



INTERNATIONAL CENTRE FOR THE STUDY OF THE PRESERVATION AND THE RESTORATION OF CULTURAL PROPERTY  
CENTRE INTERNATIONAL D'ETUDES POUR LA CONSERVATION ET LA RESTAURATION DES BIENS CULTURELS

**ICCROM**

## INTERNATIONAL MEETING OF COORDINATORS OF TRAINING IN ARCHITECTURAL CONSERVATION



REUNION INTERNATIONALE DES  
COORDINATEURS POUR LA FORMATION  
EN CONSERVATION ARCHITECTURALE

UNESCO - ICCROM - ICOMOS  
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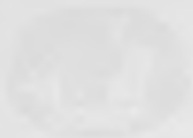
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CONSERVATION ARCHITECTURALE**

**ICCROM - ROME**



WORLD

INTERNATIONAL MEETING OF  
EXPERTS ON THE CONSERVATION OF  
ARCHITECTURAL MONUMENTS

THE INTERNATIONAL CENTRE FOR  
THE CONSERVATION OF CULTURAL  
HERITAGE

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Cover: G. Valadier: Drawing for the restoration of the Arch of Titus,  
in "Narrazione artistica dell'operato finora nel restauro  
dell'arco di Tito", Rome 1822.

## CONTENTS

i)	Introduction	5
ii)	Programme	9
iii)	List of Participants and observers Liste des participants et observateurs	11
iv)	Opening speech by Professor Cevat Erder	15
	Discours de M. le Professeur Raymond Lemaire	17
v)	Papers presented at the meeting: Rapports présentés à la réunion:	
	Boiret, Y.	21
	Bonelli, R.	35
	Ustünkök, O.	47
	De Long, D.	63
	Linstrum, D.	71
	Marasovic, T.	85
	Di Stefano	93
	Barthélemy, J.	113
	Wohlert, V.	125
	Zador, M.	131
	Mutal, S.	141
	Silva Telles, A.	175
	Gazaneo, J.	191
	Jokilehto, J.	195

vi)	Brief summary of discussions Bref résumé des discussions	203
vii)	Final Report and Recommendations Rapport final et recommandations	219 223
Annex I	Conclusions and Recommendations of the meeting held in Pistoia, 9-14 September 1968	229
	Conclusions et recommandations de la réunion tenue à Pistoia du 9-14 septembre 1968	231
Annex II	Conclusions et suggestions du séminaire tenu à Naples du 6-7 février 1981	233

## INTRODUCTION

In the last twenty years there has been an increasing demand for training in architectural conservation, and several post-graduate or mid-career courses have been established in various countries of the world. According to ICCROM's Training Index there are 41 post-graduate or specialized diploma courses: six in North America, five in Latin America, two in Asia, one in Oceania, twenty-seven in Europe, and none in Africa. Many universities have also included conservation as part of regular architectural training. Although some countries have well-established courses and others do not, many national training programmes also accept foreign students, thus helping the situation to some extent. Many countries, however, feel the need to build up their own training programmes in order to give better consideration to their own specific requirements.

With the increase in training many problems have also arisen due to the complex nature of conservation activity and divergent attitudes toward the often very delicate and subtle character of cultural property. On the one hand, we deal with technologies that are no longer practised, and structures that with time have formed an environmental whole in their geographical-climatic position. On the other hand, we have to make an architectural, artistic and archaeological evaluation of a building or an area in order to reach a balanced judgement for correct action. This is often difficult due to conflicting cultural, socio-economic or political interests.

All this certainly puts complex demands on training in this field. An experienced multidisciplinary team of teachers is needed, and close contacts with reality are essential in order to guarantee good results. Well-qualified teachers are rare and didactic material could be much improved. Further research and better understanding of correct procedures in conservation need continuous attention. In many cases international contacts and collaboration have brought constructive results.

It was decided, therefore, that ICCROM, together with ICOMOS and Unesco, should organize an international meeting for the coordinators of training programmes in architectural conservation. The aim of the meeting was to review the present situation of training in this field, and discuss the content and the professional standing of existing training programmes in order to evaluate current needs. The object of the meeting was to prepare a statement on the present situation and make recommendations for future action.

Arrangements for the meeting were coordinated by Jukka Jokilehto. Messrs Erder and Jokilehto from ICCROM, together with Messrs Di Stefano and Gazaneo on behalf of ICOMOS, formed a Preparatory Committee to establish the subjects of the papers to be submitted to the meeting and the criteria for the invitation of participants. Messrs Feilden, Di Stefano and Bonelli formed a Scientific Committee to review the papers subsequently prepared for the meeting.

In view of the technical nature of the meeting and the limited financing available for it, participation was by invitation only and was restricted to organizations or institutions with established training programmes in architectural conservation, i.e. post-graduate or mid-career courses giving a "post-professional qualification", or university programmes giving a specialized degree with a minimum of 1500 hours of architectural conservation. Other organizations with a special interest in the subject were also invited.

In the publication of this volume, priority was given to speed and timeliness and, therefore, to simplicity. Papers were reproduced as presented by the authors, with little or no editing.

Authors are responsible for the choice and the presentation of the facts contained in their signed articles and for the opinions expressed therein, which are not necessarily those of ICCROM.



## INTRODUCTION

Au cours des vingt dernières années on a assisté à une demande croissante pour la formation en conservation architecturale, et plusieurs cours s'adressant aux diplômés d'université ou de perfectionnement ont été créés dans divers pays du monde. D'après le Répertoire de la formation de l'ICCROM, il existe quarante et un programmes pour diplômés spécialisés: six en Amérique du Nord, cinq en Amérique latine, deux en Asie, un en Océanie, vingt-sept en Europe et aucun en Afrique. Plusieurs universités ont également inclus la conservation dans la formation architecturale traditionnelle. En dehors du fait que certains pays ont des cours bien établis et d'autres non, plusieurs programmes nationaux acceptent des étudiants étrangers ce qui, dans une certaine mesure, équilibre la situation. Toutefois, bien des pays ressentent la nécessité de créer leurs propres programmes de formation afin de pouvoir se pencher sur leurs besoins spécifiques.

Avec l'accroissement de la formation se multiplient aussi les problèmes, soulevés par la nature complexe de l'activité en conservation et par des attitudes divergentes envers les attributs souvent délicats et subtils des biens culturels. D'un côté, on a affaire à des technologies qui ne sont plus pratiquées, à des structures qui, avec le temps, ont formé un tout avec l'environnement dans leur contexte géographico-climatique. D'un autre côté, il nous faut faire une évaluation architecturale, artistique et archéologique d'un édifice ou d'une contrée et formuler un jugement sûr en vue d'une action correcte. Ceci est souvent rendu difficile par des intérêts culturels, socio-économiques ou politiques en opposition.

La tâche de la formation en ce domaine ne s'en trouve pas facilitée. Une équipe pluridisciplinaire d'enseignants expérimentés est nécessaire et des contacts directs avec la réalité sont indispensables pour garantir de bons résultats. Les professeurs vraiment qualifiés sont rares et le matériel didactique aurait besoin d'être amélioré. De plus, le manque d'information crée des limitations. Des recherches poussées ainsi qu'une meilleure compréhension des procédés corrects à appliquer en conservation devraient davantage retenir notre attention. En maintes occasions, les contacts et la collaboration à l'échelle internationale ont abouti à des résultats constructifs.

Il a donc été décidé que l'ICCROM, en collaboration avec l'ICOMOS et l'Unesco, organiserait une réunion internationale pour les coordonnateurs de formation en conservation architecturale. Le but de la réunion serait de passer en revue la situation actuelle de la formation en ce domaine et de discuter du contenu et du niveau professionnel des programmes de formation existants afin d'évaluer les besoins présents. L'objet de la réunion serait de préparer une déclaration sur la situation actuelle et de faire des recommandations pour une action future.

La coordination de la réunion a été organisée par M. J. Jokilehto. MM. Erder et Jokilehto de l'ICCROM, ainsi que MM. Di Stefano et Gazaneo au nom de l'ICOMOS, ont formé un comité préparatoire afin de définir les sujets des documents qui seront soumis à la réunion et les critères de choix pour l'invitation des participants. MM. Feilden, Di Stefano et Bonelli ont formé un comité scientifique afin de vérifier les documents préparés pour la réunion.

En raison de la nature technique de la réunion et du budget restreint qui lui est alloué, la participation se ferait seulement sur invitation et serait limitée aux organisations et institutions ayant déjà des programmes de formation en conservation architecturale établis, c'est-à-dire des cours s'adressant aux diplômés d'université ou des cours de perfectionnement donnant "une qualification professionnelle avancée", ou encore des programmes universitaires offrant un diplôme de spécialisation avec un minimum de 1500 heures de conservation architecturale. D'autres organisations ayant un intérêt spécial pour le sujet pourraient être également invitées.

Pour la publication de ce volume, les priorités ont été: rapidité et à propos, et par conséquent simplicité. Les exposés ont été imprimés tel que présentés par les auteurs avec très peu ou aucune correction.

Les auteurs sont responsables du choix et de la présentation des faits contenus dans leurs articles et les opinions exprimées ne reflètent pas nécessairement celles de l'ICCROM.

PROGRAMME

Thursday, 2 December

Jeudi, 2 décembre

- 9.45 a.m. Chairman: Prof. R. Lemaire  
M.Y. Boiret: La formation des architectes français aux tâches de la restauration des monuments anciens.
- Prof. R. Bonelli: Notizie sulla "Scuola di specializzazione per lo studio ed il restauro dei monumenti".
- Mr. O. Üstünkök: Training in Architectural Conservation at the Middle East Technical University.
- Prof. D. De Long: Training in Architectural Conservation at Columbia University.
- Dr. D. Linstrum: Conservation Studies in the University of York.
- Prof. T. Marasovic: Experiences of Split(Yugoslavia) in the post-graduate education on architectural heritage.
- 1.00 p.m. Lunch  
Déjeuner
- 3.00 p.m. Chairman: Prof. J. Gazaneo  
Prof. R. Di Stefano: Training in the field of architectural conservation and the University of Naples post-graduate school.
- Prof. J. Barthélemy: Conservation intégrée et formation des architectes.
- Prof. V. Wohlert: Training in Architectural Conservation.

- Mr. M. Zador: The system training specialists in monuments preservation in Hungary.
- Mr. S. Mutal: Training in Architectural heritage. Training facilities, problems, trends and perspectives in Latin America and the Caribbean.
- Dr. A. Silva Telles: La formation des spécialistes de la préservation des biens culturels et sites, au Brésil, et l'ICCROM.
- Prof. J. Gazaneo: Training in Argentina.
- Mr. J. Jokilehto: Training in Architectural Conservation at ICCROM.

Discussion

Friday, 3 December

Vendredi, 3 décembre

- 9.30 a.m. Chairman: Mr. Y. Boiret
- Discussion
- 12.00 a.m. Visit: Istituto Centrale del Restauro,  
S. Michele
- 1.00 p.m. Lunch  
Déjeuner
- 3.00 p.m. Discussion
- 5.00 p.m. Committee Meeting  
Réunion du comité

Saturday, 4 December

Samedi, 4 décembre

- 10.00 a.m. Chairman: Prof. P. Philippot
- 12.00 a.m. Recommendations  
Recommandations

LIST OF PARTICIPANTS  
LISTE DES PARTICIPANTS

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BARTHELEMY, Prof. Jean	Faculté polytechnique de Mons Chaire d'Architecture 53, rue de Joncquois 7000 Mons - Belgique
BOIRET, M. Yves	Inspecteur général, Architect en chef des Monuments Historiques Président de la Section Française de l'ICOMOS, 176, Bd. St. Germain, 75006 Paris - France
BONELLI, Prof. Renato	Direttore della "Scuola di Specializ- zazione per lo Studio dei Monumenti" Università degli Studi di Roma Via Cassia 34, Roma - Italia
DE LONG, Prof. David	Chairman Division of Historic Preservation - Columbia University New York, N.Y. 10027 - U.S.A.
DI STEFANO, Prof. Roberto	Scuola di Perfezionamento in Restauro dei Monumenti, Chiesa trecentesca di Donnaregina, Vico Donnaregina, 26 80123 Napoli - Italia
ERDER, Prof. Cevat	Director of ICCROM Via di S. Michele, 13 00153 Rome - Italy
FEILDEN, Dr. Bernard M.	Former Director of ICCROM Stiffkey Old Hall - Wells next the Sea Norfolk NR23 1QJ - England
GAZANEO, Prof. Jorge	Chairman of ICOMOS Argentina Centro para la Conservación del Patrimonio Urbano-Rural Universidad de Buenos Aires Casilla de Correo 3790 Buenos Aires 1000 - Argentina
JOKILEHTO, Mr. Jukka	Coordinator Course on Architectural Conservation - ICCROM Via di S. Michele, 13 00153 Rome - Italy

LEMAIRE, Prof. Raymond	Professeur à l'Université de Louvain Groot Begijnhof 95 3000 Leuven - Belgique
LINSTRUM, Dr. Derek	Reader in Architectural History and Conservation - Institute of Advanced Architectural Studies University of York King's Manor, York YO1 2EP - England
MARASOVIC, Prof. Tomislav	Co-director of the Post-graduate Course on Architectural Heritage Bosanska ul., 4 58000 Split - Yugoslavia
MUTAL, Mr. Sylvio	Proyecto Regional de Patrimonio Cultural PNUD/Unesco en América Latina Casilla 4480, Lima - Perú
PARENT, M. Michel	Président de l'ICOMOS 75, rue du Temple 75003 Paris - France
PHILIPPOT, Prof. Paul	Ancien Directeur de l'ICCROM Professeur à l'Université libre de Bruxelles - 178, av. Ch. Michiels Boite 17, B-1170 Bruxelles - Belgique
ÜSTÜNKÖK, Mr. Okan	Teaching Member M.E.T.U. Dept. of Restoration - Middle East Technical University, Ankara - Turkey
WOHLERT, Prof. Vilhelm	Head of the Department of Restoration Royal Academy of Fine Arts DK-1050 Copenhagen K - Denmark
ZADOR, Prof. Mihaly	Professor Technical University of Budapest - Faculty of Architecture Műegyetem rakpart 3.K.II.60. H-1111 Budapest - Hungary

OBSERVERS  
OBSERVATEURS

---

ALVA, Mr. Alejandro                   Assistant Coordinator of the  
Architectural Conservation Course,  
ICCROM - Via di S. Michele, 13  
00153 Roma - Italia

ANGLE, Dr. Italo C.                   Direttore dell'Ufficio Studi  
Ministero dei Beni Culturali e Ambientali  
Via del Collegio Romano, 27  
00186 Roma - Italia

CARBONARA, Prof. Giovanni           Università degli Studi di Roma  
Facoltà di Architettura  
Via Gramsci, 53 00197 Roma - Italia

CRAIG, Prof. Lois                   Associate Dean of the School of  
Architecture and Planning, Massachusetts  
Institute of Technology - USA

ERDIM, Mr. Mehmet Murat           Research Assistant  
EGE University - Fac. of Fine Arts  
Izmir - Turkey

MACHATSCHEK, Dr. Alois           Professor Technische Universität Wien  
Institut für Baukunst, Denkmalpflege und  
Kunstgeschichte  
Karlsplatz 16, A 1040 Vienna - Austria

SANDSTRÖM, Mrs. Christina          Présidente du Comité Directeur pour la  
Politique Urbaine et le Patrimoine  
Architectural du Conseil de l'Europe  
Central Board of National Antiquities  
Box 5405, S-11484 Stockholm - Sweden

SILVA, Mr. Roland                   Director General of Cultural Triangle  
Ministry of Cultural Affairs  
Colombo - Sri Lanka

SILVA TELLES, Dr. Augusto          Director IPHAN - President of ICOMOS  
National Committee, Fundação Nacional  
PRO-MEMORIA  
Ministry of Education and Culture  
Brasilia - Brazil





OPENING SPEECH GIVEN BY PROF. CEVAT ERDER TO THE INTERNATIONAL MEETING OF  
COORDINATORS OF TRAINING IN ARCHITECTURAL CONSERVATION

Mr. Chairman, Ladies and Gentlemen,

It gives me great pleasure to have this opportunity to address such eminent personalities from the world of conservation of cultural property at this meeting of coordinators of training in architectural conservation. It is indeed an honour for us and for ICCROM to receive you here in Rome. Welcome to the home of ICCROM's staff!

Our thanks go to Unesco, without whose support we would not have been able to organise this meeting, to the UNDP for making it possible to have with us Mr. Sylvio Mutal and also to the Council of Europe for allowing Mrs. Cristina Sandström to join us. This meeting is also a perfect example of cooperation between ICCROM and ICOMOS: two vice-presidents of ICOMOS - Professor Jorge Gazaneo and Professor Roberto Di Stefano - have both given constant advice and help on how to orient and organise this meeting. We are also grateful to both the previous directors of ICCROM - Professor Paul Philippot and my predecessor Dr. Bernard M. Feilden - and to our dear friend the honorary president of ICOMOS, Professor Raymond Lemaire, for having joined us here and giving us the benefit of their vast experience in the field of training.

We regret very much that financial and technical limitations have prevented us from calling more coordinators to this meeting, but our selection had to be made according to the dates of establishment of the training programmes and their geographical distribution.

In its aim, this meeting is somewhat of a follow-up to a similar meeting held in Pistoia in 1968. Since then there have been important developments in the field of training in architectural conservation.

When one reviews the recommendations of that meeting, one realizes with joyful surprise that most of them have been implemented in their general outlines. Training in the conservation of architectural property is now accepted as a matter of course all over the world and there is a general consensus of opinion on its multidisciplinary character.

As for the recommendation - very strongly stressed at the Pistoia meeting - that national centres for training be established and that specialised courses of a post-graduate type be extended or introduced at national or regional level and at international level, one has to refer to the "International Index on Training in Conservation of Cultural Property", published this year by ICCROM, to see to what extent this has

been put into effect. Now over 50 centres offer such training - most of them located in Europe and North America. Unfortunately only a very few remain to cover the needs of the rest of the world and this is one of the most important concerns of today.

The increase in the number of these training programmes has raised new problems and a variety of demands. Some of these require an immediate response if they are not to lead to insuperable difficulties. As an international centre we try to provide assistance for the exchange of qualified teachers, to answer requests for didactic material and to exchange information. We feel strongly the need for continuous research and a better understanding of correct conservation procedures. At the same time, we realize the dangers inherent in speedy cures and short-term training programmes. We are reluctant to answer these types of request and we avoid a curriculum presented in pill form. We feel that the best solution is to be found in a situation where each country would have its own fully fledged training programme; this would allow us to devote our energies to refresher courses for trained and experienced technicians.

These are just a few of the problems we here in ICCROM are facing and we hope that this meeting will provide a thorough review of the present situation and an opportunity to discuss the content and the professional standing of existing training programmes in order to arrive at an evaluation of current needs. This would permit us to orient our future activities towards more productive and useful ends.

In conclusion, I would like to thank each one of you for the kind contribution you already made before coming here. Let me also say that the sole fact of your being here is indeed a very strong encouragement to all of us. I assure you that we will do our utmost to harness all our capabilities in an attempt to implement the indications that you will be giving us during this symposium.

DISCOURS DE M. RAYMOND LEMAIRE A LA SEANCE D'OUVERTURE DE LA REUNION  
INTERNATIONALE DES COORDINATEURS POUR LA FORMATION EN CONSERVATION  
ARCHITECTURALE

Mesdames et Messieurs,

C'est sans doute parce que je suis le dernier rescapé du colloque de Pistoia qu'on m'a demandé de présider cette première réunion de notre colloque consacré à l'enseignement de la sauvegarde du patrimoine monumental, peut-être aussi parce que former les spécialistes de la conservation de notre patrimoine fut incontestablement le premier souci de l'ICOMOS, au moment de sa naissance et de sa formation. En effet, préserver le patrimoine, sans qu'il y ait pour ce faire un personnel capable et en même temps une équipe profondément ouverte aux problèmes de la sauvegarde, paraît évidemment une tâche hasardeuse et dont les conséquences pourraient être très néfastes pour le patrimoine, surtout au moment des années soixante, où un mouvement s'étendait pour assurer la sauvegarde, non seulement des monuments individuels, mais aussi des villes historiques.

Je voudrais rappeler ici la mémoire de Piero Gazzola, premier Président de l'ICOMOS, qui fut certainement, tout comme notre ami commun et ami de tous, le Professeur De Angelis d'Ossat - qui viendra peut-être à cette réunion -, le promoteur principal de la réunion de Pistoia qui avait pour objectif d'une part la définition d'un programme d'enseignement qui soit adapté à la problématique spécifique de la sauvegarde, et d'autre part la sensibilisation des autorités devant la nécessité de cette formation pour ne confier la conservation et la restauration des monuments qu'à des personnes véritablement bien formées pour cette tâche. Le rôle de Piero Gazzola à cet égard a été très important; nous n'avons qu'à relire les textes publiés dans les numéros de Monumentum consacrés à Pistoia pour voir à quel niveau, éthique surtout, il situe ce problème face à la société.

L'ICOMOS n'était pas seul dans cette tâche. Il a eu tout de suite le soutien du Centre, dirigé alors par Harold Plenderleith, qui est, je dirais, un deuxième rescapé de Pistoia - il n'est pas encore là, mais il va nous rejoindre au cours de cette réunion. Du côté politique, comme le Prof. Erder vient de le rappeler, le Conseil de l'Europe s'était fortement préoccupé de cette formation et ceci en rapport avec le large développement dans l'encouragement à la sauvegarde du patrimoine monumental que, dès le début des années soixante, le Conseil de l'Europe n'a pas cessé de développer; et là aussi, des réunions et des rapports ont été établis qui visaient précisément à définir les nécessités d'un bon programme de formation.

Comme M. Erder vient de le rappeler, depuis vingt ans les institutions se sont multipliées, mais à l'époque elles étaient rarissimes. Rome était, je dirais, la plus connue, avec celle de Paris, mais celle de Paris était axée sur les problèmes français, tandis que celle de Rome, dès le départ, s'est ouverte davantage à des problèmes européens et méditerranéens. Aujourd'hui, les institutions sont devenues fort nombreuses et, depuis des années déjà, l'ICOMOS et le Centre étaient conscients qu'il fallait réunir les responsables de ces institutions relativement régulièrement, de manière à pouvoir confronter les expériences et les points de vue, tout en tenant compte des différences, et à pouvoir adopter, en ce qui concerne le niveau de l'enseignement et des bases de formation, un consensus général et une application de ce consensus dans les programmes. Les uns enrichissent les autres par leurs expériences et c'est de cet échange d'expériences qui doit naître un programme encore mieux adapté à cette tâche, difficile mais exaltante, qu'est la conservation du passé pour les générations futures.

C'est à cette confrontation que nous allons nous consacrer ici aujourd'hui, débutant par l'examen des différents rapports établis et je propose, M. Erder, que nous commençons tout de suite.

THE PAPERS PRESENTED

LES COMMUNICATIONS PRESENTEES



LA FORMATION DES ARCHITECTES FRANCAIS  
AUX TACHES DE LA RESTAURATION DES MONUMENTS ANCIENS

LE CENTRE D'ETUDES SUPERIEURES D'HISTOIRE  
ET DE CONSERVATION DES MONUMENTS ANCIENS

( C. E. S. H. C. M. A. )

Par YVES BOIRET

à PARIS, le 6 août 1982

Yves BOIRET  
Architecte, Inspecteur Général des Monuments Historiques  
Président du Comité Français de l'ICOMOS

Le Centre d'Etudes Supérieures d'Histoire et de Conservation des Monuments Anciens (C. E. S. H. M. A.), aujourd'hui communément appelé "COURS DE CHAILLOT", est le lieu de formation des architectes français aux tâches de conservation, de mise en valeur et d'aménagement des monuments historiques et de leurs abords.

#### OBJET DU CENTRE D'ETUDES SUPERIEURES

Créé en 1875, à l'instigation de l'Inspection Générale Architecte, pour préparer les architectes candidats aux postes d'Architectes en Chef des Monuments Historiques, ce centre a toujours fait partie intégrante du Service responsable des Monuments Historiques, les locaux et les enseignants étant intimement liés à ce Service.

Son enseignement s'adresse à des architectes diplômés, dont la plupart ont déjà commencé à pratiquer leur profession.

Il a, depuis sa création, constamment évolué, suivant les nécessités du temps : jusqu'en 1936, ce cours forma, au Palais du Trocadéro, de nombreuses générations d'Architectes en Chef. Il se poursuivit ensuite dans les locaux de l'Ecole Nationale Supérieure des Beaux-Arts. Après 1970, il rejoignit le Palais de Chaillot, et son enseignement fut dispensé non seulement aux futurs Architectes en Chef des Monuments Historiques, mais également aux futurs Architectes des Bâtiments de France, ainsi qu'à tous architectes diplômés, désireux d'approfondir des connaissances techniques qui vont de la pathologie des édifices anciens, à l'architecture contemporaine, dans les quartiers historiques, et à l'histoire de l'urbanisme.



## LA PEDAGOGIE DU CENTRE D'ETUDES

Cet enseignement se veut "personnalisé" et doit faire l'objet d'une pédagogie active, d'où la limitation à 100 des participants à chaque cycle. Il doit être axé sur la pratique, ce qui n'exclut pas pour autant le support de concepts théoriques.

L'enseignement y est donné par des hommes de métiers, architectes, historiens d'Art, membres de l'Administration, qui, pour la plupart, ne font pas profession d'enseigner : cet enseignement n'est donc ni dogmatique ni magistral ; il se veut aussi opérationnel que possible.

Il porte en grande partie sur des sujets concrets, qui ne sont enseignés nulle part, et sur lesquels il y a fort peu d'ouvrages publiés. Les "récits d'expérience" sont, pour une part de cet enseignement, le fond même de la pédagogie.

Les domaines traités concernent, en dehors des cours généraux d'histoire des arts et des techniques et d'organisation administrative, tout ce qui concerne l'entretien, la protection et l'aménagement des monuments, des quartiers anciens, des sites protégés, et de l'habitat rural.

En 1979, à l'occasion d'un remaniement ministériel, ce Centre d'Etudes a été transféré du Ministère de la Culture à celui chargé du Logement et de l'Urbanisme.

Cela a entraîné l'apparition de projets successifs de remaniement des programmes d'enseignement, dans des directions dont il sera traité plus loin sous la rubrique "Développements Prévus".

## L'ORGANISATION DU CENTRE D'ETUDES

Le Centre recrute tous les deux ans, sur dossier, 80 à 100 architectes diplômés, généralement déjà engagés dans une activité professionnelle. Les cours et conférences se déroulent, de novembre à juin, deux jours tous les quinze jours, le lundi et le mardi.

Des exercices, relevant de six sections (qui seront énumérées dans le chapitre suivant "Programme du Centre"), sont effectués par les élèves. Leurs résultats ainsi que l'assiduité sont pris en compte pour l'examen de fin de scolarité.

Le cours fonctionne dans une salle dépendant du Musée des Monuments Français (Ministère de la Culture) au Palais de Chaillot. Il bénéficie sur place de la documentation exceptionnelle que constitue le Musée des Monuments Français et de celle du Centre de Recherche des Monuments Historiques.

Ce Centre, actuellement Service Administratif du Ministère du Logement et de l'Urbanisme (Direction du Personnel), ne dispose ni de personnalité juridique ni d'autonomie budgétaire. Les frais de fonctionnement du Centre sont de deux natures : Les vacances des enseignants sont prises en charge par la Direction de l'Architecture, tandis que les frais de fonctionnement pour l'organisation des voyages le sont par la Direction de l'Administration Générale. Le personnel administratif (deux personnes) chargé du fonctionnement matériel du Centre, est mis à disposition par le Service Départemental d'Architecture (ex-agence des Bâtiments de France du Palais de Chaillot).

Les élèves qui sont admis à suivre les cours et conférences du Centre d'Etudes bénéficient d'une gratuité totale.

Une dizaine d'élèves sont des stagiaires étrangers, qui reçoivent un diplôme spécial.

## LES PROGRAMMES DU CENTRE D'ETUDES

Les disciplines abordées sont réparties en six sections :

### I - Techniques anciennes

40 conférences données par un Inspecteur Général Architecte des Monuments Historiques, permettent de traiter des sujets suivants :

- a) Evolution des techniques de construction de l'époque romaine à nos jours (6 cours)
- b) Techniques diverses : la pierre, les maçonneries, les charpentes, les couvertures, les menuiseries, les dallages et carrelages, la serrurerie (26 cours)
- c) Les échafaudages, les étaielements (4 cours)
- d) Présentation de quelques grandes restaurations (4 cours).

### II - Structures anciennes - Statique - Aspects scientifiques de la conservation des matériaux

38 conférences données par un Inspecteur Général Architecte des Monuments Historiques et un ingénieur

- a) Différents types de structures ; les méthodes anciennes et contemporaines de consolidation et de remise en état (11 cours)
- b) Statique : Calcul et report des poussées (11 cours + 1 exercice)
- c) Les maladies de la pierre (3 cours)
- d) La photogrammétrie : son application dans le domaine des monuments historiques et des sites (2 cours)

Les cours et conférences visés dans ce chapitre sont complétés par la correction des exercices (10 cours) destinés à contrôler le niveau des étudiants et par des visites et voyages.

### III - Eléments décoratifs et mobilier

23 conférences données par des Inspecteurs des Monuments Historiques

- a) Le vitrail - Aspects techniques, évolution stylistique, problèmes que posent leur conservation et leur restauration (6 cours)
- b) La peinture murale - Aspects technique ; problèmes que posent leur conservation et leur restauration.  
Evolution stylistique (4 cours).
- c) Le mobilier religieux (4 cours).

- d) Le décor civil intérieur (4 cours)
- e) La tapisserie (1 cours)
- f) L'orfèvrerie religieuse et civile (1 cours)
- g) Problèmes posés par l'entretien et la restauration des éléments décoratifs (1 cours).

#### IV - Urbanisme - Ensemble urbains - Environnement

37 conférences données par des Inspecteurs Généraux, architectes ou non architectes, des Architectes, des Urbanistes, des représentants de l'Administration, permettent de traiter des sujets suivants :

- a) Histoire de l'urbanisme, des origines à nos jours 4 cours
- b) Les documents d'urbanisme 2 cours
- c) Les plans d'occupation des sols et plans de référence, le cas des petites villes 1 cours
- d) Les problèmes de circulation, le mobilier urbain 2 cours
- e) Les secteurs sauvegardés, leur évolution 2 cours
- f) Etudes de cas, récits d'expériences 13 séances
- g) Réhabilitation de l'habitat ancien
  - . techniques utilisées 3 cours
  - . Règlementation et financement 3 cours
- h) L'architecture rurale
  - . Eléments qui la composent - évolution 1 cours
  - . Problèmes de conservation - Techniques employées 1 cours
- i) Les problèmes auxquels sont confrontés les Architectes des Bâtiments de France. Les solutions qui peuvent être apportées 2 cours
- j) Le conseil en architecture - analyse critique 1 cours
- k) Les grands jardins français 1 cours
- l) L'écologie - Rapports entre écologie et patrimoine bâti 1 cours

Les cours et conférences visés dans cette rubrique sont assortis de visites sur place.

#### V - Histoire de l'Architecture

45 cours, donnés par des historiens et archéologues, permettent de traiter des sujets suivants :

- a) La préhistoire - Méthodes de recherche 2 cours
  - Problème de conservation
- b) La période gallo-romaine 2 cours
- c) Le Haut-Moyen-Age - des basiliques constantiniennes à l'An 1000 3 cours

d) L'Epoque romane	8 cours
e) L'Epoque gothique	11 cours
f) La Renaissance	4 cours
g) L'Epoque classique	8 cours
h) Les architectes visionnaires	1 cours
i) Le XIXème et le XXème siècles	3 cours
j) L'Architecture militaire	3 cours

#### VI - Législation - Organisation administrative

21 conférences permettent de traiter des sujets suivants :

a) Accueil des élèves - Présentation du Centre d'Etudes Exposé du programme	1 cours
b) Evolution de la politique de protection des monuments et des oeuvres d'art en France et dans le monde. Le Service Français des Monuments Historiques (Histoire et évolution)	3 cours
c) Législation sur les monuments Historiques et leurs abords, les objets mobiliers, les sites, les secteurs sauvegardés et la publicité	10 cours
d) Les marchés ; estimation du coût des travaux	1 cours
e) Le Ministère de l'Environnement Administration Centrale et Services extérieurs	1 cours
f) Le Ministère de la Culture Administration Centrale et Services extérieurs	1 cours
g) Les attributions des architectes du Service des Monuments Historiques - Recrutement - Carrière	1 cours
h) L'Inventaire Général des Monuments et Richesses Artistiques de la France	1 cours
i) Les fouilles archéologiques	1 cours
j) La Caisse Nationale des Monuments Historiques et des Sites	1 cours.

Ces cours et conférences sont complétés par des voyages d'études représentant 10 journées 1/4, soit la valeur de 41 cours d'une heure et demie. Les lieux prévus pour ces voyages varient selon les cycles, mais ils sont toujours prévus pour permettre aux élèves de prendre connaissance des notions suivantes :

- Visite de vestiges archéologiques
- Visite du Centre de Recherche des Monuments Historiques du Palais de Chaillot et de ses collections
- Visite d'un collège de formation des techniciens de la taille de pierre
- Visites détaillées de divers secteurs sauvegardés  
Examen des plans, visite des quartiers et des monuments qui s'y trouvent.
- Visite des laboratoires spécialisés :  
CHAMPS-SUR-MARNE  
SAINT-REMY-LES-CHEVREUSE - Exposé de l'état des recherches.
- Visite du Musée des Monuments Français.
- Visite d'un château et de son parc  
Présentation des travaux - Problèmes archéologiques, de gestion et d'administration d'un Palais National
- Visites de chantiers de Monuments Historiques.

Le contrôle des connaissances acquises au cours des deux années de cycle, se fait au moyen d'exercices à faire en dehors des cours, et d'interrogations écrites et orales.

#### A) Exercices

- Sur les techniques anciennes : Production de trois carnets de croquis portant sur des détails d'architecture : portes, fenêtres, voûtes, escaliers, ferronnerie.  
Exécution d'un relevé de bâtiment ancien, au choix de l'élève, et mise au net du relevé selon les méthodes du Service des Monuments Historiques.
- Sur les structures anciennes et stabilité  
Exercices graphiques portant sur les mises sur cintre et travaux provisoires, reprise de piles, de supports ou de fondations en mauvais état. Exposé du diagnostic du remède proposé, des moyens provisoires et définitifs utilisés.  
Etude de la stabilité d'un édifice.
- Sur les ensembles urbains  
Projets d'aménagement d'abords, de création d'architecture contemporaine en milieu ancien, de réaménagement intérieur d'édifice ancien.

#### B) Interrogations - Elles sont écrites ou orales.

Au cours de chacune des deux années, elles portent sur les sujets suivants :

3 interrogations écrites sur l'histoire de l'architecture, les éléments décoratifs et le mobilier, et la législation.

Puis des interrogations orales sur l'histoire de l'architecture, les éléments décoratifs et le mobilier.

En résumé, les programmes précédemment définis correspondent à 32 journées de cours en 1ère années, 34 journées de cours en 2ème année, soit 264 cours d'une heure et demie.

Ils nécessitent l'intervention d'une soixantaine de professeurs et conférenciers différents, rémunérés à la vacation.

## LES RESULTATS DU CENTRE D'ETUDES

A la fin de la première année de chacun des cycles, un contrôle des connaissances acquises est fait en s'assurant par notation de la qualification et de l'assiduité des candidats au diplôme que leur niveau est admissible pour la poursuite en seconde année.

A l'issue du cycle complet de deux ans, le diplôme n'est décerné qu'aux seuls étudiants ayant obtenu une note globale minimum, préalablement fixée ; ce diplôme est actuellement accordé à une quarantaine d'élèves tous les deux ans.

Il est normalement requis pour se présenter au concours d'Architecte en Chef des Monuments Historiques ; les Architectes des Bâtiments de France stagiaires sont tenus de suivre les cours du Centre d'Etudes s'ils ne sont pas déjà titulaires du diplôme. De nombreux architectes étrangers en suivent les cours et sont diplômés à ce titre.

Les anciens élèves du Centre d'Etudes sont regroupés au sein d'une "Association des Architectes Diplômés du Centre d'Etudes Supérieures d'Histoire et de Conservation des Monuments Anciens" ; cette association (Loi 1901) tente de développer ses actions, et des échanges dans tout ce qui touche à la connaissance, la conservation et la mise en valeur des édifices et sites anciens.

Entre autres préoccupations, elle veille à ce que ce Centre d'Etudes soit le foyer d'architectes spécialisés.



## LES DEVELOPPEMENTS PREVUS

Depuis 1875, le Centre d'Etudes Supérieures d'Histoire et de Conservation des Monuments Anciens a fait ses preuves, par le nombre et la qualité des architectes qu'il a formé, ainsi que par le fruit de leurs travaux.

Son évolution s'est toujours faite au rythme des nécessités du moment; or, il apparaît aujourd'hui, à partir de quelques indices, qu'une nouvelle évolution soit souhaitée et prévisible, en vue de répondre à diverses interrogations qu'il paraît bon d'évoquer ici pour clore ce rapport :

I - Les épreuves imposées aux élèves du Centre d'Etudes, mais aussi aux candidats aux concours de recrutement pour les postes d'Architecte en Chef des Monuments Historiques ou d'Architecte des Bâtiments de France démontrent la même situation :

Les connaissances moyennes correspondant au niveau post-diplôme d'architecte sont moins complètes et moins approfondies qu'elles ne l'étaient par le passé dans deux domaines précis :

- . Culture historique et connaissance de l'histoire des arts
- . Mode d'expression graphique de la pensée architecturale.

De telles lacunes, comparées à l'acquis des précédentes générations, ne permettent plus aux élèves du Centre de profiter pleinement de l'enseignement tel qu'il est actuellement conçu : il faut procéder soit à une remise à niveau difficilement concevable pour des adultes déjà engagés dans la vie professionnelle et qui disposent d'un temps de scolarité limité, soit à un abaissement du niveau initial de l'enseignement, ce qui lui retirerait son caractère spécifique.

II - Les modifications apportées au nombre et à la nature des missions confiées aux architectes, l'évolution de la doctrine, le développement des techniques nécessitent une actualisation permanente de la finalité du Centre d'Etudes et, en conséquence, du contenu et des modalités de son enseignement

Quelques indices en témoignent :

- a) Le processus de la restauration débute dès le choix dans la programmation et s'achève à la fin des travaux. Il tend à faire appel, de plus en plus, aux méthodes scientifiques : informatique, photogrammétrie, analyse de laboratoire, etc...

Néanmoins, l'aptitude de l'architecte, homme de métier et de terrain, à savoir déceler et proposer les soins que nécessite le monument, reste la première des qualités exigibles. Il ne faut donc pas négliger la formation qui permet de diagnostiquer et de proposer. Elle fait appel à bien des qualités qui se développent et s'entretiennent : sensibilité au monument qui résulte de la connaissance complète aussi bien de son histoire que de la disposition de ses structures et de la subtilité de son précieux épiderme. Le dessin, encore plus que la photographie, est un moyen irremplaçable d'analyse.

Le temps imparti dans la scolarité de deux années est trop restreint pour développer et tester les facultés d'analyse et de synthèse qui font la

plus ou moins grande valeur de l'architecte restaurateur.

Seul le travail sur le terrain est susceptible de permettre une mise à l'épreuve, ce que permettait jadis, beaucoup plus qu'aujourd'hui, les stages de jeunes architectes dans les agences de leurs anciens. Il importe semble-t-il de faire en sorte qu'au moins au niveau des concours de recrutement, puissent être pleinement appréciées les aptitudes des candidats à cette étape essentielle de leur futur métier qui, faute d'être correctement accomplie, rendrait toute érudition vaine et théorique. Il serait infiniment souhaitable d'introduire dans les programmes du Centre d'Etudes, les éléments pédagogiques mettant en évidence l'importance de cette partie de la mission de l'architecte restaurateur.

- b) L'acte de restauration s'est intéressé d'abord aux monuments isolés pour s'étendre ensuite à leurs abords puis à des ensembles voire à des quartiers de villes entiers.

L'enseignement du Centre d'Etudes a-t-il véritablement suivi la même évolution ? - Les interrogations actuelles sur les motifs profonds de la restauration (conservation de l'oeuvre d'art pour elle-même ou pour ceux qui en jouissent) provoque des réponses variées et parfois contradictoires par exemple, en matière de réutilisation de monument ancien pour ne citer que cet exemple.

Si l'exposé de tels dilemmes à l'échelle du monument semble devoir s'imposer dans l'enseignement du Centre d'Etudes et se trouve dès à présent implicitement inclus dans les programmes de plusieurs sections, il est beaucoup plus malaisé à introduire à l'échelle de la ville et du quartier ancien ; cela constitue aujourd'hui un problème de première importance dont certains s'étonnent qu'il ne soit que très sommairement évoqué dans les deux années du cycle. C'est alors beaucoup plus la fonction d'aménageur que celle de restaurateur qui est en cause ; de telles questions sont-elles suffisamment évoquées au Centre d'Etudes ? Doivent-elles et peuvent-elles y être intégrées et développées ? C'est une question primordiale, discutée et en suspens, auquel une réponse devrait être fournie le plus rapidement possible.

- c) L'extension de la notion de Patrimoine et l'attention de plus en plus grande que porte l'opinion publique à tous ses multiples composants, rend moins confidentielle l'action de ceux qui en ont la charge, notamment les Architectes en Chef des Monuments Historiques. Leur rôle pédagogique devra donc se développer en France, d'autant plus que la tendance à la décentralisation, génératrice d'un transfert de décision, impliquera de leur part, d'excellentes facultés de persuasion sur la pertinence des choix et des moyens.

Combien d'architectes érudits et compétents n'ont pas totalement réussi dans leur mission, faute de savoir convaincre ?

N'y a-t-il pas là matière à réflexion sur certains critères de choix dans les aptitudes des futurs architectes du Service des Monuments Historiques, et sur l'orientation de leur préparation aux tâches qui les attendent ?

d) Les travaux de restauration ont été assurés en France, à l'origine, par un petit nombre de spécialistes, généralistes, dont l'érudition facilitait l'étendue des missions. C'est aujourd'hui le fait d'un "Service des Monuments Historiques", composé d'un personnel nombreux, très divers dans les origines, les formations, les compétences de ses membres. Les Esprits de Corps qui en résultent dressent parfois entre eux des barrières difficiles à franchir, même par les meilleurs.

Or, l'harmonie des rapports, garante de l'efficacité des actes, implique la qualité des comportements. C'est peut-être aujourd'hui une condition de réussite aussi indispensable que la maîtrise des qualités techniques propres aux "hommes de métier".

Ne faudrait-il pas se doter des moyens (étude de cas par exemple) pour inciter aux comportements souhaitables, et pour tester, tant au niveau du cours qu'à celui des concours, l'aptitude au dialogue et à l'esprit de collaboration et d'équipe ?

## CONCLUSION

Ces réflexions ne sont-elles pas les indices de certaines insuffisances de l'enseignement actuel à répondre aux finalités du moment ?

Les demandes d'évolution formulées par les élèves eux-mêmes sembleraient le confirmer.

Malheureusement, le maintien hautement souhaitable du caractère spécifique de cet enseignement rend malaisé son infléchissement :

S'adressant exclusivement à des architectes diplômés, cela signifie

- qu'il ne présente pas au niveau des participants de caractère pluridisciplinaire,
- que les connaissances moyennes de base sont celles de l'architecture, telle qu'elle est enseignée aujourd'hui en France,
- que s'adressant à des professionnels, ceux-ci ne disposent que d'un temps de scolarité mesuré.

En outre, c'est un enseignement appliqué, ce qui le distingue des enseignements de type universitaire. S'il porte sur l'histoire, il suppose néanmoins acquises des connaissances préalables indispensables pour bénéficier d'un enseignement supérieur ; il en va de même des exercices d'application qui supposent parfaitement connues des données architecturales de base, et assimilés et possédés tous les moyens d'expression de l'architecte

Conserver ce caractère tout en maintenant la finalité du Centre exige de combler les insuffisances par des moyens qui ne peuvent donner de résultat à court terme,

- soit par l'amélioration du niveau général du diplôme d'architecte
- soit par l'incitation de certaines unités pédagogiques à une spécialisation préalable à l'accès au C.E.S.H.M.A.

Concernant l'introduction de matières nouvelles, notamment un enseignement de l'aménagement des quartiers anciens, la solution ne paraît possible que selon l'alternative suivante :

- augmentation du temps de scolarité, ce qui semble impossible, compte-tenu du statut des étudiants,
- dédoublement de l'enseignement en vue de la création d'une option parallèle à partir éventuellement d'un tronc commun, ce qui présente l'inconvénient d'une coupure artificielle entre le monument et ses abords.

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L'auteur du présent rapport forme le vœu que la réunion organisée par l'ICCROM en Décembre 1982 entre coordonnateurs de formation en conservation architecturale fournira, par la mise en commun des expériences respectives, des moyens pertinents pour adapter aux nécessités de notre temps l'enseignement conçu pour une toujours meilleure conservation du patrimoine architectural.

INTERNATIONAL MEETING OF COORDINATORS OF  
TRAINING IN ARCHITECTURAL CONSERVATION

ICCROM, Roma, 2-4 dicembre 1982

NOTIZIE

sulla "Scuola di specializzazione per lo studio ed il restauro dei  
monumenti" dell'Università degli studi di Roma I - Sapienza

RENATO BONELLI

La "Scuola di specializzazione per lo studio ed il restauro dei Monumenti", è stata istituita presso la Facoltà di architettura della Università di Roma con decreto presidenziale del 2-9-1957 ed ha iniziato la propria attività nell'anno accademico 1958-59. Attualmente la Scuola è regolata da un proprio statuto, approvato nel 1973, che fissa nel modo seguente la finalità dell'istituto: "conferire una specifica preparazione critica e professionale integrativa di quella universitaria, ed assicurare una più vasta e diffusa conoscenza dei metodi e delle tecniche operative nella conservazione dei beni culturali".

La Scuola attua un corso biennale di specializzazione, riservato ai laureati italiani in architettura, lettere ed ingegneria civile, ed agli stranieri forniti di titolo equipollente. Lo statuto della Scuola consente anche di istituire un corso biennale di qualificazione per restauratori e tecnici della conservazione, "relativo ai problemi operativi inerenti alle varie espressioni artistiche connesse con il patrimonio monumentale, aperto ai giovani anche non laureati, italiani e stranieri". Tale corso biennale non è stato ancora attivato.

I programmi di studio della Scuola, svolti durante due anni di corso, comprendono n° 11 insegnamenti, denominati e caratterizzati nel modo seguente:

1. Letture storico-critiche delle espressioni artistiche (I anno), destinato a fornire le definizioni concettuali primarie della storiografia artistica e gli strumenti metodologici per la comprensione storico-critica delle opere architettoniche e per la loro valutazione in rapporto ai problemi della loro tutela, conservazione e restauro. La trattazione si estende ad interpretare criticamente la lettura delle città storiche e del paesaggio.
2. Principi generali della conservazione dei beni culturali (I anno) diretto ad esporre i moderni concetti del restauro architettonico in tutte le loro articolazioni: restauro preventivo, critica e creatività nel restauro, risoluzione delle due diverse istanze - storica ed estetica, - il tempo storico ed il restauro, la patina ed il trattamento delle "lacune", terminologie di base, specificità e caratteristiche del restauro architettonico rispetto alla conservazione.
3. Storia del restauro (I anno), che espone criticamente ed in modo sistematico il processo di sviluppo delle dottrine sul restauro architettonico: dallo studio sull'atteggiamento e sull'intervento delle varie epoche verso le presistenze, a quello dell'inizio del restauro "stilistico" a quello "storico", dal rifiuto roman-

tico dall'intervento alla c.d. "teoria intermedia" e al restauro "filologico, fino alle più recenti tendenze del restauro "critico" e delle "due istanze", considerate anche in rapporto al progressivo ampliamento del campo disciplinare.

4. Tecnologia dei materiali tradizionali e moderni (I anno), dove, oltre ai problemi dello studio e dell'impiego dei materiali vecchi e nuovi, sono esposte le questioni riguardanti i tensionamenti meccanici sui materiali rigidi, la corrosione chimica di quelli porosi, l'inquinamento atmosferico, l'umidità delle murature, le vibrazioni delle strutture e gli effetti del traffico stradale sui fabbricati.
5. Elementi di legislazione (II anno), disciplina rivolta allo studio dello sviluppo storico della legislazione sulla tutela dei monumenti (con cenni di legislazione comparata), delle normative in vigore e dei documenti interni nei servizi statali (carte del Restauro italiane), delle carte di carattere extra-nazionali, delle Organizzazioni e degli strumenti giuridici internazionali (Convenzioni, Raccomandazioni).
6. Analisi delle consistenze architettoniche: tipologia delle strutture tradizionali (I anno) insegnamento nel quale, sulla base di una metodologia generale d'indagine per lo studio di un monumento, il discente è tenuto ad eseguire il rilievo architettonico di un edificio storico, ad individuarne i valori storici ed artistici e gli aspetti costruttivi (metodologia e proporzionamento; accorgimenti prospettici; tipologia, distribuzione e funzionalità degli spazi; poetica figurativa e visuali sui percorsi; linguaggio figurativo e decorazione; analisi delle strutture; fasi esecutive e modifiche posteriori).
7. Diagnostica e terapia dei dissesti statici, risanamento delle strutture (II anno) che, muovendo dalle caratteristiche statiche e dai possibili modi di impegno del legno, dei conglomerati, del c.a. e dell'acciaio, tratta delle indagini sui terreni, dei diversi problemi riguardanti le fondazioni, del funzionamento di ogni tipo di struttura, delle diagnosi sui dissesti, degli interventi di tutti i generi sulle strutture e sulle fondazioni, e dei provvedimenti contro l'azione sismica.
8. Vitalizzazione e adattamento di antichi edifici: criteri di museologia (II anno), corso nel quale tale vitalizzazione è considerata quale componente subordinata del processo conservativo, attraverso i concetti di "vocazione" dell'edificio e di "rapporto di ospitalità" rispetto al nuovo uso; lo studio si estende alle interrelazioni fra il progetto di restauro ed il programma

di adattamento, ai processi di musealizzazione, al museo come strumento per la conservazione, al suo ordinamento scientifico, ai criteri per la progettazione, ai rapporti museo-monumento e museo-città.

9. Studio e conservazione dell'ambiente storico e naturale (II anno) insegnamento che tratta sia gli aspetti storico-critici di tale studio che quelli metodologici-operativi, necessari a definire in linea teorico-concettuale e secondo le necessità di progetto, le diverse fasi di analisi delle relative indagini (storia economica, strutturale e figurativa del territorio, della città medievale e moderna e del paesaggio quale realtà figurale; indagini quantitative e valutazioni qualitative) e la programmazione, pianificazione e progettazione della tutela.
10. Nozioni di fotografia aerea e di fotogrammetria (II anno) corso che fornisce principalmente gli elementi necessari per avviare sia la restituzione fotogrammetrica dei siti archeologici e delle città storiche, sia il rilievo dei monumenti e, più in generale, dei beni architettonici ed ambientali.
11. Tecniche di Scavo e restauro delle strutture riemerse (II anno) riguardante la metodologia e la tecnica dello scavo, in rapporto ai monumenti (cronologia delle fasi costruttive) ed in applicazione del concetto di stratigrafia agli edifici di età classica, medievale od anche più recenti, per la loro interpretazione cronologica. Tratta inoltre i problemi del restauro delle strutture prima interrate, della documentazione dello scavo, e dei lavori di intervento immediato.

L'intero corso di studi, con obbligo di frequenza, è regolato da un criterio di propedeuticità che rende necessario di sostenere gli esami nelle discipline di cui ai punti 1), 2), 3) e 4) prima di quella al punto 6), e quest'ultima prima di quella ai punti 7) e 8). Il conseguimento del diploma di specializzazione comporta anche l'esame finale di diploma, mediante la discussione di una tesi scritta e disegnata sopra un monumento, la quale comprende la ricerca storico-archivistica di base, il saggio filologico-critico per la restituzione delle vicende dell'edificio, e la datazione delle fasi costruttive fondate sopra un preciso rilievo grafico, il giudizio critico-valutativo sui valori storici e figurativi di esso, e le proposte di restauro e sistemazione, espresse in accurati e numerosi grafici.

Quanto sopra esposto chiarisce la concezione sulla quale la Scuola ha fondato la propria attività: considerato che un monumento, che è anzitutto una architettura, costituisce in quanto



tale un valore storico ed artistico insieme, occorre innanzi tutto al restauratore il sicuro possesso di quello strumento essenziale che è necessario per distinguere, individuare e valutare tali valori; e tale strumento è la critica storico-artistica, che definisce e caratterizza l'oggetto nei suoi valori testimoniali e nella sua qualità d'immagine figurata.

Il restauro si inizia dunque con una operazione schiettamente critica, e la stessa critica prosegue a guidare l'azione e le scelte del restauratore per tutto il percorso, fino alla risoluzione finale. Per questi motivi il restauratore, prima ancora di acquisire la sua formazione di architetto, deve essere un vero uomo di cultura e soprattutto un critico, con una adeguata preparazione umanistica, filosofico-estetica e storico-filologica, ed una corrispondente sensibilità artistica.

Questa scelta dei concetti e dei metodi (che in parte riprendono il c.d. "restauro critico") da parte della Scuola, pone delle precise condizioni ai discenti del corso biennale, escludendo coloro che non siano già in possesso della richiesta formazione umanistica. Anche la figura del restauratore così delineata risulta nettamente diversa da quella data finora; il restauratore non è più un professionista della edilizia, un tecnico progettista, ma uno studioso, storico e critico, che opera senza compromessi e al fuori della mentalità dei pratici interessi, alla tutela dei beni architettonici. Di conseguenza si prospetta ormai come inevitabile l'adozione del numero degli allievi limitato, con un rigoroso esame di ammissione per operare una selezione ed una scelta corrispondenti ai criteri adottati.

Per il rimanente, la Scuola esercita i propri insegnamenti mediante lezioni ex-cattedra, esercitazioni e ricerche svolte dai singoli discenti, conferenze e seminari, sopralluoghi, ed almeno un viaggio di studio per ogni anno accademico. Le lezioni ed esercitazioni si svolgono da gennaio a giugno inclusi, per un totale di 1100 h. I docenti non ricevono alcun compenso, essendo tutti professori universitari, dato che il Decreto Presidenziale n.° 162 del 10.3.1982 sul riordinamento di tali Scuole, stabilisce che questa attività di insegnamento costituisce per loro un "adempimento dei propri doveri didattici". Essi sono scelti fra i migliori competenti ed esperti delle rispettive materie, con esclusione dei professionisti dell'edilizia, dotati di sola esperienza pratica, e dei funzionari delle pubbliche amministrazioni, privi di vera preparazione scientifica.

Roma, novembre 1982

INTERNATIONAL MEETING OF COORDINATORS  
OF TRAINING IN ARCHITECTURAL CONSERVATION

ICCROM, Rome, 2-4 December 1982

Notes

on the "School of specialization for the study and the  
restoration of monuments" of the University of Rome -  
Sapienza

Renato Bonelli

The "School of specialization for the study and the restoration of monuments" of the Faculty of Architecture of the University of Rome was founded by the Presidential Decree of 2-9-1957. It began its activities during the academic year 1958-1959. Currently the school is governed by its own by-laws, approved in 1973, which set the aims of the institute thusly: "to give a specific critical and professionally integrated training beyond the university education, and to assure a broader and more comprehensive knowledge of the methods and techniques used in the conservation of cultural properties".

The School carries out a biennial course of specialization, reserved for Italian university graduates in architecture, letters and civil engineering, and to foreigners holding an equivalent degree. The by-laws of the School also permit the establishment of a biennial qualifying course for restorers and conservation technicians, "relative to the practical problems inherent in the various artistic expressions connected to the monumental patrimony, open to those without diploma, both Italian and non-Italian". This biennial course has not yet been instituted.

The programmes of study of the School, developed in two years of coursework, comprise eleven lessons. They are described and characterized as follows:

1. Historical and critical interpretation of art and architecture (1st year), intended to furnish fundamental conceptual definitions of art and architectural history and methodological tools for the historical and critical understanding of architecture and for its evaluation in relation to the

problems of preservation, conservation and restoration. The treatment extends to a critical interpretation of historical cities and landscapes.

2. General principles of conservation of cultural property (1st year) aimed at setting forth modern concepts of architectural restoration in all its aspects: preventive restoration, critical judgement and creativity in restoration, resolution of two different aspects - history and aesthetics - the "historic" time and restoration, the patina and treatment of "lacunae", basic terminology, specificity and characteristics of architectural restoration in respect to conservation.
3. History of restoration (1st year), that critically and systematically sets out the process of development of the doctrines of architectural restoration, from the study of the attitude and of the intervention of the various periods towards the preceding ones, to that of the beginning of restoration as an action with an aim distinct from artistic creation; from "stylistic" restoration to "historical", from the romantic refusal to the so-called "intermediate theory" and to the "philological" restoration, up to the most recent tendencies of "critical" restoration and of "two aspects". This is considered also in relation to the progressive broadening of the discipline in general.
4. Technology of traditional and modern materials (1st year) where, in addition to the problems of the study and use of old and new materials, questions are posed concerning the mechanical tensions in rigid materials, chemical corrosion of porous materials, atmospheric pollution, humidity in walls, vibrations of structures and the effects of street traffic on building fabric.

5. Elements of legislation (2nd year) instruction directed to the study of the historical development of legislation on the preservation of monuments (with mention of comparative legislation), of the laws in effect and internal documents of government offices (Charter of Italian Restoration), charters of extra-national character, of the organizations and judicial apparatus (Agreements, Recommendations).
6. Analysis of architectural stock: typology of traditional structures (1st year), a course in which, on the basis of a general investigative methodology for the study of a monument, the student is expected to execute an architectural rendering of a historic building, and to characterize its historical and aesthetic values and its constructive aspects (methodology and proportion; perspective; typology, distribution and function of space; poetry of form and street views; formal and decorative idiom; building phases and later modifications).
7. Diagnosis of and therapy for static problems, rehabilitation of structures (2nd year) that, moving from static characteristics and from the possible modes of using wood, concrete, reinforced concrete and steel, considers examination of the building site, of the various problems concerning foundations, the functioning of every type of structure, of diagnosis of problems of interventions of every type on structures and on foundations, and precautions against seismic activity.
8. Revitalization and adaption of old buildings: criteria of museology (2nd year), a course in which revitalization is considered as a subordinate correspondent to the conservation process, through the concepts of "role" of the building and

" guest relations" in respect to the new use. The study extends to interrelations between the project of restoration and the programme of adaptation, to the museological processes, to the museum as a tool for conservation, to scientific arrangement, to criteria for design, and to relations between museum, monument and city.

9. Study and conservation of the historical and natural environment (2nd year) lesson that deals with both the historical-critical and methodological-practical aspects of such a study and which are necessary to define the theoretical and conceptual framework and the requisites of the project, the various phases of analysis of the investigations (economic history, structure and form of the area, of the medieval and modern city and of the landscape; quantitative investigations and qualitative evaluation) and the programming, planning and design of the preservation work.
10. Aerial photography and photogrammetry (2nd year), a course that provides the elements necessary to do a photogrammetric restitution of archaeological sites and historic towns, both the rendering of the monuments and, more generally, of the architectural and environmental heritage.
11. Techniques of excavation and restoration of re-emergent structures (2nd year), concerning the methodology and techniques of excavation, in relation to monuments (chronology of construction phases) and application of stratigraphy to buildings of the classical, medieval and more recent eras, for their chronological interpretation. It also treats the problems of restoration of once buried structures, of documentation of excavations and of the work of immediate intervention.

The entire course of study, for which attendance is obligatory, is determined by a criterion of preparatory education that makes necessary examinations in the subject matter covered in points 1),2),3) and 4) before that of point 6), and the latter before that of points 7) and 8). The awarding of the diploma of specialization also involves a final diploma examination, the discussion of a written thesis and drawings of a monument. This thesis includes historical and basic archival research, the critical and philological analysis for a restitution of the environs of the building, and the dating of the construction phases based on exact graphic representation, the critical and evaluational judgement on its historical and formal values and proposals for restoration and rehabilitation, expressed with accurate and numerous graphics.

The preceding discussion clarifies the conceptual basis of the School: considering that a monument, which is above all architecture, constitutes a historical and artistic whole, it is necessary that the restorer possess the instrument which is essential for distinguishing, characterizing and evaluating such values. This instrument is historical and artistic critical judgement; it defines and characterizes the object in its telling values and in its quality of figured image.

Restoration begins therefore with an act of critical judgement, and the same judgement continues to guide the action and choices of the restorer for all that follows, including the final resolution. For these reasons, the restorer, before acquiring his architectural training should be well educated and above all exercise his critical

faculties. An adequate preparation in humanities, philosophy, aesthetics, philology and history and a corresponding artistic sensibility are required of a restorer.

This choice of concepts and methods (that in part take up the so-called "critical restoration") by the School sets exacting requirements for the students of the biannual course. It excludes those who do not have the requisite humanistic background. Thus the restorer as so defined is clearly different from his predecessor: the restorer is no longer a building professional, a design technician, but a scholar, versed in history and artistic criticism. He works without compromise, beyond the mentality limited to practical interests, for the preservation of cultural property. As a consequence, it is foreseen as inevitable that the number of students is limited and that a rigorous admission examination corresponding to the above criteria is adopted.

The School carries out its teaching through lectures, exercises and research undertaken by individual students, meetings and seminars, on-site visits and at least one study trip per academic year. The lectures and exercises take place between January and June, for a total of 1100 hours. The teaching staff do not receive financial remuneration as they are all university professors; the Presidential Decree n. 162 of 10.3.1982 on the reordering of such schools establishes that teaching constitutes an "execution of their own teaching duties". The staff is chosen from among the experts in each field, with the exclusion of building professionals who have only practical experience and public administrators without scientific background.



TRAINING IN ARCHITECTURAL CONSERVATION  
AT  
THE MIDDLE EAST TECHNICAL UNIVERSITY

Okan Üstüncök (+)

In this paper, the first part contains information on :

- a- the general aspects, historical development, and the present day inclinations of the M.E.T.U.;
- b- training in architectural conservation in other Turkish universities;
- c- conditions that gave rise to the establishment of the Department for the Restoration and Preservation of Historical Monuments, Faculty of Architecture, the M.E.T.U.

In the second part the curriculum, staff, students, and facilities of the Department are introduced in detail.

Several conclusions, remarks, and a final critique on the past experience and future prospects of the Department are given in the third part.

(+) B.Arch., M.Arch. in Restoration

Instructor

Middle East Technical University

Former Chairman of the Department for the  
Restoration and Preservation of Historical Monuments

August, 1982

## PART I

### THE MIDDLE EAST TECHNICAL UNIVERSITY

#### The emergence of a new institution

For nearly a century until the early 1950's, there were only two schools in which architectural education was given in Turkey : The Istanbul Technical University, and the State Academy of Fine Arts, also in Istanbul. The former was probably more in the tradition of the polytechnic schools, having begun as a college of engineering with the architectural curriculum added later, while the latter was modelled after Ecole des Beaux Arts to comprise training programmes in painting and sculpture in addition to architecture.

When a survey, conducted in 1954 in a number of Middle Eastern countries, showed that there was a drastic shortage of sufficiently qualified personnel to combat the appalling problem of housing and planning which then prevailed in many parts of the Middle East, it was decided to set up an international architecture school in Ankara, central Turkey. The Middle East Technical University, as it was later named, was thus established in 1956 as a somewhat hastily planned, rather modest school of architecture and planning, with only 40 students and 4 faculty members, to train the much needed technical personnel in these fields. It then grew, in merely two decades or even less, into the truly international regional institution of higher education that it now is, comprising 4 faculties and more than 30 departments in a well developed campus with a student body of approximately 13 000. Current fields of study available include most branches of engineering, sciences, humanities, public and business administration in addition to architecture and planning. There is no training provided in medicine and law.

### Present inclinations : more technology

It is readily apparent from the list of existing departments of the M.E.T.U. that the original objective of, or at least the tendency for training mainly architects and planners has, over the years, shifted towards the more technical / technological fields. The shift is felt even in areas which are traditionally known for their relatively less technical approaches. Within the Faculty of Architecture, for instance, there now is a separate graduate Department of Building Science and Environmental Design in addition to the regular graduate programme of the Department of Architecture, emphasizing perhaps the effects of the developing scientific approaches in fields related to architectural design. Similarly, the recent establishment of an undergraduate Department of Industrial Design, again within the Faculty of Architecture, is possibly a further indication of this very attitude of a more technological orientation at the M.E.T.U.

### How technical is training in architectural conservation ?

Neither has the field of architectural conservation remained unaffected. The Department for the Restoration and Preservation of Historical Monuments was established only after considerable hardship in explaining to the university administration that the purpose of the Department would be to provide graduate architects with skills in and the knowledge of all the techniques necessary to preserve the existing monuments, to restore those damaged by man or by natural forces, and those discovered by archaeological excavation. This inevitably entailed the inclusion in the departmental curriculum of various methods of and laboratory experience in photogrammetry, physical and chemical analyses, and proper treatment of all types of structural faults and material decay.

It is true that the M.E.T.U.'s overriding emphasis on technology rather than the more classical arts, sciences and humanities is

manifest most of all in the technical facilities of the Department, including the photogrammetry centre, the conservation laboratory, and the computerization of various data. But there is a very useful balance too, carefully struck between sciences and humanities, between technique and arts, i.e. the conservation technology on one hand and theory, architectural history, and the aesthetic or even the so called intuitive nature of the design process on the other.

It is also true that this is one of the reasons why life at the Department has not been easy. Conservation is often considered pitifully less technical and less progressive within the M.E.T.U.'s very technologically charged academic atmosphere, whereas other institutions with similar specialized training programmes and especially the practitioners in the field severely criticize the Department for being too technical and, therefore, objectionably cool, dry, and too objective in its approach to conservation issues. To use a well known Turkish proverb, the Department is admired neither by Moses, nor by Jesus.

#### Architectural conservation training in other Turkish schools

What had paved the way for the initial proposal for the establishment of a Department for the Restoration and Preservation of Historical Monuments was the realization, as early as 1963, of :

- a- the lack of adequate facilities for training in architectural conservation in Turkey ;
- b- the rapid disappearance of many a valuable cultural property due to neglect, ignorance, and downright vandalism -not to mention the widespread unintegrated urban planning activities of the past 50 years ;
- c- the increasing government spending in tourism and, consequently, in the restoration and preservation of monuments which was to necessitate obviously a much larger cadre of trained specialists.

The Department officially came into being in 1965 and the first students were enrolled in 1966. There was a partial financial support from the Ford Foundation in the early years of the Department's development.

Prior to the establishment of the M.E.T.U. Department for the Restoration and Preservation of Historical Monuments, the only facilities for training in conservation in Turkey consisted of a few courses offered largely at undergraduate level by the relevant chairs of the existing schools of architecture. The graduates of these schools could then enter employment in the offices of institutions concerned with conservation and learn more on-the-job.

Possibly considering the fact that this was a time-consuming, costly, and often insufficient way of acquiring adequate specialization, the Istanbul Technical University, and the State Academy of Engineering and Architecture, Istanbul, are now offering separate post-graduate training leading to a master's degree in architectural conservation. Yet another school, the Faculty of Fine Arts at the Aegean University in Izmir, has recently launched a novel programme at graduate level whereby training is made available not only to architects but also to archaeologists and art-historians.

The recent increase in the number of Turkish schools providing training in architectural conservation may at first appear in step with the current, universal population expansion in the field. But it is also being argued that it leads to the decentralization of funds and facilities as well as to the dispersal of available staff and students. Therefore, it is likely to be suggested soon, under the new Universities Law, to make better use of the presently separate resources by uniting the existing training programmes within a single central organization.

PART II  
THE DEPARTMENT FOR THE RESTORATION  
AND PRESERVATION  
OF HISTORICAL MONUMENTS

Programme and the degree conferred

Since its establishment, the Department for the Restoration and Preservation of Historical Monuments has been offering the degree of "Master of Architecture in Restoration" upon completion of its two-year programme. Ph.D. may also be earned through facilities for further research.

The Department for the Restoration and Preservation of Historical Monuments is at present one of the five main departments of the M.E.T.U. Faculty of Architecture. The others are :

- Department of Architecture,
- Department of City and Regional Planning,
- Department of Industrial Design,
- Department of Building Sciences and Environmental Design.

Of the five, only the Department for the Restoration and Preservation of Historical Monuments and the Department of Building Sciences and Environmental Design are solely graduate departments. The remaining three have undergraduate programmes as well.

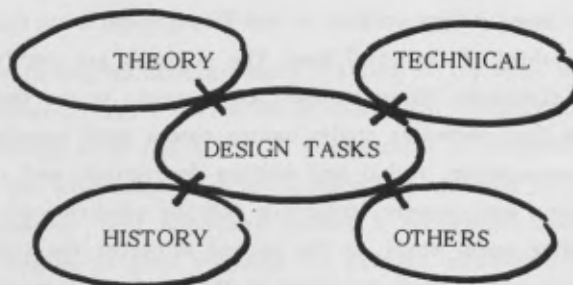
The departmental curriculum is very much loaded, mainly to overcome the lack of adequate preparation at undergraduate level. Consequently, the students' two years within the Department are quite full and completely scheduled from beginning to end.

In each of the two years there are two approximately eighteen-week semesters with the average week consisting of 18 hours of lecture, 15 hours of laboratory and studio, and an additional 21 hours of homework and further reading, totalling 54. At the end of the first year, there is an eight-week summer practice for which students take employment in a government or private office to work on the conservation projects underway. The final semester is given to thesis work which may be on a single building, a group of buildings or a town area on which a report as well as a scheme for its restoration / rehabilitation, etc. are prepared.

Throughout the four semesters the students spend a total of 1026 hours in lectures and 810 hours in the studio and/or laboratory. The thesis and the summer practice which are non-credit are not included in these figures, nor is the time, a total of no less than 1080 hours, that is needed for homeworks, reading assignments, and the like.

#### The structure and grouping of the programme load

The Department's curricular load is, in essence, composed of a series of course groups which ultimately center around what is usually considered as the "main course", i.e. the conservation design studio. The schematic representation of these course groups and their relation to the design studio is as follows :



The theory courses of the departmental curriculum take up 108 hours of lecture / laboratory time, representing roughly 15 percent of the programme's lecture course content. There are two Theory of Conservation and Restoration courses, one in each of the first two semesters.

Architectural History is covered by four courses in addition to at least four that students are required to have had during their undergraduate training. One of the four courses in the Department's curriculum is concerned with historical structural systems while the other three deal in detail with various aspects of the architectural produce of a number of styles and periods in Anatolia and the rest of the Middle East. The four courses together constitute 216 hours of lecture, representing 30 percent of the programme's lecture content.

Conservation technology courses, covering the diagnosis and treatment of structural faults and material decay, laboratory analyses of materials and structures, and architectural photogrammetry, represent 30 percent of the total load of the programme. There are 216 hours each of lecture and laboratory time.

Conservation of Historic Urban Environment, and the Legal and Administrative Aspects of Conservation and Restoration are two supplementary courses, each representing 8 percent of the programme load with 54 hours of lecture.

The three design studios of the Department's curriculum take up one-third of the total load. The students are required to spend each afternoon, three to five days a week, in the design studios. The first semester studio course covers such exercises as the survey, documentation, verbal and written description, and reporting on the history, environment, structure and the condition of fabric of the building under study. In the second semester the students are expected to conclude such exercises in the form of a restoration project while in the third term they are assigned a problem of urban conservation for which they are introduced to the various analyses and techniques necessary for the preparation of conservation



and development proposals for a part or whole of a historic town.

During the final semester, in addition to the thesis dissertation, the students are responsible for a seminar on conservation and restoration in which they are required to make presentations on general conservation issues or on more specific aspects of their respective thesis work if this is advanced enough.

The Department's programme, in general, aims at achieving an intimate exchange between students and the faculty members through courses, seminars, practical work in the laboratory, design discussions and the field trips, all of which are integral and indispensable parts of the departmental activities.

#### Further notes on staff and students

Normally, there are eight members of the permanent teaching staff, two technicians and a secretary employed by the Department for the Restoration and Preservation of Historical Monuments. Five of the teaching staff are architects with degrees in architectural conservation. There is one archaeologist, one art-historian, and one chemist. All have highly specialized in areas pertaining to architectural conservation and they are conversant in a wide variety of relevant fields. In addition to the permanent local staff, the Department often invites other experts to deliver lectures or to conduct seminars.

Not having an undergraduate training of its own, the Department for the Restoration and Preservation of Historical Monuments draws its students primarily from the M.E.T.U. Department of Architecture and from among the graduates of other architectural schools in Turkey and elsewhere. However, only applicants holding a recognized bachelor of architecture degree of good standing are granted admission. A further requirement is proficiency in written and spoken English for the courses at the M.E.T.U. are generally conducted in that language. Although

there is a two-semester preparatory school of language for those who are less fluent in English, these entrance requirements often restrict the number of students to an average of less than 10 each year.

### Facilities

The Department for the Restoration and Preservation of Historical Monuments has the obvious advantages of being on an organized university campus. The staff and students have ready access to the general services and facilities of the M.E.T.U. such as the Central Library, the Computer Centre, a wealth of specialized laboratories, consultancy and supervision that is available within other departments, as well as an archaeological museum the existence of which makes M.E.T.U. unique amongst technical universities world-wide. The Department itself also possesses such advanced technical facilities as a photogrammetry centre, and a well equipped conservation laboratory both of which serve more as research and training units. In the Faculty of Architecture, within easy reach of the departmental staff and students, there are metal, plastic and wood-working shops for model making, a photography laboratory, an offset printer, and the collections of a slide-archives for educational use.

However, the greatest advantage of being within a campus is, obviously, the possibility it offers for closer contact with other departments.

### Interdisciplinary contacts and collaboration

The Department for the Restoration and Preservation of Historical Monuments not only draws its student force from other schools and departments but it also offers several of its courses as elective to students from other departments of the Faculty. The departmental staff contribute significantly to the History of Art and Architecture courses of the undergraduate programme of the Department of Architecture and there are also courses specifically designed by the

Department for the third and fourth year undergraduate students of architecture, as well as a number of "directed studies" in conservation or on various aspects of vernacular architecture, conducted for assisting the doctoral students in their research. Furthermore, a special joint programme is available for graduate students of the City and Regional Planning Department whereby candidates with a bachelor's degree may be admitted to pursue the designated courses of both departments for a degree of "Master of Urban Planning in Urban Conservation". The two-year, four-semester programme contains a total of 54 hours of lectures and studio work per week each term. Approximately 70 percent of the total lecture and studio load of the joint programme is undertaken by the Department for the Restoration and Preservation of Historical Monuments.

Taking into consideration the Department's contacts and collaboration with other departments within the M.E.T.U., it would not be incorrect to describe it as a programme which covers two significant scales of conservation, i.e. urban as well as architectural, at the following levels :

- a- at undergraduate level of the Department of Architecture through a series of preparatory courses offered as elective;
- b- at the level of regular, structured specialization training provided for graduate architects;
- c- at the interdisciplinary level through the joint programme designed for the graduates of the Department of City and Regional Planning.

#### Department's contributions to training at other levels

It is a widely accepted fact that the success of any architectural conservation job depends on the competence not only of the architect-conservator but also of his colleagues from various disciplines, of his technicians, and of others that he is to work with.

In recognition of the absolute necessity of providing specialized training for the technicians too, the Department for the Restoration and Preservation of Historical Monuments had initiated an experimental programme in 1973 when, regularly for more than a year, a series of courses modified or designed for the purpose were given to the technicians then employed by the relevant government offices. Later, in 1980, the Museum of Anatolian Civilization, Ankara, carried out a similar training programme for the museum assistants and technicians who were given laboratory practice in the Department's facilities. The photogrammetry unit of the Department is also used, from time to time, for the education of technicians short-listed for official employment as architectural photogrammetrists.

### PART III

#### CONCLUSIONS AND A FINAL CRITIQUE

##### The future prospects

One might expect that a programme conducted at a technical university would be rather nationalistic and limited in scope. The Middle East Technical University's Department for the Restoration and Preservation of Historical Monuments, however, sets out to be international, at least in the regional context of the Middle East. This is evident, among other things, by the fact that courses are conducted in English. It could be maintained, considering the increased development that has occurred in the Middle East in recent years and which has little likelihood of abating, that the M.E.T.U. Department for the Restoration and Preservation of Historical Monuments has the potential to establish itself as the international regional centre for training in architectural as well as urban conservation with the prospect of offering service from the eastern Mediterranean to India and even beyond.

However, there are a few points that may cause hindrance in this connexion :

1. Despite the noticeable increase in the number of schools providing training in architectural conservation, the number of participants in any one of the available programmes in Turkey is still very much restricted.
2. It is solely the schools of architecture that are expected to offer specialized training not only in architectural conservation but also in the highly diverse fields that share responsibility in the care of cultural property. As yet, however, training for adequate specialization is not provided for planners, engineers, archaeologists, art-historians and others by their own educational institutions as a natural extension of their respective basic training.
3. Within the schools of architecture themselves, the undergraduate training available :
  - a- is drastically insufficient in preparing the students with the theoretical, conceptual, and technical background for any subsequent specialization in conservation of cultural property. One result of this is that the graduate curriculum in the said field thus becomes overloaded and inflexible ;
  - b- is often successful, though, in giving the students a definite bias against or, at best, a surprising indifference towards conservation issues. This makes it very difficult to re-orient the students at the level of graduate training.
4. Despite the increasing possibilities for obtaining adequate training in architectural conservation at graduate level, there is in Turkey ;
  - a- no continuous, regular training at all for technicians, craftsmen, skilled or semi-skilled personnel that are absolutely essential for a successful practice ;
  - b- no provision for on-the-job orientation for high-level bureaucrats, responsible government officials, judges, school teachers, military officers and the like who are instrumental in shaping and/or directing the public opinion.

That the Department for the Restoration and Preservation of Historical Monuments is said in all fairness to have been successful ;

firstly, in promoting the field of architectural conservation as a recognized area of specialization for which structured, institutionalized, and regular training at graduate level is now available at a number of architectural schools in Turkey ;

secondly, in introducing the concept and methodology of urban conservation and in providing training in this field for architects and planners ;

and thirdly, in awakening consciousness in related academic institutions, and among the practitioners, of the need for adequate training at various levels ;

is probably sufficient reason for some people to foster hopes about the future of conservation of cultural property in Turkey with the M.E.T.U.'s Department for the Restoration and Preservation of Historical Monuments, together with other schools, gradually overcoming all possible hindrances.

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#### ACKNOWLEDGEMENTS

Much of the factual and statistical information contained in this paper has previously appeared in various official or otherwise documents such as the General Catalogue of the Middle East Technical University or departmental reports, etc. that were prepared on a number of occasions. It has therefore been impossible to cite quotations or to trace the original source in all instances. Although many of the works that have been consulted are given as references an exhaustive bibliography is excluded. Therefore, the author wishes to extend his gratitude and apologies to all those whose work, views or comments have been immensely useful but not acknowledged separately.



## TRAINING IN ARCHITECTURAL CONSERVATION AT COLUMBIA UNIVERSITY

DAVID G. DE LONG\*

### SUMMARY

Columbia's Division of Historic Preservation, called by the term used in the United States to denote architectural conservation, has a faculty of five professors and 14 adjuncts, and offers 44 specialized courses within the Graduate School of Architecture and Planning. Students elect one of four options dependent on their professional objectives: preservation design, preservation planning, architectural history, or conservation science. The conservation laboratories, and the conservation science option, are the most developed of any university in the country. The program requires two years to complete and leads to a Master of Science degree in Historic Preservation.

\* David G. De Long, B. Arch., M. Arch., Ph.D., is Associate Professor of Architecture and Chairman of the Division of Historic Preservation in the Graduate School of Architecture and Planning at Columbia University, New York City.

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Cultural attitudes in the United States have tended to impede the development of training programs in architectural conservation. Buildings have been treated as consumer goods that are better replaced than saved. Constitutional guarantees of private property rights are passionately upheld and inhibit legislation dealing with the protection of the built environment. This is changing. Concerned groups have alerted the public to a need for environmental controls and have been effective in bringing such controls into being (Hosmer, 1976, 1981). But in this comparatively early stage of awareness, the emphasis has been on political and economic strategies rather than on technical skills, and these have been treated casually in academic circles. Further it has not been adequately perceived that the field of Historic Preservation encompasses several component professions, each requiring specialized training. More than 100 colleges and universities in the United States offer one or two general courses in conservation, or historic preservation as it is called in the United States (Lee, 1981; National Conservation Advisory Council, 1977, 1980). Because there are no formal certification procedures for preservationists in the United States, the graduates of such programs can claim equality with those more professionally trained and are often so accepted by the public.

At Columbia University, we are attempting to improve this situation by defining four component professions and providing specialized training for each. We are so far the only school in the United States so organized (Lee, 1980). Beginning in 1964, Columbia was among the very first American universities to offer classes in preservation. We now offer 44 specialized classes within the Graduate School of Architecture and Planning, and have on our departmental faculty five professors and 14 adjuncts. The program takes two years to complete and leads to a Master of Science degree in Historic Preservation. We admit between 30 and 40 students each fall; they are required to come with some knowledge of architectural history and drafting, and take around 20 classes during their time at Columbia. Facilities provided for the students include two design studios and six conservation laboratories. By special arrangement, we have access to two building crafts workshops that are privately run and to material testing laboratories maintained by Columbia's School of Engineering.

Each student must elect one of four professional options: preservation design, preservation planning, architectural history, or conservation science. To facilitate professional interaction as well as provide a shared basis of knowledge, all students are required to take certain introductory courses during their first year. These include a seminar on the theory of historic preservation, a collaborative studio in which students propose solutions to actual preservation problems in the New York City area, two courses on techniques of documentation, and at least two lecture courses on the history of American architecture, landscape architecture, urban development, decorative arts, or building technology. In addition, all students without prior training in architecture or a related profession are required to take introductory courses in design and building construction. A required summer internship between the first and second years guarantees some field experience. Dur-

ing the second year, each student concentrates on an independent thesis project related to a professional option, and University-sponsored field trips to selected sites and conferences further establish professional contacts.

The preservation design option is restricted to degree holders in architecture, landscape architecture, or interior design. It is meant to provide specialized training for those who will work with historic fabric, and the curriculum emphasizes design studios that deal with problems of adaptive use and infill. The curriculum also emphasizes the development of technical skills, and requires classes on the writing of specifications for conservation work, the integration of mechanical and structural systems within historic structures, and at least three laboratory courses in conservation science.

The preservation planning option is designed for those who intend to work in municipal, state, or federal government, especially within various regulatory commissions; or for those who plan to work in development and finance within the private sector. The curriculum specifies courses in such areas as land use in historic districts, preservation law, and legislative techniques for preservation. A secondary emphasis on the history of the built environment provides essential background for land development and regulatory action responsive to historic settings. Students in this option are encouraged to take a second degree in urban planning.

The architectural history option prepares students for scholarly pursuits related to the preservation field, generally within museums or universities. Columbia's Division of Historic Preservation now offers more classes on the history of the American environment than any other department in the United States, and it is these lectures and seminars that form the major component of this option. Unlike graduates of standard academic programs, our students in history are also required to develop technical skills in drawing, construction, and field documentation. In addition to those core classes already described, they take one introductory course on preservation planning skills and one advanced course on specialized investigative techniques for buildings--what we call "above ground" archaeology. This facilitates work with actual buildings, essential to historians who undertake their fundamental responsibility of developing a theoretical rationale for preservation.

The conservation science option offers technical training analogous to that of the art conservator. Those entering this option must have some background in laboratory science, and the curriculum emphasizes laboratory courses dealing with qualitative and quantitative chemical analysis of building materials. Following introductory laboratory courses, students take at least four specialized seminars concentrating on the investigation and treatment of materials in field situations. These focus on such individual materials as wood, masonry, and glass as well as on more complicated problems of building pathology that include research on architectural finishes and corrective treatments for

twentieth-century structures. Building crafts techniques are also studied. A secondary emphasis on architectural history supplies background for knowledgeable evaluation in the preparation of building reports.

Among our faculty are two conservators who direct this option and teach the majority of courses within it: Norman R. Weiss and Frank G. Matero. Additional classes are taught by four adjuncts. One graduate student and one post-graduate intern, both of whom are concentrating in conservation science, work as assistants in the laboratories. With this staff it has been possible to accept outside research contracts that are of both academic and financial interest. Early results include the development of techniques for cleaning stone and brick in restricted situations, and proceeds from these contracts have enabled us to purchase additional equipment and acquire reference collections of material samples. The conservation option is the most technical within the Division of Historic Preservation, and the most critically in demand.

In the near future, we hope to give clearer definition to these options by offering four separate degrees that reflect the specialization involved: a Master of Science in Preservation Design, a Master of Science in Preservation Planning, a Master of Arts in Architectural History, and a Master of Science in Conservation. Each will involve additional professional training. The degrees in design and planning will both require a corresponding degree in architecture or urban planning. The degrees in history and conservation will each be strengthened by an additional year devoted to a structured internship. Two federal grants received this year have enabled us to begin offering limited internships in conservation science; one in residence at Columbia, and one in residence at the Center for Building Conservation, a private New York organization founded by Columbia graduates. In conjunction with the Study Center for American Architecture which is being established at Columbia, we will offer internships for advanced research in history. In cooperation with the Metropolitan Museum of Art in New York, we are designing post-graduate programs in connoisseurship and conservation that will include extended internships in history and conservation science. Each of these will also allow selected candidates to work towards a Doctor of Philosophy degree. In establishing these advanced programs, we hope to receive additional federal and private funding as we move toward recognized professional status for our graduates.

HOSMER, C.B., Presence of the Past: A History of the Preservation Movement in the U.S. Before Williamsburg, New York, 1976; Preservation Comes of Age: From Williamsburg to the National Trust, 1926-1944, 2 vols., Charlottesville, 1981.

LEE, A.J., editor, Guide to Undergraduate and Graduate Education in Historic Preservation, Washington, D.C., 1981.

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NATIONAL CONSERVATION ADVISORY COUNCIL, Report of the Study Committee on Architectural Conservation, Washington, D.C., 1977; Suggested Guidelines for Training in Architectural Conservation, Washington, D.C., 1980.

## CLASSES OFFERED IN HISTORIC PRESERVATION:

(note: not every class is offered every year )

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THEORY AND PRACTICE:

A6740	Theory of Historic Preservation	3
A6745	Documentation I	3
A6755	Documentation II	3
A4210	Basic Principles of Traditional Construction	3
A6710	Building Systems Integration	3
A6735	Contract Documents	3
A6754	Special Problems in Preservation	3
A6780	Preservation Trade Techniques	3
A6781	Preservation Trade Techniques	3
A6751	Thesis I	3
A6753	Thesis II	3

DESIGN:

A4510	Design Principles for Preservation	4
A6749	Historic Preservation Studio I	4
A6750	Historic Preservation Studio II	4
A6774	Historic Preservation Studio III	7
A6775	Historic Preservation Studio IV	7

HISTORY

A6730	American Architecture Before 1876	3
A6731	American Architecture After 1876	3
A6766	American Architecture Colloquium	3
A6732	American Decorative Arts Before 1853	3
A6733	American Decorative Arts After 1853	3
A6752	Decorative Arts Colloquium	3
A6769	History of the American City	3
A6310	History of the American Landscape	3
A6760	History of American Building Technology	3
A6734	Classical Language and Literature of Architecture	3
A6772	Vernacular Architecture	3
A8790	Research Problems in History	2 or 3

Classes p. 2.

CONSERVATION:

A6764	Conservation Science	3
A6763	Advanced Conservation Science	3
A6761	Conservation Seminar: Masonry	3
A6739	Conservation Seminar: Stained Glass	3
A6712	Architectural Finishes in America from 1650 to 1950	3
A6738	Investigative Techniques for Historic Structures	3
A6737	Conservation of 20th Century Structures	3
A6762	Building Pathology	3
A8790	Research Problems in Conservation	2 or 3

PLANNING:

A6767	Preservation Planning	3
A6776	Information Management for Preservation	3
A6759	Politics of Preservation	3
A6770	Issues of Urban Preservation	3
A6862	The Legal Structure of the Urban Built Environment	3
A4538	Development and Finance	3
A8790	Research Problems in Planning	2 or 3





INTERNATIONAL MEETING OF COORDINATORS OF  
TRAINING IN ARCHITECTURAL CONSERVATION

ICCROM, Rome, 2-4 December 1982

Conservation studies in the University of York, England

DEREK LINSTRUM

Dipl. Arch., PhD, FSA, RIBA

Radcliffe Reader in Architectural History and Conservation

## BACKGROUND

- 1.1 The Institute in Advanced Architectural Studies was founded by the York Academic Trust in 1953, following the successful organization of a series of Summer Schools at which the subjects taught were architectural history and the treatment of historic buildings. From this relatively modest beginning the original idea expanded and the Institute began to mount a series of short courses intended for all the building professions and aimed at those in their mid careers. The subjects were varied, but the study and treatment of historic buildings remained a constant, central element. When the quinquennial inspection of churches became an obligatory requirement, the Institute set up a series of courses to help architects accept this new responsibility, and in 1968 it was the host for the important conference on conservation and development in historic towns and cities. In 1971 the Institute collaborated with the British Council in the first of an annually repeated course lasting two weeks; this was on the subject of the conservation of historic structures, and it was devised for overseas architects, planners and historians. In the early years the course was closely associated with the Department of the Environment, the central government organization responsible for historic buildings and policies of urban conservation.
- 1.2 When the University of York was founded in 1961, the Institute became a part of it, and subsequently it moved into its present home, The King's Manor, an important historic building in the centre of the city. In the 1960s and 70s the pattern of short courses was continued, but the Institute's activities expanded in other directions too. An architectural practice was added in 1966, and five years later a Director of Research was appointed to initiate and supervise sponsored individual pieces of research which are normally published. A photogrammetric recording unit was transferred from the Royal Commission on Historical Monuments in 1975, and this is financially sponsored by the Department of the Environment for which the unit makes surveys of historic buildings in "the State's" guardianship. As a University department, the Institute accept post-graduate students working for higher degrees, but it has never had any undergraduate courses.

## THE COURSE IN CONSERVATION STUDIES

- 2.1 It was out of the activities developed in the 1950s and 60s that the idea grew of organizing a longer, full-time course

specializing in the treatment of historic buildings and towns. This thinking was in accordance with the recommendations of the Standing Conference on the Training of Architects in Conservation (set up in 1959 and representing the national organizations responsible for different sections of the national architectural heritage) and the Department of the Environment. A proposal was agreed in 1971, and I was appointed to the University staff in that year with responsibility for the organization of the course and for conservation studies generally.

2.2 The financing of the new undertaking could not be accepted by the University at that time, and it depended on a number of generous supporters. The chief sponsor was the Radcliffe Trust, a private trust founded in the eighteenth century, which had adopted a policy in the 1960s of supporting the conservation of traditional crafts. There was also support by another private trust, the Ernest Cook Trust, and by the Department of the Environment. The Radcliffe Trust still supports the course, although the University took over the responsibility for part of the financing in 1976. The Department's financial help ended in 1981. These details are given to emphasize that post-graduate courses are expensive undertakings requiring assured support and continuity.

2.3 It might be worth mentioning briefly my own background. I trained as an architect and was in local government practice for eighteen years. During the last seven I was becoming closely associated with the treatment and adaptation of historic buildings. In 1966 I took up a lecturing appointment (in architectural history) and submitted the result of historical research for PhD degree in the Department of Fine Art in the University of Leeds. Since I moved to York I have been engaged fully in directing conservation and historical studies, research, writing and consultancy.

2.4 It was decided that no other full-time appointments, other than mine, should be made when the course was initiated in 1972. This was a considered decision based on the belief that conservation teaching needs to be closely related to practice and wide experience, and that it must be up to date. Such requirements can be met only by using practitioners as part-time lecturers. As this has always been the pattern of short-course education in the Institute, it was a rational extension of a proven method. It also allowed the short courses and the full-time course to be combined at times; for example, out of the 48-week full-time course programme 6 or 7 weeks are also offered as separate short courses in which the full-time participants are joined by up to 30 professionals for a period of 3 to 5 days. On an average, there are between 70 and 80 part-time lecturers each year; some may give one lecture or semi-

nar only, others may be there for a week. The cost of this compares favourably with that of one senior lecturing appointment, and the value is infinitely greater. But the success of this method depends ultimately on the availability of a good number of experienced architects, planners, technical advisers, etc. Nevertheless, the importance of establishing such a link with everyday conservation practice cannot be overstressed. During the year a participant has an opportunity to meet most of the leading conservation practitioners.

2.5 If experience is essential in those who are teaching, it is equally so (although usually in a lesser degree) in those who are being taught. One of our first decisions was to make the course mid-career, as it was believed participants would obtain the maximum benefit only if they had already had experience of their profession in practice. This does not necessarily mean they must have had experience of working on historic buildings or towns, but they should have learnt at first hand about site problems and organization, the behaviour of building materials, and the responsibility of taking decisions. It was thought that participants should have had a minimum of four years experience, and in fact many have had considerably more. There is no reason to reconsider this decision, the wisdom of which has been proved beyond doubt. Our own experience has shown that when we have waived this requirement because of a pressing request to do so we have found that an immature participant has not been able to benefit from the course to the same extent as his or her older colleagues.

2.6 In deciding about the size and composition of the course, it was realized there were several options. These were discussed, but in the end the number of 15 participants was thought to be appropriate. Over the years since 1972 there have been fewer at times, more at times; but it is still our belief that this is a satisfactory number which allows a good standard of personal supervision. In the present year there are 13 participants. It was also decided that the composition of the course should not be exclusively architectural. In many countries there is now a well-developed system of multi-professional teams in conservation, and in urban conservation the role of the town planner is often paramount. Accordingly, it was decided to make the course multi-disciplinary. The majority of the participants have been architects or planners, as one might expect, but we have also had historians, archaeologists, landscape architects, building sur-

veyors, land surveyors and quantity surveyors. Our experience has been that those who have not been trained primarily to deal with buildings are seldom at a disadvantage after the first few weeks, and they can add another valuable dimension to the course. Interestingly, after taking the course some have made a significant change in the pattern of their careers.

It was also decided that although it was expected the composition of the course would be principally British, other nationalities would be welcomed provided they were fluent in English. Most of those from abroad have been from countries with an Anglo-Saxon cultural background (USA, Canada, Australia, South Africa), which confirms the rational idea of attempting to set up courses for those with common cultural ties. But in York we have successfully accepted participants from East and West Africa and the Middle East. There is also a long-standing arrangement with the National Trust for Greece that an annual scholarship should be awarded to a Greek architect. Overseas participants are generally supported by British Council or Unesco Scholarships or by grants provided by their own countries. British participants have been supported by various government grants (although these were out last year), or by private trust funds, or by their own practices. Sometimes both overseas and British members have been self-financed, but the increased fees and rising costs of living have made this an expensive undertaking. At present the fees (which are controlled by the University, not the Institute) are £ 1,413 (British and EEC) and £ 2,700 (overseas) per annum.

## THE SCOPE AND PATTERN OF THE COURSE

- 3.1 Each year's course is markedly different in character, depending on its composition. Even when the basic pattern is the same the character and experience of the participants give the course an individual interpretation. This may be obvious, but because of it there must be a flexibility in the programme, and there must be room to shape the course to each participant's requirements; sometimes these requirements can be identified before he or she comes, but more often they emerge only during the first few months. We like to think that each participant can take a slightly differently patterned route through the course, and so in general one day each week is left free, and in each term there is some time set aside for individual (usually directed) study. This time is used for the development of a personal interest, either by library research or visits; but it is also used partly in the preparation of a seminar which is presented to the rest of the participants and the Institu-

te staff at the end of the first and second terms. The quality of this presentation is incorporated in the continuous assessment, which may be taken into account by the examiners at the end of the year.

The participant's special interest culminates in the individual work done in the third term in the preparation of a dissertation, which is submitted to external and internal examiners for the award of the University's Diploma in Conservation Studies (from 1982-83 this is to be changed to an MA (Conservation Studies)). The outstanding work is recognized by the award of a Diploma with Distinction. A list of the dissertations submitted between 1972-73 and 1980-81 is attached, and the wide range of interests may be assessed from this. Many are substantial, sometimes pioneer, studies which have since been used as reference by practitioners; and in a few cases participants have taken advantage of the facility which allows them to reduce the required time in order to submit a complementary or greatly expanded dissertation for a research higher degree (MPhil or DPhil).

3.2 Partly because of the relationship between short and full-time courses (see 2.4), and partly for convenience of organization, one aspect of conservation is allotted to each week of the taught programme of the first two terms. In general the first term is concerned with history, philosophy and legislation, while the second concentrates on building methods and materials, inspection, recording and reports. Some practical work on stone, timber and plaster is included in the latter. Lecture and seminar material is supplemented by visits, and in addition there is a 7-day programme of field trips in each of the first two terms. The latter include visits to sites and buildings under active conservation or completed projects, and there are meetings with architects and planners in private and official practice, visits to workshops etc. In arranging these field trips and practical elements there is inevitably a degree of pragmatism; the most interesting phases of work do not necessarily coincide with an appropriate week in the programme, and sometimes an unexpectedly valuable opportunity arises, but this has to be accepted. The aim cannot be to offer a completely comprehensive course of training, but to supplement first-hand experience transmitted by practitioners with first-hand observation and inquiry by the participants.

3.3 Conclusions based on our experiences at York about the requirements, size and scope are included in the preceding sections. But it may be worth examining in this final paragraph the benefits to the course that might be gained from related activities. In

theory the existence of an architectural practice within the Institute ought to be an advantage, but in fact most of their work is connected with new buildings. Even when there an element of conservation (as in the adaptation of an old building or the design of in-fill buildings in an historic group) there are few opportunities to make use of it. Either the timing is wrong or inappropriate, or some urgent requirement of the practice occurs to upset the programme. The practice, therefore, is a doubtful advantage; on the other hand, research workers can be of great assistance. In some cases, course participants have stayed on or returned to be appointed to undertake a specified, sponsored piece of research (e.g. The Designation of Conservation Areas, The Underuse of Upper Floors in Historic Towns, Staffing for Conservation in Local Authorities, Eighteenth-century Paint and Colour, Design Methods in Historic Towns). During the period (from one to three years) they are working in the Institute, they are in close, informal touch with the course participants; they can provide valuable case studies, they can discuss the progress and results of their work, they can offer advice during the preparation of dissertations. We believe that sponsored research should be actively encouraged as a complementary activity to a training course. It should not be necessary to stress the importance of a well-stocked library; this is essential, but in fact it is a costly undertaking if it has to be initiated. In our case we are fortunate to have a good collection concentrating on history and conservation. Finally it should be emphasized that no course can succeed if it does not have the active support of the building professions themselves. They must be convinced the course is necessary and practical, since they will have to provide part-time lecturers, subjects for field trips, and ultimately they will be employing the products of the course.

July 1982

3. DISSERTATIONS PRODUCED BY PARTICIPANTS OF THE DIPLOMA COURSE IN CONSERVATION STUDIES

<u>Author List</u>	<u>Titles</u>
ALEXANDER (David Sinclair)	Architectural conservation in the Republic of Ireland. 1973
ALLEN (Nicholas Knowles)	The care and repair of cast and wrought iron. 1979
ANDREWS (Ralph Neville)	Farm buildings in the North York Moors National Park. 1975
ARNOLD (Graham R)	An appraisal of modern buildings of the Thirties in Britain. 1980
ARTOLA (Graciela)	Rehabilitation of XVIth century monasteries in Mexico. 1979
AYLWIN (Daphne Anne)	Under Wychwood: a study of five villages in the lower Windrush River Valley. 1973
BALOH (Vera)	Jože Plečnik: his work and his approach to restoration. 1973. 2 vols.
BASSETT (Brian Walter)	Conservation area advisory committees. 1979
BIANCHI (Paul James)	Conservation of fortified buildings in Malta. 1977
BLACKWOOD (Brian)	George Gaze Pace, 1915 - 1975. 1976
BOOTH (Jon A)	The buildings of New Malton. 1978
BRAIM (Eric Lawrence)	The country houses of S Yorkshire. 1979
BRAND (David)	Softwood in English domestic building: history and preservation. 1976
BROOKE (Cornelia E)	The stones of York. 1976



BULL (Lisen)	The restoration of Benningbrough. 1980
BURNHAM (Keith)	Conservation of farm buildings, with special reference to light industrial conversions. 1980
CARTER (John)	Conservation for whom? 1979
CARUS (Charles)	Walter Henry Brierley, architect, 1862 - 1926. 1973. 2 vols.
CASSIDY (Darien)	Problems in conservation. 1978
CHAPMAN (Bradford)	Cleaned masonry. 1979
CHARLTON (Ken)	Accommodation for travellers in York - past, present and future; a study in conservation. 1973
CHILD (Peter Christian)	Archaeology and Pontefract. 1973
CID SANCHEZ (Donald del)	Conservation and architecture in Guatemala; a study of the history of architecture and the need for conservation of monuments in Guatemala. 1974
COLCLOUGH (John Patrick)	The staircase in Irish Georgian architecture: a conservation study. 1981
CORKERY (Peter Joseph)	Wapping: a study of urban change, continuity and conservation. 1981
COWLE (Lindsay)	Conservation: motive and method. 1975
CRAIGO (Steadie R)	"...An architectural Trojan horse": a dissertation on some aspects of the design of development in the urban conservation area, and in particular two development proposals for the historic centre of York. 1976
CRANE (Trudy)	The stones of Newcastle-upon-Tyne. 1976
CURR (Geoffrey G)	The struggle to preserve the town defences of York: 1800-1835. 1976
DAVIES (Stephen Lawrence)	Conservation legislation in practice: the designation of the Victorian villa estate. 1977
DAY (Richard)	The effect of fire regulations on existing buildings in England. 1978
DIMACOPOULOS (Jordan)	Neo-classical prelude in Greece: George Whitmore's architecture at Corfu; history and conservation. 1975. 2 vols.

DONALDSON (Peter Ross)	Conservation education for architects in Britain. 1976
EDGE (Royston G)	Domestic service equipment. 1978
ENGELKING KEELING (Sigismund)	Graphic representation and conservation: a study in drawing techniques and types required in building conservation. 1981
ENGLISH (John M)	New uses for redundant churches: a conservation study, <u>etc.</u> 1976
FALKINGER (Richard)	Wells Cathedral: an approach to restoration. 1978
FISHER (Peter Hugh)	The conservation of railway monuments. 1973
FREAKLEY (Robert Allan)	An appraisal of conservation in Kings Lynn. 1977
GALLAGHER (Janette)	Country house ownership. 1979
GAMSTON (David Ralph)	Building conservation in context. 1973
GAMSTON (David Ralph)	The designation of conservation areas: a survey of the Yorkshire region, <u>etc</u> York, IAAS 1975 (Research Paper 9)
	Report sponsored by the Ancient Monuments Society; the Pilgrim Trust and the Social Science Research Council.
GASCOYNE (John)	Cost control and contract procedure in the conservation of historic buildings. 1976
GODWARD (Brian)	Rotherhithe. 1979
GOODCHILD (Peter H)	An approach to the study and conservation of gardens and parks <u>etc</u> of historic interest. 1978
GREAVES (William D)	Housing Associations and the conservation process. 1975
GREENWOOD (David)	The renewal. 1978
GOULD (Meredith Karen)	Weatherboard buildings in England. 1981
HARRISON (John Raymond)	Traditional cob and chalk-mud building. 1979
HECKER (Amy R)	Mortars and renderings. 1977
HILLAND (Peter)	Values and architectural conservation. 1978
HISLOP (John)	Recording and analysing barns in the Barnsley area. 1978

HOLLAND (Geoffrey John) Architectural salvage: a comparative study. 1981

HOLMES (Trevor John) Historic building conservation team communication. 1973

HOWELLS (Trevor) The new and compleat gentleman and architect's guide to the conservation of decorative plasterwork. 1980

HURLEY (Kent C) Haworth. 1978

HYLAND (Anthony David Charles) Fort St Jago, Elmina, Ghana. 1979

JOHNSON (Byron) Rehabilitation of commercial waterfronts. 1980

KARASSAVA (Fotini) Byzantine wallpaintings and the architect. 1981

KELLY (Mary) Lighting of historical buildings. 1978

KERR (James Semple) Improvers and preservers: a dissertation on some aspects of cathedral restoration 1770-1830, and in particular on the great screen squabble of York Minster from 1829 to 1831, together with notes on an examination of the screen in April 1973, and certain suggestions regarding further improvements. 1973

KIZIS (Yannis) Traditional houses of Pelion (a conservation approach). 1977

LANGENBACH (Richard Randolph) Between past and present: observations on the history and conservation of nineteenth century industrial buildings. 1977

LAWRENCE (Charles) Towards an inventory of historical structures. 1977

LAWSON (Rowena M) The demand for housing in York in relation to urban renewal and conservation. 1973

LOAN (Christopher John) Robin Hood's Bay. 1979

LOWE (Brian G) The restoration of brickwork and architectural terra-cotta. 1976

MAKINO (Keiji) New Earswick. 1979

MEEK (Marion) Conservation in Exeter and Southampton. 1945 - 1975. 1975

MEISENHELTER (Donald) Early Georgian buildings of Australia and their preservation. 1977

- MUTER (Grant) Conservation and the building crafts. 1973
- MYERS (Susann) The conservation of wallpapers in historic buildings. 1981
- MYLONAS (Constantine P) 'Neoclassica': a case for the conservation of secondary 19th century buildings in Athens. 1977
- NAYIR (Ayşe Zeynep) Archaeology and conservation. 1978
- NEAVE (David) Conflict in Arcadia: village conservation and residential development. 1974
- NEWCOMBE (Gordon) Building and society - building societies. 1979
- OLSON (Gregg Andrew) Slaithwaite Hall: a conservation study. 1977
- PEDLAR (Richard Glanville) The grand Victorian and Edwardian hotel: a conservation study. 1977
- POPHAM (John H) Farm buildings: function and form. 1973
- POWTER (Andrew) Conservation of concrete in fortifications, etc. 1979
- PURKISS (Donald N) Conservation by improvement: a feasibility study in relation to historic timber framed vernacular dwellings in north west Essex. 1975
- RENNIE (John William Linsingen) Heath: a conservation study, etc. 1974. 2 vols.
- ROBINSON (Philip) The removal and re-erection of buildings in an open air museum context. 1976
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EXPERIENCES OF SPLIT (YUGOSLAVIA) IN THE POST-GRADUATE EDUCATION  
ON ARCHITECTURAL HERITAGE

Tomislav Marasović\*

SUMMARY

The author talks about the experiences obtained through the Post-graduate Course on Architectural Heritage which has been in existence since 1975 and which has, until now, been attended by four generation of post-graduates.

The Course is designed as a biennial M.Sc. - level programme of national character, opened primarily to architects, but also to specialists in other fields. In the educational programme, which is divided into 8 groups dealing with numerous subjects, about 50 professors from various parts of Yugoslavia have participated. In addition to lectures, the programme includes seminars and practical exercises in historic, architectural and urban issues. The result of the Course in Split has been fostering a continuous contact between the post-graduates of all the generations. The author suggests and pleads for similar contacts on the international level to be considered.

FOOTNOTE

\* Co-director of the Post-graduate Course on Architectural Heritage; full Professor at the University of Split and the University of Zagreb.

EXPERIENCES OF SPLIT IN THE  
POST-GRADUATE EDUCATION ON ARCHITECTURAL HERITAGE

1. Organization and type of the Course

The Post-graduate Course came into being in 1975 and was organized jointly by the University of Split and the Architectural Faculty of Zagreb which is its actual bearer. The original title of the Course had been: "Post-graduate Studies on the Protection and Revitalization of Architectural Heritage". Since the protection of architectural heritage is only a part, though a very significant one, of the entire programme of the Course, and as the revitalization is only a method, the Course was re-titled to become "Post-graduate Course on Architectural Heritage" thereby reflecting the wide range of its educational programme, meaning that, after accomplishing the Course, its attendants are holders of the Master of Science degree.

The Course is the first of its type in Yugoslavia, open to all national attendants who graduated in architecture, but also, considering the multidisciplinary character of the protection of architectural heritage, to specialists in other fields /art historians, archaeologists, historians, civil-engineers, surveyors, economists/. However, in consistency with the new regulations enacted in Yugoslavia relative to academic education, for specialists other than architects a special agreement must be reached on co-organization of the Course between relevant Faculties and the Architectural Faculty in Zagreb as, for example, has been done with the Faculty of Arts in Zadar for the domains that fall within the humanistic studies.

The Course lasts two years /four semesters/ and is organized so that the lectures are concentrated in the first and the third /winter/ semester, whereas practical work is carried out in the second and the fourth /summer/ semester.



The Course is, as a rule, led by one programme co-ordinator in Split and the other who is the member of the Scientific and Educational Council of the Architectural Faculty in Zagreb. Eight leaders of the study groups /and, among them, two co-ordinating leaders/ make the Immediate Council of the Course wherein every generation of post-graduates is represented by two delegates who advocate students' wishes and participate in discussions on all major issues.

The leaders and the Immediate Council of the Course are expected to submit reports to the Scientific and Educational Council of the Architectural Faculty in Zagreb on the work as well as on educational plans and programmes. To ensure the multi-disciplinary character of the Course all co-organizing Faculties will be represented in the Immediate Council so that their educational councils will be competent and responsible for supervising the work carried out in their own specific provinces.

## 2. Students and professors

Applicants for the Course are selected after a competition, priority being given to those who possess certain experience in the subjects dealt with, as well as appropriate references on their past work. Each generation yields 25 attendants at most, so that the past four generations numbered 95 post-graduates altogether. In course of the studies only 5 students have quitted, meaning that almost all the enlisted accomplish the Course on time. Somewhat different situation is when the time for actually taking the Master's come. The majority of post-graduates have to postpone it due to other responsibilities and tasks they are tied with.

Professors come mostly from all Yugoslav University centres, or have been recognized for their work and experience in the field of architectural heritage /the latter mostly from the Institutes for the Protection of Monuments, Town-planning Institutes, etc./.

In addition to 8 co-ordinators, each generation of post-graduates has enjoyed the participation of about 50 professors from

home and several from abroad who have responded to the invitation greatly owing to a good co-operation between the Course in Split and ICCROM.

### 3. Educational programme

The Post-graduate Course covers the following aspects of training:

3.1 Lectures are carried out under 8 groups, each covering a number of subjects. Co-ordinator of individual group is responsible for the organization of lectures in all subjects dealt with, and invites, in co-operation with the Co-directors of the Course, relevant professors to lecture within the province of the group.

The groups are as follows:

- Architectural heritage - theory and practice.
- Social aspects of architectural heritage.
- Architectural heritage in view of physical planning.
- Architectural heritage dealt with in view of humanistic sciences.
- Architectural heritage in view of technical sciences.
- Protection of architectural heritage.
- Designing and interventions in architectural structures and environments.

Post-graduates are subjected to cumulative examinations on the above listed subjects.

3.2 Practical exercises are focused on the historical and architectural treatment of a group of buildings, as well as on the urbanological treatment of an old town.

Exercises in the historical and architectural domain on one building or group of buildings have until now been carried out in the historic centre of Split. They consist of both individual

and collective work. The individual work includes the treatment of a building complex in the historic centre of Split together with the analyses of the existing state, of historical development, evaluation and proposal for improvement. On the basis of architectural surveys prepared by specialized municipal services, the post-graduates are given the task of preparing the textual and graphic analyses of individual historic stages; a study of historical development; photographic documentation of the entire complex, of details and techniques of construction; precise drawings of typical forms and sections; and the evaluation and proposal for improvement. The collective work is carried out in groups entrusted with the preparation of the synthesis /on the basis of prepared analyses/ with a chronological classification of buildings, types of openings, profiles, capitals and other decorative elements, and a classification of building techniques.

Urbanological exercises are carried out in different historical areas so that each generation of post-graduates deals with the area subjected to no similar treatment earlier. These exercises can be subdivided into three major parts which include:

- Preparation of an inventory of all buildings within the historic centre on the basis of the inventory list which, in addition to providing regular data for protective purposes, contains a wide range of other information relative to detailed urban plans and projects of the historic core. The preparation of the inventory has been accompanied by the photographic documentation of the area concerned.
- Graphic analyses are prepared on the basis of the inventory data. Each student is expected to make an analysis and a textual comment to it, showing the state of the historical area dealt with, as well as causes of its deterioration. The exercises undertaken so far have included the analyses such as technical, historical and aesthetic; conservation analyses; analyses of ownership and function, of traffic and

infrastructure; demographic and sociological analyses; and visual analyses.

- Physical development of the historic area and guidelines for its improvement.

In dealing with historic cores, the purpose of accomplished urbanological analyses has not been solely educational. They have also had a significant practical quality being the fundamentals for the preparation of subsequent detailed plans for the areas concerned.

3.3 Seminars are dedicated to various subjects in the domain of architectural heritage as well as to the communications and papers prepared by the post-graduates. The seminars are organized either as the "round-table" discussions or lectures wherein outstanding domestic and foreign experts participate.

Through their papers, the post-graduates inform either on various problems, mostly those encountered during their work, or on their experiences obtained through the investigation and protection of the architectural heritage, thereby being gradually introduced into a scientific approach to presentation. Also, their contribution widens up the subjects relative to the problems and experiences of our country, which fall within regular courses.

The educational programme is subjected to constant modifications whenever the need presents itself for introducing some new elements or aspects of educational contents. In this respect, suggestions offered by the students through discussions and questionnaires have proved particularly beneficial.

Theses prepared for the Master's degree cover a wide range of subjects in the domain of architectural heritage, including research and protection through planning and designing process, treated from theoretical as well as practical aspect. Mention should be made that the majority of candidates for the Master's

have favoured the theses which, in addition to being of scientific interest, could become practically applicable in resolving the problems of protection and improvement of historic areas and buildings.

#### 4. Re-unions and contacts of post-graduates after the accomplishment of the Post-graduate Course

The Post-graduate Course initiated permanent meetings of experts in the protection and revitalization of architectural heritage and, particularly, of its ex-students and professors, with a view to maintaining the continuous co-operation and exchange of experiences. Owing partly to this initiative, the Zagreb Architectural Faculty established in Split, in 1978, the Centre for Architecture and Urban Studies which, among other activities, hosts the Post-graduate Course. One of the Centre's tasks is to ensure, through the Course, continuous contacts between the experts participating in the Course on particular subjects within the province of architectural heritage.

This, together with the resulting promotion of the scientific as well as professional activity, is one of the most important outputs the Post-graduate Course in Split has produced.

#### 5. International co-operation

We strongly believe that a permanent co-operation between the experts involved in the research and protection of architectural heritage should be organized on the international level as well, independent of the existing international organizations /such as ICOMOS, for example/. In this respect, ICCROM could play a decisive role. That is why the Post-graduate Course in Split welcomes with great pleasure the initiative for convening the meeting of coordinators of post-graduate courses from various countries. This meeting, and those to follow, are expected to contribute not only to the improvement of the quality of education through the exchange

of knowledge and experience but also, if possible, to suggest the ways of assembling and connecting young people who have been specializing in this scientific field.

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TRAINING IN THE FIELD OF  
ARCHITECTURAL CONSERVATION  
AND THE UNIVERSITY OF NAPLES POSTGRADUATE SCHOOL

ROBERTO DI STEFANO\*

SUMMARY

The range within which we have been asked to operate during the course of this meeting is limited to:

- the sector of professional training (at graduate and postgraduate level),
- with specific reference to architectural conservation, the formulation of:
  - (a) a statement of the present situation,
  - (b) suggestions for future action.

This report is therefore divided into two parts:

- (A) Information on university organisation in Italy, and, in particular, on the Naples Postgraduate School of Restoration of Monuments;
- (B) Remarks on the problems and structure of university training for professionals;
- (C) Some concluding reflections.

\*Professor of Restoration of monuments. University of Naples  
Director of Naples postgraduate School  
V. President ICOMOS

A. University organisation in Italy and the Naples Post-graduate School of Restoration of Monuments

I. University organisation in Italy

- 1.1 Three months ago a national law (Presidential Decree 806 of 8 September 1982) revised the didactic structure of the degree in Architecture, establishing some fundamental points:
- (i) All the subjects are grouped into nine "disciplinary areas", among which one regarding history/criticism and restoration.
  - (ii) The degree in Architecture envisages four lines one of which being the protection and recovery of the historic/architectural heritage. From three to five subjects out of the history/criticism and restoration area are obligatory in each of the four lines of study.
- 1.2 In 1980 a national law (Presidential Decree 382 of 11 July 1980) not only made changes to the system of university teaching but also provided regulations for an experiment in a different scheme of university organisation. Among other things, the scheme envisaged:
- 1) the setting up of departments, which were understood to be organisations covering one or more homogeneous fields of research and related subjects, even if connected to different Faculties. Accordingly, departments for the conservation of architectural property were set up at the Universities of Rome, Milan, Naples, etc;
  - 2) the setting up of research doctorates, at postgraduate level, through collaboration by several Universities, with the purpose of training future university teachers and researchers. In fact, the qualification awarded has no validity in the professional sphere. Two research doctorates were thus set up in the field of the conservation of architectural property;
  - 3) revision of the postgraduate school system in order to provide better professional training. To be more precise, a law (Presidential Decree 162 of 10 March 1982) governs the institution of three types of organisation within the university:
    - (a) Postgraduate specialisation schools which issue specialist diplomas for use in professional practice;



- (b) Special colleges of further education at post-secondary level, which train students for office work and the professions, not requiring students to have a degree but a university level culture background:
- (c) Courses of further studies in certain fields, to provide refresher and professional requalification courses.

The Postgraduate Schools of Restoration of Monuments at the Universities of Rome and Naples (which fall under category (a)) operate within the framework of this law.

1.3 Finally, it is important to say that two specific degree courses in the conservation of architectural property have recently been instituted in Italy at the Universities of Udine and Tuscia. The courses are not in operation yet, the lines on which they have been drawn up are experimental and one has reservations about the way they are to be organized, but the fact that they exist at all is interesting, because it is evidence of a tendency to recognise the existence of a new professional qualification (different from that of the architect, engineer, archaeologist, art historian, and so on), which specifically prepares the holder to operate in the field of the conservation of cultural property in a global sense.

## II. The Postgraduate School of Restoration of Monuments of the University of Naples

### A. ACTIVITIES FROM JANUARY 1971 TO DECEMBER 1989

#### A1 - General information

In 1966 the Naples Faculty of Architecture ran a special postgraduate course in the restoration of monuments for architects and engineers, in order, on one hand, to gauge the real demand for further studies in this field, and on the other, to ascertain the most appropriate subject matter for this specialisation. On the basis of this concrete experience, and taking account of the information and advice given by conservation and restoration experts, during the three following years the Naples Faculty of Architecture took all the necessary steps to set up the Postgraduate School of Restoration of Monuments, which was given definitive recognition by Presidential Decree 448 of 14 May 1969. The School thus took its place alongside the University of Rome's Postgraduate School for the Study of Monuments, which in 1970 enlarged its scope to include restoration.

It should also be emphasised that the School's aim is to improve the historic/artistic and technical knowledge of the architects and engineers enrolled (up to a maximum of 50). Lectures are supplemented by technical visits, seminars and talks by specialists in various fields. Attendance is obligatory and students must pass seven exams and discourse on a final thesis in order to obtain the specialisation diploma (an official academic qualification issued by the University of Naples).

The school, therefore, opened in the 1970/71 academic year (that is, in January 1971), and was at once faced with several quite serious difficulties in the didactic and management fields. Interest in the new initiative, however, was great from the beginning, and this spurred the School on to even greater efforts. The students are graduates not only from Naples but from other Italian and even some foreign universities. 44 enrolled for the first year, and this number has risen to approximately 100. About 40 have obtained diplomas from 1972/73 to (the final figure for 1973/74 is not yet available; see Annex I) while about twenty more students are on the verge of obtaining their diplomas (see Annex VII).

The courses laid down by Statute have been provided since 1970/71, following the guidelines set out in Table II. In relation to this, it should be pointed out that, in accordance with present regulations and financial restrictions, lecturers cannot be paid any fees, and so, although attempts to do so were made during the first years of the School's existence, it is not in practice possible to appoint lecturers who are not resident in Naples. This, however, in a sense has its advantages, because continuity of study and activity is thereby ensured.

## A.2 - Teaching and cultural activities

### (a) teaching activities

The School's activities are conditioned by the limited financial support available.

The School's governing Board has always tried to improve the postgraduate teaching model, using the resources effectively at its disposal and the experience gained since 1970 in a specialist field where it is not easy to find reliable or well-tried precedents.

Above all, the Board feels it is essential to give students the chance to come into contact with the many Italian and foreign specialists and encourage

direct exchanges of views. For this purpose, the School arranges frequent conferences, lecture cycles, study meetings and seminars, inviting scholars and lecturers in various disciplines, whose contributions supplement the courses held by the nine lecturers on the School's staff. These, then, have the task first of re-ordering the knowledge which the students already possess, and then of encouraging it to be developed and deepened by co-ordination (often interdisciplinary) with the outside contributors already mentioned and direct observation acquired during visits to buildings and work-sites. This clearly emerges from the programme of lectures and the list of talks (Annex III), seminars (Annex V) and visits (Annex V).

Valuable contributions to study are also made by the presence in the Donnaregina building of a well-equipped architectural photo laboratory, which is a part of the Faculty of Restoration of Monuments, and of topographic and photographic equipment and audio-visual and deformometric appliances.

A positive impression of the progress made in these years would certainly emerge from examination of the work done by the School's students for the preparation of their theses, most of which deserve publication because of their interest and originality.

#### (b) cultural activities

The Board has devoted more and more attention to the promotion and development of activities whose aim is to make the citizen more conscious of cultural property in its most general sense, and create a better, more direct relationship between university and secondary school. With this in mind, Italians and foreigners have been and are encouraged to visit the monumental Donnaregina building, as are school parties - even from primary schools - escorted by their teachers: the School's lecturers have also arranged guided tours for the members of various Naples clubs and associations. The result has been an average of 2,800 visitors a year to the Donnaregina building.

At the same time, the Church of Donnaregina has been the venue for important cultural events, musical and singing concerts, photographic exhibitions and other occasions. Among the events one might mention concerts by the guitarist Narciso Yepes (Alessandro Scarlatti Association 14 February 1978), by the Jean-Noël Molard quartet (French Institute. 21 February 1979) and by the Coral Vallosoletana di Vallacolid (Spanish Cultural Institute of Santiago, 10 July 1979); a

photographic exhibition on "Historic buildings in their environment" (British Council, 19-30 May 1975); an exhibition on "Resurrection et restauration d'un cloître roman" (French Institute, February-March 1979); and "Women and Music 82" (an international review of women composers, 22-26 September 1982).

Nor should it be overlooked that the School has been and is continually visited by Italian and foreign scholars and experts in restoration who wish to exchange views and experience on the didactic and scientific research levels.

To all this should be added the numerous study meetings which have been held at Donnaregina, particularly in recent years, often in collaboration with cultural associations (see Annex VIII) and always regarding the conservation of cultural property.

(c) activities in the public interest

As regards matters of public interest, the School has been asked on various occasions to supply advice and suggestions on questions falling within its specific competence to government, regional and local authority offices.

For example, in February and March 1981, by agreement with the Pompei Town Council (Law 285 of 1977), the School organized and ran a training course for professionals engaged in the conservation and restoration of archeological property.

Then, after the earthquake in Campania on 23 November 1980, a special University operations centre was set up at the School, which was in contact with all the public offices engaged in emergency work. In the months after the earthquake this centre worked on the recovery of cultural property, particularly buildings. The School was afterwards asked by the Campania regional authorities to draw up an inventory of the damage to the architectural heritage in the historic centres caused by the earthquake, which it did from December 1980 to April 1981. At the end of this task, the School set up a photographic exhibition (inaugurated in May 1981) on the theme "Campania beyond the earthquake: the way to the recovery of architectural values" and also published the exhibition catalogues.

Finally, and again at the request of the regional

authorities, the School is working on an inventory of the region's architectural heritage, which is expected to be completed in 1984.

#### B. PROSPECTS FOR FUTURE ACTIVITY

Within the general framework of the replanning of university studies, the problem of the training of professionals working on the conservation and restoration of cultural property is an object of particular interest to all countries and international organisations such as UNESCO and the Council of Europe.

Comparative and direct study of the activities of the other similar Schools in Italy and abroad (see Annex IX) show a common general didactic tendency, making an allowance for diversification deriving from different local circumstances, which has a bearing on the nature of the curriculum, and above all for the peculiarities of the area's cultural property and social, economic and political system. These schools provide courses of lectures, seminars on particular topics, talks, technical visits and practical theses. The subject matter may be grouped as follows:

- (a) First part - (a)(i) theoretic and general monument and site conservation and restoration; (a)(ii) history and criticism; (a)(iii) juridical and economic problems arising from the integrated conservation of architectural and environmental property of value.
- (b) Second part - (b)(i) building restoration techniques (diagnosis of damage and strengthening site techniques and execution of works); (b)(ii) pathology and conservation of materials (stone, metal, wood, glass, ceramic, etc.); preservation and conservation of paintings, frescoes, mosaics, etc; technique of integrated conservation of sites (with particular reference to ancient centres).

It will be seen that the School of Naples' system outlined in previous pages follows the same lines.

It is naturally conditioned by the academic level attained during their graduate studies by the students, who however, are selected from the best young architects on the basis of their marks in the degree examination and in the individual subjects they have studied. These post-graduate studies, however, hardly include any physics or chemistry, topography, geology or geotechnology, and are often very lacking in the science and technique of masonry, the management and execution

of consolidation and restoration work, the history of art and architecture, art criticism and the general theory of the conservation of cultural property.

It seems our duty, provided that the student has the basic professional knowledge appropriate to an architect or engineer, acquired during normal courses attended in his Faculty, above all to provide the means of filling these gaps in the knowledge imparted, and of making up these deficiencies, so that the student may become a fully-fledged architectural restoration expert.

Obviously, the better the groundwork (especially in the field of design) in the Architecture and Engineering Faculties, the higher will be the level attained by those who attend the School, and the fewer will be the gaps in their knowledge of the specific fields involved. Further improvements can be obtained in future by setting up postgraduate schools in other related sectors, especially architectural design, town planning, history/criticism and structure, with which the School of Restoration can set up fruitful relationships of coordination and co-operation at post-graduate level. The creation of specialised post-graduate schools in localities suitably selected from a geographic point of view would stimulate an increase in the number of architects practising in specialised fields.

Realistically considering the limitations and difficulties which govern its activities, the School of Restoration cannot at present have any plans for immediate further growth, or for the institution of fresh courses, but should attempt to improve and perfect the activity it has embarked on, the cultural and didactic lines which have been identified and its existing organisational structure and facilities. It should be stressed, however, that there is a strongly felt need for the contribution which the design discipline provides to the reutilisation of restored cultural property, in the framework of integrated conservation. The best way, in fact, to ensure the conservation of cultural and architectural property is to find ways to use historic buildings to the advantage of society, while respecting their value and cultural importance. For this reason it is more necessary than ever that the study of projects for the adaptation of historic centres and buildings to modern requirements should be developed as widely as possible, at didactic, research, university and postgraduate levels so that

the maximum number of professionals may become competent in the field as quickly as possible.

The phase in which the School most feels the need for the contribution of expertise in design is that of applied research in the field of utilisation; that is, when the students carry out individual research for their final examinations. This need can only be satisfied by assistance from design specialists, on one hand, in conducting seminars devoted to criticism and preparing projects for the utilisation, in whatever ways are possible and suitable, of monumental buildings and other units of environmental architecture, both urban and rural, residential, industrial and religious; and on the other hand in helping the School lecturers to provide technical guidance to the students in the preparation of their projects, one of the main ways in which they can operate directly in the School.

### C. ACTIVITIES FOR 1982-83

The Board's programme of activities for 1982-83 divides the year into two parts: the first from January to July, the second from September to December. The latter part is mainly devoted to the correction of theses, some visits to sites and examinations. The experimental outline for the first part of the year is to be followed again this year: courses, seminars, lecture cycles, talks, visits to sites, correction and discussion of current theses. The lectures will be arranged according to the plan appearing in Annex X.

The main subjects of the seminars and brief lecture cycles are: cost evaluation in urban recovery programmes; constructional features of Neapolitan architecture, architectural photogrammetry applied to architectural conservation with exercises for groups of students; strengthening techniques in the restoration of ancient buildings; tension analysis of masonry: management, accounting, testing and planning of monument restoration work; geology and geotechnology in relation to monument restoration; ecology problems applied to the conservation of the environment and of historic centres; archaeological restoration techniques (including work under water); and experiences of architectural and urban restoration in the historic centre of Naples.

Talks will also be given by Professors F. Borsi, S. Boscarino, M. Dezzi Bardeschi, L. Fusco Girard and others. There will be a special seminar devoted to the study of examples of architectural restoration design (the adaptation of historic buildings to modern functions), to which specialists in the field will be invited to contribute.

B - Observations on the problems and structure of the University training of professionals

If one reflects on ways of modernising the structure of university training for the future professional classes, in order to make it more rational, coordinated and proficuous, it is perhaps useful to break the problem up into its constituent elements, namely (1) aims (2) persons involved (professors and students) and (3) financial resources.

1. Aims

Owing to the phenomenon of mass education, existing primary and secondary school and university systems cannot satisfy the demand for professional qualifications. As a result students are tending in general to obtain their professional qualifications later in life and there is also a demand for them from people who are already engaged in some kind of employment. The aims of the Postgraduate School of Restoration of Monuments obviously spring from this social reality.

On the other hand, in our society there is a trend towards violent intervention on our architectural heritage and historic centres with the object of the exploitation and material recovery of the buildings concerned, but not of conservation with a view to bringing out their values which may be useful for man's spiritual well-being. The best instrument with which to fight this tendency is theoretical, scientific and technical knowledge, brought constantly up to date by research.

1.1. Consequently this type of School must not only teach but educate, so that the principles and ideas it creates or maintains are affirmed and put into practice in the outside world. This will obviously depend on how far the students can be accustomed to discussion and debate while respecting other people's personalities.

1.2. The didactic method, therefore, should envisage integration of formal lectures with practical exercises, seminars, discussions and joint work by professors and students on research and the preparation of theses. Examination and discussion of problems and difficulties should be preferred to traditional teaching. On the other hand, in order to ensure that rigorous professional standards are maintained, a distinction should be made between basic subjects, with obligatory attendance and a compulsory examination to pass, and supplementary subjects, which the student may add to the basic subjects at his choice. It would seem preferable to provide a small number of subjects embracing wide didactic fields (covered if necessary by more than one lecturer)



rather than having too much splitting up (or, if this expression is preferred, specialisation), of subjects, each taught by a single lecturer.

1.3. What is most important, however, is a harmonious relationship, also quantitatively speaking, between the different subjects taught at the school. This is essential for the formation of professionals able to carry out technical restoration work, which should be based on their ability to express sound historical and critical judgments which fully respect the theoretical principles of conservation.

The students' cultural level and degree of knowledge having been taken into account, a proper mixture should therefore be made of historical/critical and theoretical subjects, technical and scientific subjects dealing with materials and structures, and finally subjects covering architectural design and town planning. It will also be necessary to maintain the proper balance between theory and practice in each discipline, and always remain fully conscious and aware of the global concept of knowledge in the realms of the sciences and the humanities. This requires, especially on the part of the lecturers, the unbiased recognition that all disciplines are equally important, and the burying of certain ancient rivalries among history, restoration, building technique, physics and chemistry, town planning, design, and so on.

1.4. This collaboration should certainly be made easier by joint research carried out between the many different disciplines, particularly applied research, which is characteristic of this School and is most useful for the students' practical experience.

At this point one is faced with a serious obstacle: the almost total lack of monument restoration sites. For many different reasons, it is very difficult to gain regular access to monuments being restored in order to follow all the different phases in the work: design, technical, economic and so on. This obstacle could be overcome if regulations were made to govern the relations in this field between public offices and schools like ours, in a similar way to those which govern university clinics and state hospitals, or university polytechnics and Ministry of Public Works offices.

## 2. Persons involved in the School

2.1. One of the biggest problems is without any doubt the appointment of lecturers with specific qualifications in conservation and architectural restoration. On the other hand, one of the School's principal aims must be the preparation of future lecturers, encouraging the most promising pupils to become active in this sphere by granting scholarships and other facilitations. In this way, teachers will be produced who possess and develop the culture of conser-

vation and restoration, within which they can carry out more detailed study of the various spheres involved (structures, working techniques, materials, historical/critical assessment, etc.).

Until this type of lecturer appears, men can only be chosen from specialists in their various fields who have acquired competence and special skill from valuable experience in the conservation of archaeological property. In any case, appointments should ideally be made by committees of professors, even from different universities, proceeding in complete autonomy and on the basis of definite scientific elements. The holders of these posts must give regular lectures at the School and call in various outside professors and experts for the detailed study of the more specific fields.

2.2. No less important is enrolment of students, which is conditioned above all by the School's structural potential and budget. These generally make it necessary to limit the numbers of students accepted and apply rigorous selection procedures both at enrolment and during the courses. Candidates who have reached a high level in their studies will have a better chance of entering, but they must clearly understand their obligations towards the School.

Students are generally interested in the School for professional reasons, and they will obviously concentrate above all on acquiring the knowledge which will be useful to their careers. The student must, however, also be given the opportunity to develop his scientific interest organically and spontaneously, allowing him freedom of action by letting him choose his thesis and supplementary subjects.

Another point to be borne in mind in the drawing up of study programmes is the inevitable presence of a large number of students who are already employed. These must not let their work interfere with their attendance at lectures and the regularity of their application to study. The best solution would obviously be the awarding of scholarships, but when this is not possible the working student must be aware of the limitations on his work implied in the obligation to attend lectures.

### 3. Financial resources

Equipment and research expenditure, salaries of lecturers and other staff, the cost of providing suitable premises, travel expenses, books, scholarships for researchers and working students, and so on - from this list of expenses one can easily see how high even the cost of running the School on a minimum budget can be.

On the other hand, it is widely accepted that a university

is generally a typically loss-making organisation from the strictly economic point of view, because it must tend towards providing entirely free facilities. It cannot take the form of a private organisation even if provision must be made for the possibility of financial backing from private individuals (and this very rarely occurs) animated by pure interest in the community. It must therefore be financed by the State or by a public body, especially if it is required to be autonomous as well as efficient.

Obviously, therefore, one cannot begin talking about the organisation of a professional training system unless one has first found the financial resources necessary to keep it in existence: even the most heroic forms of voluntary and spontaneous effort can only produce extremely ephemeral structures and superficial, dangerous results.

There is another side to the question, however: an enormous amount of public money is spent in the world as a whole on this specific field of professional training. Large sums are contributed in various countries to provide courses, scientific missions, scholarships (in developing countries above all), and other facilities, by UNESCO, OEA, the Council of Europe, the EC and other similar organisations, as well as by different Ministries (Foreign Affairs, Culture, Education) in various countries, in accordance with international or bilateral agreements; and the same applies to scientific research.

Unfortunately, it must be admitted that this money is spent with a complete lack of co-ordination, not only between the different organisations mentioned and the various countries involved, but also between the different offices of one and the same organisation or country (for example a national government and federal ministries, local authorities, etc.) and even between the different offices in one and the same ministry.

These streams of money should be co-ordinated and canalised more rationally at the various levels and in the different organisations in order to get a better return on the resources available.

The international convention on the world's cultural heritage proclaims the principle of the universality of this heritage, and this is enough to make one realise that the organisations involved must be urged to govern their activities in the light of this principle.

### C. Conclusions

1. A useful final observation is that while the need for quality in the field of conservation and restoration experts is enormous and pressing, the need for quantity is not so great. However great is the growth in each country of public and private interest in the restoration and enhancement of architectural property and historic centres, the demand for this specialised work is not expected to be either great or continuous. What will be necessary, on the other hand, is the active presence of practising architects and engineers with great aesthetic and historical/critical abilities.
2. It seems advisable therefore in discussion to maintain the distinctions between the university training of architects and engineers, postgraduate studies for specialists in conservation and restoration, and information and refresher studies (short courses and seminars).
3. It is therefore unnecessary to multiply specialist schools ad infinitum: action on the three levels just mentioned is preferable. In other words, there should be an increase, within feasible limits, in the number of postgraduate schools in each country, and, more important, they should be created in countries where none yet exist: but, most important of all, historical/critical and restoration studies should be compulsory elements in the architect's basic education.
4. At the same time, there seems to be a pressing need for closer and more frequent contact between the existing schools. Some of the advantages which might derive from this are the comparison of teaching and research activities: exchanges of experience among lecturers and, more important, among pupils: the creation of specialisations at each school which can be integrated with each other, thus avoiding superfluous duplication of structures and waste of energy: and greater basic uniformity among schools at the same time as clear divergences which reflect the particular requirements of the different geographic/cultural areas in which they operate.

Greater cooperation between postgraduate schools can only bring each school substantial cultural advantages. By discussing and assessing each other's performance, the schools carry out a more perfect study of the theoretical principles of conservation, which should be common to all, and not conditioned in their application by false interpretations imposed by local economic and political interests: and enrich their knowledge of restoration techniques.

6. These schools, however, will be able to fulfil a definite and useful role in society only if - of course after passing rigorous tests - their autonomy and legal status are recognised. This means that in each country the specialist diploma which they issue must be legally recognised as the only valid qualification for practice in the field; before this the juridical structure of the architectural and engineering professions should be modified accordingly, and also the responsibilities of the different public offices which deal with work on the architectural heritage and historic centres.

ELENCO DELLE TESI SVOLTE

A) RESTAURO ARCHITETTONICO

1. "Progetto di restauro del Palazzo Carafa di Montorio in Napoli"  
(Arch. C. Cundari) - Anno acc. 1973/74
2. "Santuario dell'Assunta in Guardia Sanframondi (Bn) - Proposta di restauro"  
(Archh. E. Elia e L. Picone) - Anno acc. 1973/74
3. "Chiesa di S.M. della Natività e di S. Ciro in Portici"  
(Arch. M. Cennamo) - Anno acc. 1973/74
4. "Il Castello et la terra murata di Procida. Analisi storico-urbanistica e proposte di restauro"  
(Archh. E. Gazillo e E. Guglielmo) - Anno acc. 1975/76
5. "Restauro dell'ex monastero di S. Giovanni a Carbonara in Napoli"  
(Archh. E. Di Domenico, F. Divenuto e A. Litta) - Anno acc. 1976/77
6. "Proposta di restauro del Palazzo Saluzzo di Corigliano in Napoli"  
(Arch. Guilio Pane) - Anno acc. 1976/77
7. "Chiesa di S. Domenico a Sora - Esame tecnico-critico di un recente intervento di consolidamento"  
(Arch. G. Zampino) - Anno acc. 1976/77
8. "Fotogrammetria per il restauro dei monumenti"  
(Arch. V. Minasi) - Anno acc. 1977/78
9. "Progetto di restauro e consolidamento della basilica di S. Angelo in Formis (Capua)"  
(Ing. M. Di Stefano e Arch. E. Vassallo) - Anno acc. 1978/79
10. "Chiesa di S. Maris Maggiore della Pietrasanta: progetto di adattamento a biblioteca universitaria"  
(Arch. R. Carelli e A. Patiani) - Anno acc. 1979/80
11. "Progetto di Conservazione del Castello Doria ad Angri"  
(Archh. D. Alfano e F.G. Mazzoni Sampaio) - Anno acc. 1979/80
12. "Il Castello di Venefro: progetto di restauro"  
(Archh. M. Monti e E. Videtta) - Anno acc. 1979/80

13. "Progetto di restauro della chiesa di S. Maria di Donnaregina"  
(Archh. A. Balsebre e M. TM Caputo) - Anno acc. 1980/81
14. "Villa Rufolo"  
(Archh. A. Bianchini e A. Renella) - Anno acc. 1980/81
15. "Indagine sugli interventi del XIX sec. in Lecce con particolare riferimento al mercato coperto"  
(Archh. Guido Gullo e S. Suppressa) - Anno acc. 1980/81
16. "Il restauro di Palazzo Gravina"  
(Archh. V. Forgione et G. De Luca) - Anno acc. 1980/81
17. "Questioni elementari di dinamica per il restauro dei monumenti"  
(Arch. A. Guidotti) - Anno acc. 1980/81
18. "Restauro dell'Abbazia di S. Maria di Pattano in Salerno"  
(Arch. F. Mautone) - Anno acc. 1980/81
19. "Restauro e ristrutturazione dell'Ospedale degli Incurabili di Napoli"  
(Archh. C. Marsano, N. Mazzasalma e A. Mattace Raso) - Anno acc. 1980/81
20. "Chiesa di S. Marcellino e Festo: restauro, consolidamento ed adattamento a Museo"  
(Archh. A. Plumbis, C. Comella, D. D'Angelo e C. Akrivi) - Anno acc. 1980/81

B) URBANISTICA DEI CENTRI ANTICHI

1. "Aspetti e problemi del restauro dei centri antichi: Capri"  
(Archh. G. Cantone e G. Sarnella) - Anno acc. 1973/74
2. "La biblioteca Pacca nel contesto urbanistico della città di Benevento nel XVIII secolo"  
(Arch. M. Coletta) - Anno acc. 1973/74
3. "Analisi e ipotesi d'intervento in Terra di Lavoro"  
(Archh. E. Carelli e S. Brancaccio) - Anno acc. 1973/74
4. "Tutela dei beni culturali immobiliari nell'alta Irpinia con particolare riferimento alla valorizzazione del complesso di S. Guglielmo a Goletto"  
(Arch. Stella Casiello) - Anno acc. 1973/74

5. "Rinnovamento urbano di un'area del centro storico napoletano: la zona di Montesanto e Pontecorvo tra il corso V. Emanuele e via Roma"  
(Archh. R. Carafa e T. Colletta) - Anno acc 1973/74
6. "Proposte per il restauro urbanistico del centro antico di Tropea"  
(Arch. G. Rubino) - Anno acc. 1973/74
7. "Il centro storico di Modena"  
(Arch. Raffaele Gentile) - Anno acc. 1973/74
8. "Problemi di tutela del paesaggio nelle zone di Ischia, Procida e Campi Flegrei"  
(Archh. R. Cianciulli e I. Delizia) - Anno acc. 1974/75
9. "La città vecchia di Taranto - Analisi storica e restauro urbano"  
(Archh. Maria Attena e P. Angrano) - Anno acc. 1976/77
10. "Studio di restauro dell'area di Calvi antica"  
(Archh. L. Del Giacomo, E.M. Meyer, R. Lozano, R. Eggenschwiler) - Anno acc. 1976/77
11. "Aspetti e problemi di conservazione del patrimonio storico architettonico rurale in Italia"  
(Arch. F. La Regina) - Anno acc. 1976/77
12. "S. Agata dei Goti - il territorio, il centro storico"  
(Arch. F. Federico) - Anno acc. 1976/77
13. "Il restauro urbanistico di S. Leucio"  
(Arch. R.A. Genovese) - Anno acc. 1976/77
14. "Metodologia d'intervento nei centri storici. Bologna-Napoli, analogie e differenze"  
(Ing. A. Aveta) - Anno acc. 1976/77
15. "La problematica del restauro dei monumenti in Brasile"  
(Arch. R. Da Silva) - Anno acc. 1976/77
16. "Il centro storico di Caiazzo"  
(Archh. P. Esposito, L. Gorini e S. Miraglia) - Anno acc. 1977/78
17. "Studio per il restauro del centro storico di Minturno e per il parco archeologico"  
(Archh. B. De Sio Cesari, C. Grimellini e Ing. M. Guarino) - Anno acc. 1977/78



18. "Il centro antico di Avella e i complessi conventuali di S. Giovanni e S. Francesca"  
(Archh. M.R. Imbrioscia e F. Errico) - Anno acc. 1977/78
19. "I centri storici del Beneventano (Valle del Calore). Analisi e proposte"  
(Arch. A. Marotta) - Anno acc. 1977/78
20. "Problemi di interdisciplinarietà legati allo studio e alla protezione dei beni archeologici"  
(Arch. R. Morichi) - Anno acc. 1977/78
21. "Piano di recupero della zona di Materdei"  
(Archh. A. Borriello e F. Cassano) - Anno acc. 1980/81
22. "Il piano di recupero di Castellaneta"  
(Archh. L. Di Lernia e A. Miccoli) - Anno acc. 1980/81
23. "Analisi e proposta di intervento nel settore di formazione spontanea federiciana del centro antico dell'Aquila"  
(Arch. S. Gizzi) - Anno acc. 1980/81

C) RESTAURO DEI MATERIALI

1. "Il restauro dei mosaici"  
(Arch. L. Cennamo) - Anno acc. 1973/74
2. "Il restauro dei materiali ceramici: il chiostro maiolicato di S. Chiara"  
(Arch. L. Cennamo) - Anno acc. 1977/78
3. "Conservazione di paramenti murari in pietra tufacea: il Torrione di Forio d'Ischia"
4. "La Cattedrale di Termoli: i problemi connessi alla conservazione dei materiali lapidei"  
(Arch. L. Marino) - Anno acc. 1979/80



INTERNATIONAL MEETING OF COORDINATORS OF  
TRAINING IN ARCHITECTURAL CONSERVATION

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Conservation intégrée et formation des Architectes

JEAN BARTHELEMY

Professeur à la Faculté Polytechnique  
de Mons et au Centre d'études pour la  
conservation du patrimoine architectural  
et urbain.

Administrateur de l'Association Européenne  
pour l'Enseignement de l'Architecture.

En octobre 1978, à Ravello, un Colloque était organisé par le Conseil de l'Europe sur le thème "La conservation intégrée et la formation spécialisée des Architectes, Urbanistes, Ingénieurs du Génie civil et Paysagistes". A l'époque, j'avais eu le privilège d'en rédiger le rapport de synthèse.

Plus de quatre années se sont écoulées, parsemées de multiples événements. Le patrimoine architectural a subi de nouvelles et de nombreuses morsures. Par endroit cependant, il a retrouvé une nouvelle jeunesse et s'est même enrichi de quelques témoignages irréfutables du savoir-faire humain. L'idée même que les gens se font de leur patrimoine urbanistique et architectural a évolué. La crise économique s'est amplifiée. Certaines préoccupations d'antan apparaissent dans toute leur futilité. D'autres se sont muées en obsessions angoissantes.

Le temps est donc venu de relire les conclusions de Ravello et de les confronter à l'évolution des faits et des idées. Au fil des multiples réflexions qui sont rapportées sur l'état général du patrimoine architectural européen et sur les causes fondamentales de sa dégradation, une idée majeure s'inscrit en filigrane: sur la base des constatations et des analyses les plus diverses, le problème de la "conservation intégrée" du patrimoine apparaît finalement si vaste et si complexe qu'il déborde largement le cadre des spécialistes.

D'une part, l'élargissement de la notion de patrimoine à préserver et à réaffecter aux activités socio-économiques implique d'évidence qu'un nombre beaucoup plus étendu d'intervenants puissent participer à cette action. D'autre part, il ne faut pas perdre de vue que la formation du spécialiste ne se limite pas aux seules années de spécialisation. Si dans le domaine technique, les influences pédagogiques antérieures sont sans grande influence; par contre, au niveau humain, le profil est déjà caractérisé depuis longtemps et sans rémission.

"La clef de voute, constituée par la formation spécialisée, n'a d'efficacité que si tous les voussoirs sont bien en place".

En février 1978, en conclusion du Séminaire tenu à Naples sur le thème "La restauration des monuments et la formation professionnelle universitaire", comme un leitmotif, on retrouve la même préoccupation: "La conservation n'étant qu'un aspect d'une réorientation de l'attitude face aux problèmes d'économie énergétique, de préservation de l'environnement et de prise de conscience culturelle, la formation des hommes ne peut se limiter à une orientation spécialisée. C'est autant à une éducation qu'à une instruction qu'il faut s'attacher, la spécialisation n'étant d'ailleurs considérée que comme le couronnement de l'édifice éducatif".

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L'évolution de notre société remettrait-elle en cause cette opinion? Il me semble bien au contraire qu'elle la confirme.

La conférence générale de Berlin clôturant la Campagne Européenne pour la Renaissance de la Cité en porte témoignage. Notamment, le groupe de travail traitant de la politique de réhabilitation insiste sur le fait que le domaine bâti, dans son entièreté, constitue une ressource fondamentale qui ne peut être ni négligée, ni dilapidée: La réhabilitation n'implique donc pas de sélection a priori, ni au niveau du type de bâtiments considérés, ni à celui de l'époque de construction. Elle inclut, par exemple, à la fois la restauration soignée d'un monument historique réaménagé en musée, l'adaptation élémentaire d'une maison modeste ou la réutilisation d'un immeuble industriel à des usages artisanaux. Il faut qu'elle redevienne une habitude familière, très naturellement incluse dans le processus de gestion urbaine. Bref, la notion de réhabilitation risque de s'élargir au point que ce n'est pas seulement le groupe des spécialistes, mais bien le Corps entier des Architectes et des Urbanistes qui devra se plier à cette orientation nouvelle.

La formation générale des Architectes est donc directement en cause dans le processus généralisé de revalorisation du patrimoine. A ce niveau, les réformes à promouvoir risquent parfois d'être importantes, voire radicales, la persistance des concepts, des mentalités et des habitudes professionnelles étant vivace au sein des Enseignants.

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L'Association Européenne pour l'Enseignement de l'Architecture, qui réunit une cinquantaine d'Institutions universitaires, de Facultés polytechniques et d'Ecoles supérieures d'Architecture, s'en préoccupe sérieusement. Une première confrontation d'idées s'est tenue à Vienne, en avril 1981 sur le thème: "L'enseignement de l'architecture et l'urban design". C'était un premier pas. Un an plus tard, un deuxième Colloque réunissait dans trois villes belges - Bruxelles, Leuven et Mons - plus de quatre-vingt participants représentant dix-huit Ecoles d'Architecture européennes sur le thème: "L'enseignement de l'architecture face à la renaissance de la cité".

Les leçons que l'on a pu tirer de ces deux réunions méritent d'être commentées.

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De Vienne, une première réflexion est assurément que le thème "architecture-urban design" est accepté comme un thème valable et intéres-

sant. Cela pourrait paraître banal. Mais, si l'on veut rester conscient des événements et lucide face à l'évolution de l'idéologie, même si elle est banale, et peut-être même surtout si elle est devenue banale, cette constatation me paraît au contraire formidablement importante.

Pendant cinquante ans, - il faut s'en souvenir -, l'analyse visuelle de l'espace urbain a pratiquement disparu de l'horizon et de l'enseignement architecturaux. Pendant cinquante ans, à quelques exceptions près - il y a toujours de ces miraculeux exemples faits de non-conformisme et de talent -, le contrôle de l'échelle et de la signification de l'image urbaine avait pratiquement été négligé.

La confrontation viennoise a bien mis en lumière le fait que dorénavant l'architecture-objet devait faire place à une architecture intégrée dans une vision urbaine structurée et que, dès lors, l'Architecte devait jouer le jeu de la coopération à une oeuvre plus vaste. Une telle pratique suppose bien entendu, au niveau qui nous occupe - celui de l'enseignement architectural -, de remettre à l'honneur l'étude des caractères morphologiques de l'environnement physique au départ de chaque projet architectural. Pour atteindre une réelle qualité d'intégration, l'invention sera toujours indispensable, mais elle devra trouver le créneau juste en abandonnant toute obsession pour l'originalité.

Une autre conclusion du workshop de Vienne est apparue tout aussi clairement: le mérite des structures urbaines, que nous ont laissés les siècles, dépend de leur propriété d'être spécifiques grâce à leur parfaite adaptation aux contextes sitologiques, socio-économique et culturel. Il ne faut donc pas s'étonner qu'elles soient éminemment complexes et rebelles aux généralisations abusives. A leur propos, il est dangereux de procéder à des schématisations, à des abstractions et à des généralisations; car, si ces simplifications sont intellectuellement rassurantes, elles n'en demeurent pas moins sources de solutions conventionnelles et d'occasions manquées. C'est, suivant l'expression de Christian Norberg-Schultz, le "Genius-loci" qui doit rester le grand précepteur. Saisir dans toutes ses nuances l'ambiance du lieu pour améliorer l'insertion des projets, telle est manifestement la tendance majeure observée à Vienne dans l'orientation de l'enseignement architectural. C'est un pas considérable vers une meilleure formation de l'Architecture dans le cadre d'une politique globale de "conservation intégrée".

Mais, aussi fondamentale soit-elle, la sensibilisation à l'image urbaine ne suffit pas à préparer l'Architecte à tenir son rôle dans le renouveau urbain. En effet, la ville comporte de nombreuses facettes

qui se superposent: phénomène économique, social et culturel, elle est l'enjeu de multiples convoitises; les formes, dont elle se pare, sont le résultat d'une confrontation sociale que nul peut ignorer et que la crise risque de rendre plus aigue.

Le Colloque sur "l'enseignement de l'architecture face à la renaissance de la cité" constituait donc le prolongement logique du sujet traité à Vienne et, en quelque sorte, son élargissement.

Les différentes expériences d'enseignement qui ont été présentées ont montré un certain nombre de convergences intéressantes. Dans le cadre des projets d'architecture, les sujets proposés aux étudiants sont choisis dans des contextes urbains concrets, qui, avant toute option, imposent des analyses très fouillées du site et du contexte social. L'architecture est donc fondamentalement soumise au "Genius Loci". Dès lors, une grande attention est portée à la méthodologie pédagogique préalable à la démarche architecturale proprement dite: thèmes puisés dans l'actualité urbanistique des villes concernées, recherches communes à plusieurs ateliers, travail d'analyse et d'enquêtes entrepris en équipe, collaboration avec des Comités de quartier, ... L'enseignement de l'architecture devient plus vivant, plus concret et plus proche des multiples contraintes qui, aujourd'hui, constituent le cadre naturel d'intervention de l'Architecte.

Finalement, si ces méthodes et ces pédagogies divergent, c'est avant tout parce qu'elles sont fatalement liées à la taille de l'Institution, à son encadrement et à sa structure d'enseignement. Mais, l'esprit qui les anime diffère peu: il s'agit toujours de percevoir le plus fidèlement possible le contexte concret dans lequel doit s'inscrire la tâche particulière, sans en négliger ni l'aspect socio-économique, ni l'aspect formel.

Les objectifs définis par les Recommandations du Conseil de l'Europe - n° R(80) 16 - sur la formation des Architectes dans le cadre de la politique de "conservation intégrée" semblent bien acceptés et déjà largement poursuivis par plusieurs Ecoles. Sur de telles bases, les études spécialisées dans le domaine de la conservation peuvent trouver leur plein épanouissement dans une sorte de continuité vis-à-vis de la formation générale de l'Architecte: approfondissement bénéfique et non bifurcation brutale vers une discipline diamétralement opposée par sa nature même. Nous avons trop souffert de l'affrontement infantile entre les apôtres inconditionnels de la modernité et les spécialistes sclérosés de la conservation.

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S'il faut se réjouir de cette évolution très favorable de l'enseignement dans certaines Ecoles, rien ne permet d'affirmer qu'il en soit bien ainsi dans l'ensemble des Ecoles européennes. Mais, la dynamique est lancée.

Il reste que, dans une discipline de l'esprit soumise à autant de tensions que l'architecture, le consensus reste fort difficile. Que sur l'objectif visant une meilleure intégration et sur la méthodologie incluant une analyse aussi exhaustive que possible du contexte, chacun puisse se rallier, il faut s'en réjouir. Mais, il en va bien autrement quand sont présentées les options architecturales. A ce niveau, les divergences reprennent toute leur acuité.

C'est donc bien finalement au coeur du métier de l'Architecte-créateur des formes que le fer doit être engagé.

Dès lors, pour comprendre en profondeur l'orientation d'un enseignement, le plus sûr moyen restera de bien saisir les convictions profondes des Enseignants sur leur propre métier d'Architectes: connaître les valeurs auxquelles ils sont sensibles, les critères de qualité auxquelles ils se réfèrent, les motivations qui influencent leur jugements.

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Le débat doit être porté au sein même des théories de composition architecturale. Pour ma part, je citerai six critères qui définissent les lignes de force de l'architecture dans ce qu'elle a de plus noble. Par voie de conséquence, ces critères représentent, selon moi, les principes auxquels la formation des Architectes aurait avantage à se référer.

1. Jan Tanghe disait récemment: "La ville est notre maison ... Chaque grain architectural que nous disposons dans la ville doit être considéré non comme un élément isolé, mais comme la millionième partie d'un tout qui constitue l'objectif essentiel de l'architecture".

L'oeuvre architecturale n'a de sens que si elle fait corps avec son cadre urbanistique qui, en quelque sorte, est son plus précieux guide. Il faut se méfier de l'originalité débridée. Rappelons-nous cette phrase surprenante de Walter Gropius: "Le besoin moderne de glorification individuelle a faussé nos critères et brouillé nos buts".

Tel me paraît être le premier critère qui oriente l'architecture contemporaine et la démarque du modernisme:

"La priorité est à nouveau donnée au contexte urbanistique".



2. Se trouvant devant une plaie béante au coeur de la ville, l'Architecte d'aujourd'hui considère que sa première tâche est de rechercher les traces qu'y a laissés l'histoire et de comprendre l'évolution de la morphologie urbaine au cours des siècles. Tous les documents du passé sont analysés, scrutés, réinterprétés. avant que soient prises les décisions qui définiront le futur de la Cité.

C'est le retour à la continuité historique. Cette méthode est actuellement admise comme évidente. Elle n'en est pas moins révolutionnaire par rapport aux théories ayant cours il y a dix ans.

Les leçons de l'histoire de l'architecture s'imposent d'évidence à l'Architecte d'aujourd'hui. Encore faut-il que ces leçons ne le poussent pas à recourir à un nouveau formalisme sophistiqué, que déjà les critiques d'art, avides de nouveautés extravagantes, emportés dans la spirale irraisonnable du changement, ont tendance à élever au pinacle du post-modernisme.

Non, l'important est de redécouvrir, au-delà des détails formels qui passionnent l'archéologue, le fil conducteur de la tradition, de saisir les qualités architecturales susceptibles de transcender le temps.

Telle m'apparaît la deuxième leçon des expériences récentes, leçon qui constitue le second critère qui oriente l'architecture contemporaine la plus authentique.

"Le passé est redevenu ce qu'il aurait toujours dû rester: un précis guide, fertile en enseignements, mais rebelle au plagiat."

3. Il faut réconcilier les deux concepts: penser et faire.

Cette réconciliation exige des recherches patientes où rien n'est laissé au hasard d'une inspiration vagabonde.

Recherche d'une qualité vraie et concrète jusque dans ses moindres détails, à partir des matériaux et de leur discipline spécifique; recherche anxieuse, combattive, libre et rétive aux réglementations superficielles; recherche intériorisée dans laquelle la réflexion sur le geste de l'artisan et la remise en cause des normes économique-industrielles restent constantes et sans a priori; recherche de l'échelle architectonique des détails; recherche de la texture, de la matité et de la couleur des matériaux; recherche de l'authenticité sereine, inventive et modeste.

Assimilation au travail de l'artisan "concepteur et réalisateur", voué à la recherche d'un langage contemporain dégagé de faux critères

qui ne poussent qu'à l'affrontement, mais engagé dans la continuité de l'invention.

On est loin, bien entendu, des soucis modernistes d'appliquer au travail architectural les critères de rentabilité industrielle et de se contenter d'esquisses rapides laissées à la discrétion de l'exécutant.

Le troisième critère de l'architecture contemporaine s'énonce aisément:

"La démarche fondamentale de l'Architecte doit être accomplie dans la tension constante d'être à la fois "poète" et professionnel."

4. Les luttes menées par certains Architectes pour la sauvegarde des tissus urbains face aux agressions multiples, dont ils sont l'objet, témoignent d'un changement de mentalité.

Tel est le sens du revirement intellectuel de l'Architecte: la dimension de son combat s'est amplifiée. Hier, il défendait ses possibilités d'expression personnelle à partir des conquêtes techniques. Aujourd'hui, il y ajoute la défense des qualités d'un cadre de vie collectif adapté aux aspirations humaines.

Et cette lutte doit faire appel autant aux valeurs morales de l'Architecte qu'à sa compétence.

Le quatrième critère de l'architecture contemporaine, je vous le propose comme suit:

"L'architecture doit participer avec conviction à une gestion réévaluée de l'espace et à l'élaboration d'un nouvel humanisme."

5. Pourquoi faire une distinction entre les zones historiques et les autres espaces qui composent la ville? Pourquoi les traiter différemment?

Effectivement, durant tout le vingtième siècle, les extensions urbaines ont été le jouet de théories urbanistiques qui avaient définitivement, croyait-on, rejeté la "tyrannie de la rue". La césure entre les zones "historiques" et les autres était consommée.

Heureusement, depuis dix ans, progressivement la tendance s'est renversée. Cette mutation de la conception urbanistique permet, dès lors, qu'après une longue période d'affrontements, se retrouvent associés selon des principes convergents les deux thèmes fondamentaux de l'urbanisme: la structuration d'espaces nouveaux ou récupérables et la protection d'espaces façonnés par l'histoire.

A une autre échelle, c'est également le problème de la cohérence des deux démarches: la restauration suivant la Charte de Venise et la con-

struction nouvelle associée à son environnement.

Ainsi, le cinquième critère de l'architecture contemporaine s'impose:

"L'architecture contemporaine peut s'inscrire de nouveau dans le cadre d'une continuité urbanistique retrouvée, abolissant ainsi la césure entre le traitement des quartiers anciens et celui des extensions urbaines."

6. L'architecture s'inscrit dans un processus qui inclut une participation réelle d'un grand nombre de personnes, y compris, bien entendu et, en priorité, les futurs utilisateurs. Une nouvelle architecture ne peut naître que d'une nouvelle mentalité. L'Architecte n'est pas le propriétaire de son projet. Sa conception doit être le résultat matérialisé d'un dialogue aussi poussé que possible. C'est cela qui notamment conduit à prendre conscience de la "mémoire" du patrimoine, de l'image collective qui s'est insérée dans la société et qu'il ne faut pas négliger pour des raisons formalistes.

C'est dans cette adaptation continue à la vie que doivent se trouver les ressources d'un nouvel enrichissement formel urbain.

Tel est le sixième critère qui, en somme, les résume tous:

"L'architecture contemporaine prend conscience de la solidarité totale qui la lie à la société et dont elle n'est et ne sera jamais qu'une traduction fidèle."

X X X

Ainsi, pour ma part, les six critères, qui définissent l'architecture contemporaine la plus estimable et qui devraient constituer l'horizon de la formation architecturale, pourraient être formulés en six brèves propositions.

1. L'architecture contemporaine ne peut se concevoir que dans son contexte urbanistique.
2. L'architecture contemporaine trouve dans les enseignements du passé, une source nouvelle de réflexions, mais se méfie de recettes formalistes.
3. L'architecture contemporaine est une recherche constante, anxieuse et sérieuse, à la fois poétique et pleinement professionnelle.

4. L'architecture contemporaine participe avec conviction à une gestion réévaluée de l'espace et à l'élaboration d'un nouvel humanisme.
5. L'architecture contemporaine retrouve progressivement l'unicité de la démarche conceptuelle dans les domaines de la restauration et de la création nouvelle.
6. L'architecture contemporaine se sent davantage solidaire de la communauté des hommes.

Ces six critères définissant l'orientation nouvelle de l'architecture contemporaine, qu'audacieusement je qualifierai d'urbanitecture, montrent combien complexes, multiples et intégrés deviennent les impératifs, qui la conditionnent, comparés à un certain simplisme, à une certaine exclusivité fonctionnelle et à une volonté d'affrontement qui ont souvent marqué l'architecture dite "moderne".

## CENTRE D'ETUDES POUR LA CONSERVATION DU PATRIMOINE

### ARCHITECTURAL ET URBAIN

#### Introduction

Créé en 1976 à l'initiative du Conseil International des Monuments et des Sites, le Centre d'études pour la conservation du patrimoine architectural et urbain a pour but d'initier les architectes, ingénieurs et urbanistes aux diverses disciplines touchant à la sauvegarde et à la réhabilitation du patrimoine architectural, urbain et rural, et de leur donner les bases d'une formation spécialisée. Il répond de ce fait à un besoin important de notre époque: préserver et intégrer dans le cadre de vie d'aujourd'hui l'héritage monumental et urbanistique des siècles passés. Jusqu'en 1981 le Centre fonctionnait dans le cadre du Collège d'Europe à Bruges. Afin d'assurer son expansion dans un milieu scientifique plus adapté à son enseignement, il a été transféré à la Katholieke Universiteit Leuven. Il y est accueilli au sein du département d'architecture, d'urbanisme et d'aménagement du territoire de la Faculté des Sciences Appliquées.

#### Langues

Les deux langues de travail du Centre sont le français et l'anglais, et une bonne connaissance des deux langues est indispensable pour être admis à suivre les cours du Centre.

#### Conditions d'admission

Le Centre accepte, chaque année, une trentaine de candidats, titulaires d'un diplôme de fin d'études universitaires (ou équivalent) en architecture, génie civil, urbanisme et aménagement du territoire, histoire de l'art (architecture). Exceptionnellement, et sur avis de la Commission facultaire, des candidats porteurs d'un diplôme d'une discipline apparentée peuvent être retenus. En principe une expérience professionnelle d'au moins deux années dans le domaine de l'architecture, de l'urbanisme ou de la conservation du patrimoine architectural conditionne l'admission.

#### Organisation des études

L'enseignement comprend des cours, des séminaires, des conférences, des visites guidées et des séances réservées aux travaux pratiques. Le programme se divise en cours généraux et cours de spécialisation traitant des matières relatives à la réhabilitation des villes et à la conservation des monuments.

Un séminaire consacré à l'approfondissement de l'une des matières enseignées ou autre est organisé chaque année dans le cadre du programme d'enseignement. Celui-ci inclut les cours relatifs au sujet choisi, des exposés-débats et, dans la mesure du possible, une exposition et la visite d'un site, d'un chantier ou d'ateliers. Ce séminaire est ouvert à tous les spécialistes de la conservation du patrimoine.

Chaque étudiant fait, soit seul, soit en groupe, une ou plusieurs études se référant à l'ensemble ou à l'une des matières enseignées au Centre. Le programme des travaux pratiques est établi en début d'année académique et doit être accepté par le Président du Centre. L'encadrement des étudiants est assuré par les professeurs ou par des spécialistes choisis en fonction des sujets retenus. Ce travail est présenté en fin d'année. Il ne se limite pas à une étude théorique, mais inclut tous les documents illustrant un travail pratique: relevés, plans, photos, etc. Dans la mesure du possible, les étudiants visitent des chantiers de restauration. Il leur est recommandé d'y faire des stages en fin d'année.

### Examens

Les examens couvrent tous les aspects de l'enseignement dispensé et ont lieu à la fin de l'année académique. Les étudiants qui ont réussi les examens et qui répondent aux critères académiques exigés reçoivent le certificat. Ceux qui, dans une deuxième année, continuent des recherches et présentent une thèse conformément aux critères de la Faculté, obtiennent le grade de licencié.

TRAINING IN ARCHITECTURAL CONSERVATION (DENMARK)

Vilhelm Wohlert

SUMMARY

Danish training programmes in building restoration are integrated in the normal curriculum at the schools of architecture in Copenhagen and Aarhus. They could be characterized as introductions of the architectural student into the strongly varied and special problems related to our cultural heritage within a multidisciplinary context. The student graduates as an architect upon averagely seven years of more or less specialized training and is expected to operate as an architect in a private or public office. All the disciplines of restoration are taught at the schools in project-orientated relationships within a multidisciplinary context. Real restoration work has proved especially valuable in combined training, research, and service-projects.

Professor of Architecture  
The Royal Danish Academy of Fine Arts  
Head of the Department of Restoration

9 July 1982

At the School of Architecture in Copenhagen the need for an introduction of the students into the specialized problems of restoration was felt strongly after the war and in the early fifties the curriculum was redesigned to allow for a training over a period of two or three years in restoration and care of historical buildings and sites parallel to similar programmes in city planning, landscaping, industrial design etc., and a special chair was established.

With a very limited number of students during the first decades the training aimed, as it does still today, where the enrollment in certain periods has approached 100, at the development of a professional, who shall be able to cope with the problems in their totality. The reality today is extremely complex, which means that the architect to be, who feels attachment to the fate of our cultural heritage must, by no means, be a one-tracked, narrow-minded person, he shall be equipped with an understanding of how varied the situations and conditions are, under which he shall carry out his job later on. Basically, he shall know the profession of the architect, work and think as an architect, which means the leading craftsman or technician. That is why I consider it so important that a specialized training of a shorter or longer duration goes off in an academic and artistic environment, which represents a comprehensive and full-fledged answer to the multiplicity of our complex working conditions.

During the past two years I have just had an opportunity to evaluate the potential, which is available under favourable conditions, when training has the access to multidisciplinary resources. In continuation of a practice of the department, initiated a long time ago, of taking up real restoration work as combined training-research-service projects, we offered the Egyptian Organization of Antiquities our assistance within the framework of a cultural agreement between the two countries. We restored a 15th century medresa at Al-Azhar in Cairo as a joint action carried out by conservators, architectural historians, structural engineers, and architects, students as well as teachers in cooperation with their Egyptian counterparts. We could draw upon all these skills, which were available within the faculty of our schools of architecture and conservation, and even had the delight of including the talent of a painter, who came from the school of art, all schools basically belonging to the Academy of Fine Arts.

Teaching in restoration is so meaningful within a total professional environment. Besides the main objectives you can count on the contagious effects upon the creative resources of the student. Especially today, when the most narrow-minded history hostile attitude of the modernism has been left behind, the pluralistic trends include regional approach side by side with valuable aspects of humanized internationalism.





The Dome of the Al-Azhar Mosque after the restoration works

The Institute of Architectural History, Surveying and Restoration, to which my department belongs, has stated its goals as follows:

1. The study of, and collection of knowledge on, historical architecture in all its varieties and the examination of its relations to the natural and manmade environment as well as to its cultural context.
2. The investigation of and training in how the surviving architectural heritage could be integrated in a contemporary society and the demonstration of how it could be preserved in the future as architecture and historical testimony to the social and technological context of the past.
3. The contribution through training to the development of contemporary architecture and planning with the architectural heritage as an essential pre-requisite.

The training at the Department of Restoration primarily is project oriented. Case studies play a dominant role, supplemented by a series of courses and study circles. The case studies follow thematic design problems like "The buildings in the open landscape (farmhouse, manor house)", "Buildings and urban settlements from the 19th century industrial period", "The city core of Copenhagen", "The provincial town", "The deserted harbour of Copenhagen". These studies are normally carried out in two year periods and often in collaboration with other departments.

A student entering the School of Architecture looking for training in restoration normally follows a programme which includes:

- a) 1-2 years studies at one of the four non-specialized departments of architectural design or at the department for basic studies within the institute itself.
- b) 4 years more specialized training at the Department of Restoration, recommended to be initiated by a one year programme, where disciplines particularly relevant to restoration are exercised within a very concentrated curriculum. During the following three years the student is free to chose between design problems, dealing with restoration and conservation of buildings and towns or new constructions in architecturally and historically valuable surroundings.
- c) Diploma-project following a stated programme of restoration or according to a programme drawn up by the student himself assisted by his teacher.
- d) Advanced training for graduated Danish and foreign students. Over a ten year period, students have attended courses from Ghana, Tanzania, Ethiopia, Afphanistan, Japan, Egypt, Iran and Mexico.

The students have an opportunity to develop skill and craftsmanship on building sites during weekends and vacations. The sites have been partly in Copenhagen, partly in the countryside, where interested proprietors have made their buildings available on favourable conditions.

The courses offered to the student within the institute, and in close cooperation with other institutes, deal with the following topics:

1. Basic and advanced measuring of buildings and objects. Photogrammetry.
2. Architectural photography, use of technical camera.
3. Building archaeology, study of buildings and inventories.
4. Registration methods of integrated conservation.
5. Architectural history. Danish - European - Oriental and American.
6. Historical building technology, for which a special laboratory was established 20 years ago.
7. History and theory of restoration.
8. Structural and climatical problems related to historical buildings.
9. Legislation of town and building preservation; conservation and renovation.
10. Planning, supervision, administration and financing of restoration works. - topics which do not seem to be especially attractive to students.
11. Excavation techniques. Treatment of archaeological sites.
12. Ecology and conservation.
13. Craftsmanship.
14. Case studies and site visits. Study tours, mostly to Italy (ICCROM).

Do not question my high appreciation of knowledge imparted to the student through lectures and courses. But knowledge partly is time bound, all important to young people during their studies is the acquisition of a working method. This can only be taught through problem solving.

The student normally perform their studies in groups numbering from 5 to 20 persons under the guidance of a teacher. Measurements and registration most often is carried out in groups, design and planning individually. The staff covers all the subjects, but is often supplemented with professionals from outside the school for lectures, consultancy etc. A library is available and photo laboratory.

The student himself composes his own studies in consultation with his teacher from among a number of courses and design problems offered by the staff or formulated in cooperation with students and staff. He makes his choice according to his need and maturity without artificial class or level distinction. Design problems are evaluated 3-4 times a year, but the only examination existing is the final acceptance of a thesis design problem. The student is awarded a diploma in architecture with special regard to restoration.

In order that a stranger may more fully understand the reason why our training has the character I have tried here to explain, it might be useful to add some few words about the professional background. By far the major part of restoration and conservation work in Denmark is the responsibility of the privately practising architect, no matter what kind of historical building is concerned, a cathedral or a domestic structure. If an architect becomes involved at all, which deplorably is often not the case, if the building is not listed, he probably will be a person who deals with many kinds of design problems in his practice. The historical building stock is not reserved for specialized persons, only ruins and archaeological sites, and they are few, are looked after by highly specialized employees of the Ministry of Environment.

In Aarhus the training is organized in a similar way, and I think it is probably a reasonable way of doing things in our country. But we are lacking advanced postgraduate courses, which would probably fill a gap in knowledge. I should wish that economical means were provided for such kinds of training; and I should wish a further development in terms of real restoration work, which has proved such a valuable experience, at home or abroad.

If you have not managed to develop the sensitivity of the student, you have lost all. Do not try to nurture a type of professional who believes that he can solve all problems through analysis and deduction, who believes that the answer to profound cultural problems could be a scientifically correct one. Try to grow personalities, who could say with Picasso: "I do not seek. I find".

THE SYSTEM FOR TRAINING SPECIALISTS

IN MONUMENTS PRESERVATION IN HUNGARY

Mihály Zádor \*

\*Professor in the Faculty of Architecture  
Technical University of Budapest, Hungary

In the course of the more than centennial history of systematic monuments preservation in Hungary, the training of specialists has in different forms often been in the foreground of interest. It has currently become of particular interest - as a precondition to the activity itself - because of the recent deplorable omission of technical and formal topics, familiar to older specialists, from the subject matter of related disciplines in the training of manual or artistic skills. Some fields of restoration are simply depopulated because old specialists have died off and not been replaced in sufficient numbers. At the same time, agents destructive to monuments have grown alongside with technical development, requiring an increasing theoretical knowledge and professional skill to be acquired by the monuments conservator. This fact, combined with the world-wide emphasis on appreciation, preservation and reconstruction, rather than demolition, of ancient but not monumental town centres and buildings, has created an urgency to solve the problems involved.

The present system of training specialists in monuments preservation in Hungary has been summarized as follows:

Speciality		Training		
	Skilled worker	Secondary schooling	Higher Education	Post-graduate education
Architecture	Courses at National Monuments Inspectorate, etc.	Technical Secondary School	Faculty of Architecture, Technical University, Budapest	Specialist Engineering Education
Restoration in Fine Arts and Museums		"	Dept. of Restoration, High School of Fine Arts	"
Archaeology			Eötvös Lorand University	"
Art History			"	"

This table must be amplified by the following comments: training of skilled workers specially for monuments reconstruction exists only as refresher courses; training in itself is common to that for the reconstruction of existing, new and non-monumental buildings. Such courses are offered in particular by the National Finishing Enterprise, and the Enterprise for Stone Carving and Building Decoration, for decorative painters, stained glass workers, gypsum plaster workers, wrought-ironsmiths and tinsmiths, and for stone carvers, also in the form of refresher courses. In these ancient trades, the best method of training is invariably the practical transfer of experience, in particular as concerns high-level works (e.g. reconstructions of Matthias Church, the Parliament building, the Opera House in Budapest).

The problems are those of training medium-grade specialists - technicians - in this country. Earlier technical secondary schools were discontinued, replaced by a network of so-called special secondary schools offering specialization in particular fields as did their predecessors. After the final examination, a special examination may be rewarded by a technician's certificate. Nevertheless, these schools have not been founded to offer either a grounding sufficient for admission to a university, or a practical skill equalling that offered by the technical high schools. The Centre for Restoration and Methodology of Museums trains restorers for museums as well as specialists in stone and wood conservation who have thus been engaged in the reconstruction of historic buildings.

Wood conservation specialists are trained in special courses integrating their basic training as engineers or technicians.

As concerns higher education, students in architecture at the Technical University, Budapest are offered four semesters of history of world architecture, and two semesters of history of Hungarian architecture, one semester of history of fine arts, theory of architecture, and several optional subjects, concluded by direct skills in Monuments Preservation in the eighth semester for the Town Planning section; and in the ninth semester for the Design section. This is integrated by two weeks in a camp for monument surveying after the fourth semester. Within the framework of the training programme for archaeologists and art historians at the Eötvös Lorand University of Sciences in Budapest, this autumn special architectural monumental courses will be launched. In this country, no special degree is offered in architectural monuments restoration in the context of five-year university education. Archaeology training may be integrated with "Monumental Archaeology", but there is no equivalent specialization possibility for art historians.

The High School of Fine Arts offers a degree in the speciality of restoration of paintings and sculpture (equivalent to a university diploma). In accordance with their fundamental training, graduates are masters of integrating, reconstructing paintings and sculpture. They obtain, however, less information in the matter of new, up-to-date conservation agents and their uses.

Scientific Students' Circles are efficient in acquainting students with the special subject matter within the university education. In this context, the subjects preferred are monuments preservation and history of architecture. (Typically, this Institute of History and Theory of Architecture counts nearly as many Scientific Students' Circle members as all the other circles of the Faculty of Architecture.) Students undertake independent studies and surveys. Moreover, students of the "Ybl Miklos" Technical High School of Building have great merits in surveying popular monuments.

The post graduate programme offered by the Institute of History and Theory of Architecture at the Technical University, Budapest is the only one in this country to grant a certificate of specific skill in "Monuments Preservation". Admittance requirements are at least two years of practice after having graduated as an engineer or possibly an architect. Civil engineers, archaeologists, art historians, folklorists, and even chemists and horticultural engineers have also been admitted to the courses launched some ten years ago.

Education target Post-graduate education aims at training specialists in monuments preservation acquainted with the essential knowledge in the field, from guidance to practical design, construction, conservation and legal aspects, and fit for efficient work. With a view to the interdisciplinary nature of monuments preservation - in addition to striving to offer professional skill, adequate principles, methods and a correct approach - the education attempts to provide a "common language" among different branches, enabling them to know and appreciate each other's work, e.g. between engineers and archaeologists, art historians, based on former, practical observations.

Education system Courses last two years. During this time, students have study periods of two and a half days every three weeks to embrace the subject matter involving all essentials of the theory and practice of monuments preservation. Examinations have to be passed in the given subject at the end of each term. By the end of the second year, students prepare a thesis on a theme chosen by themselves and agreed upon by their tutor. If it is accepted, they pass a state examination on three subjects and are granted a diploma of "Specialist of Monuments Preservation" by the Technical University, Budapest, offering the education in common with the Eötvös



Lorand University of Sciences. This system is partly due to the absence of post-graduate education at Eötvös Lorand University. Such training has existed for some time at the Technical University, under the related departments (e.g. town planning, structural engineering, building engineering, etc.).

Post-graduate engineering students are offered "priming subjects" (such as history of Hungarian architecture, ethnography, folk architecture, historical building materials and structures) and "special subjects" (such as methods of monuments investigation, theory and practice of preservation, latest conservation methods, etc.) in common lessons.

Beyond the standard priming subjects, students are offered some different subjects, depending on whether their background is in engineering (branch A) or another field (branch B). Branch A students are made acquainted with auxiliary sciences of museology and history, and given refresher training in design. Branch B students obtain complementary engineering knowledge missing from their university curricula, involving essentials of building structures and construction.

Obviously, this post-graduate education does not aim at training restorers and conservators of objects (who are trained, as mentioned above, at the High School of Fine Arts, and at courses in their respective museums), but specialists of architectural monuments preservation.

This training method is integrated with the preservation of the work of our Laboratory of Monuments Preservation, complete with practical exercises. Courses also include acquaintance with institutions, research stations, workshops of technical conservation, and specialists likely to be helpful later in solving specific problems. Readiness to apply the acquired theoretical knowledge in practice is fostered by study trips in Budapest, in the countryside, and in neighbouring countries.

Subject programmes are composed of the following items:

1. History of Hungarian architecture. (Chapters). Eminent experts lecture on latest research results in their field of expertise, going from archaic times through Roman and mediaeval architecture to the present. History of Hungarian architecture is assumed in the programme to have been acquired by the students in the course of university studies.
2. Theory and practice of monuments preservation. Fundamental knowledge, concepts, definitions of monuments preservation are covered, together with theoretical and official aspects of preservation, the tasks, range and practical activity of the National Monuments Inspectorate.

3. Historical building materials and up-to-date conservation methods. A four-semester subject, as are those above. The first semester includes building materials of historic monuments (stone, brick, timber, metals, concrete). Next, up-to-date conservation methods are offered, from preventive diagnostic testing methods, through the damp-proofing of buildings surface protection, conservation of ruined walls, to the conservation of building materials (stone, brick, timber, metals). Students will have an insight into the work done at the Section of Monuments Preservation of the Institute of History and Theory of Architecture, and its Laboratory of Monuments Preservation, as the technical-scientific research station of Hungarian monuments preservation.

4. Historical building structures and design methods. Knowledge of ancient structures (e.g. foundations, masonry, vaults) is fundamental to monuments reconstruction. These will be presented in the order of historical periods, including design principles, methods, and problems emerging during reconstruction.

5. Protection of fine and applied art objects. Concise delimitation of the subject requires the comment that only interiors and furnishings of monuments, their reconstruction, and the historical, iconographical and protection problems of murals are involved, excluding restoration of self-contained sculptures, paintings.

6. Ethnography, preservation of popular monuments. This two-semester subject, of ever-increasing urgency, will first be covered from the ethnographical aspect, and in the second semester will involve lectures by an architect concerned with the preservation and reconstruction of popular building art.

7. Preservation of historic gardens. An expert at the National Monuments Preservation will lecture on major preserved historic gardens (in particular, large-scale parklands surrounding Hungarian baroque and classicist mansions). Knowledge in special preservation skills is offered.

8. Aesthetics of monuments and their surroundings. Starting from the problem of monumental value, some fundamental concepts of aesthetics will be presented, to be concerned with the relation between old and new, with special consideration of the principles of monuments and aesthetics in connection with the design of new buildings to fit monumental ensembles.

9. Reconstruction of historic towns. This is an attempt to establish a relationship, a cooperation between town planners and monumentalists relying on common principles and knowledge. Particular stress is laid on historically developed ensembles in existing towns (not exclusively historic

towns), as well as on the connection between old and new town parts, and integration of old town parts within the actual urban life.

10. Methods of monumental investigation and research. Scientific (mainly archaeological and art historical) research preceding reconstruction, elaboration of scientific documentation is the precondition of any monument reconstruction plan. Essentials and methods of this work will be outlined.

#### Special subjects in branch A

11. Fundamentals of museology and basic sciences. Although problems of preservation and reconstruction of monuments differ greatly from protection in museums, any technical specialist in this field needs an insight into aspects and operations controlling research preceding and largely determining reconstruction. Beyond offering fundamentals, the subject tends to develop an approach to the problem.

12. Historical sources and auxiliary sciences. Architect/designers engaged in monuments preservation, specialist officials, and even constructors are often faced with special historical research problems in the course of a reconstruction. Partly, sources will be presented to solve them, and partly, an insight of studio work of arts graduate monuments preservation will be given.

13. Planning of monument reconstructions. Currently, time limitations confine the subject to present planning principles, methods developed according to the prescriptions of the Venice Charter, some concrete reconstruction plans and realizations. Thus, to date, no explicit planning or design work has been done within the post-graduate course of Monuments Preservation.

#### Special subjects in branch B

14. Fundamentals of building structures. Arts (or other non-engineering) graduate students almost daily face contradictions arising in research concerned with the activity of preserving historic buildings. In part, designing and structural principles have to be known in depth to realize the building from some wall remains; also, building excavations involve engineering activities that require archaeologists and art historians to acquire relevant knowledge. These considerations underlie the lectures, which give a short survey of structural systems and parts of buildings.

15. Fundamentals of construction. As the main structural principles and construction methods are strictly related to applied technology and the construction method, students other than engineers need relevant information for the sake of cooperation and relation to their own problems.

The complementary subjects in branches A and B make up about 15% of the total of lessons, whereas 85% of the courses are common to both branches, providing a uniform base of knowledge.

By the end of the programme, students pass a state examination. "Theory and practice of monuments preservation" and "Historical building materials and up-to-date conservation methods" are state examination subjects mandatory in both branches. Other state examination subjects are "Historical sources and auxiliary sciences" for branch A, and "Fundamentals of building structures" for branch B. The ratio of branch A to branch B students is about 85 to 15.

#### Evaluation of, and prospective plans for the post-graduate education in monuments preservation

Talks with both lecturers and students of the four courses completed to date point to a fair acquisition of the specific subject matter. This two-year course is considered to be useful for their future practical work, and fundamental to constant self updating.

All interested consider organization of education involving several outside lecturers to be rather difficult, in particular, because the latter are eminent professors of other universities, museum directors, or leaders of the National Monuments Inspectorate, and hence rather busy people, often prevented unexpectedly from delivering their lessons.

These difficulties call for increased care with organizational matters in the future. Students are rightly desirous of more practical knowledge, a less acute desire in earlier courses attended by older students who had already had a lot of professional practice. This kind of education is only a decade old in this country, hence several older specialists could not realize their qualification plan earlier. The average age of students in the present course is lower, and so is the amount of previous professional practice.

Thus, in the future, the proportion of practical knowledge, design in particular, has to be increased. Problems to be developed as diploma topics would be suggested such that monument reconstruction programmes would be elaborated as a study plan.

Finally, let me mention that all students appreciate the "common language" as a tool of a profound, lasting professional relationship, and token of the furthered proficiency of monuments preservation in this country.

SPECIALIST ENGINEERING EDUCATION IN MONUMENTS PRESERVATION

SUBJECTS	Course A For graduates of the Technical University, Budapest		Course B For graduates of the Eötvös Lóránd University		Total number of Lessons	Number of les- sons in theory	Number of lessons in prac- tice
	Weekly N° of lessons (theory & practical). Requirements at semester end: v = examination; g = exercise mark) a = signature	1st year	2nd year	1st year			
	1st	2nd	1st	2nd	in the subject throughout the courses		
1. History of Hungarian Architecture	20v	20v	20v	10a	70	70	-
2. Theory and Practice of Monuments Preservation	20v	20v	20v	10a	70	70	-
3. Building Materials in Historical Periods and Up-to-date Cons. Methods	20a	20v	"B"g 20v	"A"g 10a	60	40	20
4. Design Methods and Structures in Historical Periods	20AV Ba	20Aa Bv	-	-	40	40	-
5. History and Preserv. of Fine & Applied Arts Objects, & of Monumental Complexes	20a	20v	20v	-	60	60	-
6. Ethnography, Vernacular Monuments	-	-	10a	20v	30	30	-
7. Preservation of Historic Gardens	-	-	10a	10v	20	20	-
8. Aesthetics of Monuments and Surroundings	-	-	20v	-	20	20	-
9. Reconstruction of Historic Towns	-	-	-	20v	20	20	-
10. Practice and Theoretical Methodology of Monumental Explorations	-	-	-	20v	20	20	-



TRAINING IN ARCHITECTURAL HERITAGE  
TRAINING FACILITIES, PROBLEMS, TRENDS AND PERSPECTIVES IN  
LATIN AMERICA AND THE CARIBBEAN

Sylvio Mutal

## Background

The ever increasing interest on the part of governments both central and local, as well as private institutions and people at large at all levels for the protection and mise-en-valeur of their Cultural Heritage, has led in Latin America and the Caribbean to positions and views which embody the concept of Cultural Heritage as an integral part of overall cultural policies.

This dynamic view of Cultural Heritage in general, and Architectural Heritage in particular, has had connotations in so far as culture is being considered as one of the dimensions of development per se.

In the last two decades a good number of countries in the region have set up mechanisms in the form of ministries and/or specialized institutions to deal with matters of culture, especially in technical subjects, with substantive and tangible values.

Cultural and Architectural Heritage as related to monuments, sites and historical cities have become priority areas within cultural policies.

It is to be noted that there is an apparent preferential position in the restoration and conservation of Architectural Heritage as opposed to movable objects, although for the latter a number of very concrete initiatives have been taken with quite considerable success, e.g. installation of conservation laboratories and training of personnel. Projects of restoration and conservation of movable objects are however mostly related to museums and very little is done in other collections (churches, convents, universities, etc.).

The subject matters of restoration, conservation and inventory as they affect Cultural Heritage as such, have not necessarily been considered in the academic training programs of universities and schools of higher learning, e.g. faculties of architecture, engineering, history of art, fine arts, chemistry, biology, archeology, anthropology, etc.

In the early 1970's, it was clear that special programs had to be designed to train professionals in the field of conservation and restoration, to meet the requirements of projects in this field, may they be for architectural or archeological sites or movable objects in museums, churches, collections both private and public.

As no training was available in universities, the first special program was designed in Churubusco, Mexico, and UNESCO was called upon to collaborate in the setting up of specialized courses for training in restoration and conservation. The Churubusco-Mexico Centre has been a pioneer in this field, particularly of movable objects, gradually developing its activities towards "in situ" conservation and restoration programs in archeo-



logical sites and local museums. The work of the Churubusco Centre, later supported by OAS, has been extremely helpful insofar as it has trained qualified personnel in the field of restoration of movable objects, who in turn with some additional training in other centers, particularly in Europe, became the pillars of the future cooperation provided by UNESCO under its Regular Programme, Programme of Participation, and since 1975, with the Regional Cultural Heritage Project of UNDP and UNESCO with headquarters in Lima.

At the inception of the Regional Cultural Heritage Project of UNDP/UNESCO, it was clear that there was need for training in restoration of architectural and archeological compound-monuments, sites and movable objects.

It is in this context that 3 regional courses have been organized annually in Cusco since 1975.

In the field of architecture, the UNDP/UNESCO Regional Cultural Heritage Project with the cooperation of UNESCO's own Regular Programme and IILA Rome and the assistance of professors suggested by the Mexico Centre, ICCROM, among others, set up a six month course for graduates of architecture. These courses were carried out in six consecutive years until 1980.

The course evolved from a mere technical project for restoration and conservation to an overall planning for restoration of historical compounds and historical cities. Training courses attracted Architects from the whole of South America and occasionally Central America.

Two hundred and fifty architects were trained during these six years.

An evaluation-future orientation recycling workshop was organized in Cusco at the end of 1981 where 26 ex-fellows attended. This workshop proved to be extremely enlightening in terms of the state of monuments and sites in Latin America, future needs of trained human resources and, above all, the type of specific training which might be necessary for personnel in service as well as new comers working in this area from different academic backgrounds.

While noting the effort and overall positive results of the Regional Course in Cusco, it was also noted with satisfaction in view of the emerging need and consciousness in institutions of higher learning and universities, and initiatives were taken for courses at a national level. These were as follows:

- a) Special course in universities particularly for architects on questions of restoration and conservation of architectural heritage.
- b) The inclusion of restoration and conservation in the normal curriculum of architectural schools.

All in all it can be said that in the 70's a number of positive initiatives have been taken in the region and a rich experience has been acquired on the basis of research and training programmes which were closely connected with the realities of the region and the evolution of the concept of Cultural Heritage and its direct relationship to development.

PROFESSIONAL TRAINING COURSES  
IN  
ARCHITECTURAL CONSERVATION/RESTORATION  
IN LATIN AMERICA

Country: MEXICO

Institution  
in charge: Churubusco Center

Title of  
course: Master's in Architecture with specialty  
in restoration of monuments

Program  
started in: 1967

Duration of  
course: One academic year divided into four periods  
of different duration

Admission  
requirements: University degree in architecture

National and/  
or regional: National and regional

Certificate  
or diploma: Master's degree in architecture with  
specialty in restoration of monuments -  
recognized by the Ministry of Education

Subjects: a) First period:

1. Introduction to architectural heritage
2. General archeology
3. Methodology and research techniques
4. Historic-architectural terminology
5. Conservation of materials
6. American prehispanic architecture
7. Photography
8. Introduction to the restoration project

b) Second period:

1. Criteria for architectural restoration
2. Stereonomy
3. Materials and restoration procedures
4. American colonial architecture
5. Colonial iconology
6. Analysis and projects for restoration  
of monuments
7. Documentation and cataloguing
8. Conferences, projections and visits

c) Third period:

1. Theoretical problems of architectural  
restoration

2. Didactic workshop
3. Legal protection of architectural heritage
4. Organization of restoration works
5. American architecture of the XIX Century
6. Criteria for re-structuring of monuments
7. Analysis and projects for restoration  
of architectural complexes
8. Conferences, projections and visits

d) Fourth period:

1. Research and thesis seminar
2. Practice in situ

Objectives:

Since the inception of the Center, the course has evolved from a mere professional career to "restore works of art" to a comprehensive training where a close relationship has been established between teaching and learning. This had three objectives in mind: a) to create an appropriate attitude on the concept of cultural heritage, b) to obtain a minimum scientific knowledge, c) to develop the ability to accomplish restoration works in function of the national reality of each country.

Thus, the course has been conceived with three main approaches:

theoretical humanistic = attitude  
scientific = knowledge  
techniques of restoration = ability

Country: PERU (Cusco)

Institution  
in charge: National Institute of Culture (INC) and  
the Regional Cultural Heritage Project  
UNDP/UNESCO

Title of  
course: Regional Course on Restoration of Monuments,  
Conservation of Historical Centers and Sites

Program  
started in: 1975

Duration of  
course: 6 months

Admission  
requirements: University degree in architecture

National and/  
or regional: National and regional

Certificate  
or diploma: Special Certificate granted by INC and UNDP/  
UNESCO, not recognized by any academic  
institution.

Subjects: The course was divided into three sections:  
theory, practice, workshops particularly  
related to historical centers.

Section I:

1. Analysis of architecture, painting and sculpture
2. Fundamental concepts of restoration
3. Techniques of restoration and conservation
4. Analysis of prehispanic architecture and urbanism
5. Analysis of European architecture (XVI-XIX Century)
6. Stability of structures and materials
7. Legal and socio-economical aspects
8. Map relief techniques
9. Basic photography
10. Archeological excavation
11. Historical centers
12. Techniques of historical research
13. Museology.

Section II:

1. Design Workshop
2. Practice in situ

Section III:

1. Theory and methodology of restoration of historical centers
2. Research methods
3. Global hypothesis of intervention in an urban sector
  - Global project at the level of one square block
  - Architectural restoration project (group of buildings)

Objectives:

The course in 1975 particularly stressed restoration techniques and was related to parallel courses on restoration of movable objects and on techniques of archeological excavation. They had in mind a professional opening, initiation to specialization, and motivation towards the areas and objectives of preservation of cultural heritage. The course was considered as an initiation to further learning in execution of architectural restoration projects. The courses evolved in such a way that in 1980 they comprised subjects of integral conservation, particularly in relation to historical centers and sites.

An evaluation of the first six courses was organized in 1981, reference to which will be made in part 3 of this paper. During the six years, all sort of endeavours were made to relate the course to the University of Cusco to no avail, in view of the administrative financial condition of this university. It should be noted that the courses were highlighted in view of the restoration projects which were in execution in the Cusco area, under a special program of the Government of Perú with the cooperation of UNESCO, and were thus a direct and indirect way to communication between architects, engineers, restorers of movable objects, archeologists, anthropologists, etc.

Country: ARGENTINA (Buenos Aires)

Institution  
in charge: University of Buenos Aires, Faculty of  
Architecture and Urbanism, Institute of  
American Art "Mario J. Buschiazzo"

Program  
started in: 1980

Title of  
course: Preservation, Conservation and Recycling  
Urban-rural monumental heritage

Duration of  
course: Three years plus one year of thesis

Admission  
requirements: University graduate with degree in architecture,  
with maximum ten years after graduation.  
Graduates of civil engineering, law, museum  
curators or archeologists can attend courses  
or seminars related to their specialties.

National and/  
or regional: National

Certificate  
or diploma: Diploma of Architect specialized in preservation,  
conservation and recycling of the urban-rural  
heritage. Graduates of other disciplines will  
receive certificates according to their special-  
ties.

Subjects: First course:  
History of Conservation of the architectural  
heritage  
History of Architecture and territorial  
planning I  
Theory of conservation and restoration  
Theory of museology  
Descriptive Analysis I  
Rescue methodology I  
Special techniques (topography and photography)  
Rescue design I  
Second course:  
History of Architecture and territorial  
planning II  
Theory of territorial planning



Planning theory in preservation of centers  
and monumental areas  
Descriptive analysis II  
Rescue methodology II  
Technological evolution of materials  
Technological evolution of structures  
Special Techniques II (photointerpretation  
and photogrammetry)  
Rescue design II

Third course:

History of architecture and territorial  
planning III  
Theory of archeology  
Theory of Conservation of works of art  
Descriptive analysis III  
Technology of restoration in structures  
Rescue design III  
Inventory policies  
Legal policies

Fourth course:

Thesis

Objectives: To train future specialists to:

Detect environmental disadjustments in  
buildings and their sites and in historical  
centers and diagnose such disadjustments;  
direct rescue operations, plan recycling of  
areas involved and verify compliance with  
standards to enrich living conditions of  
the area.

Use technical and scientific resources as  
well as equipment designed for this end  
taking into account sociological, economical,  
ecological, historical, planning, restoration,  
conservation, archeological, structural,  
pathological, and inventory and cataloguing  
aspects.

This is a typical course attached to a  
University and seen exclusively as a specialized  
course of an institution of higher learning.

Country: ARGENTINA (Córdoba)

Institution in charge: Catholic University of Córdoba  
Faculty of Architecture

Title of course: History and Preservation of Architectural Heritage

Program started in: 1975

Duration of course: Four months. Theoretical and visits to projects and works in the historical center of Alta Gracia. Close relationship to professionals working in restoration activities.

Admission requirements: Graduates of any School or Faculty of Architecture of any country in Latin America. Students of the last year of Schools or Faculties of Architecture.

National and/or regional: National and regional

Certificate or diploma: Certificate of course recognized by the Ministry of Education since March 1976.

Subjects:

1. Restoration and preservation
  - 1.1 Criteria  
Theory for historical centers  
Criteria for restoration and conservation  
Criteria for mis-en-valeur
  - 1.2 Techniques of relief mapping  
Measurements, documentation
  - 1.3 Restoration techniques  
Structures, materials and their conservation
  - 1.4 Perception of the environment, architectural morphology and urban landscape
2. Historical-critical formation
  - 2.1 Architectural historiography
  - 2.2 Elements of history of architecture - XVI to XIX Century - Argentine architecture, Latinamerican architecture and cities.

### 3. Research

- 3.1 Techniques of document research
- 3.2 Inventory and cataloguing
- 3.3 Elements of paleography

#### Objectives:

The safeguarding of architectural heritage envisions not only its physical aspects, although these are of prime importance. It is necessary to have a sound theoretical formation so that the technician is capable of formulating criteria and making decisions to achieve the mise-en-valeur of a specific architectural monument and to integrate it to the life and traditions of the country.

For this reason, courses are not limited to technology but try to balance technical training with cultural formation.

Country: ARGENTINA (Resistencia, Chaco)

Institution  
In charge: National Northeastern University  
Faculty of Architecture and Urbanism

Title of  
course: Postgraduate Course 1983  
Conservation of Architectural and Urban  
Heritage

Program  
started in: 1983

Duration of  
course: 4 months

Admission  
requirements: University degree in architecture

National and/  
or regional: National

Certificate  
or diploma: Special certificate granted by the University.

Subjects: History of Western architecture  
History of American and Argentine architecture  
Fundamental concepts of restoration  
Stability and resistance of materials  
Techniques of restoration and preservation  
Historical centers - theory  
Legislation  
Project administration  
Museography  
Techniques of documentation and research  
methodology  
Inventory and cataloguing  
Environmental and landscape conservation  
Photography  
Workshop - design and practice of architectural  
and urban restoration

Objectives: To train architects in practical and theoretical  
aspects of conservation of architectural and  
urban heritage.  
  
To exchange experiences among participants.

Country: COLOMBIA

Institution in charge: Javeriana University  
Faculty of Architecture and Design

Title of course: Master's in Restoration of Architectural Monuments

Program started in: 1977

Duration of course: 2 years. Three semesters of theory, one semester for thesis

Admission requirements: University degree in architecture. Have completed the course Introduction to Restoration of Monuments or take it additionally during the first semester.

Certificate or Diploma: University title or Master

Subjects: History of the conservation movement  
Research methodology  
Introduction to restoration of monuments  
History of Hispanoamerican architecture  
Materials and methods I and II  
Photography in restoration  
Paleography  
Legislation related to conservation in Colombia  
Design workshop in conservation of monuments  
Conservation of urban complexes  
Conservation of monuments - complementary subjects

Objectives: The University considered that deterioration of monuments and sites was not only caused by "progress" which demolished buildings but also by ill-conceived interventions by so-called restorators. The Architect would have to solve in integral form the multiple problems of a restoration project ranging from construction, structural, esthetic, archeological and historical order.

This program was never implemented as there were not enough applicants. It is worth

noting that in 1977 the total cost for the program amounted to US\$2,000. Intensive six month courses elsewhere are mostly in the form of fellowships which amount to US\$300 to US\$500 a month. (Reference to cost of training made in part 5 of this paper).

Country: CUBA

Institution  
in charge: Ministry of Culture  
Center of Service, Research, Information  
and Training at ex Convento Santa Clara

Title of  
course: Architectural Restoration

Duration of  
course: 3 years

Program  
started in: Will start in 1983

Admission  
requirements: Graduate architects from University of  
Havana and others in Cuba, who have already  
participated in restoration works

National and/  
or regional: National with possibility regional

Certificate  
or diploma: Special Diploma Ministry of Education

Subjects: First year:  
"Attitude" (Theoretical-humanistic subjects)  
Theory of Restoration  
History of Restoration  
Research Methodology  
Cuban historiography  
Visits to identify deterioration  
Second year:  
"Scientific knowledge" (Scientific subjects)  
Physico-chemistry of restoration  
Biology of restoration  
Archeology for restoration  
Laboratory and methods  
Visits to specialized laboratories to  
diagnose cause and treatment of  
deterioration  
Third year:  
"Ability" (Training in work supervision)

Preparation of registries and documentation  
Draft Project and Project

Participants will accomplish a restoration  
project (or stage thereof) carrying out  
tasks of organization, administration and  
supervision of works as well as those of  
laborers and masons, under the supervision  
of teachers and experienced masons.

**Objectives:**

In addition to the training of architects,  
the Center will train artisans and workers  
of the Enterprises of National Power (Empresas  
de Poder Popular) in order to form a  
specialized corps in restoration. It is  
also expected that publications will be  
published with the purpose of exchanging  
information on restoration with national  
and foreign institutions.



Country: BRAZIL

Institution in charge: Special agreement between SPHAN (National Institute of Historical Monuments) and UFBA (Federal University of Bahia)

Title of course: Course of Specialization in Conservation and Restoration of Monuments and Historical Sites

Program started in: 1974

Duration of course: 6 months

Admission requirements: Degree in architecture and guarantee that candidate is or will be working in conservation activities

National and/or regional: National and regional, specially for Portuguese speaking Africans

Certificate or diploma: Special diploma of post-graduate level from University

Subjects: Urban evolution  
 Theory and history of conservation and restoration  
 Mapping and documentation of monuments  
 Traditional construction systems  
 Training in situ I  
 Architecture in Brazil  
 Technology of conservation and restoration I  
 Monuments and sites (visit to Bahia)  
 Project Workshop I  
 Technology of conservation and restoration II  
 Training in situ II  
 Monuments and sites II (visit to historical towns in Minas Gerais)  
 Project Workshop II  
 Technology of conservation and restoration III  
 Mapping and documentation of monuments II  
 Training in situ III  
 Basic illumination techniques  
 Project Workshop III  
 Landscaping  
 Ambientation of inside areas  
 Organization and administration of restoration works

Policies for the preservation of cultural heritage  
Training in situ IV  
Historical centers  
Project Workshop IV  
Intervention of works of art in architectural restoration  
Study of Brazilian problems

Objectives:

Courses are organized by SPHAN in collaboration with the Federal Government, universities and international organizations like UNESCO. They have been organized in Sao Paulo, Recife and recently in Bahia, Salvador. Some of these universities e.g. Bahia already have specialized centers for the study of Bahian Architecture like CEAB and the Group of Urban and Architectural Restoration GRAU. In this context SPHAN, which has specific restoration projects in this area and other parts of Brazil, has "tailored" training programs to meet manpower requirements for the restoration and conservation of historical cities, a major nation-wide program of the government.

It is to be noted that the courses in Brazil are designed in function of needs, job opportunities, plans and programs of the central and federal governments, and are contracted to universities who have the necessary infrastructure and who can project these activities to field operational projects.

### 3. Overall assessment of training programmes

As mentioned above, training programmes in the field of architectural heritage have been set up particularly in European countries and have reflected the needs and trends as well as concepts and technologies of that part of the world in terms of the contents of the programmes and the philosophy of restoration.

Some of the European centres with regional vocation have trained architects from Africa, Latin America and Asia who in turn were able to be instrumental in the setting up of programmes in developing countries or be active members in the then established training activities.

There is no doubt that the concepts underlined the philosophy and objectives of the training programmes in Europe and the United States responded to overall cultural policies of the post war years.

The 60's and a good part of the 70's were able to absorb the qualified trained personnel in government and/or private executed restoration projects.

Meanwhile the development of new technologies and the emergence of lean years affecting the overall cultural policies and to that matter the development priorities of developed countries were bound to bring changes in attitudes and contents of training programmes and restorators.

The relationship of the centres in Europe and the United States to centres and programmes in Third World Countries could be considered as affected by this phenomenon. On the other hand centres and programmes e.g. in Latin America started to develop their own philosophies and concepts responding to the realities of the region and to the ever increasing demand for conservation and restoration work.

While noting that there is a great shortage in Africa and in Asia, we shall at this point try to assess what has been done in Latin America and the Caribbean with a view to find some common denominators for future action in a consolidated form with existing well structured centres and their relationship to training needs and programmes in developing countries.

It is to be noted that most of these centres are to be found in European countries and there is a shortage of such programmes in Africa and Asia. The training programmes mentioned in part 2 of this paper have responded to an overgrowing interest and need for personnel in view of the expectations which an overall consciousness on the protection and conservation of cultural heritage led to. It is only in Brazil, in the late seventies, that the National Institute of Culture embodied in its programme related to historical centres, a component of research and training by making contractual arrangements with institutions of higher learning.

The programmes were designed jointly by SPHAN and the universities and were tailored in function of the restoration projects which were planned, programmed and financed by the central government in collaboration with federal governments. An assessment of the effectiveness of these training programmes was thus made automatically as "training" was responding to the overall execution and management of projects.

In programmes which were organized by universities or centres like Churubusco there has been very little assessment as to the relationship of training to research and action orientated restoration projects. The Churubusco Centre evolved from a mere centre for restoration of "art works" to a centre which promoted the concept and the attitude toward cultural heritage and even went as far through its research programmes as to develop its own technologies, thus responding to ICOMOS's preoccupation and emphasis that conservation must make use of the variety of technologies and that it is possible to safeguard a part of the immovable cultural heritage with simple and effective means and technologies within the scope of local labour, inasmuch as traditional techniques have survived or have been reintroduced recommending that public authorities avoid launching preservation projects employing high level technology without having explored all possibilities of using local methods. This research component of the Churubusco Centre (with the use of research laboratories) could be considered innovative and of interest for future trends in training related to research. There is no doubt that the research laboratories will be in a better position to define the nature of the practices which ensure the authenticity of each heritage.

The courses planned for Cuba can also be considered innovative insofar as they take into account within a global training policy different levels of trainees from workers, state contractors, professionals of all levels who produce studies and execute projects, volunteers who are the dwellers or neighbours of the quarters to be restored and administrators and university staff who have specific tasks ranging from administration to research..

As to courses in Cusco, in 1981 the Regional Cultural Heritage Project organized an evaluation and recycling course in Cusco with ex-alumni of the previous six courses. Out of 206 participants, 26 were brought back to Cusco for a three week long seminar. The recycling and evaluation course revealed that the courses so far had a positive impact and served also through its trainees as pressure groups to actually get restoration works designed and executed.

All participants presented a descriptive and analytical paper on the projects in which they were working at and felt that further in depth knowledge of administrative, financial, managerial and multidisciplinary aspects of restoration was necessary. A common denominator emanating from the Cusco course was the "humanization process" of architectural conservation where the quality of life and the architectural compound were the central themes in addition

to the technical intervention of the architect-restorator. Reference was also made to some shortcomings in previous training programmes in relation to legislations, the complex problems of historical centres, urban planning and the impact of tourism on historical centres and sites. The evaluation of previous courses led also to an ideal 6 month programme which could be elaborated along the following guidelines:

1. Introduction
  - 1.1 Objectives and organization of course
  - 1.2 Presentations by students
  - 1.3 Leveling
2. Theory of historic centres
  - 2.1 General theory of the conservation of historic centres
  - 2.2 Methodology and techniques in investigation
  - 2.3 The historic centre within the regional context
  - 2.4 Urban anthropology
  - 2.5 Urban legislation
  - 2.6 Urban economy
3. Theory of restoration
  - 3.1 Evolution of the theory of restoration
  - 3.2 Fundamental concepts of restoration
  - 3.3 Techniques in conservation
  - 3.4 Constructive systems
4. History
  - 4.1 History of Latin American urbanism
  - 4.2 History of Latin American architecture
5. Supporting items
  - 5.1 Methods and techniques in investigation for historic centres and monuments
  - 5.2 Auxiliary techniques
    - 5.2.1 Relief mapping
    - 5.2.2 Photography
    - 5.2.3 Iconography
    - 5.2.4 Prospecting
  - 5.3 Stability and resistance
  - 5.4 Technology applied to conservation
  - 5.5 Programming and administration of work programmes
  - 5.6 Supporting conferences
6. Workshops
  - 6.1 Historic centres
    - 6.1.1 Project methodology
    - 6.1.2 Proposal
  - 6.2 Urban complex
    - 6.2.1 Project methodology
    - 6.2.2 Proposal
  - 6.3 Architectural monuments
    - 6.3.1 Project methodology
    - 6.3.2 Proposal

## 7. Field work

## 8. Evaluation and synthesis

- 8.1 Seminar on evaluation of course
- 8.2 Seminar on investigation projects
- 8.3 Final recommendations
  - a) Course organizers
  - b) Institutions

In addition to this overall 6 month course proposed, other trends indicated that there is need for specialized courses in the form of in-service training in specific matters e.g. materials like mud-brick, stone, etc., and refreshment courses dealing with technologies, modern and traditional.

Another trend is the one related to the whole financing and management of architectural heritage as it refers to monuments and sites. Very little or practically no attention has been given in courses to this subject matter, on the assumption that the architects-restorators' unique job is to do a technical restoration on the basis of his knowledge, approach and ability.

There is no doubt that in the eighties, the architect-restorator will have to have a say in the budgeting, financing and management of the restoration activities. New forms of financing should be sought. The architect-restorator will have in the future a role not only as a promotor and a technician but also of "decision making" on the cost and budgets of a restoration work, its funding and its management. He may have to design skeleton restoration plans to meet present economic conditions, and revise some traditional concepts of restoration. This is a matter of discussion and consideration in future training programmes i.e. relation of restoration to finance and its implications on the whole concept of historical, esthetic and functional restoration. We cannot think any more in terms of a restoration plan which is obsolete in financial terms and does not have an investment approach for local, regional or national development.

It is in this context that future perspectives are towards the organization of special events and training courses on the analysis of the economic and social projection of the restoration, conservation and revaluation of architectural, urban and, to that matter, rural heritage (a study group and seminar is being convened by the Regional Project of Cultural Heritage on this subject reference to which is made in chapter 4 of this paper).

As to programmes in universities e.g. Cordoba, Argentina; Buenos Aires, Argentina; it is worthwhile making an evaluation on the results of these courses particularly as they relate to job opportunities and effectiveness in restoration and conservation projects undertaken (if any) by the public and/or private sector.

It is to be noted that programmes which were initiated in Bogota (Javeriana University) and Santiago (Universidad de Chile) never materialized. An assessment on that should also be made.

It is precisely on these subjects and the overall assessment of training programmes in the area that the Regional Cultural Heritage Project of UNDP and UNESCO with the collaboration of the Fund of the UNESCO Convention for Natural and Cultural Heritage is undertaking a major study in the field to make an in-depth analysis on the present trends and prospects for restoration of architectural monuments and sites in the coming years through government and other public and/or private agencies in a set of countries, in addition to those findings in countries like Mexico, Cuba, Costa Rica, Panama, Haiti, Nicaragua, Venezuela, Colombia, Ecuador, Peru, Bolivia, Brasil, Chile, Argentina and Jamaica, training facilities on a regional or national level in the countries concerned will be looked into. The work of architects-restorators will be analyzed, job opportunities will be reviewed and suggestions will be given as to the type of training which is needed on different levels and in different sites.

It is estimated that this study will be completed by April 1982.

#### 4. Needs and job opportunities

Any training programme, in our days more than ever, has to lead to immediate job opportunities if it is to serve the needs outlined in policies and programmes of public and/or private institutions. It is very difficult to assess the needs and job opportunities which could be available to architect-restorators in Latin America and the Caribbean as a whole. It is clear that with the exception of very few countries, most restoration projects are of an ad hoc nature reflecting the policy of a given government at a certain time, commemorative occasions, etc.

With the emergence of international campaigns launched by UNESCO under request of governments (e.g. Habana Vieja, Cuba; Citadelle, Haiti; San Francisco, Lima; Misiones Jesuíticas, Paraguay) a number of international campaigns carried out or being prepared have risen from 2 to 27 in the last ten years, and the adoption in 1972 of the Convention concerning the protection of the world natural heritage which by June 1962 has been accepted or ratified by 65 states with a number of cultural or natural sites included on the list standing in 1982 at 112, one would imagine and expect that there would be a tremendous need for architect-restorators to be actually employed in the restoration and preservation of numerous monuments and sites.

It is precisely the Fund of the World Cultural and Natural Heritage which has specific interest in training programmes to meet the requirements of the projects which governments have listed on the Convention.

It is evident that a country by country job opportunity survey should be made in function of the existing programmes and the realistic feasibilities of executing works of restoration and conservation.

At present in Latin America and the Caribbean a study is being undertaken by the Fund in collaboration with the Regional Cultural Heritage Project of UNDP and UNESCO to assess the needs and job opportunities and in function of those and past experience on the employment of trainees to draw up national and/or regional programmes for training in the field of architectural heritage. The type of training has to respond to the nature of needs and jobs which emanate from plans and programmes of a realistic nature at different levels of a country development programme. We feel that programmes should be made in function of restoration and conservation projects with the participation of the public and/or private sector responsible for the restoration project including right from the start contractors, foundations, local, regional and national government planners.

We feel that we should train professionals for jobs and not to look for jobs for already trained professional restorators. We feel furthermore that the period whereby the architect-restorator could be promotor for national or local consciousness and/or be a technician attached in a bureaucratic manner to central or local institutions is well saturated.



Training and research centres in the region and to that matter centres like ICCROM should have restoration and conservation collaboration schemes and draw up training programmes for specific purposes. This would also open the possibility to have training programmes not only for architects but a variety of professionals at all levels in order to achieve a more comprehensive and total view on restoration and conservation as part of global urban development projects or in some cases on regional development projects related to integrated rural development, tourism development, general infrastructure, etc.

The following scheme has been established for the assessment of job opportunities and future training programmes in Latin America and the Caribbean. It is expected that the study will be available in April 1983.

Profile on requirements and job opportunities in American Countries with respect to the preservation of architectural and urban heritage

#### Objectives

1. Verify the use of human resources trained in America in response to tasks of preservation of architectural and urban heritage.
2. Detect the quality of the current demand for trained human resources.
3. Reformulating of the programming and contents of training courses with a view towards the necessary adjustment between supply and demand.
4. Determination of job opportunities vis-a-vis future needs and a diagnosis of indispensable articulations for assuring the effective use of trained human resources.
5. Define criteria for the designation of financial resources to the task of training those responsible for the preservation of architectural and urban American heritage.

#### Work methodology

1. Analysis of generated supply
  - A. Formative sector
    - A.1 Insertion in national education structure (under-graduate/post-graduate)
    - A.2 Quality of the studies
      - . Length, contents, degrees/diplomas (academic, skilled)
    - A.3 Educational performance
      - . Registrations/graduates
      - . Follow-up

- A.4 Insertion in professional structures
  - . National, local, syndical
  - . International
- A.5 International courses
  - . Functioning, contents, quality of teaching, Methodology
  - . Evaluation, results
- A.6 Over-all evaluation of training policies
  - . Training organizations aimed at intention and motivation. Training policies for human resources
  - . Ways of starting up programmes
  - . Validity of reasons originating programmes
  - . New reasons
  - . Use/waste of human resources produced
  - . Up-dating of imparted knowledge
  - . Capacity of inter-disciplinary articulation

## 2. Analysis of demand

### B. Occupation sector

- B.1 Analysis of demand in the decade of the 70's
  - . Public sector (national, district, local)
  - . Private organisms
  - . International organisms
- B.2 Insertion of trained human resources in programmes
  - . By countries - general considerations
  - . Discrimination between capacitated and self-taught resources
  - . Supply/demand articulation
  - . Mechanisms for reference, selection and nomination of human resources to be trained by production organisms
  - . Suggestions for programme promotion
- B.3 Production and use
  - . Analysis of trained resources in training centres
    - a) International: Churubusco, Cusco, Rome, Florence, Madrid, Naples, Cordoba, Bahía/Recife, etc.
    - b) National Universities, others
- B.4 Distribution of graduates
  - . Use of resources in marginal areas
  - . Real and potential regional demand
- B.5 Thematic expansion of the demand
  - . New scales in the task of preservation of heritage
  - . Thematic expansion and formative specification (archeology, historic centres, documentation of projects, historic research, etc.)

## 3. Articulation between requirements and training

### C.1 Perfectioning of teaching systems

- . New contents
- . Course structures
- . Type-labelling of courses and specifications
- C.2 Perfectioning of articulation mechanisms
  - . Requirements for sponsoring entities
  - . Assurance of employment
  - . Relocating of trained resources
- C.3 Overcoming of rigid mechanisms
  - . Recycling courses and seminars
  - . Formation of criteria for new tendencies, alternative technologies and guidelines for prospection
  - . The catalyzing role of the Regional Project.

5. Some thoughts on new modalities and dimensions for training

5.1 The financing of cultural heritage and its implication to training programmes.-

The financing of cultural development in general and cultural heritage projects in particular, calls for solutions suited for a variety of national circumstances. Whatever the system adopted, it is becoming more evident that we need to have some information about the economics of culture, the expenditures incurred by sector at the level of central and local authorities including business undertakings, public and private associations, foundations, individuals and special cultural funds.

In depth studies on this subject would reveal undoubtedly the choices made, and the disparities between hopes and facts and between needs and resources.

There is an ever increasing preoccupation as to possibilities in the years to come to increase the volume of financial resources assigned to cultural activities. Cultural development is considered as a decisive factor in social and economic development, and yet no economic measures have been designed as yardsticks to assess a sort of "cost benefit analysis" on investment and on expenditures made for cultural heritage.

We would advocate at this moment, that the restoration and conservation of architectural heritage is not purely a cultural issue but in itself an economic investment and is in line, within a global context, with other sectors of investment in different areas of a development process, particularly in developing countries.

In this context, the cost of training becomes relevant in function of the cost in investment of restoration projects and the benefits thereof. Thus, training must be looked upon as an overall investment in the field of cultural heritage with economic benefits. The social and cultural implications go without saying.

Considering that most training programmes for architect-restorers in Latin America are additional to the training received in universities, we should assess the cost of this additional training in context of specific restoration projects. As the latter demand services, some training activities should be organized jointly and financed jointly with project operations.

We consider that the training given to an architect in the field of conservation and restoration need not necessarily make this architect an exclusive restorer for the rest of his life. The professional in question though specialized in restoration should be able to act and function in his capacity as an architect or administrator-manager of restoration and rehabilitation projects.

The cost of training is something which should be looked into. This is directly related to the financing of architectural heritage

In this context architect-restorers should be given additional training in matters of finance, administration and management.

A seminar on this subject is now being prepared as an inservice training programme. The following outline has been drawn up for the preparation of the seminar course and its contents.

### The Economic Dimension of Culture

1. Socio-economic analysis of policies and programmes aimed at preservation, restoration and revitalizing of architectural heritage.
  - . reflections of policies on the quality of living of the inhabitants of historic centres.
  - . compared costs between rehabilitation and restoration investment and new construction.
  - . insertion of policies on preservation within those ruling urban development as well as regional and national planning.
  - . impact of preservation policies on the forming of job opportunities.
  - . social indicators and response to preservation policies.
  - . preservation policies vis-a-vis tourism.
  - . recuperation of investment vis-a-vis the use of recovered complexes.
  - . analysis of economic effects of restoration tasks.
  
2. Objectives of the seminar
  - . Analysis of socio-economic projections on the revaluation of architectural and urban heritage.
  - . Evaluation of experiences on levels of public/private initiatives and popular participation in different countries of Latin America for the recovery of heritage:  
Case studies:
    - Mexico
    - Habana
    - Antigua
    - Quito
    - Peru
    - Colombia
    - Brasil
  - . Formation of a team of technicians in countries of Latin America trained in the drawing up of programmes, design of projects, administration and channelling of financial resources for the revitalizing of architectural heritage.
  - . Design of ways and means for the formulating and financing of projects aimed at the revitalizing of heritage within the context of Latin American reality.
  - . Projection of proposals on a national level with respect to research, execution, administration and support of projects.
  
- 5.2 Consolidation and rationalization of training programmes.-  
As seen in chapter 2 there is a phenomenom of creating and

setting up training centres for architect-restorers in many parts of the world. In Latin America and the Caribbean there should be a consolidated approach to make use of national centres to have a regional vocation so as to unify criteria, exchange experiences and lower costs. It is thus suggested that some of the national programmes be adapted to regional and sub-regional conditions in lieu of multiplying the number of national centres or institutions.

In this context Latin America and the Caribbean could also be of service for inter-regional cooperation, e.g. portuguese speaking Africa in Brasil. The same may go through to some centres in Europe, e.g. Portugal which could welcome trainees from portuguese speaking Africa and make exchanges with Brasil.

### 5.3 Internships for architect-restorers.-

Mechanisms should be devised to provide internships for architect-restorers in their own countries or in the region with possible inter-regional exchanges. Integral projects of conservation, e.g. Pompeii in Italy could be used for such interns to acquire practice and interdisciplinary working experience. Some of the courses provided by ICCROM and other centres should be displaced to field operations and special training components devised in on-going restoration projects. The experience in Cusco where projects were at hand for trainees has been extremely useful.

### 5.4 Joint training programmes with the restorers of movable objects and archeologists.-

Here again some integral restoration projects may they be of archeological sites, architectural monuments or sites and particularly historical cities could be used as "training grounds" for restorers who have already had restoration and conservation training.

5.5 The subject of restoration and conservation of architectural heritage should also be brought to the attention of non architects (urban planners, engineers, regional development planners, economists, anthropologists, archeologists, art historians). This could be organized as intense short term courses. Special curricula for such courses should be designed by the restoration training centres in a multidisciplinary fashion.

5.6 Training courses on the functionality of restoration, e.g. housing, cultural centres, museums, urban rehabilitation should be prepared and incorporated in the overall courses for restorers and/or special kits for those who have already been trained in restoration.

### 5.7 Technology seems to surpass scientific research.-

Universities and other institutions of higher learning in collaboration with training centres for restorers should develop research training schemes particularly in scientific matters and the adaptation of new scientific media to restoration matters and techniques, e.g. physics and other allied subjects of nuclear research.

5.8 At the national level architect restorers should be given the possibility to draw up training programmes for different levels of works in restoration projects.

5.9 Recycling courses on a variety of subjects should be organized particularly in rescue methodology, both architectural and archeological.

5.10 Some thoughts should be given to the relationship of archeologists and architect restorers. Archeologists who have basically a training in humanities would go through intensive courses on techniques of identification of objects and techniques of organization and analysis of archeological remains in theoretical context and then be specialized in areas like restoration of monuments, conservation of movable objects or curators in national museums of anthropology and archeology. It is evident that the architect needs to be related to archeology from historical, technical and scientific points of view.

5.11 Cultural heritage, particularly architectural is now exposed to serious risks of damage through the effects of air pollution, vibration, harmful environment factors, climatic conditions. It is now necessary to train conservation specialists in some of the new dimensions of deterioration inherent to our present times.





REUNION INTERNATIONALE DES COORDINATEURS POUR LA FORMATION  
EN CONSERVATION ARCHITECTURALE

ICCROM - Rome, 2-4 décembre 1982

La formation de spécialistes de la préservation des lieux  
culturels et sites, au Brésil, et l'ICCROM

AUGUSTO SILVA TELLES

## I

La préservation des biens de valeur culturelle et naturelle, tels que les monuments et les sites a commencé, au Brésil, avec la création, en 1937, du Service du Patrimoine Historique et National ainsi dénommé à l'époque.

Il est évident que ce Service n'a pu compter, à ses débuts, avec l'aide d'un personnel spécialisé en la matière. Il a donc été organisé auprès la convocation faite aux spécialistes et aux techniciens de toutes les parties du Brésil - architectes, historiens, ingénieurs, artistes plastiques et professeurs - intéressés à l'analyse et à l'étude des contextes historiques, culturels et sociaux du passé, ou bien alors engagés dans le renouvellement architectural et artistique qui, à l'époque, commençait au Brésil. De la même façon, ont été convoqués pour les cadres de ce Service des contremaîtres et des professionnels, qui connaissaient les différentes techniques traditionnelles employées dans l'architecture du passé. Les techniques qui, à l'époque, étaient encore vivantes et en usage surtout à l'intérieur du Brésil.

Le développement de l'organe se faisait de façon lente; ainsi, les nouveaux spécialistes qui, au cours de ces années, étaient entrés à son service, avaient fait leurs stages, à partir de l'expérience acquise au fil des jours, soit dans les chantiers, soit dans l'élaboration de projets, de spécifications, et, également, au moyen de débats de cas concrets - c'est - à - dire, l'analyse des pratiques correctes ou non.

## II

La décentralisation de la politique de préservation des biens culturels et naturels a été effectuée au Brésil, au cours des années 60 et 70, avec la création successive d'organes similaires tant au niveau des Etats \* que de certains Municipales. Cette intention figurait déjà dans la lé-

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\* Les Etats brésiliens équivalent aux Provinces françaises.

gislation de 1937 mais, jusqu'à l'époque, les dépenses étaient seulement à la charge de l'organe de niveau national. Ces initiatives ont coïncidé avec une phase de développement exceptionnel du réseau routier dans tout le Brésil ainsi qu'avec l'essor des pôles industriels et du tourisme - surtout le tourisme interne.

La constatation de l'urgence d'adopter de nouvelles mesures plus flexibles, à partir de la destination de plus grandes ressources, a déterminé la création, en 1973, d'un programme interministériel destiné à la préservation, la restauration et la révalorisation des biens culturels. Ce programme qui se destinait, au début, aux patrimoines culturels situés dans les Etats du Nord-Est a eu son champ d'action augmenté, en 1977 et 1979, dans le but de couvrir tout le pays. La création de ces nouveaux organismes et l'augmentation des montants destinés à ce domaine a fait tout de suite apparaître le besoin d'une transmission plus rapide et ample d'expériences, de connaissances et de stage de main - d'oeuvre technique pour satisfaire l'élaboration de plans, de projets architectoniques, d'organisation et d'inspection des travaux.

Il est bien vrai que, dès 1964, le Brésil avait déjà donné son adhésion à l'ICCROM (Centre de Rome) et pendant des années successives quelques spécialistes - relativement peu nombreux - avaient été désignés pour suivre une formation à l'extérieur, à ce Centre de Rome ou bien en d'autres Centres de la Belgique et des Etats-Unis, tant dans le domaine de la spécialisation pour architectes que dans celui de la restauration des biens meubles.

En 1975, un premier cours, dont le siège était à Sao Paulo, a été organisé au Brésil par l'architecte Luiz Saia, à l'époque Directeur Régional du Patrimoine Historique et Artistique National. M. Saia a programmé ce cours à partir de la transmission directe de l'expérience acquise par les spécialistes de l'organe national; y compris l'expérience de certains spécialistes qui y travaillaient dès sa création.

Ces spécialistes qui avaient une plus grande expérience et dont beaucoup étaient autodidactes, ont transmis leur expérience de la préservation et de la restauration des biens

culturels aux nouveaux venus, sélectionnés par les organes des Etats ou bien par le propre organe national. La transmission s'est faite, surtout, au moyen d'expositions commentées, à l'aide de documentation photographique et graphique et avec une ample discussion et une critique des succès et des échecs. Le cours, qui a eu la durée de 25 semaines, a formé 30 architectes venus de neuf Etats du Brésil. Il a compté, aussi, avec la collaboration de l'UNESCO, qui a permis la participation de trois spécialistes - un Sud-Américain et deux européens - dans le but d'enrichir les discussions et l'analyse.

Ce cours n'a pas été établi d'après un programme avec de différentes matières puisque, comme nous l'avons déjà dit, il se voulait d'être, véritablement et prioritairement, une simple transmission d'expériences.

### III

La consolidation et le bon développement du programme interministériel de préservation des biens culturels, dénommé Programme des Villes Historiques, a fait apparaître le besoin de donner suite à la formation et spécialisation non seulement de personnel technique, comme: architectes, spécialistes en restauration de biens meubles et fixés à l'immeuble, contremaîtres, mais aussi de professionnels pour l'élaboration de projets de conservation, de restauration, de réutilisation des biens culturels, de renaissance de centres historiques; ainsi que pour l'organisation de spécifications, budgets, planning et inspection des travaux. Tous ces stages devraient satisfaire la demande provoquée aussi bien par la nécessité et la rapidité de préserver les biens culturels détériorés, abandonnés ou mal employés - qui risquaient d'être sérieusement atteints par la spéculation immobilière et par le développement urbain et régional - que par l'existence, maintenant, de ressources plus importantes destinées à ces objectifs, à ce domaine spécifique.

Pour apporter une solution au problème de la formation d'architectes spécialisés dans la préservation de monuments et sites, trois cours successifs ont été organisés dans les années

76,78 et 81/82. Ils étaient destinés à la spécialisation d'architectes travaillant déjà auprès des organismes fédéraux, de l'Etat ou Municipaux, liés à la préservation des biens culturels et au planning urbain, et ayant une relation avec les aires ou les sites historique. L'orientation était sous la responsabilité de l'organe national du Patrimoine Historique et Artistique National et la coordination était faite par les Ecoles d'Architecture des Respectives Universités Fédérales. Les cours se sont déroulés à Recife-Etat de Pernambuco, Belo Horizonte-Etat de Minas Gerais et à Salvador-Etat de Bahia. En plus des matières de caractère théorique - culturel et techniques, une grande importance a été donnée aux activités d'ateliers de projet et aux visites de chantiers.

Ces cours ont eu une durée variée: 15 semaines, 26 semaines et 31 semaines, respectivement, et ont réuni: 29 élèves de 11 Etats, 22 élèves de six Etats et 25 élèves de 12 Etats. Pour le dernier de ces cours il y a eu la sélection de deux boursiers étrangers, de pays d'Amérique du Sud.

Tous ces cours ont compté avec des spécialistes/professeurs envoyés par l'UNESCO, qui ont beaucoup contribué à l'accroissement du domaine de la connaissance et de l'analyse des positions théoriques, ainsi qu'à la critique et à la discussion spécifique des projets et des interventions analysées, lors de la visite des chantiers.

A la fin de chaque cours, l'équipe d'orientation et de coordination didactique procédait, avec la présence des élèves à une évaluation du cours dans le but d'en corriger les distorsions et de faire une nouvelle orientation pour le prochain cours. Ainsi, il a été possible de vérifier qu'en certains cas le cours avait été extrêmement rapide; en d'autres occasions, une importance démesurée avait été donnée à l'élaboration et, même, au dessin du projet, ou bien un accompagnement plus intense aux chantiers aurait été préférable. Les corrections et les nouvelles orientations étaient en partie réalisées.

#### IV

Le sujet, encore en discussion, se rapporte à la comparaison des avantages ou désavantages de fixer le stage en un lieu déterminé ou de continuer le déplacement des cours à exemple de ce qui a été fait jusqu'à présent.

Pour la première hypothèse, certains avantages sont évidents, d'autant plus qu'ils sont propices à l'organisation et à l'équipement adéquat des ateliers et des laboratoires pour mieux servir d'appui didactique et de stage. Un avantage possible de la seconde hypothèse est basé sur les grandes distances qui séparent les grands centres des centres régionaux du Brésil. En faisant le déplacement il serait alors possible, de mieux servir une ou autre région spécifique. Il existe, actuellement, une tendance à fixer le cours en un local déterminé, une fois que l'École d'Architecture de Salvador a l'intention d'organiser, en ce moment, un cours à niveau de maîtrise orienté vers la préservation et la renaissance des monuments et sites historiques. Bien que ce cours, par ses caractéristiques propres, soit destiné plus spécifiquement à des professeurs et à des hommes de recherche, il en découlera le besoin d'une organisation et d'un équipement de laboratoires techniques et d'ateliers de travail qui pourront aussi servir aux cours de formation et de stages professionnels.

Un autre sujet déjà résolu est celui qui traite de la possibilité de ce que ces cours soient fréquentés par des professionnels venus des pays sud-américains, ou même de pays africains de langue portugaise. L'expérience de cette année a été favorable et le coût des bourses pourra être inclus dans son propre bilan ou bien dans le programme PNUD/UNESCO-Projet Régional.

#### V

Après les cours des évaluations faites, pendant les années 81 et 82; des Cours de Restauration de Monuments et Conservation des Centres - Sites Historiques, qui se tenaient à Cuzco, Pérou, dès 1975, a été constaté le besoin d'un changement assez radical de son orientation. On a vérifié la convenance d'une plus grande régionalisation de ces cours aussi bien pour arriver à une plus grande approximation de la réalité des patrimoines culturels spécifiques, que pour restreindre les dépenses avec les déplacements. Ainsi, les cours de formation,

à niveau de post-graduation, pour le stage initial d'architectes spécialisés dans la préservation des biens culturels et des sites historiques, seraient décentralisés par zones de plus grande homogénéité culturelle. Il est évident que ceci n'empêcherait pas la possibilité d'échange de quelques places, avec l'offre de bourses. Une aide, avec l'organisation de l'échange d'expériences et avec la prise à charge des frais des spécialistes/professeurs étrangers, serait maintenue par l'UNESCO ou par ses programmes régionaux PNUD/UNESCO, et l'on pourrait compter, également avec l'appui des professeurs appartenant au cadre technique de l'ICCROM qui y participeraient aussi.

## VI

En une seconde étape, le Programme Régional PNUD/UNESCO coordonnerait, périodiquement, d'autres cours pour des professionnels ayant déjà une spécialisation, destinés à l'étude et à la recherche de sujets thématiques, pour satisfaire les intérêts communs pour des régions plus amples, tels que: études de la préservation, des maladies ou de la détérioration des adobes, des bousillages, des pierres, des bois, de la prévention contre les possibles dégâts provoqués par les tremblements de terre, de problèmes structuraux, ainsi que d'autres liés aux différents domaines, comme aux peintures murales, aux fresques, aux céramiques, etc... Ces cours pourraient être organisés dans des centres technologiques ou de recherches qui existent déjà et seraient enrichis avec la participation de spécialistes/professeurs étrangers, qui apporteraient de nouvelles expériences, des connaissances et des techniques nouvelles. Il est évident qu'une coopération de l'expérience technique de l'ICCROM serait absolument indispensable.

De toute façon aussi bien ces cours thématiques que ceux de formation déjà mentionnés devront être basés sur les besoins locaux des pays intégrants et des zones régionales, au lieu d'être programmés, à priori, en prenant pour base une position théorique, un planning dissocié des nécessités réelles.

## VII

En suivant ce raisonnement, nous profitons de cette occasion pour discuter avec les collègues des autres pays la proposition suivante: la transformation des cours donnés par l'ICCRROM en des cours ayant un rapport avec une troisième étape de spécialisation. Ces cours seraient destinés à des professionnels avec une plus grande expérience et qui auraient déjà fait leurs stages dans des cours régionaux et même thématiques. Les cours de l'ICCRROM seraient orientés vers une discussion plus ample, à un niveau plus élevé, de théories et de méthodologies du travail, tant sur le plan de la préservation et de la restauration des biens culturels, que sur le plan de l'analyse, de l'étude et de la renaissance des centres historiques. Des échanges d'expériences seraient enseignées, analysées et discutées, en prenant des cas qui se seraient passés dans des pays et dans des régions différentes, où auraient été employés des programmes, des techniques et des solutions diverses. Les méthodes d'abordage des problèmes seraient analysées et discutées; les solutions d'intervention de ré-utilisation, de revitalisation seraient abordées et commentées.

Il est évident que nous présentons cette proposition, en tant qu'une critique constructive.

En réalité, un cours donné en prenant comme base le patrimoine existant à Rome, en Italie, dans le bassin de la Méditerranée, a une influence très réduite ou même nulle et peut arriver à un résultat négatif pour un professionnel venu des pays dits du troisième monde, qui est très peu familiarisé avec les biens culturels de son pays.

Les réalités socio-économiques sont totalement différentes; l'emploi de méthodologies plus sophistiquées est parfois impossible d'être transféré ou non-justifié; les caractéristiques constructives, architectoniques et esthétiques sont différentes.

La réalisation de ces cours pourra, cependant, être justifiée s'ils sont réalisés à un autre niveau, pour des élèves ayant une expérience plus vaste, et visant la formation de professionnels qui s'occuperaient de la coordination des organes régionaux ou nationaux de préservation des biens culturels et sites, ou de professeurs qui formeraient et orienteraient de nouveaux professionnels.



**INTERNATIONAL MEETING OF COORDINATORS OF TRAINING IN  
ARCHITECTURAL CONSERVATION**

**ICCROM - Rome, 2-4 December 1982**

**The Training of experts in the preservation of cultural  
properties and sites in Brazil, and ICCROM**

**AUGUSTO SILVA TELLES**

## I

The preservation of properties of cultural and natural value, monuments and sites, began in Brazil with the creation, in 1937, of the National Historical and Artistic Heritage Service, as it was then called.

It stands to reason that, in the early days, it was not able to count on the assistance of personnel specially trained in this field. It therefore organized itself by calling together specialists and experts - architects, historians, engineers, artists, teachers - from different parts of the country, interested in the analysis and study of historical, cultural and social contexts of the past, or else engaged in the architectural and artistic restoration which was initiating in Brazil at the time. In the same way, building foremen and craftsmen still familiar with the various traditional techniques used in the architecture of the past, were also invited to join its staff. These techniques, at the time, were still living and in use, particularly in areas in the interior of Brazil.

With this technical team, relatively few in number, but capable, self-taught, training was a constant process, achieved by exchange of knowledge, permanent discussion as regards criteria and methods, reading of available literature, and from direct knowledge of experience abroad. The growth of the unit was a slow process; thus, the new technicians who entered it in the course of the years, received their training from their own day-to-day experience, on the building sites and in the preparation of plans, specifications and, also, through discussions concerning concrete cases - analysis of successes and mistakes.

## II

In the decades of the 60s and 70s, a decentralization of the policy of preservation of cultural and natural properties took place in Brazil, through the successive creation, at State level, and even in some municipalities, of similar organs. This intention had already been voiced in the 1937 legislation but, until that time, the full burden of responsibility had fallen only on the unit with a na-

tion-wide field of action. These enterprises coincided with a phase of exceptional development in the road network throughout the country, and with the dissemination of the industrial centres, and the development of tourism, principally domestic tourism.

A realization of the urgent need to adopt new and more flexible measures, starting with the allocation of more funds, led to the creation, in 1973, of an inter-ministerial programme, with the object of taking care of the preservation, restoration and revaluation of the cultural heritage. This programme, originally aimed at attending to the cultural heritage of the States of the northeast, had its field of action widened, in 1977 and 1979, in order to take in the whole country.

Once these bodies had been created, and the funds allocated to this area increased, a need for a wider and more urgent transmission of experience and knowledge and training of an expert labour force immediately arose, in order to take care of the preparation of plans, architectural projects, organization and overseeing of works.

It is true that, since 1964, Brazil had belonged to ICCROM (Rome Centre) and that, in successive years, some technicians (relatively few) had been sent overseas for training: - in the above-mentioned Centre, and in others, in Belgium and the United States, both in the field of architectural specialization, and for restoration of moveable objects of value.

In 1975, a first course was organized in Brazil, located in Sao Paulo and co-ordinated by the Regional Director, at the time, of the National Historical and Artistic Heritage, architect Luiz Saia, who planned it based on the direct transmission of the experience acquired by the technicians of the national body; including the experience of some who had worked in it since its creation.

These experts, drawing on their greater experience, although many of them were self-taught, passed on their experience in the preservation and restoration of cultural properties to the new technicians, selected by the state bodies, or by the national body itself. This transmission took place, principally, via expositions with commentary, aided by photogra-

phic and graphic documentation, and with extensive discussion and criticism of successes and failures. The course, which lasted for 25 weeks, trained 30 architects, from nine States of Brazil. It counted with the collaboration of UNESCO, which arranged for the presence of three experts - one South American and two European, in order to widen the field of discussion and analysis.

This course did not go so far as to have a real programme of different specializations since, as we said above, its primary and real function was as a simple transmission of experience.

### III

Once the inter-ministerial programme for the preservation of cultural properties, named the Historical Cities Programme, had been consolidated and was fully operational, it became essential that progress should be made in the education and training of specialized technical personnel: of architects, of specialists in the restoration of moveable items and those fixed to the building, and of foremen. Need for specialized professionals, to draw up plans for conservation, for restoration, and for re-use of cultural properties, for revitalization of historical centres; for the organization of specifications, estimates, planning and overseeing of works. This training should answer the demand created, both by the urgent need for attention to neglected cultural properties, abandoned or wrongly-used, and in risk of serious attack by property speculation and by urban growth and regional development, and by the fact that, now, greater resources have been set aside for these purposes, in this specific area.

To solve the problem of training of architects specialized in the preservation of monuments and sites, three successive courses were organized, in the years 76, 78 and 81/2. These were designed for training of architects already working in federal, state or municipal bodies connected with the preservation of cultural properties and with town planning which, in some way or another, was related to historic areas or sites.

Orientation was the responsibility of the national organ of the National Historic and Artistic Heritage, and coordination devolved on the Schools of Architecture of the respective Federal Universities. The courses were located, respectively, in Recife (Pernambuco), in Belo Horizonte (Minas Gerais), and in Salvador (Bahia). Emphasis was placed on work in planning work-shops and follow-up on building sites, as well as on the theoretical and cultural training.

The courses were of different lengths: 15 weeks, 26 weeks and 31 weeks, respectively, and reached: 29 students in 11 States; 22 students in 6 States and 25 students in 12 States. For this last course, two foreign scholarship students, from South-American countries, were selected.

All these courses counted with experts/teachers sent by UNESCO, who contributed greatly to the widening of the field of knowledge and of the analysis of theoretical positions, and to the following, criticism and specific discussion of the projects and operations analysed.

At the end of each course, the orientation and didactic coordination team carried out, in the presence of the students, an evaluation of the course, with the object of correcting any distortions, and the reorientation of the future course. Thus, it was found that, in some cases, the course had been extremely short; in others, an exaggerated emphasis had been given to the preparation and even to the drawing of the plan, or there had been lack of sufficient follow-up on the work site. The corrections and reorientations were pursued and, partially, taken care of.

#### IV

A matter which is still under discussion, refers to the comparison of the advantages or disadvantages of locating the training in one place, or continuing to hold the courses in different places, as has been done until now.

In the first hypothesis, some advantages were evident, in that this would facilitate the organization and adequate equipment of work-shops and laboratories to serve as a better didactic and training back-up. A possible advantage

of the second hypothesis is found in the great distances between the centres and the regional centres of Brazil, and the desirability of attending, alternately, one or other specific area.

At present, a tendency towards the consolidation of the course in a set place is being shown, particularly because, at the moment, the Architectural School of Salvador is planning a course, at Masters level, concerning the area of preservation and revitalization of historic monuments and sites. Although this course, by its design, aims more towards the training of teachers and researchers, it will result in a need for the organization and equipment of technical laboratories and work shops which could, thus, also be used for the courses for education and professional training.

A matter that is also solved is that of these courses being able to serve professionals from other South-American countries, or even from Portuguese-speaking countries of Africa. This year's experience has been favourable, and the cost of the scholarships could be included in its own budget, or come through the PNUD/UNESCO-Regional Project programme.

#### V

In the course of the evaluations carried out in the years 81 and 82 of the courses of Restoration of Monuments and Preservations of Historical Centres and Sites, which have been held in Cuzco, in Peru, since 1975, the need for a rather radical change in its orientation was ascertained. The desirability for the training courses to be more regional, both to achieve closer contact with the reality of the specific cultural heritage, and in order to reduce travel costs, was noted.

Thus, the training courses, at post-graduate level, for the initial training of architects specializing in the preservation of cultural properties and historical sites, would be decentralized to more culturally homogenous zones. Obviously, this would not exclude the possibility of exchange of some positions, with the offering of scholarships.

Assistance would be given by UNESCO, or via its regional programmes PNUD/UNESCO, with the organization of exchanges of experience and with the financing of foreign technicians and teachers, and also the support of teachers from the technical body of ICCROM, to be sent by them, could be relied on.

## VI

The Regional Programme PNUD/UNESCO would then coordinate, periodically, other courses, already at a second stage, for those professionals already qualified, with a view to the study and research of topical matters, dealing with interests common to wider areas, such as studies of the preservation and of the ailments or deterioration of adobe, stucco, stone, and wood, preservation against damage from earthquakes, of structural problems, as well as others related to different fields, such as those in connection with murals, frescoes, ceramics, etc. These courses could be organized in technological or research centres already in existence, and would be enriched by the presence of technicians/teachers from abroad, bringing new experience and knowledge, and new techniques. Logically, basic cooperation from ICCROM's technical experience would be absolutely indispensable.

In any case, both these topical courses and the training courses previously mentioned, should be guided by, and based on, the demand of the local needs of the member countries, of the regional areas, and not be primarily programmed from a theoretical standpoint, or planning not linked to the necessities.

## VII

To continue along this line of reasoning, we conclude, and take this opportunity to discuss with colleagues from other parts of the world the following proposal: that the courses administered by ICCROM should be transformed into courses related to a third stage of specialization. They would be aimed at professionals with greater experience, already trained at regional, or even topical, courses. The ICCROM courses would be orientated towards a wider discussion, at a higher level, of theories and methods of work, both in the preserva-

tion and restoration of cultural property, and in the analysis, study and revitalization of historical centres. Exchange of experiences would be arranged, analysed and discussed, taking cases from different countries and areas, where various programmes, techniques and solutions have been applied. Methods of tackling the problems would be analysed and discussed; solutions involving active interferences, re-utilization, and revitalization would be put forward and commented on.

Obviously, we are putting forward this suggestion in the sense of constructive criticism.

In reality, a course given based on the material to be found in Rome, in Italy, in the Mediterranean basin, is of little or no effect, and may even have a negative effect, for a professional from the so-called third world countries, who has a little familiarity with the cultural properties of his country.

The social and economic realities are completely different; it is sometimes impossible, or not justifiable, to transfer the use of more sophisticated techniques; the constructional, architectural and aesthetic characteristics are different.

It might, however, be more advantageous and appropriate for courses to be held, if administered at another level, with the students having in common a greater concrete experience, with a view to training professionals to carry out the coordination of regional and national organs for the preservation of cultural properties and sites, or teachers to train and direct new professionals.

AUGUSTO C. DA SILVA TELLES

Director of the DTC

Secretary of the Historic and Artistic  
National Property



INTERNATIONAL MEETING OF COORDINATORS OF TRAINING IN  
ARCHITECTURAL CONSERVATION

ICCROM - Rome, 2-4 December 1982

SUMMARY OF STATEMENT BY PROF. JORGE GAZANEO

Centro para la Conservación del Patrimonio Urbano-rural  
Universidad de Buenos Aires, Argentina

Through the work on conservation undertaken in Latin America between 1940 and 1975, it became obvious that the continent could not be considered as a whole, but as a mosaic of different areas. Since 1975, a number of meetings have been held in the Andean area to discuss the weak points of training in conservation in Latin America, and it was concluded that whilst some centres provided good training for a specific region, this would not necessarily be suitable for another area - for example, a person trained in Cusco would be able to do a good job in the Andean area but not in Brazil. When ICOMOS turned its attention to Latin America, its policy, therefore, was to create centres working in and for different regions of the continent.

At a Unesco meeting in 1976, Chile, Paraguay, Uruguay, Bolivia and Argentina agreed that there should be a Southern Cone regional course and that this should be based in Buenos Aires. Over the past six years, a local teaching force has been built up and with the special help of the Italian Government, Unesco, the O.A.S. and the British Council a number of top-rate people were brought in to train the future teachers. Some were sent to Naples and Rome for further training. Professor Feilden, whilst still Director of ICCROM, visited the Buenos Aires Centre and gave it his blessing.

It was agreed with the University of Buenos Aires that the Centre should give a diploma at the end of the four-year part-time study period, rather than a mere certificate. This four-year period corresponds to a two-year full-time course. The Centre has one of the best libraries in Latin America and a number of laboratories are gradually being set up so that the Centre can offer students top-level preparation. To be accepted on the course, students have to pass a number of tests and the Centre's policy is to give emphasis to quality rather than the quantity of students. In fact this year, its first year of operation, even though there are 25 places on the course, the Centre only accepted 16 students out of the 60 applicants.

Contacts should be established between the Buenos Aires Centre and the other centres in Latin America, such as Cusco, Churubusco and eventually the new Brazilian Centre. As this cooperation develops, ICCROM might envisage a new policy of a centre for the teaching staff of centres and the meeting could perhaps give some thought to this proposal.

The Buenos Aires Centre has been established without external funding. The countries from the Southern Cone region helped to build up the Centre and most of the expenses were covered by the University of Buenos Aires. Recently, the University of La Plata agreed to finance some local scholarships and the University of Mar del Plata, as a specialized maritime university, will participate in underwater archaeology matters.

The rational use of funds available is essential, both at a national and international level. The O.A.S. and Unesco scholarship system needs to be reviewed and redefinition of the whole policy was needed. A system based on the regional centres, with a strong ICCROM providing the professors for these centres, and backed by a logical international policy on the use of available funds would be a far more realistic approach to the problem.



Jukka Jokilehto<sup>x</sup>

SUMMARY

ICCROM, the International Centre for the Study of the Preservation and the Restoration of Cultural Property, organizes since 1965 an international course in Architectural Conservation. Participation is limited to 25, and course members represent various nationalities - generally not more than one or two from each country. Programme is conceived as a mid-career course for young technicians, architects and historians, as well as for teachers in conservation. The faculty consists of members of ICCROM's technical staff and of invited lecturers from different countries. A certificate of attendance is given at the end of the course.

x) Architect  
Coordinator of Training in Architectural  
Conservation at ICCROM

The Second Meeting of Architects and Technicians of Historical Monuments in Venice in 1964, produced the Charter of Venice and pronounced the foundation of ICOMOS. In addition, it also suggested that ICCROM collaborate with the University of Rome in order to organize an international course in Architectural Conservation basing it on the existing Scuola di Perfezionamento per lo Studio ed Il Restauro dei Monumenti of the University. The first course was organized in the academic year 1965-66 under the scientific direction of Prof. G. De Angelis d'Ossat. The course is open to architects, planners, engineers, historians, archaeologists, and technicians working in the field of conservation of architectural heritage. Till present there have been nearly 700 participants from 80 countries.

Since 1977, the international course of ICCROM has developed separately from the course of the University, both following the same outline of programme, but fulfilling different requirements. One is a six-month course with a certificate of attendance, the other lasts two years and will provide a diploma. With the growing number of national courses during the last decade, the initial task of ICCROM to provide training due to the lack of technicians, seems to be changing. At present, in fact, the aim is to provide an international forum for conservation technicians and, in growing number, for teachers, where specific technical problems and attitudes to conservation can be discussed and compared. The majority of participants are recommended by governments. They already have at least four to five years of experience in conservation as well as a position in the service. Special attention is being given to teachers, who would form an international network in training.

Referring to the international charters and recommendations and recognizing the conservation of architectural heritage as a high cultural responsibility, that aims in the first place at safeguarding genuine values transmitted through tradition and at integrating them harmoniously with the development of life, the course lays special importance on the concepts in the theory and practice of conservation. The aim is to bring together different cultural approaches and various disciplines, discussing conservation at different levels - materials, buildings, historic areas and towns. The course has been conceived as one whole, but for didactic reasons it has been divided into three parts, dealing with the Historic Buildings, Traditional Building Materials and Historic Areas.

In the teaching, ICCROM's own technical staff plays an important part, but most of the lecturers are necessarily invited from outside representing different countries. At present, ICCROM provides six lecturers, whilst the whole faculty numbers about forty professors or professionals. This diversity of backgrounds gives the opportunity

to keep in close contact with practice and be continuously informed of the situation in several countries. It also gives an opportunity for ICCROM to keep in professional contact with international experts, who are used for technical missions. On the other hand, coordination of this international faculty needs special efforts in order to reach necessary balance and continuity in the teaching.

The programme extends from early January to the beginning of June each year, over a period of twenty one weeks. About fifty per cent of the course time is dedicated to lectures and visits to sites, forty per cent is used in exercises and field work. In addition, there is a seminar that allows the participants to discuss practical problems of conservation in a specific context with local technicians and administrators. In the last two years, it has been organized in the north of Italy, in the area of Ferrara, Bologna and Venice.

During the course each week is considered a unit with a theme in the context of the programme. This unit is usually chaired by a principal lecturer and assisted by other contributors and ICCROM staff members. At present the coordinator of the course has one permanent staff member and one external architect to assist in the course. Lectures are usually accompanied by exercises in order to practice specific methods and techniques as well as to give concrete cases for discussions.

During the course each participant will contribute to the exercises and discussions as well as prepare at least one seminar on personal experience. In addition one has to prepare a report on a subject of personal choice. This can be a technical survey of a historical building, an analysis of a historic area, or a comparative study or research in the library. In the past different other methods have been used ranging from the study of a historic town by the entire course (Capua, Tivoli) to surveys of historic buildings or historic areas by groups of participants. Participants are encouraged to use ICCROM's facilities to the full, the library, the documentation centre, staff members as well as visiting lecturers and other available experts for their study. There is a small conservation laboratory which is equipped for the use of course participants, who are guided to do basic scientific analyses on building materials, their analysis and definition of the state of preservation.

The lecturers are expected to give a critical survey at an international level considering the various aspects of the problem in their evaluation. Over the years, the faculty has slowly changed with the development of the course, and e.g. more technicians have been introduced in the recent years, but the emphasis has always been given to

a critical-historical approach. The first period of the course, Conservation of Historic Buildings, begins with an introduction to the concepts, history and theory of conservation, definition of the object in its cultural historical context, and methods for its evaluation. Lectures are accompanied by exercises that make use of international charters and recommendations.

The second part of the first period is dedicated, so to speak, to the architects' practice in historic buildings. The building in its context is considered from complementary points of view, and emphasis is laid on the methods of inspection and survey, which are recommended as a regular practice. Traditional and modern techniques are discussed in examining structures in the archaeological, structural and architectural aspects, in the methods of recording and documentation, in the techniques of repair, consolidation, reinforcement and preventive maintenance. The period includes lectures on the technology of rehabilitation, conservation of interiors, and preventive conservation in museums.

Traditional building materials, earth, stone, brick, mortars, renderings, wood and metals, as well as decorative architectural surfaces, mural paintings, mosaics etc, are dealt with specifically in the second period of the course. Emphasis is given to the understanding of the character and behaviour of materials, processes of deterioration, methods of repair, cleaning and maintenance, and the laboratory is used for demonstrations and exercises throughout the period.

The last period of the course is divided into two parts, of which the first provides an international survey of methods and policies of conservation of historic towns and areas. Legislation, aims and methods of inventory, documentation and analysis, social and economic aspects as well as policy for planning and conservation are included. The second and conclusive part, is organized as a field seminar with tours to allow discussions with local administrators and technicians on a close study of the work, management and problems they are dealing with.

Due to the character of the course and the limited time, many aspects can only be treated very briefly and many cannot be included. For example the history of architecture, an essential basis for conservation work, is left to the previous preparation of the participants. The aim is to concentrate on methods of survey, analysis and evaluation using selected examples and case studies in order to help the participants to broaden their minds and become sensitive to the different aspects of cultural heritage. Participants are encouraged to discuss their specific problems with fellow course members, tutors and visiting lecturers.



The report prepared during the course also aims at assisting participants to understand the international dimensions of the questions related to their fields of interest. On the other hand, the course helps to establish contacts useful in future professional work, and many remain in close contact with ICCROM, participating in technical missions and returning to illustrate and report on their work.

Several questions are continuously discussed in the organization of the course, and one of the main concerns is to be informed both conceptually and technically of the development in the different fields of conservation, have it assessed critically, and be able to offer this in a didactically clear form. This brings out the questions of research, qualified teachers and didactic material. Related to this, is the necessity to be able to keep a balance between different aspects, and not let technical skill or know-how obscure others.

So far the course has had a duration of six months, but the need is felt to provide shorter seminars for professionals, who need to refresh their knowledge, but would not be able to spare more than one to three months. For this preparations are already being made for 1984, in order to be able to offer each of the three parts separately. Discussion has also touched on the possibility of concentrating on themes.

As an international centre ICCROM wishes to keep close contacts with other training centres in the world. This could be possible through exchange and training of teachers, research and training programmes. On the other hand, ICCROM collaborates increasingly with national organizations on local or regional training.

## ARCHITECTURAL CONSERVATION 1983

### General Schedule of the Course

#### Conservation of Historic Buildings

Week	Date	Subject
01.	10-14 Jan	Introduction to the Course
02.	17-21 Jan	History and Theory of Conservation
03.	24-28 Jan	Evaluation of Historic Buildings and Areas
04.	31-04 Feb	Policy of Conservation of Historic Environment
05.	07-11 Feb	Individual Study
06.	14-18 Feb	Historic Building Survey
07.	21-25 Feb	Inspection, Maintenance and Repair
08.	28-04 Mar	Structural Consolidation, Foundations
09.	07-11 Mar	Rehabilitation Technology, Photogrammetry
10.	14-18 Mar	Preventive Conservation of Collections and Interiors
11.	21-25 Mar	Individual Study

#### Conservation of Traditional Building Materials

12.	28-01 Apr	Characterization of Building Materials. Adobe
13.	04-08 Apr	Architectural Surfaces, Conservation Laboratories
14.	11-15 Apr	Stone and Brick
15.	18-22 Apr	Wood and Metals
16.	25-29 Apr	Individual Study

#### Conservation of Historic Areas

17.	02-06 May	Introduction to Urban Conservation Methodology
18.	09-13 May	Conservation Areas, Integrated Conservation
19.	16-20 May	Case Study Ferrara - Conservation in Action
20.	23-27 May	Case Study Ferrara - Conservation in Action
21.	30-03 Jun	Conclusions of the Course

DISCUSSION

FINAL REPORT AND RECOMMENDATIONS

RAPPORT FINAL ET RECOMMENDATIONS



BRIEF SUMMARY OF DISCUSSIONS DURING THE MORNING OF 2 DECEMBER  
BREF RESUME DES DISCUSSIONS PENDANT LA MATINEE DU 2 DECEMBRE

M. Lemaire a présidé la réunion.

MR. MUTAL picked up a number of points arising out of the papers presented to the meeting. One was the comparison between courses organized within universities and those outside the university system, the level of studies in the university courses, as well as their relationship with the construction firms, industrial companies etc. who would be the ultimate beneficiaries of the exercise.

Another point which needed careful thought and attention was decentralization, particularly in such large countries as Brazil or Mexico.

He found the whole issue of funding particularly pertinent in view of the on-going economic crisis affecting both the practical work of conservation and training activities.

The dilemma has arisen as to whether the use of traditional materials and technologies in conservation is in contradiction with new technologies and scientific progress. There is need for more scientific research in conservation, and Mr. Mutal drew this to the meeting's attention.

M. LEMAIRE a ajouté que, en déficit des progrès des dernières décennies, certaines régions du monde manquaient totalement de centres de formation. Donc, la création d'un réseau complet de formation, adapté aux besoins, très différents, de chaque région, était essentielle.

M. PARENT a attesté que l'ICOMOS prenait à coeur les problèmes relatifs à la pédagogie et souhaitait coopérer le plus étroitement possible avec l'ICCROM qu'il estime particulièrement dans ce domaine.

Il a voulu ajouter quelques mots à ceux de M. Boiret sur le fait qu'en France l'enseignement de la conservation du patrimoine n'est pas dispensé au sein des universités comme ailleurs dans le monde. La formule française n'est pas mauvaise, car elle donne la garantie d'une continuité entre la pédagogie et les exigences du métier. Cependant il a précisé que les élèves étaient tous des architectes et qu'aucun enseignement n'était prévu pour les autres spécialistes au service des monuments historiques.

Il a insisté sur la possibilité, qui existe, de coopération entre les différentes structures dans le domaine de la recherche.

M. BOIRET a attiré l'attention sur un phénomène à l'égard duquel il faut être très vigilant. La crise que nous traversons est d'origine financière et économique certes, mais elle a également un caractère technique. De nos jours les espaces à bâtir deviennent plus restreints et par conséquent un plus grand nombre de jeunes architectes veulent se consacrer au patrimoine, et il est très important de vérifier la motivation de leur choix.

MR. ZADOR asked how other countries dealt with the problem of scientific research work to be undertaken as well as the organization of graduate and post-graduate training courses for architects and conservation specialists.

MR. LINSTRUM said that the Institute of Advanced Architectural Studies at York would only consider taking on research work it could supervise properly, and the same applied to dissertations. It is important to recognise that there are limits to the quantity and type of work that can be done. He explained that the official research work done by the York Institute has to be sponsored by a commercial firm, an industrial enterprise, a private trust or some government department.

Experience in York has shown that having an architectural practice as part of the Institute is not very useful because it is very difficult indeed to programme the course of studies to fit in with the site activities at any given moment.

BRIEF SUMMARY OF DISCUSSIONS DURING THE MORNING OF 3 DECEMBER  
BREF RESUME DES DISCUSSIONS PENDANT LA MATINEE DU 3 DECEMBRE

M. Boiret a présidé la réunion.

MRS. SANDSTROM, Chairman of the Steering Committee of Urban Policies and Architectural Heritage of the Council of Europe, first briefly outlined the history of the Council of Europe and the way it operates. As its membership is restricted to countries in Western Europe, the scope of its work is limited when compared with such bodies as ICCROM and ICOMOS, but they share the same objective of protecting the cultural heritage of the peoples of Europe. A Committee on Monuments and Sites has been set up, and coordinated the programme of the successful Architectural Heritage Year in 1975. Its aim is to highlight the problems of architectural heritage and to promote discussion on integrated conservation both by the general public and by administrators and politicians at various levels. The Committee on Monuments and Sites also fostered the recent three-year Campaign on Urban Renewal.

The main objective of the Committee of Urban Policies and Architectural Heritage, which she chairs, is to serve as a sort of clearing house for information and exchange of views and experiences, thereby fostering discussion among member countries and officials directly concerned. One important activity of the Committee is to provide politicians and officials with the necessary up-to-date information on the situation in the different countries through regular reports. It hopes to start issuing shortly a bulletin called "A Future for Our Past", covering a broader context than merely the physical milieu, as the Committee deals with urban and regional planning as well as architectural heritage.

Among the subjects dealt with by the Committee she mentioned particularly the role of the architectural heritage, the decline of rural life, the adaptation of old buildings for new uses, and archaeology in the context of physical planning. As the improvement of legislation in the field of conservation of monuments and sites has always figured among the objectives of the Council of Europe, they are working on a document to review the present situation in the different countries and to recommend spheres for possible action. Technical assistance is an example of an activity common to both ICCROM and her Committee. On request, the latter has organized a couple of missions a year to countries with special problems.

Referring to the particular aspect under discussion, training, Mrs. Sandstrom pointed out that the Council of Europe has taken this up in a broader context than the highly specialized type of training for architects provided by ICCROM. The importance of basic conservation training for all those taking care

of the milieu -- architects, engineers, urban planners, landscape architects etc. -- was discussed at the Ravello meeting and was the subject of a Council of Europe Recommendation adopted in 1980. Mrs. Sandstrom promised to send a copy of this recommendation to all those present at the meeting. The Committee of Urban Policies and Architectural Heritage has sent out an enquiry to governments of member states to ascertain what sort of reaction there has been to the recommendation, and they will continue to monitor developments and actions arising out of that recommendation.

As a follow-up to a seminar held in Mons, which Mr. Lemaire had also attended, her Committee is discussing some of the broader issues involved in urban renewal.

She underlined how important it is for all the international bodies to coordinate their work, avoiding duplication of effort and using the available channels to the full.

Referring to the earlier comments on ICCROM and its responsibility as an international centre for countries and regions with very different historical and cultural backgrounds, she reported on the recent meeting held in Venice, where training for craftsmen had been discussed. Because a craftsman has to work with local materials and buildings, that meeting had concluded that a locally or regionally-based training was required rather than training at an international level, except perhaps for a handful of highly specialized craftsmen. However, training activities at local, regional or national levels should be linked up and monitored in some way, and perhaps this should be touched upon during further discussion of the role of ICCROM and the other large centres in the world. The training centre in Venice is a joint venture between the Council of Europe and various other bodies, and is the only instance where the Council of Europe is directly involved in training activities as such. She ended with the proposal that a link might be established between ICCROM and the centre in Venice in the context of their working processes and programmes.

M. PARENT a rappelé que les membres de l'ICOMOS sont, après les monuments, destinés à être les principaux bénéficiaires d'une politique universelle de formation pédagogique traitant de la conservation du patrimoine architectural et a souligné que la pédagogie et le patrimoine sont, en eux-mêmes, indissociables. La présence d'un monument est une jouissance mais aussi un enseignement spontané, et le monument familial qui lie entre elles les générations crée une pédagogie mutuelle et réciproque entre l'homme et le monument.

Tandis que le problème de l'enseignement de la conservation peut être considéré comme nouveau, la réparation des monuments a été de tout temps un élément important, inhérent à l'action



architecturale et la pédagogie globale. A toutes les époques on a créé mais on a également géré et entretenu ce qui existait: les monuments parvenus jusqu'à nous en sont la preuve. Ils nous permettent de faire un certain bilan de l'ensemble de l'existence de l'homme et de ses rapports avec les espaces construits. Par exemple, le 16ème siècle, peut-être le plus riche en réalisations, a non seulement créé, mais a également géré le Moyen-Age en entretenant ses monuments et en les complétant, et parfois même, dans ce contexte médiéval, fait resurgir l'antiquité. Donc l'entretien, qui était en quelque sorte une forme de conservation, était le fondement même de l'enseignement quotidien. Puis au cours des derniers siècles, la recherche de la perfection dans la création a fait perdre cette notion de réparation, disparue des textes, des ouvrages, etc., destinés à l'enseignement de l'architecture. C'est ainsi, selon M. Parent, que nous nous sommes trouvés, il y a quelques décennies, sans aucune pédagogie de la conservation.

M. Parent poursuit en attirant l'attention sur un problème: l'inclusion des notions de conservation dans l'enseignement général de l'architecture. Dans certains pays développés, où l'enseignement de l'architecture a été démocratisé, le nombre des diplômés, généralement mal préparés à nos disciplines, est nettement plus élevé qu'autrefois et il y a le risque, comme le notait M. Boiret, de les voir choisir la conservation du patrimoine comme refuge. C'est un cas extrême de certains pays développés, mais il serait bon que tant l'ICOMOS que l'ICCROM réfléchissent à ces problèmes à un niveau mondial. Ils devraient concentrer leur enseignement sur les régions les plus défavorisées dans ce domaine. Ainsi la situation en Afrique Noire est particulièrement grave: en effet les pays développés ont essayé d'adapter leurs solutions techniques aux situations locales, en ignorant les technologies indigènes qui, de ce fait, disparaissent.

M. Parent compare ensuite l'enseignement de la conservation du patrimoine à un édifice à cinq étages, comme cela a été souligné dans les exposés. Il est conscient de l'action politique que l'ICOMOS, le conseil de l'Europe et d'autres mènent à cet égard. Au premier étage, l'école primaire transmet ce qui autrefois était acquis spontanément dans la rue; le second est réservé à l'enseignement technique et artisanal, dont on a déjà parlé. Le troisième étage est destiné, au niveau de l'éducation secondaire, à sensibiliser les élèves et les responsables sur l'importance des problèmes de la conservation du patrimoine. Il a cité comme exemple encourageant les lycées musicaux, en France, où la musique a progressé de façon considérable ces dix dernières années. Au quatrième étage, l'enseignement universitaire spécifique de l'architecture devrait inclure dans son programme les bases de la conservation du patrimoine pour éviter d'avoir à donner ces bases au cinquième étage, réservé

aux cours post-universitaires. Ces cours de spécialisation devraient servir surtout de recyclage permanent intégré à la vie professionnelle.

Cet édifice à cinq étages représente l'idéal et il ne faut pas le perdre de vue lorsqu'on organise, par exemple, un cours pour résoudre un problème spécifique au 5ème. Mais en même temps, il a souligné que toutes les contributions, même modestes, que font les organismes comme l'Unesco sont très importantes.

La rapidité avec laquelle cet édifice doit être mis en place est angoissante, de même que la tendance des techniques à être de plus en plus spécifiques. Les architectes et les autres spécialistes doivent demeurer les hommes de la perception de la synthèse. Il ne faut pas séparer la recherche de la découverte, ni les bases philosophiques de l'architecture de sa pratique. Le rôle de l'architecte est d'assurer la supervision de l'ensemble des travaux des spécialistes parce que cette entreprise est de plus en plus collégiale.

Il a aussi souligné que même si l'approche de ces problèmes était différente dans chaque pays, il fallait respecter ces différences. Nous pouvons améliorer nos systèmes grâce à la connaissance de ce que font les autres, sans avoir à créer un système universel.

Avec la démocratisation du patrimoine, la formation de l'architecte-pédagogue est importante.

Cependant, dans cette nouvelle conception du patrimoine, certains pièges sont à éviter. Par exemple, bien qu'il ne faille pas considérer les monuments individuels mais plutôt les ensembles, on ne doit tout de même pas perdre de vue l'immense valeur de certaines parties de ces ensembles, et la connaissance de cette valeur doit être transmise à tous. Même si, en tant qu'architectes, nous avons tendance à penser sur constructions et à comprendre l'importance de la gestion des espaces. Quand on jette un coup d'oeil sur cette ville de Rome, nous voyons qu'elle est faite surtout de l'harmonie et de la gestion des espaces, espaces décorés par l'architecture.

M. LEMAIRE prend ensuite la parole. Vingt-cinq ans d'activité dans le domaine de la conservation du patrimoine ont révélé un manque de collaboration entre les organisations internationales. Cette réunion des représentants de ces organisations a donc une importance capitale pour la formation des spécialistes dans la conservation du patrimoine. En effet, réunis autour de cette table, ils peuvent discuter franchement entre eux de ce qu'ils ont fait, de ce qu'ils n'ont pas fait et de ce qu'on devrait faire dans l'avenir, afin d'éviter les doubles

emplois. Cette possibilité de coordonner leurs actions est unique et ne peut qu'être bénéfique aux programmes de formation offerts par ces organisations.

Il pense qu'une structure permanente est nécessaire pour assurer une étroite collaboration entre toutes les organisations internationales travaillant à la formation pour la sauvegarde du patrimoine. Comme M. Parent l'a déjà dit, l'ICOMOS voit ce comité placé au sein de l'ICCROM, et M. Lemaire se demande si la participation à ce comité doit se limiter aux organisations s'occupant de la formation des spécialistes de la conservation du patrimoine monumental, ou si elle doit inclure les organismes s'occupant d'autres aspects de la conservation.

Ensuite il a évoqué quelques avantages que les organisations internationales peuvent attendre d'un tel comité permanent. Tout d'abord, il est nécessaire d'avoir des bases pour comparer les programmes afin d'y apporter des améliorations et assurer la coordination de leurs activités. Ensuite, il faut faciliter l'échange des documents pédagogiques essentiels et les centres de Rome et de Paris doivent collaborer dans ce sens. Enfin, il a voulu souligner le fait que toutes les organisations internationales dont il est question ont une orientation différente et le respect de cette diversité est essentiel pour assurer le support financier indispensable à leur fonctionnement.

D'après M. Lemaire, le rôle de l'ICCROM est différent de celui des centres régionaux. Il ne doit pas perdre de vue la qualité de la formation, tout en assurant la coordination des diverses activités avec l'aide de l'ICOMOS, l'Unesco et également le Conseil de l'Europe.

M. PHILIPPOT a voulu dire quelques mots sur le noyau principal de la formation des spécialistes de la conservation architecturale. Comme beaucoup d'orateurs l'ont déjà dit, la diversité dans la formation doit être considérée comme une richesse, mais il faut en même temps faire un effort de synthèse. Le problème central est d'arriver à un accord harmonieux entre l'aspect historique et technique de cette discipline. L'insuffisance des connaissances historiques des personnes s'occupant de la restauration est à considérer également, car ceci les amène à faire des restaurations techniques d'un objet en ignorant sa valeur historique et culturelle. Et cette carence est à tous les niveaux: l'éducation secondaire ignore l'enseignement de l'histoire de l'art etc., ainsi l'homme de la rue n'a pas les bases nécessaires pour comprendre la valeur de son patrimoine historique. Même si on note des progrès au niveau des écoles d'architecture, il faut encore insister sur cette lacune.

Le Professeur Philippot a admis qu'il était facile de dire ce qu'il y avait lieu de faire en quelques mots, mais que pour acquérir la tournure d'esprit nécessaire, il fallait du temps.

Même si le côté technique de l'enseignement est plus facile -- et c'est la caractéristique de notre époque -- il faut réfléchir à la manière la plus adéquate d'intégrer cette formation technique à la formation historique et humaniste.

En conclusion, il a souligné l'importance pour la formation de la critique historique, tout en tenant compte des différentes traditions culturelles de chaque pays.

SIG. DI STEFANO, essendo fundamentalmente un ottimista, ha ribadito la sua fiducia per il futuro, anche se reste molto preoccupato e perplesso perché, malgrado gli sforzi che si compiano ovunque per portare avanti il discorso della tutela dei beni culturali, si deve constatare che lo stato della conservazione del patrimonio culturale, non solo in Italia ma in tutto il mondo, è deplorabile. Vi è anche il pericolo che la considerazione del valore economico dei beni culturali abbia il sopravvento; inoltre, troppe persone sono dell'opinione che, nel concetto della conservazione integrata, sia implicito che il vecchio si debba adattare al nuovo e non il contrario. Certo è che il dovere morale di ogni paese e di ogni uomo di garantire la conservazione dei valori che sono all'interno dei nostri beni culturali viene trascurato.

Partendo da questo divario fra principi e realtà, il Professor Di Stefano ha voluto dire qualche parola sulla formazione professionale e, ribadendo quello che gli altri hanno già detto durante la riunione, ha sottolineato la necessità di una migliore preparazione culturale di tutti coloro che si occupano della conservazione del patrimonio. Per evitare equivoci e perdita di tempo, ha voluto parlare soltanto della formazione universitaria, post-universitaria e dei corsi di aggiornamento. Ha trovato tutti d'accordo sull'idea che la preparazione per la conservazione del patrimonio architettonico deve essere parte integrante dei corsi di laurea per architetti e ingegneri e non solo oggetto di corsi speciali nelle scuole specializzate e post-universitarie. Quindi l'università deve gestire i corsi di laurea ed anche i brevi corsi di aggiornamento per i professionisti, nel senso suddetto.

A livello post-universitario, le scuole di specializzazione non debbono ripetere i corsi già svolti per il conseguimento della laurea ma preparare gli specialisti, con le dovute garanzie per i diploma rilasciati. I partecipanti presenti, facendo le loro proposte, non devono perdere di vista l'aspetto

finanziario del problema; il Professor Di Stefano ha sottolineato, tra l'altro, l'importanza della disponibilità di fondi per la ricerca e per le borse di studio a livello post-universitario.

Sia a livello universitario che post-universitario, l'obiettivo non deve essere quello, troppo modesto, della conservazione in sé, ma deve aspirare ad educare i professionisti ad operare nella società perché si ottengano i necessari cambiamenti coraggiosi, senza scendere a compromessi.

Attraverso lo studio storico-critico della conservazione possiamo avere la certezza della validità scientifica e culturale dei principi che la reggono e poi adattare la tecnica a questi principi; secondo il Professor Di Stefano la tecnica deve essere dominata e non dominante, rispetto all'istanza storica e a quella estetica.

Tenendo presente l'attuale crisi economica e culturale mondiale, l'università e le scuole devono preoccuparsi delle reali domande che oggi la società pone ed operare i necessari cambiamenti nella didattica e nel corpo di professori per poi, in seguito, chiedere agli allievi di cambiare anch'essi.

Il professore ha voluto aggiungere che, secondo lui, non si possono fare corsi di specializzazione di troppo breve durata: il tempo minimo necessario è almeno due anni, con obbligo di frequenza.

Terminando, ha fatto appello ad un migliore coordinamento delle attività da parte di tutti coloro che operano nel campo della conservazione, sia a livello nazionale (fra l'università, le scuole, i ministri interessati, le autorità locali e regionali) e sia al livello internazionale, fra i vari organismi del settore.

BRIEF SUMMARY OF DISCUSSIONS DURING THE AFTERNOON OF 3 DECEMBER  
BREF RESUME DES DISCUSSIONS PENDANT L'APRES-MIDI DU 3 DECEMBRE

M. Boiret a présidé la réunion.

MR. FEILDEN started with the proposition that architecture is a social art and conservation has always been an essential part of it. We know that society will support conservation though with some reservations because they are tax-payers. He agreed with Mr. Philippot that architectural appreciation should start at an early age but unfortunately education tends to concentrate on literature and numbers and overlooks art. Awareness of the environment and the forces working on it should be part of all general university studies, and all architectural students should receive an introduction to conservation studies as well as a proper preparation in history. A study of the causes of decay should be part of the general curriculum for architects.

He went on to express a preference for mid-career, advanced training for conservation architects, preferably linked up in some way with the stable university system. As Mr. Barthélemy has said, conservation should not be used as an escape from reality -- indeed it is a hard discipline demanding knowledge and decision-making ability. One could say that an architect is not a composer of music but a conductor of an orchestra with many highly-skilled members. He has the difficult task of coordinating the work of the engineers, the art historians and the craftsmen.

The conservation architect can achieve very little without good craftsmen. They should understand the principles of conservation and be taught history properly -- at the moment they are anti-history because of the way they have been taught history. One step forward is the fact that the social status of the craftsman is improving.

A good library and collection of traditional materials is an essential tool for conservation studies. University training should concentrate on principles and methodology -- technology is soon out-of-date and can be learnt in other ways, and a conservation architect must keep himself informed of developments in modern technology throughout his career. A written thesis is extremely valuable in two ways: it allows evaluation of the student's thinking ability and serves as a useful research document.

Mr. Feilden felt that if good students are to be attracted into conservation, a good career structure is essential, though it might vary from country to country.

Referring to the comments already made on the value of short courses, Mr. Feilden was of the opinion that they could make a contribution towards changing attitudes rather than being a source of new skills. ICCROM has produced a useful paper on how to set up short courses. From the financial point of view, a short course in the host country is more cost-effective than bringing people to Rome.

He ended with a few words about communication in the field of conservation. The people in the museums, the laboratories and the architects must be able to understand each other in order to benefit from their experience.

M. MUTAL a constaté une certaine confusion, la réunion ayant, selon lui, perdu de vue ses objectifs. A son avis, d'une part on n'a pas suffisamment discuté de l'expérience des dix ou quinze dernières années dans les divers pays, et d'autre part la réunion tend à devenir un colloque et non le point de départ pour la création des bases. L'ICCROM a un rôle très important à jouer dans les années 80, mais malgré certaines convergences de vues M. Mutal se demande s'il sera en mesure de le jouer. Peut-être faut-il tracer les lignes directrices de son programme pour voir comment avancer et ne pas se perdre dans la création de comités, etc.

M. ERDER estime que M. Mutal a raison du point de vue pratique mais, du point de vue théorique, son expérience de 25 ans dans les universités lui a enseigné qu'on ne pouvait espérer changer le monde de l'éducation que très lentement. Il croit que les recommandations, à l'issue de la réunion, pourraient être très efficaces pour créer une base de solutions aux problèmes de la conservation.

M. LEMAIRE suggère qu'on réexamine l'évolution des quinze années qui ont suivi les recommandations de la réunion de Pistoia. Il croit que la présente réunion aura à réitérer bien des recommandations de Pistoia, car l'objectif est loin d'être atteint. Comme M. Erder il pense que le processus est effectivement très lent, mais qu'il faudrait tout de même inclure dans les recommandations quelques propositions concrètes de collaboration, comme base pour agir dans l'immédiat.

M. BARTHELEMY a souligné avec satisfaction que plusieurs orateurs, conscients de l'importance grandissante que revêt le patrimoine dans l'ensemble de l'activité architecturale, souhaitent qu'une vigoureuse action de sensibilisation et de réflexion soit menée au niveau de l'enseignement universitaire général.

L'objectif serait d'assurer une meilleure cohérence entre tous les intervenants dans l'aménagement du territoire dans le cadre de la revalorisation généralisée du patrimoine architectural: tâche énorme, car elle concerne de nombreuses disciplines scientifiques et de nombreuses sensibilités. L'occasion de cette réunion des coordinateurs pour la formation en conservation architecturale est certainement propice à la définition de l'une ou l'autre orientation à donner aux cours universitaires dans l'esprit de la Charte de Venise.

M. PARENT, après avoir évoqué certains points importants issus des discussions demande aux participants de songer à l'élaboration d'une méthodologie pour le travail à accomplir dans l'avenir, sans répéter autant que possible ce qui a été déjà dit à Pistoia.

M. BARTHELEMY a rappelé les conclusions du séminaire de l'ICOMOS tenu à Naples en 1981, et a exprimé le souhait que celles-ci soient prises en considération lors de l'établissement des recommandations finales.

MR. SILVA made an appeal that the frontiers of education in conservation be extended beyond the Mediterranean. The experience in Europe, through close collaboration, could serve to help those in other regions of the world to conserve their cultural heritage. At the same time, the very fact that their monuments were still standing proved the validity of traditional technology in conservation. He reminded the meeting that suitable legislation and more particularly para-legislation was essential as a foundation on which to build a conservation policy.

The expense of sending students to ICCROM in Rome had already been mentioned in the meeting, and this was one of the reasons why Sri Lanka would be running its own course in 1983, with the backing and financial help of Unesco. It is hoped that this course, now open both to architects and archaeologists, will be extended to students from other countries in the region in 1984. The course structure and results will be reviewed after five years.

With help from UNDP to train the staff and to purchase equipment, Sri Lanka has been able to set up a laboratory to work on traditional building materials and construction techniques.



MR. LINSTRUM suggested that, because resources are limited and unlikely to be increased to any great extent, the meeting should first think in terms of extending existing courses rather than establishing new ones. In countries where courses already exist, activities could be extended and money saved by taking the course to the people rather than bringing people to the course's headquarters. Caution is necessary, however, when activities are extended beyond the home country. Mr. Linstrum remarked that he had only agreed to take students from Africa on the York course after he had travelled extensively in the region and been able to see the situation there for himself. The University of York has had discussions with the universities of Kumasi in Ghana and Sydney in Australia on the setting up of courses run on a joint basis, and he considered this type of joint course more likely to succeed than the new courses, set up from scratch.

So far no-one had mentioned visual aids, and Prof. Linstrum described how he has used these in York and how convinced he is of the important and positive contribution visual aids can make to conservation courses. There is a pressing need felt in some regions of the world for cheap, basic text books, and existing courses could help in their preparation.

He concluded by stating that good existing courses have a duty to open their doors to other regions.

MR. MUTAL agreed that the whole question of social awareness and education is very important and said he is already working on this through schools and universities. He asked the meeting to consider ICCROM's role in the coming years in the field of training at all levels. Is ICCROM going to be a sort of training house? Is it going to modify its activities? Is it going to change and/or extend its programme, and if so in what direction? Are there going to be surveys in the different regions of the world to assess needs? These were some of the matters that needed to be discussed.

Mr. Mutal said frankly that he expected that Unesco and the UN system as a whole would be relying more and more in the future on international organizations such as ICCROM and ICOMOS for the implementation of their overall programme, and perhaps the meeting should consider the possibility of providing some guidelines on training at all levels.

MR. ERDER reminded Mr. Mutal and the rest of the group that one of the aims of the meeting was to give ICCROM some reorientation for its future work, so any suggestions and comments were very welcome indeed.

MR. MUTAL, referring to the network of training programmes set up a few years ago with the advice and guidance of the then director of ICCROM, Prof. Philippot, believed that this was an example of one basic type of activity that ICCROM should offer in the future. It is important that the actual needs of the regions be assessed carefully by ICCROM and/or existing local centres.

The question of the contents of the ICCROM course had already been raised. Mr. Mutal asked whether the duration of the six-month course should be changed or whether major modifications should be made to the contents. Perhaps the possibility of short, two- or three-week courses for course coordinators should be discussed.

Mr. Mutal personally felt the need for some changes in ICCROM's course to meet the trends and requirements of the decade. Courses should be organized with specific requirements in mind and not just as "courses for the sake of courses". Decentralization is important, as is the fostering of the revival of traditional technologies. Thought must be given to in-service training as well as to the need for refresher courses. The subjects of the present courses need to be reviewed, and, for example, some knowledge of the financial aspects of conservation given so that architects can participate in discussions with those who hold the purse strings.

M. PHILIPPOT a voulu reprendre quelques points mentionnés par M. Mutal. Au sujet de l'enseignement général, tout le monde est d'accord sur le fait que l'éducation de base doit avoir lieu dans le pays ou la région d'origine. Il faut faire une prospection des régions, visant surtout au choix de points d'attache si possible à l'abri des certaines instabilités dues à la vie politique, et cette prospection est une tâche difficile.

Plusieurs orateurs ont mentionné ce qu'on pourrait appeler l'exportation de certains cours sur des matières déterminées, et l'ICCROM a déjà acquis de l'expérience dans ce domaine. Les cours de brève durée sont très utiles à cet égard, à condition de traiter un sujet limité.

A propos des cours de formation du personnel enseignant, M. Philippot y voit des problèmes d'ordre pratique à résoudre: comment choisir les meilleurs candidats, le nombre d'étudiants dans les cours, etc. Quand on considère l'âge des étudiants en question, peut-être ne faut-il plus parler de cours, mais de séminaires ou de colloques, tout en essayant de préserver l'unité du groupe, malgré des origines géographiques et culturelles très diverses.

M. TELLES est d'accord sur le fait qu'au niveau de la formation des enseignants, les cours ou séminaires devraient être un échange d'expériences et donner la possibilité d'examiner la doctrine. A part le problème de coordination, les participants de ces cours devraient être les dirigeants ou techniciens, responsables des organismes nationaux de préservation et, aussi, les coordinateurs des cours régionaux.

L'ICCROM a une contribution importante à faire dans l'organisation des cours sur place dans les diverses régions, le choix d'équipement, la création de bibliothèques, etc.

M. BOIRET, Président de la réunion, conclut en annonçant que le Comité de rédaction serait composé de MM. Barthélémy, Di Stefano, Feilden, Gazaneo, Jokilehto et Philippot. Ils doivent examiner les recommandations qui seront soumises à la réunion, le lendemain.

BRIEF SUMMARY OF DISCUSSIONS DURING THE MORNING OF 4 DECEMBER  
BREF RESUME DES DISCUSSIONS PENDANT LA MATINEE DU 4 DECEMBRE

M. Philippot a présidé la réunion.

M. Philippot a présenté le texte du Rapport Final qui a été rédigé par le Comité de rédaction. Les participants ont entamé une discussion sur le texte proposé.

Entre autres, les participants ont examiné les qualifications des architectes conservateurs, le contenu et la durée des cours de spécialisation; le rôle des universités dans ce domaine est jugé primordial.

Les cours devraient comprendre la restauration et l'entretien, non seulement des monuments et édifices de grande valeur, mais aussi des autres bâtiments historiques.

L'échange du personnel didactique entre les institutions de formation est considéré comme très utile. Les participants ont tous recommandé d'établir une coordination efficace entre les diverses organisations et institutions.

A la fin de cette discussion le texte du Rapport Final, amendé à la lumière des commentaires, a été approuvé.

## FINAL REPORT AND RECOMMENDATIONS

1. The coordinators of training courses in architectural conservation, coming from various parts of the world and meeting in Rome from 2-4 December 1982, under the auspices of Unesco, ICCROM and ICOMOS, after having conducted a broad exchange of views on the developments taking place in this field since the meeting in Pistoia in 1968, observe that the international documents on conservation and restoration of cultural property underline the extreme importance of training, of a general as well as a specialized nature, noting with satisfaction that the teaching of architectural conservation has developed in a number of countries, but noting that the general evolution of mankind has led to such a broadening of the concept of heritage and such an acceleration of the processes of its revitalization that conservation work is often entrusted to poorly trained technicians or even to technicians with no specific training.

Therefore, the problem of education becomes even more acute and can only be solved by action at various levels. On the one hand, the population as a whole should be made aware of the value of its architectural and urban heritage through a progressive and continuing teaching programme, both in the schools and outside the classrooms.

It is essential, on the other hand, that the general programmes of study in schools of architecture be rethought in order to reach better understanding of the general setting of architectural intervention. This implies a deepening of cultural and historical awareness and a better appreciation of all the values relevant to the architectural and urban heritage (cf. the meetings in Pistoia, September 1968 and Naples, February 1981) as well as of the fundamental concepts of conservation.

2. The participants at the meeting consider that the study programmes currently organized in different countries and recognized at international levels should entail a "conservation" option during university training in architecture or post-university specialization.

2.1 Conservation activities should only be entrusted to specialists with university and/or post-graduate level training which includes practical experience (university liaison and post-graduate).

2.2 In particular, specialization in architectural conservation requires the harmonious integration of the historical, humanistic (defining the bases and aims of conservation), scientific, technical and economical aspects, the latter providing the means required for practical solutions.

2.3 The complexity of architectural conservation makes it necessarily a multi-disciplinary activity in which, according to each individual case, the architect, the engineer, the archaeologist, the art historian, the economist, the sociologist, the urban planner etc. must collaborate. It is also recommended that the specialists in the various disciplines involved be encouraged to exchange views and that some form of training in conservation be given to them in order to facilitate inter-disciplinary collaboration based on a common methodology.

2.4 Guarantee of competence can only be achieved through teaching programmes sanctioned by diplomas which are legally valid. Such a guarantee can only be effectively assured if the teaching of conservation is organized at university level.

2.5 Conservation is based on a methodology and philosophy common to all areas of the world. However, the specific history and culture of a given country, as well as the relative importance of various technical and sociological problems, determine different regional situations, and teaching should take the practical aspects of these factors into account.

3. Considering the recent, world-wide developments of problems related to the education of architects and restorers, the participants at the meeting recommended that ICCROM, in association with ICOMOS, undertake a study of new types of educational programmes, in particular:

3.1 Organization of permanent courses in areas distant from large training centers

The first stage of the training of specialists should take place, preferably, in their country or region of origin so that they are sufficiently aware of the problems specific to their country before being sent abroad for further training. ICCROM should study the possibility of creating new regional teaching programmes by contributing to their organization. A starting point could be those local institutions offering a minimum of means and guarantee. The setting-up of such programmes would entail a preliminary survey of the less-favoured areas, among which Africa deserves special attention.

3.2 Organization of short-term courses on specific aspects

The programme of such courses should be conceived to meet the specific needs of certain areas but planned in such a way as to allow subsequent repetition in other countries.

### 3.3 Training of a teaching staff

Since the number of competent teachers is insufficient to ensure the integration of the various subjects of the study programme in a unified methodological way, it is recommended that ICCROM develop some form of didactic assistance for future teachers.

Such a goal should be backed-up by the development of suitable teaching material and especially by a policy of translating the basic textbooks and papers into a large number of languages.

3.4 It is also recommended that ICCROM should develop its role as a meeting place for the exchange of experiences related to the teaching of conservation; it should facilitate the regular comparison and evaluation of programmes, factors essential to progress.

3.5 It is also recommended that, in carrying out the programme, ICCROM and ICOMOS remain in contact with the various international and regional organizations, in particular Unesco, the Council of Europe and the regional centres and institutions associated with ICCROM.

### 4. Coordination of initiatives

The participants at the meeting noted that all too frequently the administrative procedures of a country or different international organizations, relating to various aspects of conservation, make some initiatives analogous or contradictory due to the lack of preliminary coordination. Therefore, they recommended that everything be done to ensure efficient coordination of both programmes and financial resources.

### 5. Additional practical recommendations

5.1 Recognizing the quality of the work achieved by architectural institutions at the undergraduate level and the growing interest of students in historical studies, it is recommended that introductory courses be set up in architectural conservation and the study of the causes of decay in buildings. These courses would assist the design process.

5.2 For those institutions specializing at the post-graduate level, the necessity of a good library and the desirability of reference collections of traditional building materials and examples of traditional craftsmanship was emphasized. The value of a written thesis, laboratory work and contacts with museums, art conservators and scientists was noted.

5.3 Emphasizing that since the aim of conservation is to prevent, as far as possible, the decay of the architectural heritage by means of a scientifically-based maintenance policy, it is urged that priority be given to simple maintenance measures for all historic buildings rather than the expensive restoration of a few buildings. These measures should include the regular inspection of buildings and written reports on results. Architects, building supervisors and technicians should be trained to a MINIMUM level of competence in architectural conservation through short, post-graduate courses.



## RAPPORT FINAL ET RECOMMANDATIONS

1. Les coordonnateurs des cours de formation de conservation architecturale, provenant des diverses parties du monde et réunis à Rome du 2 au 4 décembre 1982 sous les auspices de l'Unesco, de l'ICCROM et de l'ICOMOS, après avoir procédé à un large échange de vues sur les développements survenus dans ce domaine depuis la réunion de Pistoia en 1968, constatent que les documents internationaux sur la conservation et la restauration des biens culturels soulignent l'importance primordiale de la formation des hommes, tant sur le plan général que sur le plan de la spécialisation; notent avec satisfaction que l'enseignement de la conservation architecturale s'est développé dans de nombreux pays, mais observent que l'évolution générale de l'humanité a entraîné un tel élargissement de la notion de patrimoine et une telle accélération du processus de sa revitalisation que la restauration a souvent été confiée à des techniciens mal préparés, ou même dépourvus de toute préparation spécifique.

Dès lors, le problème de la formation se pose avec une acuité nouvelle et ne pourra se résoudre que par une action à divers niveaux. Il convient en effet, d'une part de préparer, au sein de l'école et hors de l'école, l'ensemble de la population à l'appréciation des valeurs de son patrimoine architectural et urbanistique grâce à un projet pédagogique progressif et continu.

Il est essentiel, d'autre part, que les programmes généraux d'enseignement des écoles d'architecture soient repensés dans la perspective d'une meilleure perception du cadre général de l'intervention architecturale, impliquant un approfondissement de la culture historique et une meilleure appréciation de toutes les valeurs propres au patrimoine architectural et urbanistique (cf. les réunions de Pistoia, septembre 1968 et Naples, février 1981) ainsi que des notions fondamentales relatives à la conservation.

2. Les membres de la réunion constatent que les programmes d'études qui sont organisés actuellement dans les différents pays et auxquels ils pourraient reconnaître un niveau international comportent une option "restauration" durant la formation universitaire d'architecture ou une spécialisation post-universitaire.

2.1 L'activité de restauration ne peut être confiée qu'à des spécialistes, dont la formation doit se réaliser au niveau universitaire et post-universitaire et comprendre un stage pratique (liaison universitaire et post-graduate).

2.2 La spécialisation en restauration architecturale exige tout particulièrement l'intégration harmonieuse de l'approche historique, humaniste - qui définit les bases et les finalités de la restauration - et des sciences, des techniques et de l'économie, qui apportent les moyens indispensables aux solutions pratiques.

2.3 La complexité de la restauration architecturale en fait une activité nécessairement pluridisciplinaire, où collaborent, selon les cas d'espèces, l'architecte, l'ingénieur, l'archéologue, l'historien d'art, l'économiste, le sociologue, l'urbaniste etc. Aussi est-il recommandé que les spécialistes des diverses disciplines impliquées soient conviés à des échanges de vues en cette matière et qu'une forme de préparation à la restauration leur soit dispensée afin de faciliter la collaboration interdisciplinaire fondée sur une méthodologie commune.

2.4 Le contrôle des compétences ne peut être réalisé que par le contrôle des programmes d'enseignement sanctionnés par des diplômes légalement reconnus. De telles garanties ne pourront être assurées efficacement que si l'enseignement de la restauration est organisé au niveau universitaire.

2.5 La restauration se fonde sur une philosophie méthodologique valable pour toutes les régions. Toutefois, les particularités de l'histoire et de la culture propres à chaque pays ainsi que l'importance relative qu'y prennent divers problèmes techniques et sociologiques déterminent des situations régionales différentes dont l'enseignement devra tenir compte dans ses aspects pratiques.

3. Considérant les développements récents des problèmes mondiaux relatifs à la formation des architectes et restaurateurs, les membres de la réunion recommandent que l'ICCROM, en association avec l'ICOMOS, mette à l'étude de nouveaux types of programmes didactiques, en particulier:

### 3.1 Organisation de cours permanents dans des régions éloignées des grands centres de formation

Il est souhaitable, en effet, que la première formation des spécialistes soit assurée dans leur propre pays ou région afin qu'ils soient suffisamment préparés et informés sur les problèmes spécifiques à leur pays avant d'être envoyés à l'étranger pour un complément éventuel de formation. L'ICCROM devrait étudier la possibilité de créer de nouveaux enseignements régionaux en contribuant à leur organisation à partir d'institutions locales offrant un minimum de moyens et de garanties. La mise au point de tels programmes implique une prospection préalable des régions les moins favorisées, parmi lesquelles l'Afrique mérite une attention particulière.

### 3.2 Organisation de cours de courte durée, portant sur des thèmes précis

Le programme de tels cours devrait être conçu pour répondre aux besoins spécifiques de certaines régions et selon une formule qui permette de les présenter successivement dans divers pays.

### 3.3 Préparation du corps enseignant

Etant donné le nombre insuffisant d'enseignants compétents pour assurer l'intégration des diverses matières du programme d'études dans une vision méthodologique unitaire, il est recommandé que l'ICCROM mette au point une forme d'assistance didactique aux futurs enseignants.

Un tel objectif devrait être soutenu par le développement d'un matériel didactique adéquat, et notamment par une politique de traduction des textes fondamentaux dans un grand nombre de langues.

3.4 Il est également recommandé que l'ICCROM développe sa vocation de lieu de rencontre et d'échange des expériences en matière d'enseignement de la restauration, et favorise la confrontation et l'évaluation régulière des programmes, facteurs essentiels de progrès.

3.5 Il est recommandé en outre que l'ICCROM et l'ICOMOS restent, pour la réalisation de ce programme, en liaison avec les diverses organisations internationales et régionales intéressées, en particulier l'Unesco, le Conseil de l'Europe, les centres régionaux et les institutions associées à l'ICCROM.

## 4. Coordination des initiatives

Les participants à la réunion constatent que trop fréquemment les diverses instances administratives d'un pays ou les diverses organisations internationales, intervenant à divers égards dans la restauration, prennent des initiatives analogues ou contradictoires faute de concertation préalable; Dès lors, ils recommandent que tout soit mis en oeuvre pour assurer une coordination efficace des programmes et des moyens financiers.

## 5. Recommandations pratiques additionnelles

5.1 Reconnaissant la qualité du travail réalisé par les institutions s'occupant de formation architecturale au niveau universitaire et l'intérêt croissant des étudiants pour les études historiques, il est recommandé de créer des cours d'introduction à la conservation architecturale et d'étude des causes d'altération des bâtiments, matières d'ailleurs fort utiles pour la conception des projets architecturaux.

5.2 En ce qui concerne les institutions spécialisées dans la formation au niveau post-universitaire, il faut souligner l'importance d'une bonne bibliothèque pour la recherche des matériaux traditionnels et techniques artisanales. A cet égard, on note l'importance des thèses, du travail de laboratoire, des contacts avec le personnel des musées, les restaurateurs et les scientifiques.

5.3 Soulignant que le but de la conservation est de prévenir autant que possible l'altération du patrimoine architectural par une politique d'entretien à base scientifique, il est recommandé de donner la priorité à des mesures simples d'entretien pour tous les bâtiments historiques plutôt qu'à de coûteuses restaurations de quelques bâtiments. De telles mesures doivent consister en inspections régulières à l'issue desquelles seront rédigés des rapports. Les architectes et chefs de chantier devraient recevoir à cet effet un minimum de formation sous forme de stages de courte durée.

## ANNEXES



CONCLUSIONS

The Unesco experts invited to Pistoia (Italy) from 9 - 14 September 1968 to study the problems involved in the training of architect-restorers of monuments,

Having noted the extension of the activities of the International Centre for the Study of the Preservation and the Restoration of Cultural Property (Rome) to cover, inter alia, the training of the various experts in the preservation and restoration of monuments and cultural property in danger,

Have learned with satisfaction that the Italian Government has generously decided to make a considerable part of the Ospizio San Michele in Rome available to the Centre, and wish to express their keen appreciation;

Formulate the wish that the structural alterations to the Ospizio be undertaken and completed as quickly as possible, so that the Centre and the associated institution may be able to carry out their programme of international activities.

RECOMMENDATIONS

The Committee of Experts,

Considering the dangers which cause and hasten the deterioration or destruction of monuments and sites throughout the world, as well as current instances of town planning which alter or destroy in the most arbitrary manner the historic background of towns of exceptional artistic and cultural interest,

Considering that only highly qualified specialists should be authorized to execute the work required for the preservation; restoration and presentation of the heritage and monuments and that the number of such experts is notoriously insufficient,

Considering that any sound reform of specialist training calls for prior and exact knowledge of its current situation and that it is consequently essential to extend and complete the survey undertaken at the instance of Unesco,

Recommends that the following principles be applied to the training of architects and technicians responsible for the restoration, preservation and presentation of monuments and sites:

1. Training of architects and town planners in general

Considering that historic monuments and sites are to a large extent, and in most countries of the world, part and parcel of the living architectural background of the inhabitants,

Considering that the preservation and development of that background, including the landscape, are mainly the responsibility of architects and town planners,

Recommends that training in architecture and town planning include the teaching of history and the humanities, whereby all architects and town planners may learn to appreciate the importance of preserving the heritage of monuments and landscapes and to recognize the value of their specific features;

Recommends that the curriculum of all schools of architecture include a thorough education in the preservation of historic sites and monuments, the history of art, the history of architecture and architectural techniques, and the history of town planning and of the development of landscapes and gardens.

2. Training of specialized architects

Considering that the preservation, restoration and presentation of monuments and of historic gardens and sites form a separate discipline,

Recommends

(1) That the preservation, restoration and presentation of historic sites and monuments be entrusted exclusively to specially trained experts, so as to guarantee that work on monuments will in no way impair their value;

(2) That closer collaboration be developed between architects and specialists in other university disciplines concerned with preserving the heritage of monuments, such as: town planners, art historians, archaeologists, engineers, chemists, physicists, etc., by directing or supplementing their training to meet preservation requirements;

(3) That specialized courses of a post-graduate type be extended or introduced at national or regional level and at the international level.



CONCLUSIONS

Les experts de l'Unesco invités à Pistoia (Italie) du 9 au 14 septembre 1968 afin d'étudier les problèmes de la formation des architectes restaurateurs des monuments,

Ayant pris connaissance des développements des activités du Centre international d'études pour la conservation et la restauration des biens culturels à Rome, entre autres, en vue de la formation des différents spécialistes de la conservation et de la restauration des monuments et des biens culturels en péril,

Ont appris avec satisfaction que le Gouvernement italien a décidé généreusement de mettre à la disposition du Centre une partie importante de l'Ospizio San Michele à Rome et expriment leur haute appréciation de cette décision,

Formulent le vœu que les travaux d'aménagement de cet ensemble monumental soient entrepris et exécutés le plus rapidement possible afin de mettre le Centre et l'institution associée en mesure de réaliser leurs programmes d'activités internationales.

RECOMMANDATIONS

Le Comité d'experts,

Considérant les dangers qui provoquent et accélèrent la détérioration ou la destruction des monuments et des sites du monde entier, ainsi que les projets actuels de plans d'aménagement qui, de la manière la plus arbitraire, altèrent ou détruisent les tissus historiques de villes d'une valeur artistique et culturelle exceptionnelle,

Considérant que seuls des spécialistes hautement qualifiés peuvent être habilités à exécuter les travaux exigés par la conservation, la restauration et la mise en valeur du patrimoine monumental et que le nombre des ces spécialistes est notoirement insuffisant,

Considérant que toute réforme valable de la formation des spécialistes exige la connaissance préalable exacte de la situation présente de cet enseignement et qu'il est en conséquence indispensable d'étendre et de parfaire l'enquête entreprise à l'initiative de l'Unesco,

Recommande que les principes suivants soient appliqués à la formation des architectes et des techniciens chargés de la restauration, de la préservation et de la mise en valeur des monuments et des sites:

## 1. Formation des architectes et des urbanistes en général

Considérant le fait que les monuments et les ensembles historiques sont pour une grande partie et dans la plupart des pays du monde intimement intégrés à l'environnement architectural vivant de la population,

Considérant que la préservation et le développement de cet environnement, y compris celui du paysage, se trouvent principalement sous la responsabilité des architectes et des urbanistes,

Recommande que l'enseignement de l'architecture et de l'urbanisme soit assorti d'une formation humaniste et historique permettant de sensibiliser tous les architectes et tous les urbanistes à l'importance de la conservation du patrimoine monumental et du paysage ainsi qu'à leurs aspects particuliers;

Recommande que le programme de toutes les écoles d'architecture comprennent un enseignement approfondi de la conservation des centres historiques et des monuments, de l'histoire de l'art, de l'histoire de l'urbanisme et de l'évolution des paysages et des jardins;

## 2. Formation des architectes spécialisés

Considérant que la conservation, la restauration et la mise en valeur des monuments, des jardins historiques et des ensembles constituent une discipline particulière,

### Recommande

(1) que la conservation, la restauration et la mise en valeur des monuments et des ensembles historiques soient confiées uniquement à des spécialistes formés à cette fin, en vue d'assurer une exécution des travaux qui conserve aux monuments la totalité de leur valeur;

(2) de développer la collaboration entre les architectes et les spécialistes des autres disciplines universitaires intéressées à la préservation du patrimoine monumental tels que: urbanistes, historiens de l'art, archéologues, ingénieurs, chimistes, physiciens, etc. en orientant ou en complétant la formation de ceux-ci en fonction des besoins propres à la conservation;

(3) de développer ou d'établir des cours de spécialisation de type post-universitaire sur le plan national ou régional et sur le plan international.

En conclusion du séminaire tenu à Naples les 6 et 7 février 1981 et ayant pour thème "La restauration des monuments et la formation professionnelle universitaire", les participants, après avoir examiné les divers documents, enquêtes et rapports soumis à la discussion générale, formulent unanimement les considérations suivantes:

1. Tous les documents internationaux sur la conservation et la restauration des biens culturels et particulièrement du patrimoine architectural soulignent l'importance primordiale qu'il faut attacher à la formation des hommes: éducation générale, formation universitaire, recherche scientifique.
2. Confrontée à ces intentions hautement affirmées, la situation réelle dans les différents pays n'a manifestement guère évolué et apparaît comme particulièrement difficile.
3. Cependant, l'analyse systématique des causes profondes qui mettent un frein au développement de la politique de conservation intégrée conduit à penser que la protection du patrimoine, sa mise en valeur et son insertion dans un cadre urbanistique adéquat resteront à la mesure des résultats de cet effort de formation des hommes. Les transformations du cadre de vie ne sont finalement que les reflets fidèles des mentalités et des attitudes de ceux-ci.
4. La concrétisation des objectifs de sauvegarde se heurte également à des structures administratives et à des filières de décision qui ne sont pas adaptées aux nouvelles orientations. Ici aussi, la formation des hommes est en cause.
5. Cet écart entre les objectifs et les résultats concrets se traduit aussi dans la pratique de la restauration; l'étude et l'exécution de travaux exigeant de hautes qualifications professionnelles sont trop souvent confiées à des techniciens mal préparés à ce type d'intervention, bien entendu au détriment de l'intégrité du patrimoine international.
6. L'amélioration du niveau de ce cadre spécialisé est natu-

rellement liée à la promotion de la recherche scientifique appliquée ainsi qu'à l'intensification de la collaboration entre les responsables de celle-ci et les autorités publiques.

Dans l'intention d'apporter une contribution à la solution de ces problèmes, les participants font remarquer que les difficultés rencontrées proviennent, sans doute, de la perspective trop limitée dans laquelle, par habitude ou atavisme, est envisagée la protection du patrimoine.

En fait, la nécessité universelle d'économiser l'énergie et de préserver l'environnement constitue le cadre général où doit se situer la conservation. Celle-ci se trouve, dès lors, dans un contexte socio-économique nettement élargi qui correspond à une nouvelle gestion de l'espace basée sur une réévaluation généralisée des critères d'aménagement du territoire. Les moyens à mettre en oeuvre dans ce but ne doivent donc plus se mesurer suivant les normes traditionnelles affectées au domaine culturel, mais suivant celles de l'aménagement du territoire.

Dès lors, se référant notamment aux conclusions du Colloque de Ravello organisé - en 1978 - sur ce thème par le Conseil de l'Europe, les participants au séminaire de Naples émettent les suggestions suivantes:

1. La conservation n'étant qu'un aspect d'une réorientation de l'attitude face aux problèmes d'économie énergétique de préservation de l'environnement et de prise de conscience culturelle, la formation des hommes ne peut se limiter à une orientation spécialisée. C'est autant à une éducation qu'à une instruction qu'il faut s'attacher, la spécialisation n'étant d'ailleurs considérée que comme le couronnement de l'édifice éducatif.

Aussi, c'est dès les premières années d'école que doivent être développés le sens de l'observation, l'esprit critique, la créativité, la solidarité communautaire et le respect de l'environnement.

2. Au niveau universitaire, de nouveaux objectifs pédagogiques doivent être poursuivis: inculquer une philosophie nouvelle de l'environnement, mieux faire saisir les interactions

des différentes disciplines scientifiques concourant à l'organisation de l'espace et préparer à la collaboration interdisciplinaire.

En ce qui concerne plus spécialement la formation des architectes et des urbanistes, une attention particulière doit être portée au patrimoine existant dont les qualités architecturales doivent être redécouvertes dans leur contexte historique global. Dans cet enseignement, l'histoire des techniques de construction et l'étude des constructions modestes prendront place. Sans surcharger les programmes, les études permettront de comprendre le langage, la méthodologie et les préoccupations des diverses sciences humaines s'intéressant aux problèmes du cadre de vie.

L'étude des caractères historiques et morphologiques du cadre urbanistique, dans lequel s'inscrit chaque projet, doit être exigée, la réhabilitation étant considérée comme un thème majeur de l'enseignement.

Au niveau de la méthode didactique, les projets doivent rester le pivot de la formation, ce qui implique un renforcement de l'encadrement des études, la constitution de cellules d'enseignement réduites, relativement autonomes ou décentralisées, et l'expérience professionnelle des enseignants.

3. La spécialisation post-universitaire doit comporter une formation complémentaire dans les sciences fondamentales et une information relative aux disciplines adjacentes. Cette formation spécialisée doit comprendre notamment l'étude approfondie de la structuration historique de l'espace, des théories de composition architecturale à travers l'histoire et de l'altération des matériaux. En particulier, pour orienter les options, l'enseignement de l'économie doit y garder un caractère appliqué, non seulement en vue d'atteindre une meilleure connaissance des problèmes financiers (coût des interventions, répartition des charges financières...), mais aussi en vue de mettre en relief tous les effets, directs et indirects, que les interventions urbanistiques et architecturales peuvent avoir sur l'environnement global et, finalement, sur le bien-être social de la collectivité.

4. La formation spécialisée s'articulera autour de cellules de recherche qui devront bénéficier des moyens nécessaires à leur dynamisme et à leur rayonnement. Notamment le pouvoir politique aura recours à ces Centres de recherche afin d'y maintenir un contact aussi direct que possible avec les réalités concrètes de l'organisation spatiale.

## DOCUMENTS DE BASE

1. Charte internationale sur la Conservation et la Restauration des Monuments et des Sites (Venise-ICOMOS 1964)
2. Convention pour la protection du patrimoine mondial, culturel et naturel (Paris - UNESCO 1972)
3. Recommandation concernant la sauvegarde des ensembles historiques ou traditionnels et leur rôle dans la vie contemporaine (Nairobi - UNESCO 1976)
4. Charte Européenne du patrimoine architectural (Amsterdam, Conseil de l'Europe 1975)

## DOCUMENTS COMPLEMENTAIRES

- Les normes de Quito (OEA 1967)
- Recommandation concernant la préservation des biens culturels mis en péril par les travaux publics ou privés (Unesco 1968)
- Déclaration d'Amsterdam (Conseil de l'Europe 1975)
- Charte de Machu Pichu (Lima 1977)
- Conclusions du Congrès interaméricain de préservation du patrimoine artistique (Mexico 1978)
- Conservation intégrée et la formation spécialisée des architectes, urbanistes, ingénieurs du génie civil, paysagistes (Ravello - Conseil de l'Europe 1979)
- Congrès sur le patrimoine architectural européen (Strasbourg - Conseil de l'Europe 1980)

PARTICIPANTS:

Messieurs    J. Barthélémy  
                  J. Sonnier  
                  C. Alisio  
                  A. Belli  
                  V. Cardarelli  
                  R. Di Stefano  
                  G. Fienco  
                  L. Fusco Girard  
                  R. Mormone  
                  M.L. Scalvini

Madame        R.A. Genovese









