., by the SPAB, the Society for the Protection of Ancient Buildings in England, and Jeunesse & Patrimoine has also offered similar opportunities.

Research is generally included especially in post-graduate courses, usually as an option to continue for a master's degree or a doctorate. Through research, many training centres have obtained a respectable amount of knowledge on specific issues. Such research is an important way to provide material evidence for ongoing debates on safeguarding measures or conservation treatments. Systematically programmed research will also be essential as a support activity to training. More research is required especially in the application of conservation philosophies, scientific methods of diagnosis and treatments.

Distance learning can be an interesting alternative to part-time courses. This could be built up on the model of the open university concept, and would involve preparation of specially written textbooks and the use of video cassettes. An effort should also be made to select and prepare didactic material using existing material. There would also need to be a tutorial input, and students could meet for seminars and intensive discussions for at least two weeks a year. Seminars could be organized on selected sites for the presentation of case studies. Tutors for Distance Learning Courses could be drawn from a pool of experts or teachers. The use of new technology and

interactive computer networks (Internet) would appear to be a promising extension to the system, as such facilities are increasingly available around the world. The Distance Learning System should be based on existing training centres, and should benefit from co-ordination by ICCROM, in collaboration with OWHC (Organization of World Heritage Cities), ICOMOS, ICOM, and under the sponsorship of UNESCO. The cost of such an undertaking could be shared by participating organizations, and the benefits would derive especially from making it possible to reach remote heritage sites and countries that would otherwise have difficulty in profiting from specialized training.

Use of the media: Considering that cultural heritage should be the concern of all, it is necessary to work through the modern media, newspapers, magazines, radio, television, exhibitions, films, etc., in order to reach the broadest audience. As an example, it will be useful to remember that ICCROM, in collaboration with the Italian government, UNESCO and other agencies, has launched a programme, called Media Save Art, which addresses both the public, schools, and the journalists and other professionals who work in journalism.

Other means: Training can also be understood as the means to communicate with technicians and managers responsible for field activities; this will be carried out through technical missions, meetings and workshops on particular themes or problems, or on the identification of the present trends, and planning of action for the future. This is often the only means for busy managers to update their approaches related to management. Management itself provides an arena for the learning process; related to this is the need for regular reporting and monitoring in contact with national authorities, and also with the international community.

Teachers and tutors

There are basically two ways to be involved in teaching conservation: one is for university professors and teachers in other relevant institutions to specialize in the subject, the other is for practising conservationists to get involved in teaching activities either regularly or occasionally. In the first case, with professional teachers, the issue is mainly to debate about the development of a conservation approach, and in particular to establish and maintain links with the practice and reality. In the second case, with practitioners, there is a need, first of all, to learn to communicate with participants of training programmes, and, secondly, to be able to present specific case studies in a form useful for other practitioners, i.e., to be able to draw conclusions through comparison, and to recommend methodologies. Collaboration of the two types of teachers will be beneficial as they can be complementary, and, with due attention, they could mutually develop each other's teaching capacities. Generally it takes several years to become a teacher, and only with an active mind and through continuous improvement does one succeed. It is necessary for teachers to live with their time, to update their information, and to keep in touch with other vocational and professional training centres for exchange of information about conservation approaches, teaching methods and materials.

Considering that conservation training calls for a multi-disciplinary approach, and that often regional and international training facilities are used, teachers are generally challenged and inspired in their task if done properly. In fact, an international linkage will be essential in order to keep abreast of developments, and to update contacts. The existing international organizations already provide a basis for such a network, including the ICOMOS International Training Committee, and the teacher contacts through ICCROM. There is a need to build up a coherent system within which

teachers from different institutions can contact each other at the national, regional and international level. Such a system should allow for regular workshops or symposia to discuss teaching methods and experiences, to encourage updating of materials and information. ICCROM, with its library and databases is in the position to take a leading role in this regard, and should do this in collaboration with ICOMOS, ICOM and UNESCO, as well as regional and national organizations.

Teaching facilities and material

Training programmes should be supported by a good library and documentation centre with reference collections, possibility for co-ordinated research, and access to computerized information networks where feasible. Other facilities required are studio spaces, lecture rooms, staff offices, laboratories, as well as necessary equipment for surveys, inspections, analysis and monitoring of structures and materials. There is also a need for a range of monuments and sites within a reasonable distance.

Various organizations have focused on developing teaching materials for conservation training purposes; these include modules or videos prepared by ICCROM for teaching issues related to conservation of collections and control of internal environment, videos on the analysis of earthen building materials, publication of lecture notes on conservation methods, or guidelines for the management of cultural heritage sites, etc. Similar efforts have been made by organizations such as the Getty Conservation Institute, and other national governments or institutions. In particular there exists a series of films on conservation, that has been promoted, e.g., through the Media Save Project of ICCROM. Heritage Canada has prepared a series of resource kits of teaching tools in specified subject areas, including a brief introduction, a series of annotated slides and a bibliography.

There is still need to make a systematic identification and inventory of such existing didactic packages, and to prepare a strategy for sharing them in teaching programmes in different countries. In many cases, the training programmes and related research should be so organized that they themselves continuously produce material that can be used for teaching. In particular, programmed higher degree dissertations can be extremely useful in informing on local or national cultural heritage and its needs, as well as testing, documenting and monitoring conservation treatments. International action can be steered towards providing general methodical guidelines and small manuals giving a framework and describing specific procedures; moreover, it should include databases, annotated bibliographies, systematic information on different types of training programmes, establishment of an international communications network, and an international forum for debate about teaching methods and strategies.

Resource requirements

Development of training programmes requires financial, technical and human resources. It will be essential for such facilities to be in balance with the goals. If the direct running cost of the programme (including all teaching) is = X, one has to add to this the cost of staff, administration, premises, scholarships, student travel, etc. In fact, the total cost of a training programme can be several times the direct teaching cost. In addition, organization - especially of international or regional training - requires experience which can only be acquired by doing it, and is reflected in the administration, the necessary agreements, contracts, and payment arrangements. The process should include contacts with teachers in the preparatory phase, and the

faculty should have regular meetings throughout the process. This is easier when teachers can be found in the same area, and more difficult when foreign faculty is used. There is a need to identify the elements of this process, and recommendations or guidelines could be developed concerning organization of new training.

Evaluation and quality control

It is essential that any training be carried out by qualified persons. Teaching false concepts or attitudes may be fatal. Here, interdisciplinary training and international debate are beneficial, as they assist in avoiding the too easy isolation of a single profession. There are advantages in attaching conservation training to universities or other institutions with an academic and professional recognition. Courses should also be regularly evaluated, taking into consideration several factors (Feilden, 1993):

- *Teacher quality: academic stature and practical experience.*
- *Student quality: academic preparation, experience.*
- *Facilities: buildings, equipment, laboratories, libraries, lodging.*
- *Content: allocation of time to specific topics.*
- *Objective: What is the student trained to do?*
- *Evaluation of students: continuous seminars and exams.*
- *Location: availability of cultural resources within a reasonable radius.*

Course planning and evaluation can be carried out at different stages or levels - before, during and after the training programme. It will be necessary to make a continuous 'market survey' to identify the real needs for training. Such a survey should preferably be carried out on a regional level, and should take into account existing training opportunities in the region, and also establishing a contact with international activities. During training programmes, a continuous monitoring and assessment using both students and teaching staff will facilitate forward planning and continuous improvement. It will be beneficial to establish a system, such as a database with addresses, that would allow follow-up of former participants in their careers; after a reasonable period following a course, or at intervals, it will be useful to make a survey contacting former students and their employers to verify the impact of training, and to learn about present needs.

Regional and national training

The basis for the planning, management and conservation of cultural heritage resources in each country is at the national and/or local level according to relevant legislation and norms. Also the basic education and training should, in principle, be carried out at the national level. In particular, this is relevant to craftspersons, and lower and middle-level technicians, and much of such vocational training may be carried out at the local or provincial level. Higher education, at the university level, would usually be concentrated in larger urban centres; in certain fields such training is not possible in each country, and students need to look for facilities in other countries of the region or even further. This is the case also with conservation studies; many existing training centres actually serve as a basis for this type of specialization especially for academic professions, and for conservator-restorers.

National or regional centres will have a role in the organization and co-ordination of research, forming and updating databases, documentation and publication of information about materials, techniques, and skills in the repair and maintenance of historic structures. Such centres will organize courses or seminars on specific conservation skills for conservationists, including also trade masters, and middle-level

technicians. They can thus contribute to the promotion of professional networks and the exchange of technical information, and give support to national or local training initiatives.

International collaboration

Collaboration with other countries or with organizations at the regional or international level is an issue desirable especially when dealing with common interests, when there is a need to reinforce local resources, when required facilities are lacking, or when there are possibilities to offer support to others. The exact knowledge of past motivations and technologies may have been lost in certain areas; it will thus be beneficial to compare information with others having similar properties, or using similar crafts or technologies. Assessment and evaluation of continuously evolving research, modern sciences and techniques, is necessarily done in the international context in order to have the broadest possible exposure for testing their validity. The recognition of the universal value of cultural heritage, the growing international concern for the identification of heritage resources, the ongoing debate on appropriate principles and ethics for their treatment - these all call for international and regional collaboration.

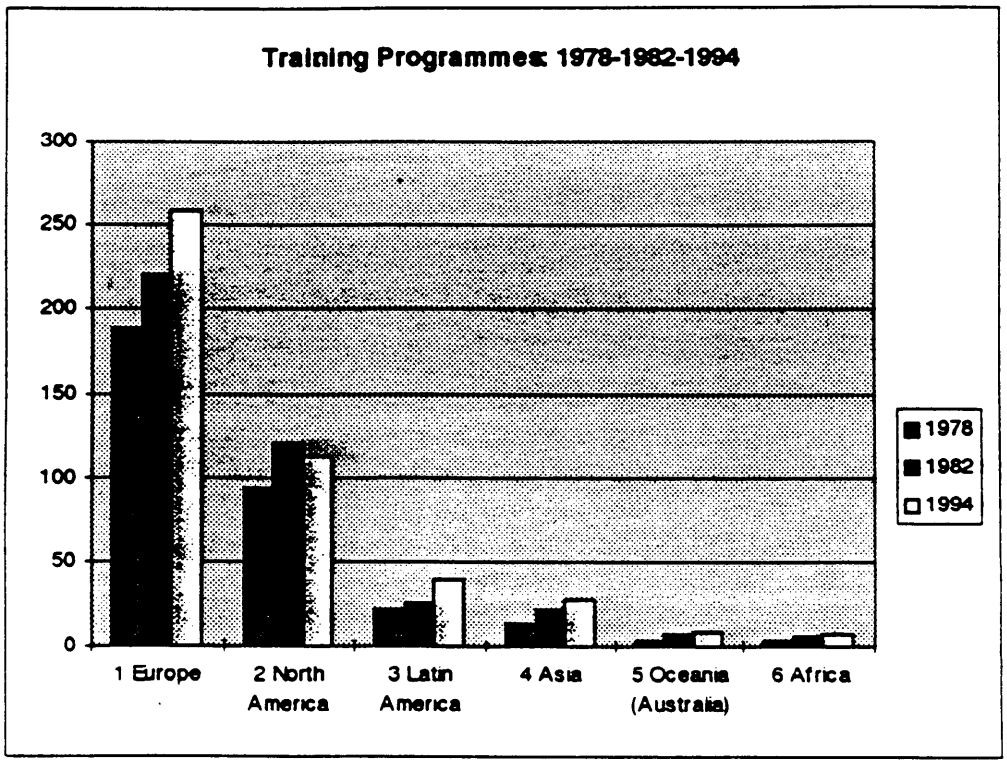
International collaboration will be based especially on more fully exploiting the potential of existing international organizations, UNESCO, ICCROM, ICOMOS, ICOM, OWHC, as well as international instruments, and especially UNESCO Conventions. In addition, there are other organizations, such as UNDP and the World Bank, and regional organizations, such as the Arab League and the Council of Europe, which are working in fields close to conservation especially considering the built heritage in its broader definition.

International collaboration should preferably be based on the initiative of States in a specific region to collaborate within a regional programme, sponsored and co-ordinated by relevant international organizations. Examples of such programmes already exist, including for example the UNDP/UNESCO Regional Programme in Latin America (now concluded), currently developing ICCROM programme for Maghreb countries, the long-term collaboration in Europe within the framework of the Council of Europe and the present European Union; the European initiatives include Erasmus and Eurocare that are directly related to education and conservation research.

Training Strategy

Current situation of training in the world

ICCROM keeps a data base on training programmes that are known to be organized in different countries. Such training directories have been published in 1978, 1982 and 1994. (*International Directory of Training in Conservation of Cultural Heritage*, GCI-ICCROM, USA 1994) The 1994 edition listed 453 specialized training programmes while the corresponding directory published in 1982 listed 401 entries, and in 1978 there were 322 entries. There has thus been an increase - although relatively small in relation to the real needs in the world. Most new courses are also in the same countries where training had already been organized earlier. It is still encouraging that several developing countries have initiated or reinforced their training. The following scheme gives an idea of the relative dominance of the number of programmes organized in Europe and North America.



ICCROM's Current International Training Programmes

ICCROM was created by UNESCO in 1956 as an intergovernmental organization with the purpose to act as a link between governments and specialists in the safeguard of both movable and immovable cultural heritage. Its statutory functions were defined as: documentation, technical co-operation, research and training. More recently, a fifth function has been added to these concerning awareness building in Member States. In the programmes of the organization, a particular emphasis has been given to training and education. Different forms of training have included a series of regular international courses, organized since the early 1960s, which have established a basic reference for the organization of training programmes in Member States, as well as

providing specialized education for mid-career professionals responsible for the conservation of historic sites and collections.

The oldest of these courses is the International Architectural Conservation Course, which was first organized in 1962 in collaboration with the University of Rome. So far, about 1,000 professionals have received mid-career training in this six-month course; it has also been instrumental in providing a model for the organization of national or regional training programmes in several countries. The Mural Paintings Course has been adapted to regional needs, and, in addition to being organized in Rome, it has been organized in several countries with a regional focus, including Thailand, India, Colombia, and, in 1995, in Romania. Also the course on the Scientific Principles of Conservation, dealing with materials sciences related to traditional types of materials, has been organized at the regional basis; in 1995 it was organized in Brazil. The protection and conservation management of museums and collections, and climate control have been subject to several international short courses. In addition, ICCROM has been the organizer or co-organizer of international training courses on specific types of materials either in Rome or in other places; these have included stone (in Venice), wood and wooden structures (in Norway), paper (in Japan, Austria), textiles, etc. International courses are focused on the methodology of the critical process related to the care of the heritage concerned. The aim is, on the one hand, to provide a possibility for the verification of one's approach and technical know-how within an international forum; on the other hand, it to provide a possibility for professionals from countries where specialized training does not exist. International courses should be understood as part of the professional career structure of a professional - particularly when aiming at a leading position in one's country.

More recently, attention has been placed on the development on programmes focused on the conservation of specific types of heritage. These include the PREMA programme (Preventive Conservation in Sub-Saharan Museums), which started with a series of degree courses in Rome, and has since developed into an important programme of collaboration particularly with African countries, developing to the awareness and technical know-how through research, training and technical co-operation. The programmes are currently organized in African countries by the countries concerned with a support from ICCROM. On a similar basis, a programme is currently being developed in Oceania (PREMO). More particularly in the field of architecture and archaeological sites, the GAIA programme has been developed jointly with CRATerre and the Grenoble School of Architecture concerning the conservation of earthen architectural heritage. Also this programme is based on an international network of professionals and institutions, and has organized a series of international courses, seminars and conferences. Currently, ICCROM is developing a new thematic programme related to urban and territorial conservation.

Presently, emphasis is given also to regional programmes, which consist of the preparation of a survey of the condition of the heritage in a particular region, and the consequent development of appropriate conservation policies. The first of these programmes has been initiated the Maghreb, and has included collaboration with the Institut National du Patrimoine of Tunisia for the organization of a regional training course in architectural conservation initiated in 1994 with a financial contribution from the World Heritage Fund. A regional conference will be organized in November 1995 for the presentation of the results of the first phase of the programme, and the establishment of a strategy for the future. Another similar programme is being developed for the countries in Central Asia and the Middle East. This includes the first regional conference on the conservation of cultural heritage organized in Tehran

in September 1995. The regional programmes are based on the collaboration and contribution of the countries in the regions concerned regarding awareness, training, co-ordination of research, and particularly the encouragement of technical co-operation in order to benefit from regional resources and know-how; the contribution of international organizations is conceived as a facilitator and as a co-ordinator in reference to international guidelines and information resources.

Development of a training strategy

Considering the variety of heritage, the diversity of cultures, the lack of proper cultural-historical and technical-scientific knowledge of heritage sources, it is fair to state that **training in conservation needs to be based on a systematic approach that should take into account all necessary parameters.** It is recorgnized that conservation requires several different disciplines to be involved, and that, apart from initial professional training, advanced training should be based on multi-disciplinary collaboration.

It is noted that conservation training cannot be based only on short courses, but that there is a need for an appropriate career structure relevant to each discipline. As an example, conservator-restorers need about four years of training, while qualified architects should normally have additional specialized training in conservation theory and practice which ideally would take about one to two years. Such training should generally by preceded or accompanied by appropriate field work and practice. Short courses, workshops, seminars and research will be additional components in building a coherent training strategy. **A suitable strategy for training personnel should be planned for each organization involved in conservation, and adapted to the specific conditions of the country and region concerned.**

Conservation is based on a critical process on the basis of the definition of the heritage resource, its condition and its context. **Training in conservation needs to be humanistically and scientifically based on the understanding of the needs and the required conservation action.** Such knowledge is founded on research and continuous monitoring of heritage sites, as well as on comparative study of sites of the same type and where similar treatments have been applied. Furthermore, conservation training requires appropriate means and facilities for documentation, library study, scientific analyses adapted to didactic requirements, as well as necessary premises and administrative structures. Basic teaching requirements can normally be satisfied in equipped learning centres, but the specific necessities of conservation training generally need a long-term plan for the development of appropriate conditions.

Considering the subtlety and complexity of conservation, it is essential that the subjects that are being taught are also well understood by the teachers. Teaching should be compatible with international guidelines. This requires a **pool of qualified teachers**, who have the possibility to develop and refine their teaching over a sufficient period of time, as well as to compare the criteria and methods with others. Training should be planned according to the needs of target groups. A training programme will generally need teachers from a wide range of disciplines (e.g., humanities, sciences, technology, management and administration). Considering that each site is unique - even within the same region, conservation training should be based on a critical methodology, but a close relationship should also be established with field work and practical applications. It is thus necessary that teachers be aware of the general criteria and principles of conservation, as reflected in the intentions of international charters, recommendations & conventions. They should understand the

connection between theory and practice, and teaching should be applicable in the future work of the students. It is noted that site training alone will not provide the necessary breadth of understanding required for appropriately managed conservation work. There is a need for a broader scope in the international and regional context particularly when dealing with World Heritage Sites.

A training programme in conservation needs an administrative process and an organizational structure. These include a phase for planning the training programme, co-ordinated preparation of course contents (lectures, exercises, site visits and teaching materials), raising of necessary funds (personnel, running costs, scholarships), publication of course announcements, selection and information of participants. The next phase will include the organization of the course itself and an assessment of results in view of future updating and improvement. The first courses on a new topic or in a new context should generally be considered a pilot phase to adjust the overall training plan and its various elements. Over a reasonable time period one can have feedback from former trainees, and integrate trained specialists into the process as lecturers or in the organization.

The cost of training will depend on several parameters; normally, regular courses will cost less than ad-hoc courses or programmes organized for the first time. This is due to the initial investment in human resources, management, teaching, scientific preparation and organization of facilities. Indirect costs involve, e.g., building a professional library and necessary infrastructures for communication. A new training programme will therefore cost perhaps the double, and can go up to several times the cost of a regular course. Grouping several training activities with a similar scope into specialized training centres will make economy in a rational use of facilities, in benefit from repeated experience and building up a multi-disciplinary environment. The problem of training in isolated sites, apart from 'hands-on' practice or short seminars, is generally a lack of proper conditions required for training, as well as the relatively high cost of single events. The cost includes the difficulty of finding and managing suitable teachers who are available for travelling to such sites.

Considering the present situation in the diffusion of training in the different regions of the world, and considering training needs in relation to heritage diversity and the complexity of issues involved, there is a need for strategies that take into account all necessary factors. World Heritage Sites cannot be considered alone out of the national or local context even when dealing with individual buildings; in many cases, the sites are large urban or rural areas or cultural landscapes with complex ownership and administrational structures. Conservation training in relation to World Heritage Sites, therefore, can not be solved only in relation to single sites. Instead, **there is a need to develop action at several levels simultaneously.** This will require building awareness at the political and decision-making level, commitment of organizations and the establishment of career structures for training professionals to qualify for the required administrative, management, technical and scientific responsibilities.

In order to co-ordinate such action, there will be a need to build **strategic plans for training** at: (a) local or national (organizational) and (b) regional level. Such plans will be the basis for (c) a co-ordinated support at the international level in order to guarantee maximum efficiency and appropriate collaboration for specific actions in each region or site.

A typical training strategy should clarify why a strategy is needed and who should be trained. The strategy requires corporate planning with the involvement of all relevant parties (subject to the level of planning, whether organization, country, or region). A

training policy statement should indicate the objectives and the scope of training in relation to the conservation needs of heritage resources, and the development of the organization(s) concerned. In the plan, the responsibilities of all concerned should be clarified in relation to the execution of training as a continuous process with the aim of continuous improvement. It will be helpful to develop the training scheme in close collaboration with the staff concerned including systematic interviews.

The **training plan** for an organization could thus include the following items; at other levels similar structure can be followed:

1. definition of corporate objectives and priorities in relation to training;
2. definition of departmental objectives in relation to time and project development;
3. initial evaluation of existing training;
4. personal development plans in relation to skills or disciplines;
5. preparation of the first draft training plan;
6. allocation of resources, fund raising;
7. finalization and presentation of training plans;
8. putting the training strategy into operation.

The training plan should identify the different types of training that are needed in an organization, including development of skills for existing and new staff, encouragement of staff for qualification in specific disciplines, possibility for promotion and professional development, and improvement of management skills.

There is a need to identify the existing **training potential** at local, national, regional and international level. According to the capability of each organization, a certain part of training can be carried out within the organization itself. For this purpose, the organization will need to include in the training plan also issues related to training of trainers. A pool of trainers could be formed of mid-level and senior professionals, administrators and technicians for 'site training' of younger staff.

The choices and the establishment of **priorities** for the training plan should be carefully measured against the available resources at the organizational level and outside. It is necessary to give a major attention to the development of existing training resources, such as learning institutions, schools, universities, libraries, laboratories, etc. before the establishment of new organizations. There is experience in several countries of collaboration between technical organizations and learning institutions, which has led to beneficial agreements. It is to be noted that well-planned research, monitoring and documentation are essential components in any training strategy.

The process for the development of training strategies at the different levels and according to specific needs should be encouraged and guided at the international level. Such activity should be based on a systematic survey of the situation in various countries and regions, and it should be **co-ordinated in a coherent manner in order to optimise the use of resources**. This would ideally mean the use of existing or future regional programmes for the purpose of communicating with the individual countries, and professional consultation about the preparation of strategic plans for the organizations that are in a key position in relation to World Heritage Sites.

Simultaneously with this action, there should be a systematic mapping of training resources at the different levels carried out at the international level, including a report on the situation in the different regions according to established format and criteria. This background will provide the necessary instruments for guidance of

individual countries in planning requests for scholarships and raising funds for the potential development of training centres.

It is noted that the currently available funds from the World Heritage Fund are far below what is really needed for conservation training. The only possibility for results is to optimise the use of resources and plan the use of the funds in a coherent manner within the general context benefiting from the leverage of funding from other sources.

Recommendations for training strategy

1. It is proposed that the World Heritage Committee encourage States Parties to develop strategic plans on training both at the organizational level in relation to World Heritage Sites and at the national level. Such plans should be discussed at the regional level for improved collaboration and optimized use of resources. The planning phase should benefit from expert missions to consult with national authorities and meetings at the regional level.
2. It is proposed that the World Heritage Centre collaborate with ICCROM for the development of guidelines in appropriate details for the preparation of training strategies in States Parties.
3. It is proposed that the training use of the World Heritage Fund be planned on the basis of coherent training plans. Such plans should provide the reference for the establishment of priorities for the World Heritage programme and budget and contributions to training at the local, national, regional and international levels.
4. It is proposed that the co-ordination in the development of training strategies be guaranteed by ICCROM in collaboration with the States Parties, and in consultation with the World Heritage Centre, ICOMOS, the Organization of World Heritage Cities, and other potential partners.

(Rome, 6 September 1995,ii)

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