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WHC-95/CONF.201/INF.7
Paris, 6 June 1995
Original: English

UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

CONVENTION CONCERNING THE PROTECTION OF THE
WORLD CULTURAL AND NATURAL HERITAGE

BUREAU OF THE WORLD HERITAGE COMMITTEE

Nineteenth session

UNESCO HEADQUARTERS, Paris, Room X (Fontenoy)
3-8 July 1995

Training Strategy in the Conservation of Cultural Heritage

At the request of the World Heritage Committee, the Bureau, at its eighteenth session (July 1994) examined the expenditures incurred under Training Assistance from 1988 to 1992 and analysed their trends. It concluded that the World Heritage Centre should organise an evaluation workshop which would provide a sound basis for a fresh training strategy in the field of conservation heritage. However, no budget has been made available for this activity. The Centre, confident that the preparations for the elaboration of the strategy would be greatly facilitated by ICCROM's findings after completing its strategic planning exercise, which led to a redefinition of its overall objectives, asked Dr Jukka Jokilehto (ICCROM) to prepare the attached draft.

Dr. Jokilehto's draft shall be discussed internally at ICCROM, in various committees and meetings, and with other partners in regional areas. It shall be supplemented by regional case studies, and as a result of the consultation, an action plan shall be submitted to the World Heritage Committee at its nineteenth session in December 1995.

The Bureau members are invited to offer any observations they might have on the draft document.

Training Strategy in the Conservation of Cultural Heritage Sites

DRAFT

31-May-95

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Note:

This document on *Training Strategy in the Conservation of Cultural Heritage Sites* was prepared by ICCROM following the recommendations of the consultative meeting of the World Heritage Centre and advisory bodies to the World Heritage Convention at UNESCO in Paris on 6 February 1995. The first draft was discussed in a meeting by representatives of UNESCO, ICCROM and ICOMOS on 29 May 1995; the observations of this meeting were integrated into the present draft. The document has benefited from the meeting on Urban Conservation organized at ICCROM in February 1995 with representatives of UNESCO, the Organization of World Heritage Cities, ICOMOS and other bodies, and consultations will be continued for the finalization of the strategy including selected regional case studies. The revised document will be presented to the World Heritage Committee in December 1995.

Training Strategy in the Conservation of Cultural Heritage Sites

The purpose of this paper is to define the basis for a global strategy related to sensitization, education and training of the various actors who participate in the protection and conservation of cultural heritage sites. The issue is seen in relation to heritage diversity and generally in relation to society and environment, as well as in connection with World Heritage Sites. Conservation should be understood as a cultural problem, therefore research, education and training should be seen in relationship with specific sites and cultural areas, as well as within the broader national, regional, and international context. The aim of the strategy will be to assist in building the conditions in States for safeguarding the various types of heritage sites in their different dimensions, and to establish priorities for international and regional collaboration.

1. *Ethics and principles of conservation*

It is essential that training programmes, whether general or thematic, be based on clearly defined concepts and well founded conservation principles. Such definitions and principles are referred to in various international documents (e.g., UNESCO, ICOMOS) or also in regional and national recommendations or standards. The universality of the principles is in their character as a critical method; conservation ethics relates to their correct application in each particular case.

1.1. *What heritage and what principles for conservation?*

The principles of conservation have been developed as a conscious response to the emerging problems in safeguarding cultural heritage. Particularly in recent decades, cultural heritage has been recognized as a world-wide issue related to sustainable development. The heritage concept involves not only ancient monuments and works of art, but refers to a broad range of resources that are conceived with specific cultural values. In the World Heritage Convention, the definition of heritage is conceived under three main headings: monuments, groups of buildings (ensembles), and sites. In the *Operational Guidelines* of the World Heritage Convention, the category of 'groups of buildings' has been successively interpreted as 'towns'; there are principally three types to be considered: no-longer-inhabited towns (i.e., archaeological sites), inhabited historic towns, and new towns of the twentieth century. Since 1993, the World Heritage Committee has also approved cultural landscapes as eligible for the List; these are listed in three categories: landscapes designed by man, organically evolved landscapes, and associative cultural landscapes.

Cultural heritage sites are produced by society; they reflect the varying social, cultural and economic and environmental conditions of different eras in the past. Some heritage sites have archaeological character, or are preserved as ancient monuments or in museum use. Here the principal issue will be their protection, maintenance, conservation and presentation following the principles that are pronounced in international charters and recommendations (e.g., the 1964 *Venice Charter*, the ICOMOS charters, and UNESCO Recommendations) as well as other documents recognized in specific regions (such as the *Burra Charter* in Australia).

Another group of heritage resources of particular importance are living historic areas, such as historic towns, villages, cultural landscapes, heritage routes and sites containing contemporary architecture. In such sites, conservation of the essential qualities is dependent not only on restoration or conservation management, but also on the continuation of traditional types of functions - including issues that may call for gradual change as part of their continuing life cycle. Such questions have been addressed in the 1976 Nairobi Recommendation of UNESCO, the 1987 ICOMOS *Charter for the Conservation of Historic Towns and Urban Areas*, as well as in the recent 1994 Nara Document on Authenticity.

Besides the various types of sites, and the diverse cultural, social and environmental conditions they are part of, cultural heritage resources represent a great diversity of technical and structural features. In addition to continuous maintenance strategy, heritage sites will often require particular expertise, knowledge and experience in their treatment. This need can increase due to impaired state of conservation, a lack of knowledge of traditional methodologies, or the lack of production of required types of materials. Financial, social and political questions and conflicting values can cause increased difficulties for the decision-making process to guarantee appropriate treatment in each case.

1.2. *Which universal principles encompass the diversity of conservation problems?*

Conservation of cultural heritage is a cultural problem; it is based on the recognition of the significance, the condition and the needs of each site within its cultural and physical context. It therefore follows that there are no universal models for the outcome of a restoration. Instead, restoration and conservation work should be based on a critical process consisting of survey and documentation, a critical-historical definition and assessment, as well as the necessary scientific analyses of the heritage resource in view of its safeguarding. This process will form a basis for the establishment of short-term and long-term strategies and programmes for conservation and management of change, including regular inspections, cyclic maintenance and environmental control.

There are, however, principles that should be applied in all cases; these are related to the assessment and evaluation of the site concerned. The aim of restoration is to conserve the integrity of the heritage resource, as well as to reveal its cultural values and to improve the legibility of its original design. Restoration is a highly specialized operation that should be based on a critical-historical process of evaluation, and not on conjecture. It can involve various types of operations, including cleaning, consolidation, and anastylosis. Restoration should, however, be differentiated from traditional maintenance and repair - in cases where such traditions or relevant social or religious rituals are continued in coherent form.

ICOMOS Training Guidelines defines '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.* The principles of conservation are the outcome of a continuous maturing process. They are based on the emerging challenges that need to be faced in individual cases, and they are documented in local, national, and international declarations. Through experience and systematic research, it will be possible to define appropriate standards. The field covered by such declarations and recommendations follows the trends of concern, and contributes to increase awareness of the needs of education and training.

The principles of conservation are conceived as the general policy in relation to the management and planning of the historical sites, such as historic towns, villages, cultural landscapes. Such principles should take into account the social and cultural requirements, as well as the economics of the place; planning and conservation management strategies should be developed in relation to the qualities and values of the heritage resource involving the consensus of the population. As stated in the Nara document, *the protection and enhancement of cultural and heritage diversity in our world should be actively promoted as an essential aspect of human development*. This does not mean only respect to bygone achievements, but pluralistic acknowledgement of the legitimacy of the cultural values in different cultures in today's society.

2. Training needs

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 also 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, at the international, regional, national, or local level. 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.

2.1. What is known about the basic needs?

The UNESCO 1976 Nairobi Recommendation suggests that *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*. The Brazilian ICOMOS recommendation of 1987 further declares that urban areas need to be understood in their totality as historical entities, which are permanently undergoing a dynamic process of successive transformations, and that urban centres should necessarily shelter both the universes of work and of everyday life, through which the more authentic expression of society's heterogeneity and plurality are brought out. Consequently, the focus and one of the main issues in the planning and conservation management of historic areas is understood to be the continuation of compatible social activities in historic urban centres. Planning and sustainable human development also need to be seen in the broader ecological and environmental context. This, in fact, is a demand which is relevant to realities of regional planning and cultural landscapes in general, although it is sometimes conceived as being in conflict with the 'monumental' approach to conservation.

While certain trends will be possible to detect, specific needs will continuously change with the developing society. There are, however, possibilities to identify problem areas that are relevant to the treatment of specific types of heritage resources. There has been scientific research into the character and behaviour of various types of building materials, whether stone, earth, wood, tiles, mortars, bricks, metals, glass, or other. Knowing the diffusion of particular types of technologies, one can then map potential problem areas. For example, while the Mediterranean region, Southern Asia, and Central America are rich in stone monuments, a large part of the world has built

in earth and wood or in brick, including ample areas in Europe, Asia, Africa, and America. Such data can be compared with the socio-economic situation in each country for an indication of needs. Similarly, one can identify typologies of structural systems and relevant behaviour patterns.

The developing world often fails to take into consideration impacts on existing environmental qualities and cultural heritage, e.g., in the case of large construction projects, mining and industrial development, urbanization and slum clearance, as well as due to lack of coherence in trade, tourism, legislation, administration, fiscal policies and even educational programmes; these often do not consider cultural values. (Prott, 1993) In addition, there are natural and man-caused disasters that fall heavily on cultural heritage in the most tightly populated zones of the world. These include earthquakes, floods, wars and armed conflicts. Another difficulty is the lack of development and consequent abandonment of particular areas due to changes in economics and commercial activities, or for environmental reasons such as scarcity of water or loss of vegetation.

One of the key problems in many countries is that conservation has not yet been publicly and politically recognized; for example, salaries in this field may be far below those paid for new constructions. Conservationists therefore sacrifice more secure living in favour of their dedication. Furthermore, protection of historic buildings is mostly in the hands of governments, and the participation of the private sector may be non-existent. One of the basic requirements for the development of broader attention to cultural heritage is cultural-historical awareness of relevant values, which in itself is the result of a critical process and education.

While it is true that problems are not solved only on the basis of such general considerations, this information needs to be complemented with locally or regionally based systematic research, survey and documentation as a basis for knowledge of exact behaviour, and appropriate types of treatment. As each monument and each historic construction is an individual, both regarding its particular condition and its needs, restoration and conservation work should result from a methodical approach to the understanding of the specific character of each. There is a need to continuously update information about training needs in different regions in relation to different types of heritage resources and different target groups. There are networks of people and organizations, such as members of ICOMOS, former participants of ICCROM training courses, or UNESCO Regional Offices, which provide a potential for the collection and updating of information in specific regions. ICCROM is also currently involved in an effort to identify the needs and available resources in the different regions through programmes that are based on the active participation of the countries concerned. Such activity has been undertaken, e.g., on earthen architecture within the Gaia Project, organized jointly with CRATerre and School of Architecture of Grenoble, France. The answers to a questionnaire in 1989 came mainly from Europe (43.7%) and North America (25.2%), the other regions together had 30.3%. The needs that were identified focused on maintenance, documentation, conservation planning, and inventories, as well as on building surfaces, soil analysis, and treatments of materials. (*Bulletin d'Information*, xiii, 7ff, CRATerre-EAG)

To take China as an example, conservation management of cultural heritage is here shared by two ministries: the Ministry of Monuments and the Ministry of Construction, the first being responsible for historic buildings, ancient monuments and archaeological sites, the second for historic towns and scenic areas. Recent developments and tourism have increased pressure on historic towns. In China, there are currently 99 protected historic cities, and the mayors of these cities have created

an association linked with the Ministry of Construction. The most urgent needs in terms of awareness, education and training include first of all information of the local authorities, i.e., the mayors of historic towns. Secondly, it is urgent to train the technical teams who are responsible for planning and urban conservation.

Prof. Nimal De Silva from Sri Lanka has identified three types of heritage in South Asia demanding special concern: a) the archaeological remains of prehistoric and historic cities and religious monuments; b) the rural village settlements built often in mud, timber and thatch, or in rock, mud and thatch, and c) the colonial cities of the eighteenth and nineteenth centuries. In most countries, the responsibility for the care of this heritage is with the State Departments of Archaeology, which have limited resources and personnel; little attention is therefore given to heritage that is not considered strictly archaeological. Concerning training, there are three categories of personnel involved: the craftsmen, the middle technical grades, and the specialists. In South Asian countries crafts are still part of traditional continuity, and the necessary skills are still to be found. The middle technical grades are those who are usually directly responsible for conservation work sites; a higher emphasis should be given to them. Specialists are the trained personnel involved in research and in conservation work as professional, advisors and decision makers. The number of those who have attended ICCROM's courses is relatively small, and the opportunities for post-graduate studies in the region are limited to Sri Lanka and India.

In his summary monitoring report on the conservation of historic sites in Latin America and the Caribbean, Sylvio Mutal has emphasized that *"unless cultural institutes become full-fledged partners of development agencies, conservation work will be limited in scope in an increasingly hostile environment including those emanating from institutional duality conflict and lack of partnership and coordination."* (Mutal, 1994) One of the conclusions in this report has been that some of the most serious negative effects met in the management of historic towns, is the lack of continuity in the execution and management of projects in historic cities and areas. What is required is capacity building in human, financial, institutional resources, as well as appropriate planning and use of natural and cultural heritage resources, within the developing physical, economic and social infrastructures.

Particularly with the increase of the size of historic areas, when dealing with the built environment or cultural landscape areas, the issues related to ecology and environmental management and control will become more and more pressing. In fact, considering that much attention has recently been given not only by recognition of the problems, but also to the development of potential solutions, it will important to improve collaboration between these two sectors. Due to the diversity and complex character cultural heritage and due to the multi-disciplinarity of actors involved, training in heritage conservation needs to be understood in its context. This is observed also in the World Heritage Convention, which promotes the establishment of national and regional training centres, encourages scientific research (par. 5e), and emphasizes the need of training at all levels (par. 22c). In fact, assistance may be obtained from the World Heritage Committee for such training (par. 23). The *Operational Guidelines* give indications on training which go in the same lines (par. 95-99).

3. Existing training programmes

Most existing training programmes in the conservation of cultural heritage are in Europe, USA and Canada. In recent years, there has been a slight increase of training programmes also in other regions, and, in addition, the courses organized by or in collaboration with ICCROM have trained a substantial number of specialists in these regions. Most existing training is addressed to conservators and conservation architects; however, there is a need to enlarge the target groups in the future. Presently, training is done mostly through short or long courses; in some cases research programmes and internships also exist. There is a need to make efforts to find other forms of training in order to meet the current and future expectations of the conservation world, and in particular take into consideration the needs of sustainable human development.

3.1. Diffusion of training programmes

During the past two or three decades, a large number of training programmes have been established in different parts of the world. Most national training centres or opportunities are, however, in Europe (57%), USA and Canada (25%), to a lesser degree in Latin America (9%), the Middle East and Asia (8%); very few are in Africa (2%). There exist also several international training programmes, especially those run by ICCROM, or training organized in collaboration with ICCROM and UNESCO. Some national institutions may also accept participants from several countries thus serving also as international reference centres, e.g., in Italy, Belgium, Great Britain, Germany, Denmark, USA, Canada, Mexico, Cuba, Brazil, Sri Lanka, and now also in Tunisia. There may be a potential to increase such intake in the future.

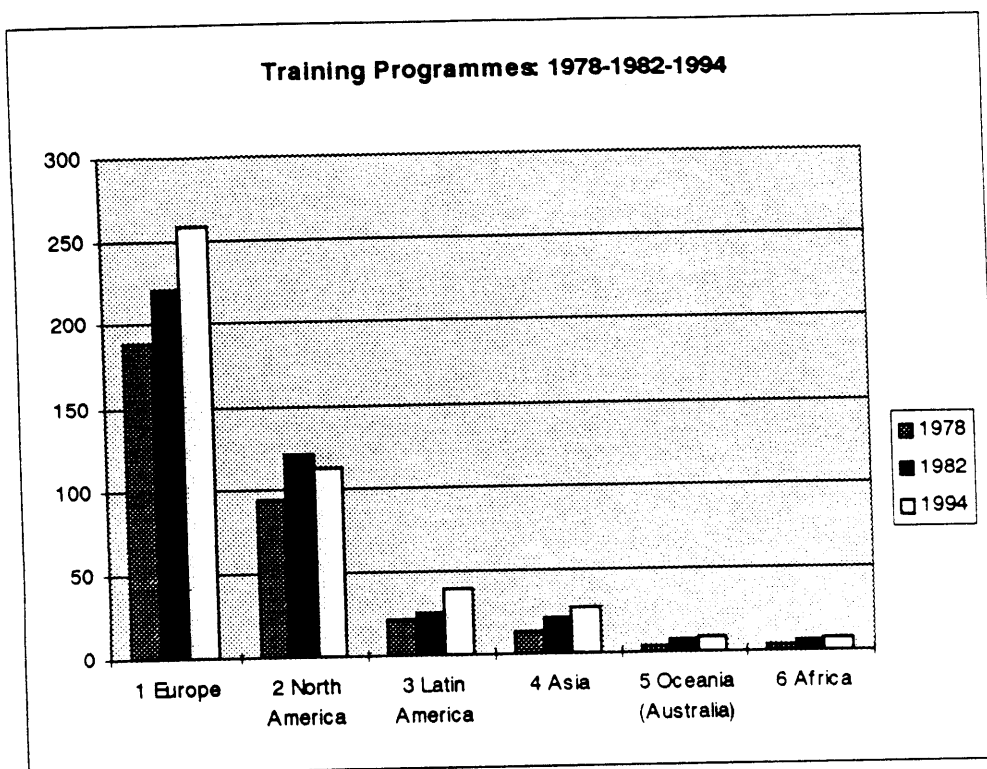
The *International Directory of Training in Conservation of Cultural Heritage* (GCI-ICCROM, USA 1994), lists 453 training programmes. The corresponding directory published in 1982 listed 401 entries, and the 1978 directory 322 entries. There would thus seem to be an increase of 25% from 1978 to 1982, an increase of 13% from 1982 to 1994, and an increase of 41% from 1978 to 1994. From 1978, two countries had discontinued training programmes, but there were nine other countries that had initiated new training; in 1994, 6 countries had discontinued and ten had new programmes. The increase has not happened throughout: between 1982 and 1994, there has been increase in 47% of the countries, decrease in 37%, and in 16% the number of entries has remained unaltered. The percentages will not be fully reliable, considering that not all programmes are necessarily listed, and that the publication dates follow some time after the data collection. The overall picture has improved although less than one might have wished; it is still encouraging that several developing countries have initiated or reinforced training.

According to the 1994 list, training programmes listed by the directory are distributed in the following manner. (The list refers mainly to training where conservation is the main subject, and does not necessarily include all training programmes.):

Training Programmes as listed in 1978-1982-1994

<u>Region (List of countries refers to 1994)</u>	<u>1978</u>	<u>1982</u>	<u>1994</u>
1. Africa (Egypt, Ghana, Niger, Nigeria)	3	6	7
2. Asia (India, Iran, Iraq, Japan, Malaysia, Pakistan, Sri Lanka, Syria, Thailand, Turkey)	13	21	27

3. Oceania (Australia)	3	7	8
4. Latin America (Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Dominican Republic, Guatemala, Mexico, Peru)	21	25	39
5. USA, Canada	94	121	113
6. Europe (Belgium, Bulgaria, Croatia, Czech, Slovakia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Russia, Spain, Sweden, Switzerland, United Kingdom)	188	221	259
Totals:	322	401	453



These statistics refer to training programmes in the conservation of all types of cultural heritage, including conservation of the built heritage, archaeological sites, materials, collections, historic landscapes, etc. While the list will not include recently initiated training programmes (the Architectural Conservation course in Tunis for Maghreb countries, since 1994) nor several of ICCROM's regional courses organized, e.g., in India, Africa, Latin America, it still gives a fairly good reflection of the present situation. Looking more closely at the figures, one can see that most training activities are concentrated in a small number of countries. In 1994, out of the 51 countries in the list, there are eight (15%) that have more than ten training programmes; these amount to a total of 317 courses (70%). According to the list, the three most active countries are: United States, United Kingdom and Italy; these three countries together organize 235 programmes corresponding to 51% of the total.

Along with these statistics on the countries where specialized training programmes have been organized, several institutes are open to participants from more than one country. Such international or regional programmes enlarge the impact of training beyond national boundaries. In addition, schools of architecture and city planning in many cases include subjects, such as history of architecture and town planning,

knowledge of traditional building technologies, maintenance and repair, in their curricula thus preparing professionals to deal with the built heritage.

The international training programmes of ICCROM have been addressed to different professionals, including architects, and planners, as well as restorers, conservators and curators. The first of these was the International Architectural Course, extending over five to six months, which has been organized yearly since 1962. Between 1966 and 1994 it had 958 participants, professionals involved in conservation practice, management and teaching, principally architects and town planners, mostly working in public authorities or universities. Another international architectural conservation course of ICCROM, called ITARC (7 months), was organized twice in the period for a total of 57 participants. The participants of ARC and ITARC represented the following regions:

ICCROM's Architectural Conservation Courses, Rome 1966-1994

Region	Participants
1. <i>Africa</i> (Ethiopia, Kenya, Sudan, Tanzania, Uganda, Algeria, Egypt, Morocco, Tunisia, Madagascar, South Africa, Ghana, Nigeria, Senegal)	43
2. <i>Asia</i> (Afghanistan, Nepal, China, Japan, Korea, Bangladesh, India, Sri Lanka, Pakistan, Kampuchea, Laos, Malaysia, Philippines, Thailand, Viet Nam, Cyprus, Iran, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Syria, Turkey)	179
3. <i>Oceania</i> (Australia, New Zealand)	15
4. <i>America</i> (Cuba, Dominican, Haiti, Puerto Rico, Costa Rica, Guatemala, Nicaragua, Panama, El Salvador, Mexico, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, Paraguay, Uruguay, Venezuela)	139
5. <i>USA, Canada</i>	86
6. <i>Europe</i> (Albania, Bulgaria, Croatia, Greece, Romania, Yugoslavia, Great Britain, Austria, Switzerland, Czechoslovakia, DDR, Germany, Slovakia, Belorussia, Hungary, Poland, Denmark, Finland, Iceland, Norway, Sweden, Belgium, Spain, France, Luxembourg, Malta, Netherlands, Portugal, San Marino; out of the total 221 are Italian participants)	496

The short courses on the preservation of earthen architectural heritage, organized within the ICCROM-CRATerre-EAG Gaia Project in 1989, 1990, and 1992 had a total of 76 participants. Participation was shared mainly by Africans (24%), Latin Americans (24%), and Europeans (28%); Asians and North Americans had the remaining 24%.

It is of some interest to note that, in 1994, the response to a questionnaire mailed to some 2000 former participants in the different courses organized by ICCROM was more than 50% within the time limit of a few weeks. The topics of the courses considered in this survey included: architecture, historic urban and rural areas, earthen architecture, mural paintings, mosaics, scientific principles of conservation, stone, wood, paper, photographs, collections and museums. Most of the participants were practising professionals at the time of the course, and had usually more than four years of experience; many had increased their professional position and got more involved in conservation. Training was generally considered to have been relevant to their practice, and about one third of them had continued to maintain contacts with ICCROM also after the course. Many had continued using ICCROM's Library or had contacted the staff for advice; some had also profited from the technical assistance programme. Several former participants have later acted as teachers or course assistants in ICCROM's training activities, or as consultants for technical missions.

3.2. Present types of training programmes

Some of these training programmes are conceived of as full professional training for restorers and conservators. Most courses, however, are conceived as complementary to earlier professional education at universities or technical institutes. They include specialized preparation to architects, city planners and conservators who already have their first degree, thematic or short-term courses updating on specific technical issues, such as materials or structures, or workshops on conservation principles or ethics. As an example, in Great Britain there are 87 training programmes listed in the directory; these are of different lengths, and different types. Out of the total number, about 20% are related to architectural conservation. There is a great variety of other training opportunities as well; these range from crafts and engineering to industrial heritage, landscapes, materials, works of art, collections and archival material.

Training Programmes in Great Britain (index 1994)

architecture	20%	industrial heritage	7%	textile	3%
archaeology	9%	collections	6%	science	2%
materials	9%	crafts	6%	engineering	1%
furniture	8%	paintings	5%	musical instruments	1%
paper, books	8%	heritage	3%		
stone, sculpture	8%	landscape	3%		

The programmes that have been listed in the directory represent the following types of activities:

- * general courses 23% (e.g., archaeological, engineering, or stone conservation: from 50 weeks to 2 years, usually with a substantial amount of practice - up to 80%);
- * undergraduate courses 15% (e.g., conservation in archaeological sites: 3 years);
- * post-graduate courses 29% (e.g., conservation in architecture, landscapes, industrial heritage or materials: usually 1 to 2 years, with MS, MA, MPhil., or post-graduate diploma; there are 8 post-graduate courses in architectural conservation);
- * research programme 5% (e.g., architectural conservation: MPhil, PhD);
- * short courses 20% (e.g., conservation in architectural or industrial heritage: duration from two days to two weeks);
- * internships 8% (e.g., conservation of archaeological objects, materials).

To compare these categories with training in Asian countries, out of the 35 training programmes listed, 37% are in architectural conservation, 9% in archaeological conservation, and the rest in a variety of subjects, including collections, crafts, materials, paper, stone. All listed training programmes are classified as courses, including 13 post-graduate courses mainly in architectural conservation. More than half of the programmes in the directory are in Australia (8), Pakistan (8), and India (6).

Training courses in Asia (index 1994)

architecture	37%	archaeology	9%	heritage	3%
collections	23%	paper	6%	stone	3%
materials	17%	crafts	3%		

In Latin America, out of the 39 courses, 13 are in architectural conservation (33%), 11 in the conservation of collections (28%), and the rest in crafts, materials, musical instruments, paintings, paper. Two institutes offer internships (in paper conservation); other training is in the form of formal courses. There are 7 post-

graduate courses (5 in architectural conservation). Half of the programmes in the directory are in Mexico (11), and Cuba (8).

Training courses in Latin America (index 1994)

architecture	33%	paintings	9%	musical instr.	3%
collections	28%	paper	8%	crafts	3%
materials	13%	heritage	5%		

Although this typology will reflect the present situation in training programmes, there may well be other possibilities for the development of new forms of training. This is particularly relevant to World Heritage Sites that are found in all parts of the world, but for which there is a need to develop common policy guidelines. All sites need to be protected according to established international guidelines, although, at the same time, each site needs to be understood as part of its specific cultural, legal and administrative context; such a situation will produce specific requirements that need to be discussed jointly at the international level. The International Directory published by Jeunesse & Patrimoine and UNESCO in 1993 on institutions organizing education related to information and awareness in cultural heritage has listed over 300 entries. The activities are focused especially on young people, and have been identified in the different regions as follows (the categories: associations, academic, national, provincial, local, international, museums, are based on information drawn from the J&P Directory):

Awareness Programmes (1993)

	<i>Assoct</i>	<i>Academ</i>	<i>Nationl.</i>	<i>Provl</i>	<i>Local</i>	<i>Interntl.</i>	<i>Museum</i>	<i>Totals</i>
<i>Africa</i>	29	0	14	0	0	4	2	49
<i>Asia</i>	12	9	12	0	1	0	6	40
<i>Europe</i>	98	21	23	8	10	19	8	187
<i>Latin America</i>	5	1	3	0	0	1	1	11
<i>North America</i>	12	5	7	0	1	3	4	32
<i>Oceania</i>	4	2	6	0	0	0	0	12
<i>Totals</i>	160	38	65	8	12	27	21	

This directory gives an idea of an important instrument for awareness, which is formed of associations or organizations addressing different age groups. Awareness is a fundamental issue in building a market for conservation, making local and central administrations, as well as the general public conscious of the needs, creating a request, and thus preparing working opportunities for trained conservationists.

4. Target groups and training curricula

In the past, training was often achieved through a period of travelling and apprenticeship. This allowed the necessary exposure to the profession, and an understanding of appropriateness in the use of specific methods. Until the nineteenth century, before formal training existed, architects and designers maintained contacts beyond local, provincial and national borders, through travel, publications, and debate. Research in cultural heritage has been gradually established since the nineteenth century. Conservation training exists mainly since the two or three decades. The majority of countries still depend on the possibility to attend courses abroad. Most existing conservation training programmes are addressed to a limited

range of specialized conservation professionals, e.g., restorers, conservators and architects. There is a need to give attention to surveyors, engineers, city-planners, site supervisors. There is also a need to involve inhabitants and political decision makers; ministries, legislators and local authorities are in a key position. The levels of involvement depend on the type of heritage.

Historic areas, towns, rural settlements, cultural landscapes:

- Decision-makers and legislators at central government level, Ministry of Public Works and Planning, Ministry of Culture, Ministry of Environment;
- Decision-makers at the regional or provincial levels;
- Local authorities, city councils, mayors; city planners, various services and municipal departments;

Historic buildings, archaeological sites:

- Decision-makers and legislators at central government level, Ministry of Culture, Department of Antiquities;
- Local authorities, municipal councils; city planners;
- Owners, building contractors; cultural site managers;
- Conservationists, scientists; technicians, craftspeople.

In relation to historic monuments, the main responsibility is mostly with the Ministry of Culture and relevant provincial and local authorities. For historic areas, towns, cultural landscapes, the responsibility is with the Ministry of Public Works or the corresponding state, provincial or local authorities that are responsible for planning. The priorities in training depend both on the type of site and on the structure of administration relevant to each country. In the United Kingdom, the Conference on Training in Architectural Conservation (COTAC) has listed some of the principal professions (with their profiles) who are involved in the conservation of historic buildings, towns, and sites. The list includes:

Administration

Administrator or Owner
Conservation Officer or
Historic Buildings Officer
Curator

Planning

Town Planner
Landscape Architect or
Historic Gardens Conservators

Research

Art/architectural Historian
Archaeologist

Project Management

Architect, Engineer (Civil or Structural)
Building Economist (Quantity surveyor)
Surveyors
Environmental Engineers

Conservation

Conservator
Materials Scientist

Execution

Builder or Contractor
Master Craftworker

In addition to these categories who will be professionally involved in the administration, management and execution of maintenance, repair, and conservation work, one should also add the general public, and the media responsible for communication.

4.1. *Curricula of courses*

Conservation of historic buildings, ensembles and sites requires a multi-disciplinary team of professionals, who should be able to carry out a whole range of actions. Such actions form together the critical process of conservation, and can be summarized as follows (Feilden-Jokilehto, 1993, 14):

- **Survey:** methodical inspection, survey and documentation of the resource, its historical setting and its physical environment;
- **Definition:** critical-historical definition and assessment of the object and its setting, so giving it its significance;
- **Analysis:** scientific analysis and diagnosis of the material substance and associated structural system with a view towards its conservation; and
- **Strategy:** long-term and short-term programmes for conservation and management of change, including regular inspections, cyclic maintenance and environmental control.

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. It can be summarized in the following points:

1. *Principles and ethics of conservation;*
2. *History of art, culture, and technology of heritage in the cultural area concerned;*
3. *Science and technology for survey, documentation, diagnosis and treatment;*
4. *Legal, administrative and cultural implications relative to the area;*
5. *Planning, management and execution of projects.*

Prof. Paul Philippot, Director Emeritus of ICCROM, has analysed the typology of the curricula for training specialists in the conservation of cultural heritage, and has proposed schematic variations according to the category of specialization. He divides the fields of application into five principal categories: architectural conservation (monuments and historic towns), conservation of museum collections, monuments and excavations, conservation of paintings and movable objects, conservation crafts, and laboratory specialists. Each category will require the appropriate proportion of training within the general scheme. (See appendix.)

The ICOMOS *Guidelines for Education and Training for the Conservation of Monuments, Ensembles and Sites* (1993) identify the groups of different persons working professionally in conservation - whether from an academic or practical background - with the common title as 'conservationists', and lists the skills required from them. The syllabus of education and training programmes needs to be adjusted to the group in question (re. ICOMOS *Guidelines*, par. 5):

- a) *read a monument, ensemble or site and identify its emotional, cultural and use significance;*
- b) *understand the history and technology of monuments, ensembles or sites in order to define their identity, plan for their conservation, and interpret the results of this research;*
- c) *understand the setting of a monument, ensemble or site, their contents and surroundings, in relation to other buildings, gardens or landscapes;*

- In England, COTAC has explored the professional profiles of conservationists, and has made a comparative chart on the basis of the above list. The chart is a summary of interdisciplinary consultations between sixteen professions, and shows what tasks different persons are expected to undertake. It is interesting that most people need to know most of the issues although obviously each is making the contribution according to his or her specific responsibility.

01. Administrator / Owner
02. Archaeologist
03. Architect
04. Art / Architectural historian
05. Builder / Contractor
06. Conservation Officer
07. Conservator
08. Engineer
09. Environmental Engineer
10. Landscape Architect
11. Master Craftworker
12. Materials Scientist
13. Building Economist
14. Surveyors
15. Town Planner
16. Curator

[illegible]

4.2. *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.

4.3. *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.

4.4. *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.

4.5. *Administrators and townplanners*

Environmental education and the development of awareness with administrators, townplanners, 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 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 sensitization and appropriate information is essential.

- Townplanners 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.

5. *Research, documentation and monitoring*

Cultural heritage is the product of generations of activities; 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, coordinated 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, 23ff, 54ff) 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 coordinated. 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 coordinated 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 coordination 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.

6. Teaching methods and materials

6.1. 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, townplanners, 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 coordination 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.

6.2. *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.

6.3. *Teaching facilities and material*

Training programmes should be supported by a good library and documentation centre with reference collections, possibility for coordinated 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. (Stovel, 1993)

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.

6.4. *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.

7. 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):

1. Teacher quality: academic stature and practical experience.
2. Student quality: academic preparation, experience.
3. Facilities: buildings, equipment, laboratories, libraries, lodging.
4. Content: allocation of time to specific topics.
5. Objective: What is the student trained to do?
6. Evaluation of students: continuous seminars and exams.
7. Location: availability of cultural resources within a reasonable radius (e.g., 100 km).

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.

8. Relationship of international, 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 coordination 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.

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, ICCROM, UNESCO, ICOMOS, ICOM, OWHC, and international instruments, such as the World Heritage Convention and The Hague Convention. In addition, there are other organizations, such as UNDP and the World Bank, and regional organizations, such as the Arab League, the Council of Europe, etc., which are equally working in fields that are close to conservation especially when 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 coordinated 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.

9. Networking and partnership

The essence and *raison d'être* for international collaboration is in the States Parties or Member States for the purpose of contributing to building up conditions for the protection and *mise-en-valeur* of cultural heritage. Within the international context, the task is to promote and facilitate networking and information exchange. Such network

of collaboration depends on the efficacy of communication, understanding the language, the common references to interpret messages, on management and sharing of information, and on the reliability and appropriateness of feed-back. The aim could be seen as keeping abreast of developments and anticipating trends (as is said in ICCROM's recent mission statements). Cultural traditions are often subtle, not easily grasped, and therefore vulnerable and easily isolated in the rapidly mechanising and "uniformalising" world community. It will be necessary to respond sensitively to different cultures and realities even within the same country, in order to define appropriate policies and strategies. Training is particularly sensitive to this diversity.

There will be a need to identify existing networks both at the international, regional and national level, i.e., organizations or institutions that can contribute to advancing awareness and action in different forms in relation to sustainable development and conservation, as well as, in particular, to education and training. The following list includes some of the existing international organizations and networks who already are or could potentially be contributing to the aims of the World Heritage Convention. The list can be completed later, and may be developed into a database.

- UNESCO (United Nations Educational, Scientific and Cultural Organization), IGO responsible for cultural heritage in its various forms including movable and built heritage, as well as non-physical heritage; the mother organization for numerous individual actions in the field of culture and cultural heritage. World Heritage Committee: responsible for safeguarding World Heritage Sites, management of World Heritage Fund; approval of guidelines and action related to World Heritage Sites. World Heritage Centre: coordination of action through collaboration with partners related to listing and safeguarding World Heritage Sites, contact with national authorities, site managers, coordination of reporting. Cultural Heritage Division: national commissions and regional offices, special campaigns in Member States, support to building training policies and strategies.
- ICCROM (The International Centre for the Study of the Preservation and Restoration of Cultural Property): IGO: movable and built cultural heritage; network of professionals having attended specialized training courses. General coordination of training at the international level, development of course curricula and guidelines for training, didactic methods and materials; coordination of activities in specific regions, support and advice on site-specific projects; site training through technical advisory missions, and workshops; preparation of monitoring and management guidelines. The objective of PREMA (Prevention in Museums in Africa) is to participate in the cultural development of sub-Saharan African countries to ensure the conservation of museum collections, and to establish a network of African professionals who can assume the responsibility of conservation of movable property and future training. A similar programme is launched in Oceania, PREMO (Prevention in the Museums of Oceania). The Gaia Project, organized jointly with CRATerre-EAG, aims at the preservation of earthen architectural heritage; it involves a network of professionals in field work and training.
- ICOMOS (International Council on Monuments and Sites), NGO, network of experts and professionals; concerned with furthering the conservation, protection, rehabilitation and enhancement of monuments, groups of buildings and sites; monitoring and reporting systems; technical advisory missions and workshops. Networks of international scientific committees have training activities in their

programmes: Stone (1967), Cultural Tourism (1969), Architectural Photogrammetry (CIPA, 1969), Historic Gardens and Sites (1970), Wood (IWC, 1972), Vernacular Architecture (CIAV, 1976), Rock Art (CAR, 1980), Historic Towns and Villages (CIVVIH, 1982), Stained Glass (1984), Training (CIF, 1984), Archaeological Heritage Management (ICAHM, 1985), Earthen Architecture (1987), Economics of Conservation (1988), Underwater Cultural Heritage (1991), Cooperation for Latin American Architectural Heritage (COPAL, 1988). Connection with other international associations forming networks: TICCIH (Industrial heritage), DOCOMOMO (modern movement in architecture), IFLA (landscape architects)

- ICOM (International Council on Museums), NGO, network of experts and professionals in the conservation of objects and movable heritage; Conservation Committee (ICOM-CC), Training Working Group responsible for development of training for conservator/restorers working with collections and in museums. Rolduc network founded by ICOM-CC and other ICOM committees, ICOMOS-CIF, IIC, ECCO, NEMO, and ICCROM. Specialized scientific committees on various subjects, e.g., museum architecture, ethnography, exhibitions, fine arts, glass, museums management, marketing and public relations, museology, museum security.
- OWHC (Organization of World Heritage Cities), NGO; network of mayors of World Heritage Cities; awareness initiatives, support to building networks, organization of conferences, workshops.
- APT International (Association on Preservation Technology), NGO; network of members mainly in North America; training courses, conferences.
- Jeunesse & Patrimoine International, NGO based in France, action in awareness and training especially for young people.
- Patrimoine sans Frontière, NGO based in France.
- Getty Conservation Institute, private US organization with projects in various countries, organization of training courses.
- COTAC (The Conference on Training in Architectural Conservation) is a national training network in the United Kingdom.

10. Elements for Action Plan

Strategic planning in the conservation of cultural heritage should aim at increasing awareness for conservation and building capacities in each country or region. International organizations, in devising a fresh approach which caters to the conservation and management needs of cultural sites, should also be able to mobilize potential donors and partners in each region.

Market building and awareness: Considering that consciousness of history and of heritage values is a basic condition for conservation, it will be necessary to favour such a process through relevant actions aiming at raising an intrinsic demand for conservation, and thus creating a market for working opportunities, sponsorship and relevant educational and training programmes for sustainable human development.

Heritage and needs: Preparation of relevant surveys in order to identify heritage resources and their specific conservation needs. Analysis of findings on a regional

basis and in the international context, and definition of issues, levels, target groups, and priorities of action underlining required strategies. Clarification of professional profiles, career structures of professions involved in conservation, and identification of types and appropriate levels of required training.

Sponsorship and identification of funding sources at both national and international levels; action to be taken through awareness building, creation of working opportunities for qualified, trained conservationists. This will require collaboration with planning authorities. Conservation needs to be seen in the framework of sustainable development, and as a priority for national economy and employment policy in each country; special appeals will be required for voluntary contributions.

Networking and institutionalization: Identification of existing networks related to conservation and sustainable development; organize a platform for the coordination of training strategies; develop a framework and communication system; build a network of qualified teachers, and necessary didactic facilities, and organize a network of individuals and institutions for the exchange of ideas and opinions on approaches to education and training between national institutes; identify and reinforce national centres for research and archiving cultural heritage and related conservation works;

Training Strategy: Identification of necessary elements required for training, and development of strategies compatible with the aims of relevant partner organizations. It will be important to identify short-term measures in order to get the process on its way, as well as identifying a continuous improvement process where research, training, documentation and monitoring play essential parts. Such initiatives can include introduction of elements into existing training schemes that contribute to leading to fully developed programmes, regular assessment of existing conservation training programmes, and forming a system of exchange of information for teachers and educational institutions to be updated about existing resources and means.

10.1. Steps needed for building the strategy

There is a need to identify steps to be taken to prepare the required strategy. This first report could be considered the initial step in this direction including: the meeting at UNESCO on collaboration 6 February 1995 and agreement that ICCROM prepare a draft document on training strategy. Preparation of the draft document for training strategy (March 1995) and first consultations between UNESCO, ICCROM and ICOMOS, 29 May 1995.

- * July 1995: presentation of draft report to the World Heritage Bureau.
- * June-October 1995: Process of regional consultation and cooperation with partners.
- * December 1995: finalization of training strategy document and presentation to World Heritage Committee.
- * 1996-1997: Refinement of regional implications and beginning of the implementation of strategy.

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Appendix

1. ***Guidelines on Education and Training in the Conservation of Monuments, Ensembles and Sites (ICOMOS)***

The General Assembly of the International Council on Monuments and Sites, ICOMOS, meeting in Colombo, Sri Lanka, at its tenth session from July 30 to August 7, 1993;

Considering the breadth of the heritage encompassed within the concept of *monuments, ensembles and sites*;

Considering the great variety of actions and treatments required for the conservation of these heritage resources, and the necessity of a common discipline for their guidance;

Recognizing that many different professions need to collaborate within the common discipline of conservation in the process and require proper education and training in order to guarantee good communication and coordinated action in conservation;

Noting the Venice Charter and related ICOMOS doctrine, and the need to provide a reference for the institutions and bodies involved in developing training programmes, and to assist in defining and building up appropriate standards and criteria suitable to meet the specific cultural and technical requirements in each community or region;

Adopts the following guidelines, and *Recommends* that they be diffused for the information of appropriate institutions, organizations and authorities.

Aim of the Guidelines

1. The aim of this document is to promote the establishment of standards and guidelines for education and training in the conservation of monuments, groups of buildings ("*ensembles*") and sites defined as cultural heritage by the World Heritage Convention of 1972. They include historic buildings, historic areas and towns, archaeological sites, and the contents therein, as well as historic and cultural landscapes. Their conservation is now, and will continue to be a matter of urgency.

Conservation

2. Conservation of cultural heritage is now recognized as resting within the general field of environmental and cultural development. Sustainable management strategies for change which respect cultural heritage require the integration of conservation attitudes with contemporary economic and social goals including tourism.

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.

Educational and Training Programmes and Courses

4. There is a need to develop a holistic approach to our heritage on the basis of cultural pluralism and diversity, respected by professionals, craftspersons and administrators. Conservation requires the ability to observe, analyze and synthesize. The conservationist should have a flexible yet pragmatic approach based on cultural

consciousness which should penetrate all practical work, proper education and training, sound judgement and a sense of proportion with an understanding of the community's needs. Many professional and craft skills are involved in this interdisciplinary activity.

5. Conservation works should only be entrusted to persons competent in these specialist activities. Education and training for conservation should produce from a range of professionals, conservationists who are able to:

- a) read a monument, ensemble or site and identify its emotional, cultural and use significance;
- b) understand the history and technology of monuments, ensembles or sites in order to define their identity, plan for their conservation, and interpret the results of this research;
- c) understand the setting of a monument, ensemble or site, their contents and surroundings, in relation to other buildings, gardens or landscapes;
- d) find and absorb all available sources of information relevant to the monument, ensemble or site being studied;
- e) understand and analyse the behaviour of monuments, ensembles and sites as complex systems;
- f) diagnose intrinsic and extrinsic causes of decay as a basis for appropriate action;
- g) inspect and make reports intelligible to non-specialist readers of monuments, ensembles or sites, illustrated by graphic means such as sketches and photographs;
- h) know, understand and apply Unesco conventions and recommendations, and ICOMOS and other recognized Charters, regulations and guidelines;
- i) make balanced judgements based on shared ethical principles, and accept responsibility for the long-term welfare of cultural heritage;
- j) recognize when advice must be sought and define the areas of need of study by different specialists, e.g. wall paintings, sculpture and objects of artistic and historical value, and/or studies of materials and systems;
- k) give expert advice on maintenance strategies, management policies and the policy framework for environmental protection and preservation of monuments and their contents, and sites;
- l) document works executed and make same accessible.
- m) work in multi-disciplinary groups using sound methods;
- n) be able to work with inhabitants, administrators and planners to resolve conflicts and to develop conservation strategies appropriate to local needs, abilities and resources;

Aims of Courses

6. There is a need to impart knowledge of conservation attitudes and approaches to all those who may have a direct or indirect impact on cultural property.

7. The practice of conservation is interdisciplinary; it therefore follows that courses should also be multidisciplinary. Professionals, including academics and

specialized craftspersons, who have already received their normal qualification will need further training in order to become *conservationists*; equally those who seek to act competently in historic environment.

8. Conservationists should ensure that all artisans and staff working on a monument, ensemble or site respect its significance.

9. Training in disaster preparedness and in methods of mitigating damage to cultural property, by strengthening and improving fire prevention and other security measures, should be included in courses.

10. Traditional crafts are a valuable cultural resource. Craftspersons, already with high level manual skills, should be further trained for conservation work with instruction in the history of their craft, historic details and practices, and the theory of conservation with the need for documentation. Many historic skills will have to be recorded and revived.

Organization of Education and Training

11. Many satisfactory methods of achieving the required education and training are possible. Variations will depend on traditions and legislation, as well as on administrative and economic context of each cultural region. The active exchange of ideas and opinions on new approaches to education and training between national institutes and at international levels should be encouraged. Collaborative network of individuals and institutions is essential to the success of this exchange.

12. Education and sensitization for conservation should begin in schools and continue in universities and beyond. These institutions have an important role in raising visual and cultural awareness - improving ability to read and understand the elements of our cultural heritage - and giving the cultural preparation needed by candidates for specialist education and training. Practical hands-on training in craft work should be encouraged.

13. Courses for continuing professional development can enlarge on the initial education and training of professionals. Long-term, part-time courses are a valuable method for advanced teaching, and useful in major population centres. Short courses can enlarge attitudes, but cannot teach skills or impart profound understanding of conservation. They can help introduce concepts and techniques of conservation in the management of the built and natural environment and the objects within it.

14. Participants in specialist courses should be of a high calibre normally having had appropriate education and training and practical working experience. Specialist courses should be multi-disciplinary with core subjects for all participants, and optional subjects to extend capacities and/or to fill the gaps in previous education and training. To complete the education and training of a conservationist an internship is recommended to give practical experience.

15. Every country or regional group should be encouraged to develop at least one comprehensively organized institute giving education and training and specialist courses. It may take decades to establish a fully competent conservation service. Special short-term measures may therefore be required, including the grafting of new initiatives onto existing programmes in order to lead to fully developed new programmes. National, regional and international exchange of teachers, experts and students should be encouraged. Regular evaluation of conservation training programmes by peers is a necessity.

Resources

16. Resources needed for specialist courses may include e.g.:
- a) an adequate number of participants of required level ideally in the range of 15 to 25;
 - b) a full-time co-ordinator with sufficient administrative support;
 - c) instructors with sound theoretical knowledge and practical experience in conservation and teaching ability;
 - d) fully equipped facilities including lecture space with audio-visual equipment, video, etc., studios, laboratories, workshops, seminar rooms, and staff offices;
 - e) library and documentation centre providing reference collections, facilities for coordinated research, and access to computerized information networks;
 - f) a range of monuments, ensembles and sites within a reasonable radius.
17. Conservation depends upon documentation adequate for understanding of monuments, ensembles or sites and their respective settings. Each country should have an institute for research and archive for recording its cultural heritage and all conservation works related thereto. The course should work within the archive responsibilities identified at the national level.
18. Funding for teaching fees and subsistence may need special arrangements for mid-career participants as they may already have personal responsibilities.

(August 1993)

2. Urban Conservation Initiative, UCI

Workshop on training, ICCROM, 16-18 Feb. 1995

FINAL REPORT

Purpose and mandate

The workshop on training in urban conservation, 'Urban Conservation Initiative', UCI, was organized by ICCROM in Rome from 16 to 18 February, 1995. The meeting was the result of an agreement between ICCROM, OWHC and ICOMOS, and it was attended by representatives of UNESCO and other organizations related to urban conservation and training (see list).

The concept of 'urban conservation' was conceived in the broad sense as related to historic areas in general, and in the spirit of the UNESCO Nairobi Recommendation of 1976. The aim of the Workshop was twofold:

- 1) To establish the Urban Conservation Initiative, UCI, as a network for the exchange of ideas, initiatives, and programmes, and as a vehicle for coordination, to avoid competition and overlap, to improve collaboration, to improve effective use of limited resources.
- 2) To prepare a draft document with recommendations concerning appropriate strategies for collaboration in training in urban conservation planning and management, relevant to international, regional or local requirements, as well as related to World Heritage Cities.

The objectives of the meeting were conceived as follows:

- 1) Identification of existing initiatives on the basis of brief presentations by participants: clarification of training objectives, target groups, working context, support structures, organizational mechanisms, history of specific initiatives, success indicators, future concerns and plans.
- 2) Definition of a vision for training in urban conservation; identifying goals to be achieved through training, taking into consideration the requirements of different target groups and different situations.
- 3) Exchange on key urban conservation issues of the mid 1990s: What are the hot topics and priorities, and whether these are shared or seen in different ways by different groups? How are these issues being currently explored? Where are resources to deal with them? Who is carrying out significant research?
- 4) Identification of possible joint ventures among groups and individuals (e.g., international, regional or national organizations).
- 5) Identification of means of exchange of information and communication.
- 6) Nomination of a working group for further elaboration of the results of the meeting, and for the organization of future contacts within the network.

Methodology

The meeting was chaired by Marc Laenen; Herb Stovel acted as the 'synthesizer', and Jukka Jokilehto prepared the minutes. The goals and expectations were presented by organizers, brief presentations were given by participants on the initiatives and programmes of their organizations. The meeting had an informal character; it

included brainstorming sessions on specific issues, and separate working groups were organized on the management process and related issues.

Review of discussions

The first day of the workshop was used to get acquainted, to explore the concept of urban conservation, and to discuss trends and priorities. The second day was used to define actions, and the third day to finalize the recommendations and to define an action plan.

Definition of concepts

The debate was developed from the understanding and preliminary definition of terminology, such as 'urban', 'urban conservation', 'change', 'management'. The following text is based on the minutes taken during the meeting.

Historic settlements were conceived as cultural complexes, that include the population and tribes. The complexity is reflected in material heritage and the fabric of historic areas. On the other hand, any town has historic values; the difference in heritage is in the implementation. It is essential to consider historic urban areas with their social and cultural context, and not to look only at the material part of this heritage, as defined in the UNESCO Nairobi Recommendation of 1976. There is a need to define the pathology of problems involved, and advance methods for their identification.

Urban conservation was conceived in the broad sense, involving relevant built and natural heritage, and including cultural landscapes, and urban and rural settlements with all their elements, gardens, archaeological areas, as well as all immaterial, social and cultural issues that are related to a context. Urban centres live in osmosis with their environment, and therefore the surroundings should not be excluded. Buffer zones may have a negative impact if not considered properly. Urban conservation is a long process guided by necessities. There are many parameters to consider, such as housing, economics, accessibility, as well as other issues that may become obstacles.

Change and the speed of acceleration are essential elements in relation to development and urban conservation. Inappropriate and too rapid change will cause major problems not only in urban areas but also in the rural context. Sustainable development and change, instead, are vital for the conservation of a dynamic, living historic area. There should be an equilibrium between the 'urban area' and the 'environment'.

Planning is understood in relation to the 'management of change'. Authentic heritage is something 'living', and has its own creative life. Continuity in a community should be seen as one of the major objectives in planning of conservation. Conservation could thus be seen as 'what', planning as 'how', and continuity as 'why'. Sustainable development could be taken as the starting point, and investments in conservation could be managed as part of this with due consideration of industry and crafts.

Actors

The actors participating in the planning and conservation management of historic settlements may include: institutions, politicians (top policy makers and interdepartmental coordinators), administrators (heritage managers), planners (site managers), professionals and technicians (heritage staff with various technical responsibilities), educators (information and communication officers for government, community, public, schools, and media, as well as university instructors), population.

Rather than preparing norms one should work on the basis of necessities (exigencies) to give guidance for training the various disciplines.

ICCROM, UNESCO, and other cultural organizations responsible for heritage should think together, and work with state agencies, local communities and enterprises, universities and training centres, to develop new types of training and awareness programmes. Organizations such as the World Bank should be encouraged to integrate heritage concepts in their programmes. Partnership and initiatives are particularly important for system development and monitoring, and risk preparedness.

Considering that urban conservation involves planning decisions, it will be fundamental to understand the decision-making process, the power play, and to develop methods that favour conservation in this context. Conservation professionals should also play the game with other partners, such as politicians. It is essential to encourage inhabitants to participate at least at the minimum level. In developing countries that have a labour-intensive system of work, this in itself is involving people in maintenance and repair.

Management

The methodology required to approach urban conservation and planning of historic areas, involves 1) knowledge of the heritage, documentation, and analysis; 2) identification of resources and projects; and 3) implementation and carrying out of programmes. Urban conservation needs the instruments to plan and manage this process. Such a methodology may be similar in different cases, although the elements will vary from case to case; therefore, it will be important to know the elements in the process.

Conservation management will refer to heritage as a resource issue, and should adopt objective means that are clear to everybody. Documentation should be carried out on a sure basis, and research should be planned according to a clear goal. Management methodology involves monitoring and verification of feedback. There is a need to involve inhabitants in the process, and obtain a consensus of their needs. Professionals should then technically provide the means required for modification and management. There is a need to emphasize that 'humanity is the heritage of a town' and not the other way round.

Some of the main problems that are faced at present result from rapid development, insufficient legal provision, difficulty in interdepartmental coordination of policy, planning, execution and monitoring. There is insufficient political intent, lack of knowledge of values, and lack of resources in comparison to needs. It will be important to include conflict management into the scheme. There is a need to promote strategic thinking, advocacy, legal regulation, and clear action plans. Furthermore, there is need for shared values and common language among planning partners especially in the middle level.

Time should be understood as a parameter, because we need to act on a continuous basis. In many cases, we should make sure that time does not work against protection. We also need to be prepared to take decisions about measures in cases of emergency. Risk preparedness plans can be used as test models. In practice, there needs to be some control and monitoring about the implementation. Various actors have different objectives. Who are beneficiaries? Should we force governments to take care of historic towns?

Awareness and Training

Those in charge of the conservation of historic towns should be able to take care of both material and immaterial issues involved. Conservationists need to learn to read the decision-making environment, and they need the capacity to assist in the implementation of decisions through legal and other means. It is necessary to be clear about language, and make sure that this is related to the necessary issues. In urban conservation, emphasis should be placed on urban planning problems, such as traffic and pollution.

Heritage is a resource which has to be promoted in the right way. This may include methods that have not been used so far, such as marketing, the four P's: product, price, promotion, and place. The keywords should be tailored accordingly. One of the main topics is 'promotional tools', but we should look at the question from the cost-benefit point of view and understand what can be gained by all parts. We have to use a vocabulary which can be understood by the people involved, and we have to see it in a broader context than just conservation.

Main issues to be covered in training include: setting laws, acts and bylaws vs. national policy; building codes and design guidelines; enactment, control and incentive measures, documentation management, information, communications. Test models should be designed, where processes can be speeded up or slowed down in a measurable way. Risk-preparedness process is an interesting model for testing these, but a model is also required for monitoring. These serve to identify the weak points. Training should be constantly evaluated in order to form a basis for the next event, and it should be rather spontaneous not to lose momentum. Outsiders can be used as catalysts in workshops with decision makers.

We have to show that we deal with responsibility in front of the problems we have. We have to be efficient, and be realistic about what we can achieve at the different levels. We should not be ashamed of what is not feasible. We should publicize better what has been achieved in the past to make people aware of their values. The passage from theory to practice is often difficult, and should be discussed in training programmes. Today there is a gap that needs to be repaired in training programmes in this regard. The problem is shown particularly in relation to armed conflicts, and to natural catastrophe, but it exists even in peace time. Sometimes too much money can lead to the destruction of cultural heritage due to the lack of culture. It will be necessary to emphasize the different levels of values of heritage as these are often not understood by politicians, and sometimes not even by those responsible for the heritage. Teaching is fundamental in this context. Universities are in a key position, and should do more than they have done so far. The really delicate problem is the moment of reconstruction. We need to prepare the people to face this dramatic situation.

Strategic plan

The aim of the workshop, to avoid overlaps and try to use properly the limited resources, gives a good basis for the establishment of priorities. In training there is a need to focus on values. Conservation in many countries is not a priority. We should be able to demonstrate that conservation 'pays'. Priorities could be defined as the strategies of action. These may vary a lot from case to case.

There is a need to define the process for getting from a model to action. This could involve establishing commissions in relation to specific issue, such as identification and understanding of values, integrated planning based on shared values, and

strategic thinking leading to advocacy, legal regulations and execution. For each issue there would be corresponding action at the local, national, regional, and international level. Results that are achieved should form a filter to test new projects.

Review of working group reports

The group on values thought about a five-year plan, and decided not to think about ICCROM specifically. An essential international course is necessary, and in order to establish this, we have to go through a learning process. This course may have 'satellite' courses, and it should be related to regional training programmes. There should be a clearinghouse for information, and short conferences could be held for trainers to allow for constant exchange of information. One of the priorities is to make sure that values are clarified and understood, and that historical continuity is guaranteed in a community. The management process needs to clearly identify the actors and related needs in terms of awareness and understanding of values. Values must be identified with the qualities of the heritage resources; organizations like ICCROM should come closer to human beings. There is a need to build a link between heritage resources and the actors; in fact, heritage itself can be seen as a means of communication, but it needs to be properly interpreted.

Group two looked at the integrated planning and strategic thinking phase, and what it meant to think about shared values. The group discussed the development of a Strategic success process which would assist in taking conservation values into account. There are methods to identify partners and getting out of conflict situations in a professional way. First one needs to identify one's own values, then identify the negotiation arena, who are concerned, partners and their values and concerns, what would they defend. Some values may not be shared, but a common ground should be found as a basis for the proposal. First one should identify the method of negotiation, then negotiate, get an agreement, and formalize it. The process should be implemented and monitored. The objective is to sensitize to the need for such a strategic success process, and this could be done through regional workshops by invitation, and through pilot projects.

The third group dealt with a general, symbiotic overview of urban conservation. The group wanted to recall the general aim set for the workshop, and emphasized the need to capitalize on existing operational centres. UCI should be based on centres which are operational, including organizations with specific interests, such as OWHC, who in themselves form networks. The first action for the primary participating organizations will be to draft a strategy document, identifying existing activities, the action to be taken, and the necessary criteria. The existing and potential partners can be classified on the basis of their connection with the heritage sites and the population. The specific needs of different countries are dictated by priorities, which often depend on emergencies, such as natural disasters and armed conflicts. There is a need to establish relevant data bases as a basis for action planning. It was noted that short-term actions with concrete results should be given visibility especially in an early phase of the awareness-raising process to convince the population of the potential benefits of conservation.

Action plan

General aim of the action plan for development of training in urban conservation

- considering the quick and dramatic changes now occurring within environmental factors,
- considering the consequences on cultural heritage and human settlements, and

- in the perspective of sustainable development,
- the aim is to facilitate the implementation of heritage conservation awareness in the decision making process in relation to urban and rural planning.

Specific goals for a coherent training strategy are to:

1. develop and promote ICCROM as a centre of expertise, and as a resource centre for training in urban conservation management;
2. develop a network of support from existing and potential partners at local, national, regional and international levels;
3. build around ICCROM a network of trainers in the field of urban conservation management;
4. identify people who by training or through field work can share experiences and diffuse knowledge, and who are qualified to deal with specific issues (such as risk preparedness, and monitoring) relevant to the actual reality;
5. promote a system approach to training in urban conservation, involving a global vision, strategic planning, tactical problem-solving techniques, implementation procedures, preparation of operational guidelines, and the use of monitoring tools.

Objectives:

1. Produce and diffuse 'key documents' on training strategies and urban conservation management;
2. Create UCI within ICCROM
 - Staff (coordinator)
 - Partnership (network)
 - Documentation (relevant existing experiences, research, publications, etc.)
 - Database (electronic link and information system)
 - Training programme (define issues, partners, teaching resources, budgets, etc.)
 - Publications, didactic materials
3. Implement training programmes (using opportunities)
 - Pilot workshops (regional, thematic) 1 in 1995 (Split), 3 in 1996 (Risk mitigation, OWHC, York)
 - International session (Rome) 1997
 - Meeting UCI in 1997 for evaluation
4. Field experiences
 - organization of a series of workshops on pilot cases (1995-1997)

Implementation, process responsibilities

During the meeting, each participant gave a brief outline of potential actions that the relevant organizations could take. The following is a list of the main topics that were mentioned.

Policy development

There were proposals to develop action at several levels; this would involve preparation of policy and strategy documents with international organizations (UNESCO, ICCROM, OWHC) that reflect a long-term structural collaboration in training. There is a need to develop more specific guidelines in training related also to

particular technical issues, such as monitoring and risk preparedness. ICCROM should produce an information sheet to diffuse worldwide to indicate what ICCROM and UNESCO can do in this regard in collaboration with other organizations and Member States. It will be important also to start a more systematic coverage of urban conservation in specialized media - especially with the help of UNESCO, including articles about urban qualities. Pilot projects should be promoted to show tangible results.

Organization of conferences and establishment of network

Several participants proposed to collaborate in the organization of seminars and meetings on urban conservation in the future, to involve professionals, and to participate in the establishment of a network in urban conservation training. The network could take advantage of existing policies in organizations, e.g., Central European countries, or east-west connection referring to Southern Asia. Professional organizations and networks of teachers will be an invaluable tool in keeping contacts in this regard. (ICCROM, OWHC, ICOMOS CIVVIH, Palais de Chaillot, York, Leuven, India) The workshop proposed to take specific action to ensure a focus on heritage conservation in the context of international and regional conferences on sustainable development and related topics. (UNESCO, Habitat 1996, OWHC, Risk preparedness)

Data bases

There was a general agreement to continue working on databases, and to develop new ones specifically on the needs of urban conservation. Such databases could facilitate the comparison of results in urban conservation related to pilot projects. (ICCARHE, Council of Europe, Palais de Chaillot, Split) Terminology is another issue where attention is needed. (Palais de Chaillot)

Training, awareness, and training of trainers

Several participants proposed to check their current training programmes, and to see that the recommendations of the workshop be well integrated into them. (Montreal, ICCROM, Leuven, Split, Tunis) It was further proposed that faculties of architecture should be informed in a systematic manner of ICCROM and its activities.

There were also several proposals for the development of new training programmes, referred to the recommendations of the workshop, e.g., as intensive short courses (India, York), or regional training programmes. An international course should be developed at ICCROM to be offered possibly every two years. This would involve also development of new formulas for training. (Palais de Chaillot) Particular attention should be given to training of trainers. (ICCROM, India) It was proposed to use risk preparedness training as a testing model in urban conservation.

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3. *A Typology of Curricula for Training of Specialists in Conservation*

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(Published in *Newsletter 2, 1974, of ICCROM*)

Conservation as a Specific Discipline

Although the need for a sufficient number of adequately trained conservation specialists to safeguard the cultural patrimony is now at least recognized these days as being of primary importance, there is still, nevertheless, considerable confusion in public opinion and some uncertainty amongst the responsible authorities themselves as regards the specific qualifications required for this task.

One of the main reasons for this state of affairs is that, even when conservation is increasingly recognized as a specific discipline, the specialist in conservation still does not appear as a clear and well defined figure like those, established by a long professional tradition, of the physician, the solicitor, or the engineer. It may, therefore, be of some interest to try to describe, in a schematic way, the main categories of specialists responsible for conservation work and the type of training necessary for each of them.

Categories of Specialists in Conservation

The various specialists involved in the different fields of conservation may be classified as follows:

Architects, engineers and town planners specialized in problems of architectural conservation, conservation of historic centres and landscape, or in organizing areas of cultural importance. It should be noticed that regular curricula in architecture, townplanning or engineering do not per se qualify for architectural conservation. Such a qualification requires specialization either during or after university studies.

Historians, art historians and archaeologists responsible for departments of monuments or antiquities, and museum curators, who decide on policy of conservation to be followed but do not carry out the operations themselves.

Foremen in charge of directing practical conservation work on buildings or ruins.

Restorers and conservators. Two distinctions should be made here. Firstly, between the various fields of specialization, such as: paintings, polychrome sculptures, archaeological and/or ethnographical objects, textiles, paper, drawings and printed materials, etc. Secondly, differentiation should be made between the two levels of competence. This difference in standard is becoming more and more generally recognized, and may be expressed in terms of qualified restorers (conservators) and technicians in conservation (1).

By *qualified restorer (conservator)* we mean a restorer (conservator) specialized in a more or less extended field where he has shown ability in identifying and solving problems and, consequently, deciding on treatment and carrying it out. This qualification should correspond to a training and a function of university level.

By *technician in conservation* we mean a restorer (conservator) whose work is of an adequate standard but has to be supervised by a qualified restorer. This should correspond to a training and function of a technical nature or secondary level.

Artisans: Practical operations of conservation or restoration in most fields may require the contribution of traditional artisans whose craftsmanship must be adjusted to the specific requirements of conservation and who always work under the direction of a restorer or foreman.

Conservation scientists and laboratory technicians: Chemists, physicists, biologists, engineers and laboratory technicians represent the scientific examination and technological research required for the identification of causes of deterioration, adjusting and improving methods of conservation. However, they themselves do not normally operate on the objects, as this comes within the sphere of the restorers, technicians in conservation and sometimes the artisans.

Fundamental Curriculum for Training of Specialists in Conservation

As one can see, the various specialists involved differ from one another according to the kind of object they are dealing with and the nature of their contribution in the general process of conservation. These differences will of course require corresponding differences in the curriculum of their training. However, in as much as conservation is indeed one specific discipline, it is obvious that a basic methodology, a way of organizing knowledge common to all, whatever the field of specialization may be, must be drawn up.

In order to clarify both this common knowledge, which unites the discipline, and the variations according to the categories of specialists under consideration, we would like to suggest a draft typology of the curriculum required for the training of each category. Terminology has been as far as possible unified in order to stress the basic unity of conservation methodology.

From this point of view, the common structure of curricula for training in any conservation field might be summarized as follows:

- theory and history of restoration;
- history of art and culture in the field of specialization;
- history of technology in the field of specialization;
- methods of examination of objects in the field in question from the aesthetical, archaeological, scientific and technical points of view;
- knowledge of materials and causes of their deterioration;
- documentation;
- organization of conservation work.

Theory and history of restoration include those basic principles which define the values to be safeguarded and the aesthetical and historical problems of restoration. The knowledge of the history of restoration is essential for those specialists who have to make decisions on conservation policy, because this will help them appreciate the relative value of taste during different ages and suggest greater prudence in interventions.

History of art and culture in the field of specialization provides, on the other hand, the only way to have up to date scientific knowledge of the nature of historical and aesthetical values to be safeguarded.

The history of technology is essential in order to establish the connection between the cultural significance and material structure of the object which has to be preserved and on which the intervention will take place.

The study of the object from both the point of view of its cultural significance and its technical structure and condition calls for the knowledge of the methods of examination corresponding to these approaches, which should complement each other.

The knowledge of materials and their causes of alteration is of course fundamental and must be articulated with the understanding of the object as a whole, with its specific structure and signification. Such knowledge, together with the knowledge of environmental conditions, their variations and effects on the various materials, summarized here under the item "Climatology", should make it possible to reach a scientific understanding of the processes of alteration, and to control them rather than cure their effects without eliminating or at least reducing the causes of deterioration.

The methods of conservation and restoration include all the theoretical knowledge and practical experience which are required in order to devise and carry out treatment, considering both the technical and cultural points of view.

Technical documentation includes all the documentation techniques required by the field under consideration and writing technical reports.

Finally, the organization of conservation work is a necessary part in the training of those specialists who will have to direct team work, especially when this - as will generally be the case - is interdisciplinary in nature.

As can be seen the various subjects under consideration appear as part of an organic whole, the structure of which results from their common orientation towards the same goal: conservation. They may, therefore, be considered as a scheme of general validity for any training in conservation, whatever may be the field of specialization. From this point of view, it should be especially emphasized that each subject has to be worked out by the professor with regard to its practical application to conservation. This is why we prefer not to speak of chemistry and physics, but rather of knowledge of materials, which implies a special orientation of the knowledge gained through chemistry and physics, and therefore a specific structure of the course, completely different from that which is common in academic training. In the same way, history of art for restorers should be closely linked with history of techniques, in order to strengthen the indispensable association between the technical and the cultural aspects of conservation problems, and between the specialists of these two approaches: museum curators or superintendents of monuments and antiquities, architects and restorers (conservators), laboratory specialists. This requires professors with very broad personal experience who will have to present their specialized knowledge in a form that makes it immediately useful to meet actual conservation problems.

Proposed typology of curricula for various fields of specialization in conservation

The general scheme proposed above will of course be subject to more or less important variations according to the field of specialization under consideration. Such variations, however, will not modify the basic methodological structure which is common to all fields of conservation, since they will not concern the approach, but only the matter which will change from sector to sector, and the extension and standard of knowledge required according to the categories of persons concerned.

The following schemes are an attempt to express such variations on the basis of the general scheme proposed above. The terminology has been unified as much as possible in order to emphasize both the common foundations and the specific differences.

I. Architectural Conservation: Monuments and Historic Centres

1. For architects, engineers, townplanners. In reduced form for superintendents of monuments and antiquities and for archaeologists.

Syllabus:

- theory and history of restoration;
- history of architecture and townplanning;
- methods of analysis of architecture and historic centres;
- history of building technology;
- knowledge of materials;
- causes of alteration of buildings and historic centres (social and economic, physical);
- methods of architectural conservation and restoration;
- technical documentation;
- organization of fieldwork.

2. For foremen:

Syllabus:

- elementary theory of restoration;
- history of building technology;
- knowledge of materials and their causes of alteration;
- techniques of intervention;
- technical documentation;
- organization of fieldwork.

II. Departments in charge of Museums, Monuments and Excavations

1. For art historians, archaeologists, administrators of museums and antiquities or monuments.

Syllabus:

- theory and history of restoration;
- elementary history of technology;
- elementary methods of archaeological and technological examination;
- elementary knowledge of materials and their causes of alteration (including socio-economical causes for departments of monuments and sites);
- elementary climatology;
- elementary technical documentation;
- information on principal methods of conservation.

III. Conservation and Restoration of Paintings and Movable Objects

1. For qualified restorers.

Syllabus:

- theory and history of restoration;
- elementary history of art in the envisaged field of specialization;
- history of technology in the envisaged field of specialization;
- methods for critical and technological examination of objects;
- knowledge of materials and their causes of alteration;
- climatology;
- methods of conservation and restoration;
- technical documentation.

2. For conservation technicians.

Syllabus:

- elementary theory of restoration;
- elementary methods of critical and technological examination of objects;

- elementary knowledge of materials and their causes of alteration;
- elementary climatology;
- methods of conservation and restoration;
- technical documentation.

IV. Artisans (refresher courses)

Syllabus:

- elementary theory of restoration;
- practice of traditional techniques and their adaptation to conservation and restoration.

V. Laboratory specialists

1. For chemists, physicists, etc.

Syllabus:

- theory and history of restoration;
- history of technology in the field of specialization;
- methods of scientific and technological examination (analysis and measurements);
- knowledge of materials and their causes of alteration;
- knowledge and testing of conservation processes;
- climatology;
- laboratory documentation.

The Interdisciplinary Character of Conservation

Conservation work, the specific character of which we have tried to outline here, is interdisciplinary in two ways. Firstly, because each specialists in conservation is required to extend his information beyond the specific, traditional training field from which he came to conservation, whether he be architect, chemist, artisan or restorer in the traditional sense. Secondly, because the practice of conservation always requires some form of collaboration between various categories of specialists involved, each of whom concentrates on one particular part of the whole process. It is obvious, therefore, that the basic structure that is common to the training of all categories is also the condition for their fruitful collaboration and that this collaboration will be all the more efficient when each category is conscious of its own limitations and of its position in the general context of the work.