

Norwegian Wood

A Report to International Specialised Skills

on the

7th International Course on Wood Conservation
Technology

Oslo, Norway, July-August 1996

February 1997

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INTRODUCTION

The International Course on Wood Conservation Technology (ICWCT) is one of two international specialist courses on materials conservation. The other is on the Technology of Stone Conservation and is held in Venice in alternate years (stone in odd years, wood in even).

These courses were initiated and are in part sponsored by UNESCO which saw a need for shorter, more tightly-focussed courses than those offered by its off-shoot ICCROM — the International Centre for the Study of the Preservation and the Restoration of Cultural Property — in Rome.

Established in 1959, ICCROM offers a variety of courses including architectural conservation (4 months), mural paintings conservation (4 months) and the scientific principles of conservation. ICCROM also maintains a documentation centre, publishes technical literature and organises various missions and aid projects around the world. In addition it contributes — financially and in teaching — to the specialist courses on stone and wood.

Since its inception in 1984, the International Course on Wood Conservation Technology has been held in Norway, initially in Trondheim until 1990, and since 1992 in Oslo. ICWCT is organised the auspices of UNESCO by:

- Riksantikvaren — the Directorate for Cultural Heritage, Norway
- ICCROM
- ICOMOS
- Nordic World Heritage Office, Oslo
- Norwegian University of Science and Technology, Trondheim

The principal sponsor of the course is Riksantikvaren — the Directorate for Cultural Heritage of the Norwegian government — roughly equivalent to the Australian Heritage Commission. Figures for 1996 are not available but in 1992 the contribution from the Norwegian authorities was more than 70 % of the cost of the course with slightly more than 20 % coming from various UNESCO funding programmes.

Norway is a logical place to run such a course, partly because of the widespread use of wood in building, but also because of Norwegian expertise in wood conservation. ICOMOS, the International Council of Monuments and Sites, has a number of specialist scientific committees on various aspects of conservation and management of cultural heritage: its International Wood Committee is based in Norway and its members make a significant contribution to the wood course.

Further, Riksantikvaren is actively involved in the physical and technical as well as administrative aspects of heritage conservation. Through its operational arm NIKU (the Norwegian Institute for Cultural Heritage), it has developed considerable expertise in the field.

PERSONAL BACKGROUND

I am a conservation scientist and freelance heritage consultant, specialising in building materials conservation. My activities include:

- Investigating and reporting on the physical conservation of buildings, cemeteries, monuments, structures and sculpture, particularly those of stone,
- Compiling technical information bulletins for state heritage authorities,
- Managing and teaching short courses in building conservation and cultural heritage management for university, government and other agencies.

I am actively involved in the development of the profession, being a member of Australia ICOMOS (and am currently convening a working group which is reviewing the Burra Charter) and of SMOCM (Sculpture, Monument and Outdoor Cultural Material) special interest group of AICCM (Australian Institute for the Conservation of Cultural Material).

Although I began a career in geology, it changed and evolved slowly so that I now practice in building conservation and apply my geological knowledge to the properties, care and conservation of stone. To extend my knowledge of materials other than stone I have studied two semester courses in wood science and wood technology at the Australian National University. I attended ICWCT with the aim acquiring a more detailed focus on the conservation of wood in order to improve the standard of work, advice and training that I am able to provide.

COSTS AND SPONSORSHIP

There were no fees for the course itself and most other costs such as transport and accommodation on excursions were covered by the organisers. In addition, and very generously, accommodation in Oslo was provided free to all participants. The costs of attendance were thus limited to airfares and living costs. Living costs are very high in Norway: food costs are approximately double those of Australia, a cappuccino costs \$5.00 and a pint of beer \$9.00. The Getty Grant Program provided scholarships to participants from Africa and eastern Europe to offset the high cost of living.

International Specialised Skills contributed \$1,200 towards the costs of my attendance; and the University of Canberra's Cultural Heritage Research Centre (for whom I run professional development short courses) contributed \$4,000. The remainder of a total of \$5,700 (plus an estimated \$8,000 loss of income while I was away) I covered myself. The total of \$5,700 included a stopover in London on my return where I did several University of Canberra work-related things including having discussions with English Heritage on their short course training programme.

THE COURSE

The course was directed by Professor Knut Einar Larsen from the Norwegian University of Science and Technology in Trondheim and by Tone Olstad from NIKU, Oslo. Dr Larsen, an architect and Secretary-General of ICOMOS's International Wood Committee, has been an organiser of all seven wood courses to date. Tone Olstad is a conservator who attended the course in 1992. She has taken over the joint directorship from Nils Marstein who is now the Riksantikvar — the Director of Cultural Heritage for Norway. Nils jointly organised the first six wood courses and still retains a strong interest in the programme.

The course was six weeks long: five weeks in Oslo followed by a one week excursion to central Norway and Bergen. The five weeks consisted mostly of theory sessions with some site visits and field exercises in Oslo. The home for the course was the offices of Riksantikvaren in central Oslo. Riksantikvaren provided its lecture theatre for the duration of the course together with unrestricted access to its excellent library and other facilities.

Course content

The course, which was taught in English, covered 113 hours of lectures and 101 hours of exercises including laboratory exercises, conservation workshops, field studies and seminars. Participants' attainment was assessed in a three-hour exam on the last day and a certificate issued to those who passed (Appendix A).

The course covered the following topics:

- Theories and principles of conservation
- Climatology
- Material properties of wood
- Deterioration of wood
- Wood from archaeological excavations
- Furniture conservation
- Conservation and restoration of polychrome wood
- Conservation of wooden ethnographic material
- Conservation of wooden buildings
- Particular problems concerning the preservation of large timber structures
- Wooden architecture, sculpture and art objects in Japan
- Surface finishes and coatings
- Conservation of wooden buildings and integrated polychrome decorations

A detailed programme is incorporated as Appendix B.

The presenters

The presenters are international experts in their respective fields. They came from Belgium, Canada, China, Denmark, England, Finland, Germany, Italy, Japan, the Netherlands, Norway, Russia, and the USA. They are listed in Appendix C.

The participants

The 22 participants came from 18 countries: Canada, Croatia, Finland, Italy, Jordan, Korea, Latvia, Macedonia, Malawi, Nigeria, Norway, Romania, Russia, Tanzania, Turkey, the USA, Zambia and Australia. There were eight architects or architectural technicians, one engineer, two tradesmen/carpenters, seven conservators/restorers and one archaeologist, chemist, microbiologist and geologist. They are listed in Appendix D.

Only three of the participants had English as their native language.

COMMENTARY

I had two interests in the course: one was the technical content — to broaden and deepen my knowledge of wood conservation so that Australian conservation practice might benefit — and the other was the course itself. As a trainer and presenter of short courses, the opportunity to observe others doing it was very instructive. I have forwarded to the course directors a detailed evaluation which addresses the mix of participants, the problem of language, the course content, its balance and length, the quality of presenters and other aspects. Brief comments on the course follow.

General

Overall, this was a very good course, extremely well organised and directed, with a commendable balance of topics, and generally able presenters. The mix of participants, accommodation arrangements and the facilities provided for the course were also good. In particular the hospitality and facilities (lecture room, library, photocopier, etc.) provided by Riksantikvaren were much appreciated. Organisers and supporters of this course should be well-satisfied that it achieved its objective of bringing together and broadening a wide cross-section of conservation practitioners from around the world.

In particular

I found the course to be not long enough. While the good breadth of topics covered was extremely valuable and the wide survey an important aim, it meant that some subjects were not covered in sufficient depth. I wished that several areas had had double the time allocated to them. These included conservation of wooden buildings, surface finishes and coatings, and the conservation of wooden buildings and integrated polychrome decorations. Also I suspect that many of the conservators/restorers would feel similarly about some aspects of objects conservation and particularly on materials such as adhesives and consolidants.

Each of the seven courses so far has apparently attracted criticism from participants that it was too architectural or too conservatorial (new word) with suggestions that it should be split into two streams — buildings and objects — part way through the course. I believe that this would be wrong, for even though

most people will only ever work in one of the two broad fields I think it is very important that each get an appreciation of the other's activities. This is particularly the case in Australia where there has been too little interaction and understanding between practitioners in the two areas.

My observation during the course was that there were participants from both 'sides' who were keen to know more about the work of the other. To achieve this aim I would make the course longer and accept that a proportion of the participants will not be interested in every component.

In thinking about what I have learnt, and because of the lack of detail in the areas mentioned, I find it hard to identify how the course has changed, or will change, my practice and technical advice here in Australia. There are no immediate changes in the technical aspects of conservation practice that should be made in the light of the course. Rather, there are several broader issues that have come out of the experience that contain important lessons for Australian heritage managers and for conservation practitioners.

Key points

The need to maintain craft skills

A shelf full of epoxy resins is no substitute for a highly skilled craftsman. The Norwegians are setting a good example by training carpenters in traditional skills as an integral part of programmes to conserve their heritage buildings.

Emphasis on traditional materials

In Scandinavia generally there is a strong emphasis on the importance of using traditional materials. This is not just about truth to the original construction, but reflects bad experiences with some modern materials which have not performed adequately. Perhaps the most startling example is that of moss which is still used as a seating material and insulation between logs in traditional notched-log construction. Modern alternatives such as fibreglass insulation have been tried and found wanting. Of more relevance to Australia is an emphasis on traditional coatings such as distempers and linseed oil-based paints. These have been found to be superior materials for traditional constructions because of their greater vapour permeability — their capacity to allow the wood to 'breathe'.

The need to bring architects and conservators together

The Norwegians have demonstrated the advantages for heritage conservation in combining the skills of conservators with those of architects and others more normally associated with building. Riksantikvaren, through its operational arm NIKU, employs conservators who specialise in the care and conservation of painted buildings. Their work is not only related to paint coatings but to maintenance of suitable climates that will best preserve the decorated interior as well as the wooden structure. In Australia, the use of conservators in building projects is in its infancy.

RECOMMENDATIONS

Promote traditional craft skills training

There is a need to promote traditional craft skills training so that appropriate skills will continue to be available for the conservation of our heritage. ISS is already doing this: a good example is that of plasterer Michael Toscano being supported to attend the European Centre for Training Craftspeople at San Servolo, Venice. In addition to the specialist training of individuals there is a broader need to ensure that traditional skills training is maintained and promoted within Australia. This could be a lobbying role for ISS.

Promote heritage conservation awareness to craft skills trainers

Many teachers in TAFE and other vocational skills organisations are unfamiliar with the philosophical and technical approaches to heritage conservation. There is a need to reach these people and to promote at least an awareness of conservation issues to them. This is quite a challenge as it has not been attempted before and needs to be done on a national basis. More lobbying.

Co-ordinate university and craft skills training for heritage conservation

At present Australian training for heritage conservation is totally uncoordinated and there is little contact between TAFE and universities in this field. There is a role for someone with lots of time and energy to bring the parties together, and in the first instance to make a list of who teaches what, and to distribute it widely. Arguably this should be one of the roles of the Australian Heritage Commission, but they need to be convinced of it. Yet more lobbying.

Bring architects and conservators together

This is happening slowly — as the need is being recognised by individuals and the relevant professional bodies, Australia ICOMOS and AICCM. However it can be encouraged by ensuring that both groups are invited to actively participate in seminars and conferences.

Provide and promote short courses, seminars, training days etc

ISS is already offering seminars and 'mini' courses. These can be expanded to include contributions on wood from myself and others. Longer 'short' courses in building conservation are offered by the University of Canberra's Cultural Heritage Research Centre. I have already presented a lecture on my experiences in Norway to the most recent course in January this year.

Support further Australian attendance at ICWCT

I am the fourth Australian to have attended the wood course: I should not be the last as it is a valuable broadening and learning experience. ISS should consider supporting others to do this course and should ensure that its fellowships are reasonably spread among architects and other building professionals, conservators and craftspeople.

APPENDICES

- A The Certificate
- B The Programme
- C The Presenters
- D The Participants

NTNU



Norwegian University
of Science and Technology
Trondheim

CERTIFICATE

David Young

has passed the exam of the
INTERNATIONAL COURSE ON WOOD CONSERVATION TECHNOLOGY
organized in Norway from 1 July - 8 August 1996.

This was a specialist course, covering 113 hours of lectures and 101 hours of exercises (including laboratory exercises, conservation workshops, field studies, and seminars); in total 224 hours, awarding 6-six- credits.

The following topics were covered:

- * Theories and principles of conservation
- * Climatology
- * Material properties of wood
- * Deterioration of wood
- * Wood from archaeological contexts
- * Furniture conservation
- * Conservation and restoration of polychrome wood
- * Conservation of wooden ethnographic material
- * Preservation of timber buildings
- * Particular problems concerning the preservation of large timber structures
- * Wooden architecture, sculpture, and art objects in Japan
- * Surface finish and coatings
- * Preservation of timber buildings and integrated polychrome decorations

Course directors:
Professor Knut Einar Larsen, NTNU
Conservator Tone Olstad, NIKU

EXAMINATION PASSED

Trondheim, December 3rd 1996

Knut Einar Larsen

Academic contact

Tone Olstad

Director of studies

In the grading of the individual examinations a grading scale of whole and half points from 1.0 to 6.0 inclusive is used. Marks from 4.5 to 6.0 inclusive indicates a failure. The terms «passed»/«failed» can be awarded as grades in special circumstances.

7th International Course on Wood Conservation Technology, 1 July - 8 August 1996

WEEK 1	Monday 1 July	Tuesday 2 July	Wednesday 3 July	Thursday 4 July	Friday 5 July	Saturday 6 July	Sunday 7 July
0900 - 0930		E. Astrup	E. Astrup	E. Astrup	J. Mattsson	Visit to Viking Ship Museum	
0930 - 1000		Properties of wood	Deterioration of wood	Wood: arcaheo- logical contexts	Biological deterioration		
1000 - 1030							
1030 - 1100						A.E. Christensen	
1100 - 1130	Inauguration					The Viking Ships	
1130 - 1200							
1200 - 1400	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	
1400 - 1430	Riksantikvaren's premises	E. Astrup	E. Astrup	E. Astrup	E. Astrup	Torun Klokkernes	
1430 - 1500		Laboratory exercise	Conservation of wooden artefacts	Wood: arcaheo- logical contexts	Laboratory exercise	Archaeological field visit	
15	K.E. Larsen Introduction						
1530 - 1600							
1600 - 1630					K. Stråtkvern		
1630 - 1700					Conservation of waterlogged wood		
1700 - 1730							
1730 - 1800							
Evening	Reception						

7th International Course on Wood Conservation Technology, 1 July - 8 August 1996

WEEK 2	Monday 8 July	Tuesday 9 July	Wednesday 10 July	Thursday 11 July	Friday 12 July	Saturday 13 July	Sunday 14 July
0900 - 0930	Participants' presentations	Participants' presentations	Participants' presentations	A. Wilmering	A. Wilmering	A. Wilmering	
0930 - 1000	"	"	"	Furniture conservation	Furniture conservation	Furniture conservation	
1000 - 1030	"	"	"	"	"	"	
1030 - 1100	"	"	"	"	"	"	
1100 - 1130	"	"	"	"	"	"	
1130 - 1200	"	"	"	"	"	"	
1200 - 1400	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	
1400 - 1430	Participants' presentations	Participants' presentations	Participants' presentations	S. Staniforth	S. Staniforth		
1430 - 1500	"	"	"	Climatology	Climatology		
1500 - 1530	"	"	"	"	"	"	
1530 - 1600	"	"	"	"	"	"	
1600 - 1630	"	"	"	"	"	"	
1630 - 1700	"	"	"	"	"	"	
1700 - 1730							
1730 - 1800							
Evening							

7th International Course on Wood Conservation Technology, 1 July - 8 August 1996

WEEK 3	Monday 15 July	Tuesday 16 July	Wednesday 17 July	Thursday 18 July	Friday 19 July	Saturday 20 July	Sunday 21 July
0900 - 0930	N. Goetghebeur	J. Vadum	S. Wik, T. Olstad, N. Goetghebeur, J. Vadum	R. Barclay	J. Jokilehto	M. Stein	
0930 - 1000	Conservation and restoration of polychrome wood. General introduction.	Conservation and restoration of polychrome wood.	Visit to the university museum. Lecture/discussion	Wooden ethnographic material	Theories and principles in conservation	Conservation ethics	
1000 - 1030							
1030 - 1100	*	*		*	*	A. Haslestad	
1100 - 1130	*	*	*	*	*	Conservation ethics: cases	
1130 - 1200	*	*	*	*	*	*	
1200 - 1400	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	
1400 - 1430	J. Vadum	N. Goetghebeur	Workshop	R. Barclay	J. Jokilehto	Seminar on conservation ethics	
1430 - 1500	Conservation and restoration of polychrome wood.	Conservation and restoration of polychrome wood: case studies	*	(cont.)	(cont.)		
1500 - 1530			*	*	*	*	
1530 - 1600	*	*	*	*	*	*	
1600 - 1630	*	*	*	*	*	*	
1630 - 1700	*	*	*	*	*	*	
1700 - 1730							
1730 - 1800							
Evening							

7th International Course on Wood Conservation Technology, 1 July - 8 August 1996

WEEK 4	Monday 22 July	Tuesday 23 July	Wednesday + Thursday 24 July + 25 July	Friday 26 July	Saturday 27 July	Sunday 28 July
0900 - 0930	N. Ito	N. Ito	2-day seminar on the conservation of large timber-structures: 1. Kizhi Pogost (Russian Karelian Republic)—presented by P. Ivshin 2. "The Wooden Pagoda in Yin County" (China)—presented by Z. Zhang With the participation of: N. Ito, P. Kaila, P. Aune, J. Mattsson, S. Heiseith, N. Marstein	P. Kaila	P. Kaila	
0930 - 1000	Wooden architecture	Wooden architecture		Preservation of timber buildings	Woodworking tools and machinery	Workshop at Sophienlund.
1000 - 1030	in Japan	in Japan		"	"	"
1030 - 1100	"	"		"	"	"
1100 - 1130	"	"		"	"	"
1130 - 1200	"	"		"	"	"
1200 - 1400	Lunch	Lunch		Lunch	Lunch	Lunch
1400 - 1430	N. Ito	N. Ito		"	P. Kaila	Astri Opsal
1430 - 1500	(cont.)	Wooden sculptures and art objects in Japan		"	(cont.)	"
1500 - 1530	"	"		"	"	Workshop at Sophienlund
1530 - 1600	"	"	"	"	"	
1600 - 1630	P. Aune	"	"	"	"	
1630 - 1700	Strength of wooden structures	"	"	"	"	
1700 - 1730	"	Inger Marie Egenberg	"	"	"	
1730 - 1800	"	Bitumen (tar)	"	Egil Kvarud	"	
Evening	"	"	"	Fire protection	"	«Reception»

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WEEK 5	Monday 29 July	Tuesday 30 July	Wednesday 31 July	Thursday 1 August	Friday 2 August	Saturday 3 August	Sunday 4 August
0900 - 0930	<i>J. Bræanne</i>	<i>L. Roede and J. Bræanne</i>	<i>M. Weaver</i>	<i>M. Weaver</i>	Excursion Day 2	Excursion Day 3	Excursion Day 4
0930 - 1000	Surface finish and coatings	Timber buildings and integrated polychrome decorations (at the Norwegian Folkmuseum)	Preservation of timber buildings	Preservation of timber buildings			
1000 - 1030	*	*	*	*			
1030 - 1100	*		*	*			
1100 - 1130	*		*	*			
1130 - 1200	*		*	*			
1200 - 1400	Lunch	Lunch	Lunch	Lunch			
1400 - 1430	<i>J. Bræanne</i>	<i>J. Bræanne</i>	<i>M. Weaver</i>	<i>M. Weaver</i>			
1430 - 1500	(cont.)	Exercise	(cont.)	(cont.)			
1500 - 1530	*	*	*	*			
1530 - 1600	*	*	*	Excursion			
1600 - 1630	*	*	*				
1630 - 1700	*	*	*				
1700 - 1730		*	*				
1730 - 1800		*	*				
Evening							

7th International Course on Wood Conservation Technology, 1 July - 8 August 1996

WEEK 6	Monday 5 August Excursion Day 5	Tuesday 6 August Excursion Day 6	Wednesday 7 August	Thursday 8 August Exam	Friday 9 August	Saturday 10 August	Sunday 11 August
0900 - 0930							
0930 - 1000							
1000 - 1030							
1030 - 1100							
1100 - 1130							
1130 - 1200							
1200 - 1400				Lunch			
1400 - 1430				Course evaluation			
1430 - 1500							
1500 - 1530							
1530 - 1600							
1600 - 1630							
1630 - 1700							
1700 - 1730							
1730 - 1800							
Evening				Closing party			

INTERNATIONAL COURSE ON WOOD CONSERVATION TECHNOLOGY 1996

International expert seminar on the preservation and restoration of large timber structures

Oslo, 24 - 25 July 1996

Case Studies:

- Kizhi Pogost (Russia, Karelian Republic)
- "The Wooden Pagoda in Yin County" (China)

Chaired by Knut Einar Larsen and Nils Marstein (Director General of Riksantikvaren and President of ICOMOS International Wood Committee).

Expert panel:

Jan Anderssen (architect), Riksantikvaren (Directorate for Cultural Heritage), Norway
Petter Aune (Professor), Norwegian University of Science and Technology
Arne Berg (architectural historian), Norwegian Institute for Cultural Heritage Research (NIKU)
Håkon Christie (architectural historian), NIKU
Manfred Gerner (Director), Deutsches Zentrum für Handwerk und Denkmalpflege, Germany
Anders Haslestad (architect), Riksantikvaren
Sjur Helseth (Technical Director), Riksantikvaren
Nobuo Ito (Professor, Dr.), Japan
Pavel Ivshin (architect), Kizhi Pogost
Panu Kaila (Professor), University of Oulu, Finland
Johan Mattsson (mycologist), Mycoteam AS, Norway
Lars Roede (Research Director), NIKU
Zhang Zhiping (architect), The State Bureau of Cultural Relics, China

Programme:

Wednesday 24 July

0915-1030 Pavel Ivshin: Introduction to conservation at Kizhi Pogost

1030-1200 Questions and comments

Break

1315-1430 Zhang Zhiping: Introduction to Yin Pagoda

1430-1600 Questions and comments

Break

1715-2000 General discussion

Thursday 25 July

0915-1200 Commentaries on Kizhi Pogost by Aune, Gerner, Mattsson—discussion

Break

1315-1500 Commentaries on the Yin Pagoda by Ito, Kaila, Roede—discussion

Break

1615-2000 General discussion

ICWCT 1996, LECTURERS - ADDRESSES

Dr. Evabeth Astrup

IAKN, Universitetet i Oslo, Frederiksgt.3, 0164 Oslo, Norway

Conservator Kristiane Strætkvern

Nationalmuseet, Bevaringsavdelingen, Postboks 260, Brede, DK - 2800 Lyngby, Denmark

Conservator Torun Klokkernes

IAKN, Universitetet i Oslo, Frederiksgt.3, 0164 Oslo, Norway

Professor Arne Emil Christensen

Vikingskipshuset, Huk aveny 35, 0287 Oslo, Norway

Mr. Johan Mattsson

Mycoteam A/S, Postboks 5 Blindern, 0313 Oslo, Norway

Conservator Antoine Wilmering

Metropolitan Museum of Art, 1000 Fifth Avenue, New York, NY 10028-0198, USA

Adviser on Paintings Conservation and Environmental Control, Ms. Sarah Staniforth

The National Trust, 36, Queen Annes's Gate, London SW1H 9AS, England

Chief Conservator Svein Wiik

IAKN, Universitetet i Oslo, Frederiksgt.3, 0164 Oslo, Norway

Conservator, Ms. Nicole Goetghebeur

Institut Royal du Patrimoine Artistique, Parc du Cinquantenaire 1, B 1040 Bruxelles, Belgium

Chief Conservator Jørgen Wadum

Royal Cabinet of Paintings, Mauritshuis, P.O. Box 536, 2501 CM The Hague, The Netherlands

Senior Conservator Robert Barclay

CCI, 1030 Innes Road, Ottawa, Ontario K1A 0C8, Canada

Chief Conservator Ms. Mille Stein

NIKU, Postboks 736 Sentrum, 0105 Oslo, Norway

Architect Anders Haslestad

Riksantikvaren, Postboks 8196 Dep, 0034 Oslo, Norway

Dr. Jukka Jokilehto

ICCROM, 13 via di S. Michele, 00153 Roma, ITALIA

Professor Dr. Nobuo Ito

19-18 Midorigaoka, Kashiwa-shi, Chiba-ken 277, Japan

Professor Petter Aune

Institutt for konstruksjonsteknikk, NTH/NTNU, N- 7034 Trondheim, Norway

or. Frydenbergveien 12 A, 7035 Trondheim, Norway

Mr. Pavel Ivshin

Lenin Prospekt, h. 38, ap. 16, KARELIA 185000, RUSSIA

Architect Zhang Zhiping

No. 2 Gao Yuan Street, Chao Yang Region, BEIJING 100029, CHINA

Dipl.Ing. Manfred Gerner, Zentrumsleiter

Deutsches Zentrum für Handwerk und Denkmalpflege, Propstei Johannesburg, D- 36041 Fulda, Germany

Architect Håkon Christie

NIKU, Postboks 736 Sentrum, 0105 Oslo, Norway

Architect Jan Andersen

Riksantikvaren, Postboks 8196 Dep, 0034 Oslo, Norway

Conservator Inger Marie Egenberg

NIKU, Postboks 736 Sentrum, 0105 Oslo, Norway

Architect Egil Kvarud

Riksantikvaren, Postboks 8196 Dep, 0034 Oslo, Norway



Senior scientific advisor, conservator Jon Brønne
NIKU, Postboks 736 Sentrum, 0105 Oslo, Norway

Architect Lars Røede
Norsk Folkemuseum, Museumsvn. 10, 0287 Oslo, Norway

Professor Panu Kaila
Sturegatan 35 A 8, SF 00550 HELSINGFORS, FINLAND

Professor Martin E. Weaver
28 Sheahan Crescent, Nepean, Ontario K2H 8M2, CANADA

Architect , Senior advisor, Astrid Opsal
Nordic World Heritage Office, Riksantikvaren , Postboks 8196 Dep. 0034 Oslo, Norway

Architect Heidi Cathrin Osland
Arkitektkontoret 4B ,5800 Sogndal, Norway

Architect Einar Mørk , Director «Stiftelsen Bryggen»
Jacobsfjorden, Bryggen , 5003 Bergen

Dr. Knut Einar Larsen
Institutt for Arkitekturhistorie, NTNU, Alfred Getzv.3, N- 7034, Trondheim

Conservator Tone Marie Oistad
NIKU, Postboks 736 Sentrum, 0105 Oslo, Norway

List of selected participants

<i>Surname</i>	<i>Given name(s)</i>	<i>Country</i>	<i>Education</i>	<i>Occupation</i>
1 Amuli	Jacob B.	Tanzania	Architect/planner	Conservation town planner
2 Coceani	Giulia	Italy	Artist	Restorer
3 Costache	Constantin	Romania	Conservation	Wood conservator
4 Ekerhovd	Per Morten	Norway	Architect	Architect
5 Frenette	Michael James	USA	Forestry	Timber-frame builder/cabinetm.
6 Gourlay-Vallance	Janet Mary	Canada	Architect	Conservation architect
7 Haugen	Jenny Synnøve	Norway	Architect	Senior advisor
8 Ibrahim	Ahmad Fawwaz	Jordan	College	Conservation technician
9 Küçükaya	Ayse Gülcin	Turkey	Architect	Lecturer
10 Lee	Yang-Soo	Korea	Forestry	Researcher
11 Lehtinen	Jorma	Finland	Architect	Teacher (cons. arch.)
12 Linnanmäki	Seija Sylvia	Finland	Architect	Architect
13 Mithi	Selino S.	Malawi	Forestry	Antiquities assistant
14 Mpetemoya	Goodwin	Zambia	Civil engineer	Conservation engineer
15 Muliro	Rashid Idd	Tanzania	Craftsman/conservation	Architect conservation technician
16 Nwosu	Uzoma C.	Nigeria	Microbiol./Biochem.	Conservator
17 Pavlovska-Josifovska	Stanka	Macedonia	Chemistry	Chemist / conservator
18 Rugevica	Signe	Latvia	Conservation	Restorer
19 Sundsvälen	Hans	Norway	Carpenter	Carpenter/instructor
20 Varfolomeeva	Tatyana	Russia	Conservation	Conservator
21 Vidakovic	Larisa	Croatia	Conservation	Restorer
22 Young	David	Australia	Science	Heritage consultant

