

ICWCT 2016

The International Course on Wood Conservation Technology Project Report and Evaluation



Riksantikvaren er direktorat for kulturminneforvaltning og er faglig rådgiver for Miljøverndepartementet i utviklingen av den statlige kulturminnepolitikken. Riksantikvaren har også ansvar for at den statlige kulturminnepolitikken blir gjennomført og har i denne sammenheng et overordnet faglig ansvar for fylkeskommunenes og Sametingets arbeid med kulturminner, kulturmiljøer og landskap.





The 17th International Course on Wood Conservation Technology was held in Norway 19th May – 29th June 2016. The course is a collaboration between Riksantikvaren (the Norwegian Directorate for Cultural Heritage), ICCROM and with NTNU (The Norwegian University of Science and Technology) who is also responsible for the academic accreditation. The course was financed in its entirety by Riksantikvaren.

We would like to thank all the contributors for their support, in particular NTNU who this year also contributed with a member of staff, Jon Ivar Nordsteien, Assistant Professor, Department of Architectural Design, History and Technology, who was an observer throughout the course and made a valuable contribution as part of the organising committee.

The ICWCT 2016 consisted of 21 participants from 20 different countries: Europe 11, Asia 5, Americas 3, and Africa 2. There were 11 male and 10 female participants.

During the 42 days of the course, a full program of tuition was prepared for 33 days with approximately 265 hours of tuition. The schedule was divided between lectures, practical exercises, workshops, field studies and museum visits. As part of the programme, each participant made a 20-minute presentation about his or her own work. The course spent 4 days at Norsk Folkemuseum working on a practical project with the museum craftsmen using traditional tools. The group also spent three busy days at the Furniture Workshop (Møbelverkstedet) with lectures and practical exercises on furniture and object-related conservation.

Five days were spent on an excursion to Trondheim. On the way we visited relevant cultural heritage sites; including Reinli, Lomen and Lom Stave Churches and various sites and museums in Trondheim.

The course evaluation consisted of a written questionnaire at the end of each module, an overall written evaluation and an evaluation meeting on the last day of the course. The participants' evaluation and the organisers' experiences are discussed in the following report.

Anne Nyhamar and Sjur Mehlum
Riksantikvaren, Oslo, December 2016

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Introduction

The 17th International Course on Wood Conservation Technology, ICWCT, was held in Norway 19th May – 29th June 2016. The course has been held in Norway on a biannual basis since 1984, as one of ICCROM's specialised training courses on heritage conservation. It provides the possibility for mid-career professionals within the area of conservation of wooden cultural heritage to update and specialise their skills. It also provides an international platform where networking and exchange of knowledge with other professionals from all over the world can take place.

The main part of the course took place in Oslo at the premises of Riksantikvaren - the Norwegian Directorate for Cultural Heritage. In addition, the course period included a three day workshop at Møbelverkstedet (The Furniture Workshop), four days at the Norwegian Folk Museum (Norsk Folkemuseum), and a five day excursion to Trondheim.

1. Course Objectives

The main objectives of the course are:

- To give the course participants the theoretical and practical knowledge essential for diagnosing causes of deterioration and for selecting the most appropriate methods of conservation and restoration of wood.
- To extend the knowledge of the participants beyond their own professions for a broader understanding of different aspects and approaches to wood conservation.
- To bring people of various professions from different countries and cultures together for a mutual learning experience, drawing on different experiences, practices and approaches to wood conservation and use of wooden materials.

2. Organisation

2.1. Organisers

- Riksantikvaren – overall course planning and administration.
- ICCROM - professional and practical contribution and support.
- NTNU – planned the part of the excursion in Trondheim. Assisted and contributed to the planning of the programme.

2.2. Funding

- Riksantikvaren finances the course.
- ICCROM contributed with one travel scholarship as well as in kind with the attendance and travel costs of two members of staff.
- NTNU contributed with one member of staff full time during the entire course period.

2.3. Academic accreditation

The Norwegian University of Science and Technology – NTNU

2.4. Course Direction

Anne Nyhamar and Sjur Mehlum, both Senior Advisors at Riksantikvaren, were responsible for the overall course administration and planning.

Reidun Veia, Head of Section, International Issues at Riksantikvaren, was kept updated and informed on all matters of significance throughout the planning and implementation of the course.

Joe King, Unit Director, and Gamini Wijesuriya, Project Manager at ICCROM, both assisted with advice and recommendations during the planning of the course. Gamini Wijesuriya attended and gave a lecture on the opening day of the course, and Joe King attended the closing ceremony and directed proceedings during the group evaluation.

NTNU contributed with one member of staff full time for the entire duration of the course. Jon Ivar Nordsteien: Assistant Professor, Department of Architectural Design, History and Technology, contributed by assisting in the day-to-day management of the course where necessary and also planned and managed 3 whole days of the excursion programme in Klæbu and Trondheim.

3. Course program

3.1. Inauguration

The course was inaugurated on Thursday 19th May at Riksantikvaren. Kristin Bakken, Head of Department, Resources and Development, welcomed the participants to Oslo and Riksantikvaren. Introductory lectures were also held by Gamini Wijesuriya (ICCROM), Anne Nyhamar (Riksantikvaren), and Per Otto Flæte (Norwegian Institute of Wood Technology).

In the afternoon, the group travelled up to the forest and Per Otto Flæte demonstrated how to select and cut a tree, and how to read its age and condition. The day ended with an informal dinner at Finnerud Sportsstue situated in the forest just outside Oslo.



- *Cutting a tree with Per Otto Flæte and left: Getting to know one-another over a traditional stew at Finnerud forest lodge on the opening day.*

3.2. Course curriculum

The course was divided between lectures, conservation workshop exercises, field studies, museum visits and demonstrations. The curriculum includes six distinct but interconnected units:

- 1. Environment and decay**
- 2. Wood properties**
- 3. Excursion**
- 4. Conservation of objects (workshop)**
- 5. Conservation of built structures**
- 6. Practical workshop at the Folk Museum / Exam**

The 2016 course program was based on the 2014 programme, but with some significant additions and alterations. Lecturers from 2014 who had scored well in the evaluation were asked to contribute again. Significantly, the success from 2014 in Unit 4 on the conservation of objects was continued, where the week was spent at the Furniture Workshop (*Møbelverkstedet*) with Hanne Bjørk, Anne Cathrine Hagen and Shayne Rivers - combining lectures with practical exercises. One day was also spent at the historical Vøienvolden Farm in Oslo doing a workshop on window repairs with Håkon Gøthesen – a popular repeat from 2014. Two days were spent at Oslo City Museum with Dr. Nigel Blades from the National Trust who taught at the ICWCT for the first time. New for 2016 was half a day spent at the Maritime Museum at Bygdøy looking at waterlogged and archaeological wood. We also chose to incorporate and integrate Conservation Theory and Principles throughout the course and not select this theme as a separate subject matter.

A two-day conference was organised by Riksantikvaren to mark the end of the 'Stave Church Preservation Programme'. The group participated in the Conference and were able to hear specialists in the field speak from Universities and knowledge institutions in Norway and abroad. An evening dinner also made it possible for informal networking opportunities.

Workshops and visits were arranged at the following institutions or sites (not including the excursion):

- **Norsk Folkemuseum, Oslo**
- **The Norwegian Maritime Museum, Oslo**
- **The Viking Ship Museum**
- **Museum of Cultural History, University of Oslo**
- **Oslo City Museum**
- **"The Furniture Workshop" (Møbelverkstedet) at Grüneløkka in Oslo**
- **Vøienvolden Farm, Oslo**
- **Oslo School of Architecture and Design: Stave Church Conference**
- **The Norwegian Institute of Cultural Heritage Research (NIKU)**

During the 42 days of the course, a full program of tuition was prepared for 33 days with approximately 265 hours of tuition. During the course period, each participant is required to make a 20-minute presentation of his/her own work or on relevant issues concerning conservation or cultural heritage work in their home country.

On the final day of the course, a compulsory written exam was set for all participants. The exam questions are proposed by the various course lecturers and selected by the course Directors. The exam paper is approved and also marked by NTNU (the Norwegian University of Science and Technology).

See Appendix 3: The Course Programme



- *The ICWCT 2016 at Dovre, taken at the Snøhetta look-out.*

3.3. Excursion

The excursion took place in the period 30th May – 3rd June. Based on previous experience and course evaluations, the conclusion is that having the excursion in the middle of the course helps break up the 6-week period in Oslo and get an impression of the rest of the country. This year we went to Trondheim with various stops on the way. We met both private owners of cultural heritage properties as well as museums and publicly managed sites. We travelled by coach to Trondheim with two overnight stays on the way. The return trip was by train.

- **Reinli Stave Church:** We were welcomed and shown around the church by the wardens Liv Barbro Veimodet and Tore Bergli.
- **Lomen Stave Church:** Leif Anker (Senior Advisor at Riksantikvaren) came with us for this part of the excursion and could give us a thorough tour and informed history of the churches



- *Top left: Reinli Stave Church in atmospheric mist and the wardens Liv Barbro Veimodet and Tore Bergli being presented with the customary course gift: the ICWCT t-shirt!*
- *Under: Lomen Stave Church*
- *Bottom left: Lom Stave Church and Marco Fioravanti looking at the exterior with the group.*



- **Lom:** We stopped at Lom Stave Church and had a local guided tour of the interior before enjoying a picnic from the famous Lom Bakery on the bus.
- **Snøhetta wildlife lookout, Dovre:** As a contrast to the historic wooden architecture, we walked up to the award-winning Snøhetta wildlife observation lookout to see wood used in a modern context and in extremely challenging natural conditions.



- *Enjoying the view from the Snøhetta wildlife lookout*
- *At the workshop in Orkanger*

- **Orkanger:** We visited a local group of idealists who have dismantled, brought back and are currently re-building the Norwegian pavilion to the World Exhibition in Chicago 1893. The pavilion was prefabricated by the Orkanger based timber factory Thams. It was designed by the Norwegian architect Waldemar Hansteen in a national-romantic “stave church” style. Interesting discussions were had relating to authenticity, the definition of cultural heritage and also amateurism versus professionalism. Our guides were: Johannes Lipphardt from Orkdal municipality and Olav Sigurd Kvaale leader of the reconstruction committee.
- **Bårdshaug Herregård:** We checked in to the historical hotel and had a guided tour by Gunnar Lysholm, former Director of the hotel and also former Mayor of Orkanger. Dinner at the hotel in the evening was attended by Eir Grytli and Hans Jacob Hansteen with his wife, all three veterans of the ICWCT.
- **Klæbu:** Jon Nordsteien (NTNU) kindly placed the forest belonging to his family’s farm at our disposal. We were met by Terje Thun, Associate Professor, National Laboratory for Age Determination, NTNU University Museum and Roald Renmælmo, Assistant Professor, Department of Civil Engineering, NTNU, Oddmund Aarø, Carpenter at the Restoration works of the Cathedral of Trondheim, and Håvard Huseby, local wood worker and lumberjack. We explored the forest on foot, investigating and assessing how the local conditions affect the quality and properties of lumber for specific purposes. They also demonstrated how to extract a core for dendrochronology. We cut a pine and a spruce by axe and saw and prepared the logs for transport to the sawmill using traditional tools.





- Previous page: In the forest at Klæbu; Roald Renmælmo demonstrating how to extract a core sample and sawing with Oddmund Aarø.
- Looking at wood samples and window-frames at Jon's farm. Bettina Ebert (Germany) cutting shingles.

We returned to Jon's farm (Eidstu) where we tried our hand at cutting shingles. After a traditional country "Sodd" soup we drove to the neighbouring Forseth farm where the hospitable owners welcomed us. We observed how growing conditions can be seen from studying the felled material, and saw how the trees cut in the morning were converted into boards at the small tractor-powered sawmill on the farm.



We continued on to Trondheim and to our lodgings at Nidaros Pilgrimsgård.

- **Trondheim day 1:** We were guided by Ian Reed (Researcher/ archaeologist, NIKU) on the short walk from the hostel to the NTNU University Museum and given a tour of the medieval exhibition. We were also given a guided tour of the conservation labs by Jørgen Fastner, (Senior Engineer, Department of Archaeology and Cultural History, NTNU) focusing on the treatment of waterlogged wood is treated, mainly with polyethylene glycol.

Elizabeth Peacock (Professor, NTNU) guided us to the Archbishop's Palace Museum and to the remains of the Archbishops Mint (mainly ceramic tiles and waterlogged wood) from the 16th century, have been conserved in situ with the use of a fine mist. Different approaches to conservation within the museum were discussed.



- *Tour of the conservation labs at the NTNU University Museum labs by Jørgen Fastner, Senior Engineer, Department of Archaeology and Cultural History, NTNU.*
- *Visiting the Archbishop's Palace Museum with Elisabeth Peacock, Professor, NTNU*

In the afternoon we visited the Ringve Music Museum, where Ivar Roger Hansen (Museum Director), Lars Erik Melhus (Educational officer at the Museum) and Vera de Bruyn-Ouboter (Conservator of musical instruments) showed us part of the collection and the conservation lab. After a fire at the museum last year, the main museum building has suffered severe damages. Melhus, Hansen and Trond Eide (County Antiquarian), told us about the fire while we observed how the conservation process it has enabled research possibilities of the damaged complex.



- *At Ringve Music Museum with conservator Vera de Bruyn-Ouboter*
- *Right: At the storage facilities looking at damaged objects from Ringve Museum*

We went on to visit the storage facilities of the Museum, a converted bunker from the Second World War where objects from the burnt Ringve Museum are now temporarily stored.

To conclude the day, part of the group visited the Gothic Nidaros Cathedral.

- **Trondheim Day 2:** We met at the City Library, where Gunnar Houen (City Antiquarian) and Elisabeth Kahrs (Trondheim City Cultural Heritage Office) told us about the history of the riverside warehouses of the city. Terje Thun presented the dendrochronological analysis of one of the warehouses. We also heard Trygve Devold Kjellsen (Mycoteam) present a pilot

project on the effect of water logging on wood and its resistance to fungal decay. After lunch we visited one of the warehouses that is currently being restored and saw how traditional techniques are being used in changing the posts under the building. Trond Eide (County Antiquarian) and Torgeir Moslet (carpenter and builder) guided us through the work.

With this, our excursion came to an end. Most returned to Oslo on the afternoon train, a small group elected to remain in Trondheim for the week-end.



- Under the Wharf in Trondheim, looking at the condition of the supporting poles.
- Jack Hollinger (Canada) and Jon Slight (UK) enjoying lunch with the rest of the group in Trondheim.

See Appendix 4: The Excursion Programme

3.4. Workshop at "Møbelverkstedet" (The Furniture Workshop)

Previous evaluations have shown that some participants have felt the course to be too buildings-orientated and with too little practical emphasis on objects. This was rectified in 2014 by moving Unit 4, Conservation of Objects, to "Møbelverkstedet" – (the Furniture Workshop) situated at Grünerløkka in Oslo. The owners, Anne Cathrine Hagen and Hanne Bjørk, work closely with Shayne Rivers, (Conservator from the Victoria & Albert Museum in London and West Dean College), to plan the programme for the week.



- Left: At the "Furniture Workshop" with Shayne Rivers, Hanne Bjørk, Jon Slight and Anne Cathrine Hagen.
- Centre: Do Thi Thu Van (Vietnam), Dechen Dorji (Bhutan) and Cheek Fadriquela (Philippines) with Anne Cathrine Hagen instructing. Right: Cheng Qian (China)

The workshop included how to examine, interrogate and understand movable wooden objects, overview of properties of wood that affect the construction methods of movable objects, including structures and joints, and how and why structural failure occurs. Each day included lectures in the mornings and practical sessions in the afternoons.



The final day of the workshop was spent at Vøienvolden Farm in Oslo having a workshop on window repairs. Carpenter and window specialist, Håkon Gøthesen together with Hanne Bjørk, planned and organised the day's instruction. Groups were organised to do condition assessments of the windows on various buildings on the farm, followed a practical demonstration of window making and repair and work stations where participants did the work themselves.

- From the left: Instructor Håkon Gøthesen, Lisa Ackerman (USA) and Hanna Elo (Finland)

3.5. Stave Church Conference

The Conference held 14th – 15th June, marked the completion of the Stave Church Conservation Programme; a 15-year-long conservation programme of the 28 remaining Stave Churches in Norway. The conference presented some of the new knowledge gained through the Programme to an interested National and international audience. Speakers included the authors of a book soon to be published by Riksantikvaren on the subject, as well as other invited experts in the field, placing the new findings and knowledge in an international context. The two-day Conference invited approximately 80 experts from relevant Universities and institutions in Norway and other countries and it is the first time an event on this scale has been incorporated as part of the curriculum for the ICWCT.



- Left: From the Conference held at the Oslo School of Design and Architecture
- Right: Informal gathering after the Conference. Jon Nordsteien in front to the left.

See Appendix 5: The Conference programme

3.6. Workshop week at Norsk Folkemuseum, 20th –23rd June

Norsk Folkemuseum is Norway’s largest museum of cultural history and has a long history of hosting the ICWCT practical workshop. With collections from around the country, the museum shows how people lived in Norway from 1500 AD to the present.

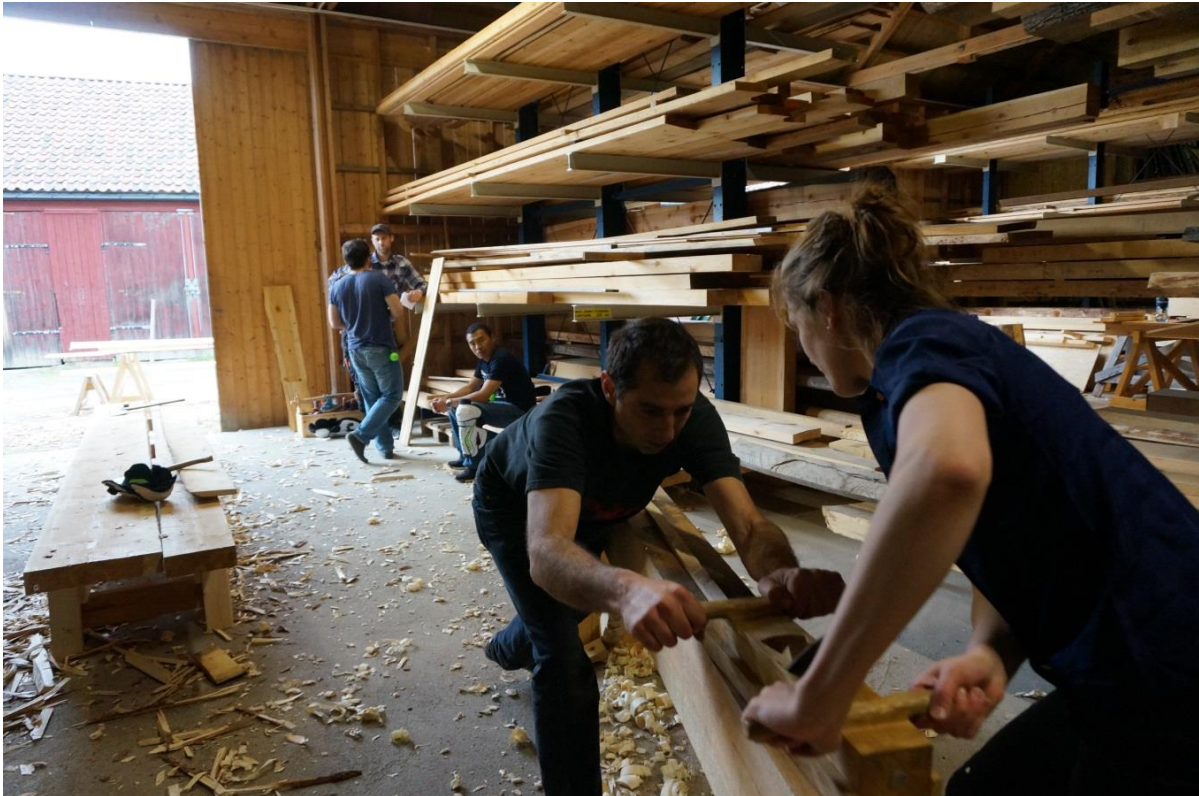
The first day was spent familiarizing the group with the museum, and meeting the craftsmen. The group was also taken on a guided tour of the museum. Jørn Holme (Director General, Riksantikvaren), took the opportunity to pop by the museum and gave a short speech to the group. The participants were introduced to the workshop programme by Terje Planke, Senior Conservator in the Section for Building Preservation at the museum, and shown the area where the practical sessions and demonstrations would take place.

During the workshop, the course participants were organised in working groups with the museum craftsmen, trying out traditional tools at work stations in the museum work-yard. The end result was a combined effort of all the work stations; continuing the remaking of a small building - “Heimtveiten” - a juniper-clad stable from 1850, Sætersdal, one of the buildings in the museum collection, which was started by the ICWCT class of 2014. The class of 2014 had erected the building frame, this year the walls received cladding and also a door. One group also worked on a condition survey of a XVIII c, wooden stable and pig shed from Øye in Hardanger. The structure was relocated to the museum in 1956. The task given to the group was to suggest preventive conservation measures and recommendations for the stabilization of the load bearing structure. The presentations of the different groups were shared with the rest of the class on the final day of the workshop and discussions had on the various conclusions reached.



- *Left: Our base at the Folk Museum: In the Collett Building*
- *Right: The craftsmen at the Museum – all patient and appreciated instructors.*

Various lectures were given every morning before the practical sessions; Marte Boro (Riksantikvaren) and Chiara Bertolin (Associate Professor, NTNU) both talked about climate change and climate management. Jon Nordsteien presented his work on the ‘Uthus’ Project in Røros. Margarita Kisternaya from the Kizhi Museum in Russia gave a lecture about the conservation of the historic timber structures at Kizhi and the new wood course they are planning.



- *Top left: Nicolas Charles (France) and Jack Hollinger (Canada)*
- *Top right: Tijana-Annar Trputec Strcic (Croatia)*
- *Under: Nicolas Charles and Hanna Elo*

One day (divided in two parts) was also spent at the Viking ship Museum. We were met by Professor Jan Bill who gave us a tour of the ships and objects, explaining their background and meaning. We later went down into the workshop under the museum where conservator Susan Braovac told the group about the conservation history of the ships, the alum treatment administered in the 1950's and the present-day challenges faced due to this. Barte Aarset also showed the group the work he is doing with 3D scanning.

The second half of our final day on the Bygdøy Peninsular, we spent at the Maritime Museum. The ICWCT 2014 evaluations showed that maritime structures, boat-building and also further study on water-logged wood had been missed. Terje Planke took us to the conservation lab of the Museum where we saw how they store and register waterlogged material from ships, and also their free drying facilities. We also went to the workshop where volunteers are building replicas of boats.



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- *Top: At the Maritime Museum with Terje Planke: Tour of the workshop and savouring the calm of an old boat moored at the Museum.*
- *Bottom left: Bjarte Aarseth demonstrating 3D-scanning techniques at the Viking Ship Museum*
- *Bottom right: Jan Bill giving a tour of the Viking Ship Museum*

4. Lecturers and resource people

Lecturers for the course are selected by the organisers. Feed-back and reviews from previous courses are also important in the choice of lecturers. The following lecturers were invited to contribute to the ICWCT this year (in no special order):

Gamini Wijesuriya, project manager and **Joseph King**, Director for Sites Unit, represented ICCROM in the programme. Mr. Wijesuriya gave a lecture on the opening day and Mr. King led the final course evaluation. Both contributions were much appreciated by the organisers and participants.

Per Otto Flæte, Senior researcher Treteknisk (Norwegian Institute of Wood Technology)

- **Marco Fioravanti**, Associated Professor of Wood science and technology, University of Florence.
- **Nigel Blades**, Preventive Conservation Adviser, National Trust, UK

- **Johan Mattsson**, Manager R&D in Mycoteam, Oslo
- **Marte Boro**, Senior Advisor, Riksantikvaren
- **Shayne Rivers**, Senior lecturer, West Dean College, UK
- **Hanne Bjørk** and **Anne Cathrine Hagen**
Møbelverkstedet (The Furniture Workshop), Oslo
- **Håkon Gøthesen**, Independent craftsman and windows specialist, Oslo
- **Peter McCurdy**, Architect and Manager, McCurdy Craftsmen & Consultants.
- **Sónia Duarte** (stand-in for Lina Nunes) Laboratorio Nacional de Engenharia Civil, Libon.
- **Jon Brønne**, Paintings conservator, Vel Bevert, private consultancy. Oslo
- **Rohit Ranjitkar**, KVPT - Kathmandu Valley Preservation Trust
- **Nobuko Inaba**, University of Tsukuba, Japan
- **Chiara Bertolin**, Associate Professor, NTNU
- **Merete Winness**, NIKU

In addition to the above list, the following lecturers and advisors contributed:

The Viking Ship Museum, The Museum of Cultural History, Oslo:

Jan Bill, Professor

Susan Braovac, Conservator

Bjarte Aarseth, Wood carver

Norsk Folkemuseum:

Stian Myhren, Head of Section for Building Preservation

Terje Planke, Senior Conservator in the Section for Building Preservation,

Mogens With, Architect

Craftsmen: **Ole Johan Haavengen**, **Ole Jørgen Schreiner**, **Geir Johansen**,
Edvard Undall, **Christian Winther-Larsen**.

Oslo City Museum:

Lars Roede, Former Director

See appendix 6: ICWCT 2016 Lecturers

5. Participants

5.1. Announcement and response

The ICWCT 2016 course announcement was published on the ICCROM and Riksantikvaren web sites in June 2015. ICCROM was the receiving address for the applications. By the closing date for applications 30th September 2015, 98 applications were registered, representing 46 different countries. Another 5 applications came in late – these were put on the waiting list. The total number of applicants was slightly lower than in 2014.

Appendix 1: Course Announcement



5.2. Selection of participants

The choice of participants aims at securing a relevant professional level and at creating a good group composition. The following main criteria were used for the selection of the participants:

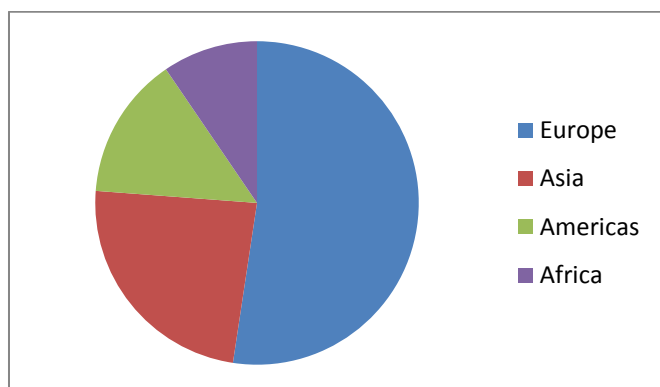
- 1. Minimum 3 years relevant work experience**
- 2. Diversity in educational and professional backgrounds considering both academic and practical experience**
- 3. Geographical and cultural diversity**
- 4. Balanced gender representation**

The course organisers at Riksantikvaren and ICCROM made proposals separately and drew up a shortlist and a waiting list. The two parties conferred by email and phone and compared their selections. For Riksantikvaren it is always very useful to hear ICCROM's rationale behind their selection and beneficial to learn from their experience. Riksantikvaren informed all applicants concerning the results of their applications. The 20 successful candidates received a confirmation letter by post in addition to the e-mail. As a final check before the selection was confirmed, Riksantikvaren telephoned candidates where their native tongue was not English in order to check language skills.






One additional candidate from the waiting already living in Oslo list was offered a place shortly before the start of the course. The total number of participants who participated on the course and sat the final examination was 21.












The final group of participants consisted of:






- 21 participants from 20 different countries: Europe 11, Americas 3, Africa 2 and Asia 5.
- There were 11 male and 10 female participants.
- 11 participants had background as architects or engineers and worked with buildings. 10 were object conservators, 2 were trained carpenters, one a stone-mason as well as having academic qualifications.
- The majority of the participants were employed by governmental entities; museums or other public institutions in their home countries.
- The youngest participant was 25 years old, the oldest 48.



Geographical spread of the ICWCT 2016 participants

	Country	M/F	Name	
1	Bhutan	M	DORJI, Dechen Project Engineer Tango and Wangditse Restoration Project, Thimphu	
2	Botswana	M	FANE, Sewelo Festus Nchi Senior Curator, Botswana National Museum. Gabarone.	
3	Canada	M	HOLLINGER, Jack College Professor, carpentry and joinery, Algonquin College, Perth, Ontario	
4	China	F	CHENG, Qian Associate Research Fellow, Chinese Academy of Cultural Heritage. Beijing.	
5	Croatia	F	TRPUTEC STRCIC, Tijana-Annar Senior conservator-restorer, Croatian conservation Institute, Zagreb	

6	Finland	F	ELO Hanna Henriikka Restoration Architect at Old Rauma UNESCO site	
7	France	M	CHARLES, Nicolas Conservator and craftsman, Manager of Croma Bois	
8	Georgia	M	SHARTAVA, Lasha Architect ICOMOS Georgia National Committee, Tbilisi	
9	Germany/ Norway	M	HAUPT, Thomas Architect and Stonemason, Tinn Municipality, Rjukan	
10	Germany/ Norway	F	EBERT Bettina PhD Research Fellow, Paintings conservator, University of Oslo.	
11	Japan	M	KUROSAKA, Takahiro Architect and Specialist of cultural properties, Agency for Cultural Affairs, Tokyo	
12	Malawi	M	ZIMBA, Wilson Crafts Officer Dept. of Art and Crafts, Ministry of Information, Tourism & Culture, Lilongwe.	
13	Mexico	F	DE LA CRUZ BALTAZAR, Vera Researcher, Arcilla y Arquitectura, Oaxaca	
14	Philippines	M	FADRIQUELA, Cheek Sangalang PhD candidate in Forestry. Manilla.	
15	Poland	F	SKOWRONSKA, Anna Conservator, Ethnographic Museum Dept. of the National Museum, Poznan.	
16	Romania	F	ANANIA, Iulia-Cornelia Conservator National Village Museum, Bucharest.	

17	Sweden	M	BÖRJESON, Benjamin Student, University of Gothenburg. Self-employed building conservator.	
18	Turkey	F	ACAR, Damla Architect at the Turkish National Assembly, National Palaces Istanbul.	
19	UK	M	SLIGHT, Jon Conservator, The Wallace Collection, London	
20	USA	F	ACKERMAN, Lisa Graduate Fellow in Art Conservation, SUNY Buffalo State College.	
21	Vietnam	F	DO THI THU, Van Architect/ Researcher, Vietnam Institute of Architecture, Ministry of construction, Hanoi	

5.3. Course costs and financial support

The participants do not pay a course fee. Accommodation for the duration of the course was this year offered free of charge at Anker Apartments in Central Oslo. Travel costs within Norway during the excursion and other course field trips are also covered by the course. Participants cover their own travel expenses within Oslo. Each participant has to finance her/his own travel expenses to Norway and food for the duration of the course.

As a rule, the course offers some scholarships to participants to enable persons with limited economical resources to attend the course. This year the organisers did not receive additional funding from other Ministries as they have done precious years. This meant that all the scholarships were funded by Riksantikvaren. Riksantikvaren contributed sustenance and travel grants to 6 participants from the following countries which are on the DAC List of ODA Recipients: Bhutan, Tanzania, Botswana, Philippines, Vietnam and Georgia. The participant from Mexico received a travel grant from ICCROM.

5.4. The role of the participants during the course

The success of the course has always depended on the participants playing an active role in the program. The course language is English, and good knowledge of English is stressed in the course announcement. Although phone interviews were conducted with all the participants on the short-list, some participants do still have problems with basic communication as well as following the lectures. Although no guarantee, the importance of conducting this interview by phone is stressed.

Before arriving, the participants are told to prepare a 20 minute presentation about their own work and their professional background. The participants are also encouraged to share examples of problems and solutions from their own practice for plenary discussions. The mutual exchange of ideas between the participants outside the classroom is regarded an important contribution to the quality of the course, and the practical framework for the course aims at strengthening social and professional networking. Workshops and excursions also promote networking and exchange of ideas.



- *Left: Cheek Fadriquela (Philippines) giving his presentation.*
- *Right: Bettina Ebert (Germany) is a PhD candidate at the University of Oslo. She gave her presentation in the conservation atelier at the Museum of Cultural History where she works.*

6. Course evaluation

The course evaluation is an important tool for the improvement of the programme for future courses. Evaluation forms were handed out at the end of every unit and included questions concerning the specific lecturers and subject matters covered. A general questionnaire was also handed out at the end of the course in addition to a final oral group evaluation meeting with the course organisers.

The feedback from the ICWCT 2016 participants, both in the written and oral evaluations, was extremely positive. The course has an excellent reputation and the two organisers are proud to prove that Riksantikvaren is able to continue the good work and uphold the high standards set by previous courses.

6.1 Evaluation meeting

The evaluation meeting was organised on the last day of the course and held as a discussion between the course members and the course coordinators. Joe King from ICCROM attended and led the discussion. As mentioned above, the feedback from the participants was very positive. The general organisation, the majority of the lecturers and the course programme, as well as the course organisers themselves all got very good reviews. The comments were constructive and have been noted by the organisers for future improvement.

Below are some of the main issues raised and discussed during the evaluation meeting, with comments by the organisers:

The multidisciplinary profile: In 2016, as they have done other years, the participants underlined the importance of retaining the multidisciplinary profile of the course. The group feel the benefits derived from meeting different professional groups within the field of wood conservation, is more important than specialising in one's own field.

The balance between buildings and objects was on the whole experienced as being satisfactory, though some of the "objects people" felt there was slightly too much focus on buildings.

Group divisions: Suggestions were raised regarding the possibility of splitting the group into different levels of ability. However, as was pointed out during the discussion; as all participants are professionals, everyone will at some point during the course feel that the subject being covered is one they already are familiar with. As the ICWCT is a general course covering a broad aspect of wood conservation, it would practically and logistically be impossible to split the group in every unit. It would also be counter-productive regarding the wish to maintain the multi-disciplinary profile.

The length of the course: Most agree that 6 weeks is a good length for the amount of material covered. It is currently a challenge for most to be away from both their families and from their places of work. More preparatory course material was wished for in advance in order to understand and prepare for the lectures. This is definitely something the organisers will look at.

Building theory: The oral evaluation was critical to the structural theory which was included in the course. A stronger component on timber framing/ use in architecture would be beneficial for those who have no background in this area as well as a stronger element of aspects of engineering. This is recognised by the organisers and efforts will be made to strengthen this part of the programme.

Other: Valid comments raised during the evaluation which the organisers will try to implement for future courses are:

- Not enough about treatments (Especially during Unit 1 with biodegradation and wood destroying insects)
- More use and better facilities to project from the microscopes
- More preparatory reading handed out in advance
- Difficult to access library due to restricted opening times
- More polychrome objects
- Workshops and practical sessions more structured
- Better communication between the lecturers

6.2. Summary of course evaluation

The organisers felt that the written evaluations on the whole gave a more positive impression than the oral evaluation. This can also be partly due to the way the questions were presented during the group discussion. Following is a table showing the scores achieved in the written evaluation forms. Students were asked to rate the questions from 1 to 5 and provide additional comments if necessary. 1 = very poor; 2 = poor; 3 = adequate; 4 = good; 5 = very good. 17 participants filled in the Overall Course Evaluation. The scores show extremely good results with ratings 4 and 5 dominating throughout. The average score was 57 out of 60 points possible which equals 95% - slightly up from the 2014 score of 93,6.

Units	Score / Max score	2014 %	2016 %
1: Wood properties	27,1 / 30	90	90,3
2: Environment and Decay	27,6 / 30	89	92
3: Excursion	27,2/ 30	92	90,6
4: Conservation of objects	27,11 / 30	86	90,3
5: Conservation of built structures	21 / 30	78	70
6: Workshop	23,5/ 25	85	94
Overall Course evaluation	57 / 60	93,6	95

See Appendix 7: Evaluations and extracts from written comments.

7. Assessment of the course by the organisers

7.1. Announcement

The course announcement was released in the beginning of June 2015 with the deadline for applications 31st September. ICCROM's course announcement on their website as well as through their mailing list, reaches the intended target audiences. ICCROM has a far wider international network than Riksantikvaren as well as giving the course a credibility of an international organisation.

This year there were only a very few Norwegian applicants, none of which were deemed suitable. This means that the information on a National level is not sufficient. It might also mean that the international name of the course, and information in English, means that Norwegian candidates do not realise that they too can apply. The course organisers accept that they must improve their efforts regarding a National information strategy before the 2018 course.

7.2. Pre-course information

The participants received an information pack containing detailed directions regarding their arrival; accommodation, what to bring, clothes and climate. They also received information about Oslo; public transport, where to go and what to see. They received the full course programme, and introductory list of participants and resource people.

A suggestion by the participants this year has been to distribute more information about the other participants, including their presentations about their work, before they meet in Oslo. This is definitely something the organisers will consider.

Appendix 2: Pre-course information material

7.3. The course committee

ICWCT 2016 was the second time the entire planning and organisation of the course was done by Riksantikvaren alone. The course committee consisted of Anne Nyhamar, Senior Advisor in the International Section, and Sjur Mehlum, Senior Advisor in the Section for Conservation. They were jointly responsible for the general planning, administration and academic content of the course.

In addition, for the first time, NTNU provided a resource person for the entire duration of the course: Jon Nordsteien was of great assistance and help, attending all the lectures and classes – something the other organisers haven't the capacity to do but which is of utmost importance. He was also able to stay

late when necessary, see the students out of the building and be of assistance to the lecturers.

It should be mentioned that the section 'Servicetorget' (the practical service-section of Riksantikvaren) also did an excellent job in helping the organisers with many practical tasks - from buying in course materials to ordering transport. The International Section (led by Reidun Veia) also helped whenever necessary and also gave a guided tour of both the Riksantikvaren offices and a tour along the Akerselva industrial heritage sites one morning. This was greatly appreciated by the course participants.

7.4. The 'Buddy' system

The 'Buddy-system' between course participants and employees at Riksantikvaren was organised for the first time in 2012. As this was seen to be a success, it has now become a welcome fixture of the course. The 'Buddy' acts as a mentor for the duration of the course and provided a contact point for the participants outside the course administration. The level of engagement varies but in many cases, the 'Buddy' invites the participant home for dinner or arranges an excursion or outing at the week-end. Feed-back from both 'Buddies' and participants this year was extremely positive and many continue to stay in touch. An attempt was made in the matching process to pair people who had a similar background or field of expertise, but successful pairing was also due to a particular 'Buddy's' interest in a certain country.



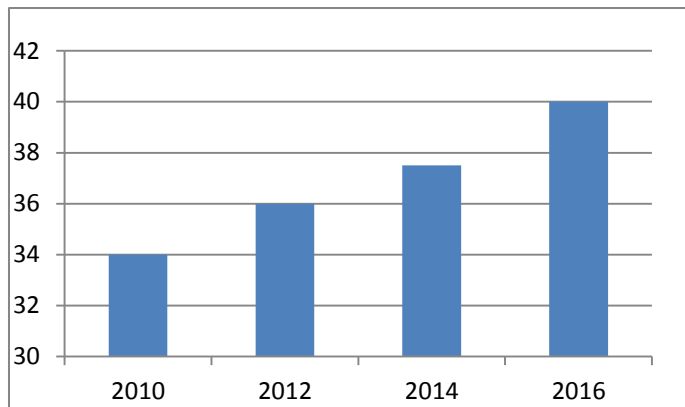
The 'Buddy' system was a success in terms of widening the networking opportunities through the ICWCT. Greater interaction from Riksantikvaren as a whole also contributed to the Directorate's sense of ownership of the course.

- *Best Buddies: Do Thi Thu Van from Vietnam Mari Mette Eriksen from Riksantikvaren*

7.5. Participants

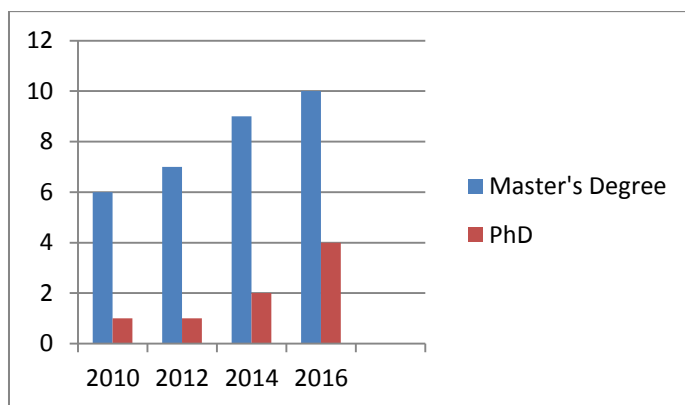
The composition of the participant group varies from year to year, depending on the applicants. This year as often before, two main groups dominated; architects and conservators. Special care was shown in the selection procedure to make a balanced group. One participant was a qualified stone mason and two other participants were trained craftsmen (in addition to their academic qualifications) which is important for the composition and variety of the group.

In terms of group dynamics, ICWCT 2016 worked well. They were independent, open and active from day 1. They looked out for one another and helped each other where necessary and were inclusive when organising events or activities in their spare time. This might be partly due to the fact that they were slightly older than previous years; the average age was 40, compared to 37,5 in 2014 36 in 2012 and 34 in 2010 and this certainly contributes to self-sufficiency.



- Average age of the participants since 2010

As well as age, both the academic levels and years of work experience were higher than usual in 2016, and the expectations of the participants reflected this. The course organisers have always tried to include a wide spectrum of backgrounds and qualifications in the final course selection. However, while striving for the best possible participants, have learnt that over-qualification is also an issue not to be forgotten. Future selections will possibly be more careful in this aspect.



- Levels of higher Academic qualifications since 2010

The presentations demonstrated the high professional level of the group. The participants' presentation is a good way to exchange information on conservation practices around the world and the participants appreciate this part of the program. Most of the participants found 20 minutes an acceptable time frame. The organisers endeavour to place the presentations to fit in with the subject matter of the course timetable but this is always a challenge and some end up not presenting until near the end of the course. Feedback from the group suggested that it would be better to have all the participant's presentations during the first day or two of the course in order to get to know one another better. This seems like an excellent suggestion and one which the organisers will follow up.

Several informal group events were organised outside scheduled course time: Kristin Bakken, (Head of Department, Resources and Development), invited the group to her home on the second day, an enjoyable social 'ice-breaker'. After dinner we went for an improvised architectural walk in the neighbourhood with Kristin Bakken and Harald Ibenholt acting as guides. The participants organised a highly enjoyable picnic in the Sofienberg park one Saturday with games and BBQ's. Another dinner and get-together was organised on the last day of the course after the closing ceremony, this was held in the home of course Director Anne Nyhamar.

7.6 Lecturers

The academic programme aims at covering a variety of topics within the framework conservation of wooden heritage. The program is intended to reflect a multidisciplinary and international approach, and at the same time, update and refresh skills and knowledge on different topics. The question of the composition of the lecture program necessarily relates to the wide range of topics within the field of wood conservation; selecting the issues and lecturers is always a challenge.

It is a special challenge to be a lecturer in a cross-disciplinary course, where the level of knowledge of the students varies enormously. Ideally, the lecturer should introduce a certain topic for those unfamiliar to the subject, and at the same time give new information to participants who sometimes are experts within the same field. Most of the lecturers are open to this challenge and handle it in a positive way.



Two long-time lecturers at the ICWCT, one new. From the left: Jon Brænne (paint and surface treatment) Peter McCurdy (Timber Structures) and Rohit Ranjitkar from Kathmandu Valley Preservation Trust giving a Nepalese perspective on conservation issues.

In general, the program seems to be adequate, given the limit of 6 weeks and the enormous scope of subjects within the field. Participant evaluation on the individual lectures and lecturers were given to the organisers through the Unit evaluation forms and also in the final evaluation meeting. Overlapping of content between some lectures is one of the aspects that has been mentioned in previous evaluations and this was looked at very closely this year by the organisers. Efforts have been made the last few years to reduce the overall number of lectures as a high turnover and swift departure reduced time for discussion and questions. We encouraged lecturers to come a day early and attend each other's lectures so as to promote continuity. Being available during breaks and having lunch with the participants also encourages questioning and a more informal exchange of ideas.

Having a fewer number of lecturers who are able to conduct longer sessions covering a broad field of knowledge would be an advantage. In a more and more specialized world, it seems to be harder to find these generalists and it is also a question about the learning profile of the course; fewer broad resource persons or many specialists. The current rapid development within the various subject matters seems to require the specialist in order to be a post-educational course on a high international level. A broad variety of nationalities is also important when recruiting lecturers, as is considering the international aspect when planning the course content (i.e. more tropical wood). An aim for future courses could be to include an African and/ or South American lecturer.



- Nigel Blades (second from the right) from the National Trust UK teaching climatology at the Oslo City Museum. Left to right: Jon Slight (UK) Do Thi Thu Van (Vietnam) Thomas Haupt (Germany) Cheng Qian (China) Benjamin Börjesson (Sweden) and Hanna Elo (Finland).

Some lecturers attended the ICWCT for the first time this year, and we should mention in particular, Nigel Blades from the National Trust who got a very high score from the participants. He gave two days of excellent lectures on preventative conservation and climatology, engaging the students with hands-on exercises and group-work. We were very pleased to also welcome back Shayne Rivers for the furniture workshop; her classes got top marks in the evaluation and were highly praised by the participants.

7.7. Field work and excursions

Workshops and practical exercises are considered to be important parts of the course program. It has been a tradition since the beginning of the ICWCT that the group spend one week doing practical exercises. Following on the success of the last two years, the workshop was organised at Norsk Folkemuseum at Bygdøy. The museum offers a very good practical framework for the workshop and the co-operation with the museum continues to be a very positive experience, though depending on the group, how much the participants get involved with the practical work varies enormously from year to year. The evaluations this year, pointed to a need for direct and detailed tuition. In this aspect, the group-work with condition reports worked better, and the groups got involved to a greater degree.

Field visits, workshops and excursions are always regarded as positive elements of the course. These parts of the program are important both for the practical training and for the teambuilding within the group. Arrangements outside the “class-room” are also considered very important by the course committee although such arrangements demand extra planning and resources. Staying and travelling together and executing practical fieldwork in groups, bring participants, lecturers and coordinators close together both in a professional and social capacity.

7.8. Practical framework for the course

The main part of the course took place in the conference hall of Riksantikvaren, the Directorate for

Cultural Heritage in Oslo. The participants are offered good course premises; Wi-Fi and a lunch/break-room, a printer and free photocopying. The participants are welcome to use the reasonably priced staff canteen and also have access to the Riksantikvaren library, though many found it a challenge to gain access during the limited opening hours. As a response to the same complaint at previous courses, opening times were this year planned beforehand and included in the programme. This was not sufficient and the organisers hope that this is a practical issue that can be rectified in the future. In particular, the rule of not being allowed to borrow books home is an issue we hope we can change.

For the second time, the students were accommodated at Anker Apartments in the popular and trendy Grünerløkka neighbourhood in Oslo. They were given small, individual studios, comprising one room with a small kitchen corner and a separate bathroom with a toilet and shower. The apartments are simple but adequate and very centrally located within walking distance of Riksantikvaren. The neighbourhood is multi-cultural and offers a wide range of shops, selling all kinds of different foods and open at all hours. A food-store is also located in the 1st floor of the complex. An added bonus is a huge roof terrace and a big reception area for informal gatherings.

As Anker Apartments has a 24-hour reception, participants are able to check in at any point and do not have to be met as in previous years. Although considerably more expensive than previous accommodation, this is a great time-saver for the organisers and relieve the team of a lot of extra practical work. Feedback from the participants have been positive, though some issues like lack of storage (no drawers or cupboards) have been commented on.

7.9. Exam

The course is concluded with an exam in Oslo under the auspices of the Norwegian University of Science and Technology (NTNU). The exam is compulsory, and gives 18 ECTS (European Commission grading system) if passed. In addition to the transcript of ECTS (grades) from NTNU, everybody gets an ICWCT course diploma issued by Riksantikvaren. This diploma is awarded on the final day of the course and is independent of the exam results. We are happy to announce that 20 of the 21 participants of ICWCT 2016 class passed the final exam.

Recommendations from NTNU this year are that the format of the exam should be revised in order to facilitate the marking of papers. The present format relies too much on individual interpretation of language to be fair and it is suggested that a multiple-choice model would be fairer to non-native English speakers. This might affect the number of ECTS the University can award but the course organisers do not see that this will be of any great consequence.



- *Deep concentration during the exam on the final day.*
- *Reidun Veia, Head of Section, International Issues, Riksantikvaren, gave the participants a guided walk along Akerselva.*

8. Conclusion and recommendations

8.1. Background and benefits

The International Course on Wood Conservation Technology (ICWCT) was started in 1984 as a joint project between UNESCO, ICCROM, Riksantikvaren, ICOMOS, and NTNU. The curriculum and organisation of the course are still based on ICCROM's original recommendations. A total of 330 participants from 92 different countries have attended the 17 courses that have been organised to date.

After ICCROM have taken over the responsibility to announce the course on its web sites the number of applicants has increased though in recent years the number of applications has stabilised; there 98 applications in 2014 and the same number in 2016, a slight decrease from previous years. The still high number of applications does indicate that the course is considered relevant among professionals internationally, and that the ICCROM affiliation both gives access to more users, and serves as a certification for the quality of the course.

Course evaluations stress that ICWCT should be continued as an international course, and that it should not be replaced by regional courses. Even if Japan (ACCU-Nara) runs a south-west Asian course in conservation of timber structures, ICWCT still has many applicants from that region, and some take both the courses. A new ICCROM wood course in Kizhi in Russia will appeal to another group. The course organisers welcome the course in Kizhi and hope that the two ICCROM courses can cooperate in terms of exchanging lecturers and organisational experience.

It is always important to continuously assess the need and the future of the ICWCT. The course demands a considerable amount of planning-time for the organisers and for the institutions involved. The cost per head, contributions in kind not included, is in 2016 about 65 000 NOK/ca.7000 Euro. The cost-benefit relationship should always be considered when deciding if the course should be continued. In this aspect, the feed-back from the participants is our most reliable source of information. This year's high score in the evaluation results leave no doubt; the course is greatly appreciated and valued and a vast majority say they have benefitted from the tuition and will recommend the course to colleagues in their home countries.

Several measures have been suggested over the years to reach more people with the existing programme. Streaming has been suggested but this would demand an extra person on hand to administer the video recording and dealing with the technical aspects required. Short instruction videos were recorded in 2014 to put on line, however – the costs involved in editing the hours of recorded film were such that the task was never completed. The course administration continues to look for a solution regarding the exclusivity of the course, and ways in which it the course content can be disseminated to a larger audience.

8.2. Funding and scholarships

Funding is an on-going challenge and this year, apart from one travel grant from ICCROM, Riksantikvaren covered all expenses, including the scholarships. A thorough evaluation regarding scholarships is due, and the course administration recommends a more stringent application process to ensure that those most in need of financial help gets it.

8.3. Cooperation with NTNU and ICCROM

From the start, ICWCT was developed in collaboration between Riksantikvaren and NTNU, enabling the course to be a recognized part of an academic system. The possibility to offer ECTS adds considerable status and gravitas to the programme. An academic audit by NOKUT (the Norwegian Agency for Quality Assurance in Education) has obliged NTNU to take a more active part in the course implementation in order to be allowed to continue providing accreditation. This year the course organisers benefitted from a closer cooperation with NTNU through the participation of Jon Nordsteien on the team. An extra pair of hands was extremely welcome and it was of great help that we had the extra capacity to ensure that one person from the course administration was able to sit in on all the lectures, steer discussions and clarify questions. As his own background is architecture and architectural conservation, his input was highly relevant and appreciated by students and organisers alike.

The collaboration between the local organisers of ICWCT and ICCROM is regulated through the “Memorandum of Understanding” (approved 2001), which defines the respective roles and responsibilities between the parties involved. ICCROM’s active role is important for the profile of the ICWCT, and the increased involvement from ICCROM since 2008 has proved to be very beneficial to the course.

ICCROM contributes in the planning of the ICWCT with their much appreciated experience and generosity with time and good advice. Gamini Wijesuriya from ICCROM came to Oslo for the opening day to deliver a lecture and Joe King attended the final evaluation – both excellent and valued contributions.



- *Left: Participant Nicolas Charles (France) together with Jon Nordsteien, NTNU*
- *Right: Course Directors Sjur Mehlum and Anne Nyhamar, Riksantikvaren*

8.4. Evaluation and the future

Since the start of the course in 1984, the world has changed dramatically, especially regarding the use of technology and the internet. A thorough evaluation of the ICWCT has not been conducted since 2001 when NORAD initiated a review, focusing on the usefulness of the course for participants from developing countries. At the time, all comments received underlined the necessity to continue the course.

Since the conclusion of the ICWCT 2016, Riksantikvaren has had meetings and in-depth discussions with both NTNU and ICCROM regarding the necessity of redesigning and reviewing the course curriculum and adapting to the new technological realities. Based on these discussions, our comments are:

- Recognising that participants no longer get 6 weeks off from their work but often bring it with them: Look at the possibility of having the two first weeks' curriculum as on-line home study with a strict reading list/ study plan, and sharing a common web-based platform to communicate before meeting in Oslo for the following 4 weeks.
- Offer a greater flexibility in taking single modules/ combinations of units – particularly for Norwegian participants who are under-represented on the course.
- Changing the format of the examination to a 'multiple choice' format in order to facilitate correction and be fairer to English non-native speakers. This might affect the number of credits NTNU can award.
- A thorough evaluation regarding scholarships and participant financing and a suggestion of a more stringent application process.
- A thorough evaluation of the course curriculum and timetable is due to fit with the above proposed changes.

A changed format does not affect the following conclusion:

- That the ICWCT fills an international need for training within the field of wood conservation.
- That the participants stress the need for international, post-graduate studies
- That the multi-disciplinary, global profile is a special quality for this course
- That the University affiliation and ECTS give the course status and higher value

We still regard the course to be useful and important within international, professional wood conservation training. Future courses will adapt and change, offering new opportunities to improve even further. However, the success of the current course model should not be completely lost and the essence of the ICWCT should remain.

Course Directors: Anne Nyhamar & Sjur Mehlum

Oslo, December 2016



- The class of 2016 at the Folk Museum with the Riksantikvaren Director General Jørn Holme (in the centre)

9. APPENDICES

- Appendix 1: Course Announcement**
- Appendix 2: Pre-course information material**
- Appendix 3: Course programme**
- Appendix 4: The Excursion Programme**
- Appendix 5: The Stave Church Conference Programme**
- Appendix 6: ICWCT 2016 Lecturers and resource people**
- Appendix 7: Evaluation forms**

Appendix 1: Course Announcement



THE 17TH INTERNATIONAL COURSE ON WOOD CONSERVATION TECHNOLOGY - ICWCT 2016

A course on the conservation of cultural heritage made of wood

Dates: 19 May – 30 June 2016

Place: Oslo, Norway (premises of Riksantikvaren)

Partners:

ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property)

Riksantikvaren - The Directorate for Cultural Heritage, Norway

NTNU - Norwegian University of Science and Technology, Norway

Background and Content: The ICWCT was initiated as a response to a recommendation from UNESCO's General Conference in 1980, and it has been organized in Norway every second year since 1984. It is directed towards professionals who have been working for some years within the field of wood conservation. The ICWCT covers a wide range of interdisciplinary topics. Theoretical and practical aspects of wood conservation are given equal consideration throughout the course. Some of the most interesting cultural heritage sites constructed in wood in Norway will be visited during the course, including several UNESCO World Heritage Sites.

Aim and objectives: The aim of the course is to promote cultural understanding and research in the field of wood conservation, and to be a valuable resource for the work of the individual participants in their respective countries. The main objectives of the course are:

- to give participants the theoretical and practical knowledge essential for diagnosing the causes of deterioration and for selecting the most appropriate methods of conservation and restoration of wood;
- to extend the knowledge of participants beyond their own professions for a broader understanding of different aspects and approaches to wood conservation;
- to bring people with various professions from different countries and cultures together for a mutual learning experience, drawing on different experiences, practices and approaches to wood conservation and use of wooden materials.

The course programme: The course programme is divided between lectures, practical conservation workshop exercises, field studies, museum visits and excursions. The curriculum includes six distinct but interconnected units covering aspects of: properties of wood; factors affecting the decay of wood; principles of conservation, preventive conservation; conservation of objects and painted surfaces including archaeological wood and furniture; conservation of wooden buildings and structures, including wood working tools and machinery. The course will include a one-week onsite workshop and a study tour to selected wooden heritage sites in Norway. As a part of the programme, each participant is expected to give a 20 minute presentation from his or her work experience in their own country.

Lecturers: Lecturers from Norway and other countries will be contributing to the course. All are recognized experts within the field of conservation and with various backgrounds and professional experience.

Exam: The course concludes with a written exam, giving 18 university credits if passed. A full time presence during the course period is required to be allowed to sit for the exam and to obtain the course certificate.

Fees: Participation is free of charge for the selected participants.

Travel, Accommodation and Living Expenses

Participants will be responsible for their round trip travel costs to Oslo, Norway. Accommodation for the period of the course, will be provided free of charge by the course organizers. In order to cover living expenses and transport within Oslo during the course, participants should plan for a minimum allowance of Norwegian Kroner 7000 (about 1200 USD) for the 6 weeks. Depending on availability of funding, a limited number of partial scholarships may be granted.

Participants: Applicants should be mid-career professionals with a minimum of three years' workexperience in wood conservation. It is of great importance for the success of the course that the participants have relevant experience to contribute to and benefit from the mutual exchange of ideas. *The number of participants is limited to 20.*

Language: The working language of the course is English. A good knowledge of English is essential for the benefit of the individual participant and for the course as a whole, and must therefore be documented in the application. A certificate of language is required.

Applications: Please fill the ICCROM application form (obtainable from ICCROM web site) and send it to the contact address below. (Email applications are welcome. In the event that it is not possible to provide a scanned version of the necessary photographs and signatures, it will also be necessary to send a paper copy.) Together with the application you are also required to send

- i. A full professional curriculum vitae (in English)
- ii. One page report describing a conservation project related to wood for which you are or have been actively involved and can be shared with the other participants. .

ICCROM – Sites Unit , Via di San Michele 13, I-00153, Rome, ITALY

Tel: +39 06 58553 1 - Fax: +39 06 58553349

Email: wood2014@iccrom.org - Web Site: www.iccrom.org

For further information regarding the course, please contact: Ms. Anne Nyhamar (The Directorate for Cultural Heritage), e-mail: any@ra.no

Application deadline: Applications should reach ICCROM by 30 September 2015 to ensure inclusion in our selection process.

Appendix 2: Following pages: Pre-course information material



Arrival



Anker Apartments



Practical Information

We look forward to seeing you all in Oslo for the ICWCT 2016. Following is some general information which we hope will help you during your arrival and stay.

You will most probably arrive at Gardermoen, the main airport in Oslo. From the airport, we recommend you take **bus number F1** (**Flybusssekspressen** from outside the arrivals terminal) to the stop **Københavngata**. The cost is about 200 NOK. From the stop, walk 200 meters to the hostel.

You can also take the **airport train** (Flytoget) to the Central Station in Oslo; the trip takes 20 minutes. From outside the train station, take **bus number 30** to the stop called *Dælenga* which is right next to the hostel.

A taxi from Gardermoen airport to the city centre is very expensive – we do not recommend it!

Anker Apartments - address: Københavngata 10, is situated in the popular area of Grüneløkka, about 25 - 30 minutes' walk, or 10 minutes by tram or bus to Riksantikvaren where most of the course will take place.

You will have your own small studio with a bathroom (toilet and shower) and a small kitchen corner. We will provide you with some basic kitchen utensils so you can prepare your own food. Some larger pots and pans will be available to share – and encourage joint dinners! Sheets, duvet, pillows and a towel are provided on arrival and you can change them when you please for a small charge.

There is a laundry with self-service washing machines available for use in the hostel. The wireless internet connection is free of charge but the apartments are basic and do not include such facilities as TV, irons or hairdryers.

There is a large roof terrace with spectacular views over Oslo where you can enjoy the light evenings and a small supermarket on the ground floor.

NOTE: *Anker also have other hostels and hotels in Oslo. Please specify the address (**Københavngata 10**) or area (**Grüneløkka**) if asking directions! You can read more about Anker Apartment at: <http://www.ankerapartment.no/en/>*

The course



The course starts on Wednesday 21st May 2014 at 08.30 at the Premises of Riksantikvaren, Dronningensgate 13, 0105 Oslo.

The main entrance is through the gates and inside the courtyard.

Unless otherwise stated, all lectures will take place here. A 5-day workshop will take place at Norsk Folkemuseum.

You will find it useful to bring your own laptop. All presentations and photos from the course will be available for downloading. If you don't bring your own laptop, there will be a PC available for student use in the course office at Riksantikvaren during working hours. There is free internet access in the office and there are also numerous internet cafes in Oslo.



A five-day trip around Norway to wooden heritage sites of special interest is a part of the course. The excursion will give you the opportunity to see many examples of Norwegian wooden cultural heritage as well as beautiful mountain scenery. A detailed excursion programme and information about the trip will be given to you later. Other field trips will also be announced separately. All transport (for trips and excursions) outside of Oslo is provided by the course.

The course will bring together a group of professionals from very diverse backgrounds. The experiences and the challenges that you face in your work will be an important contribution to the course and our group discussions. Sharing ideas and experiences is a major aim of the programme.



As you know, the working language of the course is English and no translations to other languages will be provided. We would like to remind you that we expect all participants to take part actively in the discussions – native speakers should take care to ensure that they are clear and not speaking too quickly. If English is not your first language, please do not feel worried about speaking perfectly; the important thing is to communicate!

During your time in Oslo you will be a member of an international community and also be a representative of your country, so in addition to the specific illustrative material related to your work, past experience has shown us that any material that you can bring on your institution or current or recent projects, as well as more general material on your culture and country usually come in handy.

Time schedule



Morning	8.30 - 12.00 check programme every day!
Lunch break	12.00 -13.00 unless otherwise specified.
Afternoon	14.00 to 17.00 unless otherwise specified.

There will also be some evening activities and lectures some of the weekends.

Please note that we start punctually and it is expected that every course participant turns up in good time for all lectures and classes. Failure to do so, unless for a very good reason, may result in a student not passing the course.

Meals and Food



The course does not provide you with meals (with some exceptions). You will be preparing and paying for your meals yourself. There are many cafes and restaurants in Oslo but you will probably find them quite expensive. There is a general food store on the ground floor of the hostel. There are also many food stores in the neighbourhood which sell a wide range of different foods, fruits and vegetables. Note that the tap water in Oslo is fine to drink so there is no need to buy bottled water.

During the excursion, many of the meals are paid by the course. *Please let us know if you have any particular dietary requirements! (Religious, vegetarian, allergies etc.)*

You might want to bring some basic dry things like tea, coffee, spices - or any favourite or special foods from home. Don't try to bring meats or fresh fruit or vegetables as they might be confiscated by customs on arrival!

Weather and Clothing



The average summer temperature in Oslo in May/June is between +15 and +20°C, and the weather might be variable. It can alternate between warm, sunny days and chilly, wet weather, so you should bring suitable clothing. A warm sweater/ fleece, an umbrella and/or water-proof jacket are necessary. Some of the sites we will be visiting on the excursion are off the beaten track, so comfortable footwear is recommended – and swim wear (just in case!)

You do not need any formal clothing for the course. You will notice that Norwegians generally dress quite casually. If it's suitable for the weather, it's usually also suitable for the occasion!

Public Transport



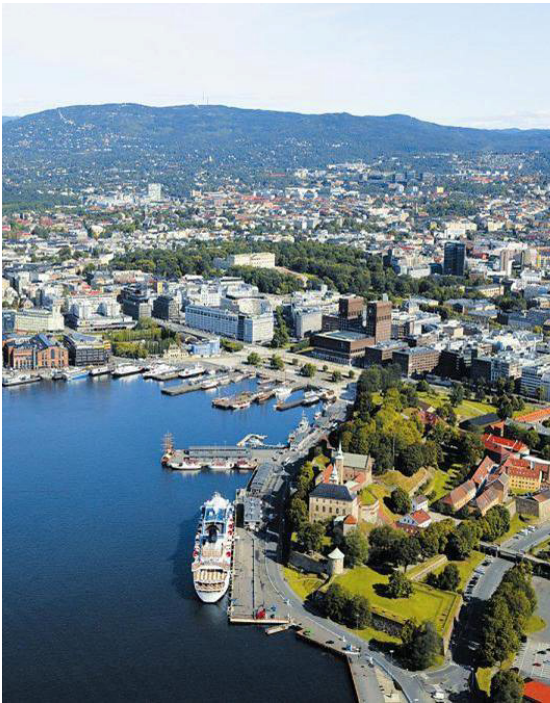
Oslo has a good public transport network consisting of buses, trams, metro, ferries and local trains. The cost of public transport within Oslo is your own responsibility. Anker Apartments is a 25 minute walk from Riksantikvaren. Trams number 11 and 12 and bus no.30 go from very near the hostel to a block or two from Riksantikvaren. For further information and a journey planner please consult the **Ruter website: www.ruter.no/en/** Tickets can be bought at stations using machines, at the information centre outside the Central Station and at Narvesen kiosks. You can also download an App if you have a smartphone and buy a ticket electronically. A weekly or monthly pass is much more reasonable than buying single tickets.

Insurance and safety



Please note that medical insurance/travel insurance for the participants is not covered by the course. Please make sure you have adequate protection for every eventuality. If you need any special medication please make sure you bring an adequate supply with you.

Oslo is generally considered a safe city, but like everywhere - crime does occur. We would not advise you not to carry a lot of cash on you or wander about alone late at night. Anker Apartments is situated in a mixed part of town with many different types of people. Keep to well-lit streets and open areas after dark.



Your stay in Oslo

To help you find your way around Oslo, we have created a map which we hope you will find useful: <http://g.co/maps/7h64e>

As well as showing you where you will be staying and where the course will be taking place, it also has some information about shops, cafés, restaurants and bars, as well as places of worship.

Food and Drink



The main supermarket chains in Norway are Joker, Kiwi, Rimi, Ica and Meny. The former have generally the lowest prices, but a smaller selection of products; the latter have a broader selection but are more expensive. Supermarkets are generally closed on Sundays, the exceptions being smaller shops. In addition, if you are looking for something from non-Western cuisine then a better bet would be the various international stores on Brugata and in the Grønland area.

Eating out is relatively expensive - you might be surprised at the prices. However, there are a number of good places in Grünerløkka, the area where you will be staying.

If you like coffee then you will probably enjoy Oslo. There are lots of cafés and coffee shops in the city and they are generally of a high standard. Pascal and Stockfleths are across the street from Riksantikvaren and are recommended if you need a caffeine boost!

Pubs and bars



There are many bars and pubs in Oslo, enough to cater for everyone's tastes, if not for everyone's wallet. Norwegian and Danish lager (less than 5% abv) is sold in supermarkets, but for anything stronger – wine or spirits – and international beers you must go to Vinmonopolet (the Wine Monopoly). These shops have restricted opening times, and are closed on Sundays. The stores in central Oslo have been marked on your map.

Entertainment



Whatever your preferences, it will be possible to find something of interest in Oslo. The Opera House is home to regular concerts, operas and ballets, while many bars and clubs have musical performances. In addition, there are a number of cinemas which show a wide variety of Norwegian and international films. The **Visit Oslo** website (<http://www.visitoslo.com/>) may be of interest. It includes a 'what's on' guide, information about activities and attractions, cinemalistsings, concerts, festivals and places to eat and drink.

Religious services



Norway's state church is Lutheran, but many other Christian denominations are present in the city, including Catholic and Anglican with weekly services in English. Members of other world religions are also catered for with a number of mosques, synagogues and temples in the city.

There are in general no classes on Sundays. A quiet room for prayer in Riksantikvaren's premises can be arranged on request.

Museums



As part of the course, you will be visiting the the Viking Ship Museum, the Maritime Museum and the Norwegian Folk Museum on the Bygdøy peninsular.

Other museums in Oslo include the Museum of Cultural History, the Munch Museum, the Botanical Gardens, and the Zoological Museum, the National Museum for Art, Architecture and Design, which is actually three museums, the Kon-Tiki Museum, the Astrup Fearnley museum, the Akershus castle and several more. All have web-sites in English.

Contact



Be aware of and sensitive to cultural differences! With 20 different nationalities gathered together for 6 weeks, we will all be faced with new ways of thinking, forms of expression and ways of behaviour which are different from what we are used to. Experiencing these differences are all part of the course and often the most exciting and valuable experience participants take home with them!

During your stay, any post can be sent to:

Riksantikvaren
Attn. ICWCT
P.O. Box 8196 Dep.
0034 Oslo, Norway
Phone no: +47 - 22 94 04 00

For all questions regarding the ICWCT please contact:

Anne Nyhamar
E-mail: anne.nyhamar@ra.no
Direct line: (+47) 98 22 87 21

Sjur Mehlum
sjur.mehlum@ra.no
(+47)98 20 27 96

For more information about Riksantikvaren - The Norwegian Directorate for Cultural Heritage - see our website:

www.riksantikvaren.no

Appendix 3: ICWCT 2016 Course programme

Time	Subject	Lecturer	Venue
Thursday 19 May			
08.30	Registration. Coffee/ Tea		Riksantikvaren Conference Room 5 th floor
09.00	Welcome to Riksantikvaren	Kristin Bakken, Head of Dep.of Conservation, Riksantikvaren	
09.10	Welcome and practical information. Introducing the programme and Riksantikvaren	Anne Nyhamar Sjur Mehlum Jon Nordsteien	
09.45 – 10.00	<i>Short break</i>		
10.00	Wood conservation in a global perspective	Gamini Wijesuriya ICCROM	
12.00	<i>LUNCH (provided)</i>		Riksantikvaren canteen
13.30	The forest, a living raw material	Per Otto Flæte	
14.30	Departure to the forest outside Oslo: Cutting a tree	Per Otto Flæte	<i>Taxis depart at 15.00 sharp from outside Riksantikvaren</i>
17.30	<i>Informal DINNER (provided)</i>		Finnerud Forest Lodge
	Introductions	Participants, guests, staff	
20.00	Return to hostel		
UNIT 1: Environment and Decay			
Friday 20 May			
09.00 – 09.15	Introduction to unit 1	Sjur/ Anne	Conference Room
09.15 – 12.00	Biodegradation in a temperate climate	Johan Mattsson	
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.00	Visit to the Riksantikvaren library	Eva Eide	Library 4 th floor
13.00 – 16.00	Biodegradation continued	Johann Mattson <i>cont.</i>	
17.15 -	<i>Dinner and social gathering. Taxis depart at 17.15 sharp from outside Riksantikvaren</i>		Kristin Bakken's house: Norbergveien 49 C
Saturday 21 May			
09.00 – 12.00	Biodegradation; introduction to wood destroying insects	Johan Mattsson	Conference Room
12.00 – 13.00	<i>LUNCH (bring your own)</i>		
13.00 – 17.00	Monitoring and control procedures.	Johan Mattsson <i>cont.</i>	
Sunday 22 May FREE DAY			

Monday 23 May			
09.00 – 10.00	Introduction to the Museum	Lars Roede	Oslo City Museum, in The Vigeland Park
10.00 – 12.00	Climatology	Dr. Nigel Blades, National Trust, UK	
12.00 – 13.00	<i>LUNCH (bring your own)</i>		
13.00 – 17.00	Climatology cont. workshop	Nigel Blades <i>cont.</i>	
Tuesday 24 May			
09.00 – 12.00	Preventative conservation	Nigel Blades	Oslo City Museum, in The Vigeland Park
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.30	Participant presentations	Anna Skowronska / Sewelo Festus Fane	
13.30 – 17.00	Preventative conservation - workshop	Nigel Blades <i>cont.</i>	
Wednesday 25 May			
09.00 – 12.00	Termites	Lina Nunes	Conference Room
12.00 – 13.00	<i>LUNCH (bring your own)</i> Open library		
13.00 - 13.30	Participant presentation	Qian Cheng	
13.30 – 16.00	Termites – practical dissection and workshop	Lina Nunes <i>cont.</i>	
UNIT 2: Wood Properties			
Thursday 26 May			
09.00 – 09.30	Review of unit 1.	Participant	Conference Room
09.30 – 12.00	Wood anatomy	Dr. Marco Fioravanti, University of Florence	
12.00 – 13.00	<i>LUNCH (bring your own)</i> Open library		
13.00 – 13.30	Participant presentation	Cheek Fadriuela	
13.30 – 16.30	Wood anatomy cont.		
Friday 27 May			
09.00 – 12.00	Determination of wood species	Marco Fioravanti	Conference Room
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.00	Participant presentations:	Iulia-Cornelia Anania	
13.00 – 16.30	Wood physics		
Saturday 28 May			
09.00 – 12.00	Wood and moisture	Marco Fioravanti	Conference Room
12.00 – 13.00	<i>LUNCH (bring your own)</i>		
13.00 – 16.00	Wood behaviour in structures		
Sunday 29 May			
FREE DAY			

Unit 3: Conservation Theory and principles / EXCURSION			
Monday 30 May			
09.00	<i>Departure Anker</i>		<i>Hindsæter, Jotunheimen</i>
Tuesday 31 May			
	<i>Separate excursion programme</i>		<i>Bårdshaug Herregård, Orkanger</i>
Wednesday 1 June			
	<i>Separate excursion programme</i>		<i>Pilgrimsgården, Trondheim</i>
Thursday 2 June			
	<i>Separate excursion programme</i>		<i>Trondheim</i>
Friday 3 June			
	<i>Separate excursion programme. Departure by train to Oslo</i>		<i>Trondheim</i>
Saturday 4 June FREE DAY			
	Those who want to stay on for the week-end can do so.		
Sunday 5 June FREE DAY			

EXCURSION: Separate detailed programme will be provided

Resource persons on the trip:

Anne Nyhamar
Sjur Mehlum
Jon Nordsteien
Marco Fioravanti
Leif Anker

Unit 4: Conservation of objects			
Monday June 6			
09.00 – 09.15	Introduction to unit 4	Anne/ Sjur/ Shayne Rivers	Møbelverkstedet (The Furniture Workshop) Københavngata 2.
09.15 – 12.00	Wood structures	Shayne Rivers	
12.00 – 13.00	<i>LUNCH (bring your own)</i>		
13.00 – 16.00	Practical session: Tool sharpening; making bamboo spatula, making joints.	Shayne Rivers Anne Cathrine Hagen Hanne Bjørk	
Tuesday June 7			
09.00 – 12.00	Structural failure and conservation	Shayne Rivers	Møbelverkstedet
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.30	Participant presentation	Tijana-Annar Trputec Strcic/ Jon Slight	
13.30 – 16.00	Practical session: Structural repairs using conservation methods	Shayne Rivers Anne Cathrine Hagen Hanne Bjørk	
Wednesday June 8			
09.00 – 12.00	Reading wooden objects	Shayne Rivers	Møbelverkstedet
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.30	Participant presentations	Nicolas Charles / Lisa Ackerman	
13.30 – 16.30	Lecture and practical alternating through day. Study different pieces of furniture	Shayne Rivers Anne Cathrine Hagen Hanne Bjørk	
Thursday June 9			
09.00 – 12.00	Window conservation - workshop	Håkon Gøthesen (Anne Cathrine Hagen Hanne Bjørk)	Vøienvolden Farm, Maridalsveien 120
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.00	Participant presentations	Damla Acar	
13.00 – 16.00	Restoring windows using traditional methods	Håkon Gøthesen	
Friday June 10			
09.00 – 12.00	Surface treatment and paint	Jon Brønne	Riksantikvaren conference room
12.00 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 13.00	Participant presentation	Hanna Elo	
13.00 – 16.00	Surface treatment and paint cont. workshop		Jon Brønne's house Havna Allé 7
Saturday June 11		FREE DAY	
Sunday June 12		FREE DAY	

Unit 5: Conservation of built structures			
Monday June 13			
09.00 – 12.00	Timber structures – dismantling and repair	Peter Mc Curdy	Conference room
12.00 – 12.30	<i>LUNCH (bring your own)</i> Open library		
12.30 – 13.30	Participant presentations	Lasha Shartava/ Do Thi Thu Van	
13.30 – 16.30	Timber structures <i>cont.</i>		
Tuesday June 14			
09.00 – 12.00	Conference: The Completion of the Stave Church Programme <i>Separate programme</i>		Oslo School of Architecture & Design. Maridalsveien 29
12.00 – 13.00	<i>Lunch provided</i>		
13.00 – 17.00	<i>Separate programme</i>		
18.00 -	<i>Dinner provided</i>		
Wednesday June 15			
09.00 – 12.00	Conference cont. <i>Separate programme</i>		Oslo School of Architecture & Design. Maridalsveien 29
12.00 – 13.00	<i>Lunch provided</i>		
13.00 – 17.00	<i>Separate programme cont.</i>		
Thursday June 16			
09.00 – 11.30	A Nepalese perspective	Rohit Ranjitkar, Kathmandu Valley Preservation Trust	Conference room
12.00 – 13.00	<i>LUNCH (bring your own)</i> Open library		
13.00 – 13.30	Participant presentation	Dechen Dorji	
13.30 – 16.00	Nepalese perspective <i>cont.</i>		
Friday June 17			
08.00 – 12.00	Japanese approach to wood conservation	Nobuko Inaba, University of Tsukuba, Japan	Conference room
12.00 – 13.00	<i>LUNCH (bring your own)</i> Open library		
13.00 – 13.30	Participant presentation	Takahiro Kurosaka	
13.30 – 16.00	Japanese approach <i>cont.</i>		
Saturday June 18	FREE DAY		
Sunday June 19	FREE DAY		

Unit 6: Museum workshop			
Monday June 20			
09.00 – 11.00	Introduction to the Folk Museum – Guided Tour		Folk Museum at Bygdøy: Bus 30 from Anker
11.00 – 12.00	Short welcome	Jørn Holme, General Director Riksantikvaren	The Collett building
12.00 – 13.00	<i>Lunch with Museum staff - provided</i>		
13.00 – 13.30	Introducing the workshop programme	Jon Nordsteien Terje Planke	
13.30 – 17.00	<i>Workshop programme/ lecture</i>		
Tuesday June 21			
09.00 – 11.00	The Outhouses Project at Røros	Jon Nordsteien	Collett building
11.00 – 12.00	Participant presentations	Jack Hollinger/ Thomas Haupt	
12.00 – 13.00	<i>LUNCH (bring your own)</i>		
13.00 – 17.00	Workshop programme	Museum craftsmen	Museum work-yard
Wednesday June 22			
09.00 – 11.00	Climate change and cultural heritage	Marte Boro Senior Advisor Riksantikvaren	Collett building
11.00 – 12.00	Consequences of climate change on the museum buildings	Stian Myhren	
12.00 – 13.00	<i>LUNCH (bring your own)</i>		
13.00 – 14.00	Participant presentations	Vera De La Cruz/ Wilson Zimba	
14.00 – 17.00	<i>Workshop programme</i>	Museum craftsmen	Museum work-yard
Thursday June 23			
09.00 – 11.00	Climate for Culture - assessing the impact of climate change	Chiara Bertolin Associate Professor NTNU	Collett building
11.00 – 11.30	Participant presentation	Bejamin Börjeson	
11.30 – 12.30	<i>LUNCH (bring your own)</i>		
12.30 – 17.00	<i>Workshop programme/ lecture</i>	Museum craftsmen	Museum work-yard
18.00 -	<i>Celebrating Midsummer at the museum</i>	Museum craftsmen	Folk Museum
Friday June 24			
08.00 – 12.30	The Oseberg ship: History and conservation	Jan Bill Susan Braovac Bjarte Aarseth	Viking Ship Museum Bygdøy
12.30 – 13.30	<i>LUNCH (bring your own)</i>		

13.30 – 16.00	Waterlogged wood, Documentation of archaeological objects	Terje Planke	Maritime Museum Bygdøy
Saturday June 25		FREE DAY	
Sunday June 26		FREE DAY	

Unit 6 Continued: Museum workshop and exam			
Monday June 27			
09.00 – 12.00	Visiting the conservation workshop	Merete Winness	NIKU – the Norwegian Institute for Cultural Heritage Research
11.00 – 12.00	<i>LUNCH (provided)</i>		
12.00 –	Museum of Cultural History. Tour of the Medieval Gallery and the conservation workshop.	Bettina Ebert	Museum of Cultural History
Tuesday June 28			
All day	Study Day		
09 – 15.00	Open library		
Wednesday June 29			
09.00 – 12.00	Final Exam		Riksantikvaren Conference Room
12.00 – 13.00	<i>LUNCH (bring your own)</i> <u>Open library – please return all books!</u>		
13.00 – 15.00	Course evaluation	Joe King, ICCROM, participants and organisers	
15.00 – 17.00	Closing ceremony and informal reception	Kristin Bakken, Head of Department of Conservation, Riksantikvaren	
	End of ICWCT 2016		
Thursday June 30			
12.00	<i>Unless you have made other arrangements with the hostel, please vacate your room at Anker before this time.</i>		

Appendix 4: The Excursion Programme

EXCURSION			
Monday 30 May			
08.15	Meet outside. Departure Anker at 08.30.		
11.00 – 11.45	Reinli Stave Church	Leif Anker Sjur Mehlum	Reinli
12.15 – 13.00	Lunch (provided)		Valdres Guest House
13.40 - 14.30	Lomen Stave Church		Lomen
14.30 – 17.00	Drive over Valdresflya. Stop if weather permits		Jotunheimen mountains
About 17.00	Arrival at Hindsæter Mountain Lodge		
18.00	Dinner (provided)		
Tuesday 31 May			
08.30	Departure Hindsæter		
09.30 – 11.00	Lom Stave Church	Local guide	
11.00	Departure Lom and drive across Dovre Mountains. Stop and walk to the Snøhetta wildlife lookout if weather permits		
12.00	Packed lunch provided		
15.30 – 16.30	Arrival Orkanger Reparation of the Norwegian pavilion for the world exhibition in Chicago 1893. Visit to the workshop	Guides: Johannes Lipphardt from Orkdal Municipality and Olav Sigurd Kvaale, Head of the reconstruction committee	Orkanger
17.00	Check-in at the hotel		Bårdshaug Herregård
17.30 – 18.00	Guided tour of the Bårdshaug Manor	Guide: Gunnar Lysholm Former Mayor of Orkanger	
18.00	Dinner (provided)		
Wednesday 1 June			
08.00	Departure from Bårdshaug with bus to Klæbu (42 km / 45 min)		Klæbu
09.00 – 11.45	Exploring the forest: Investigate and assess how the local conditions affect the quality and properties of lumber for specific purposes; cutting a pine and a spruce.	Guides: Terje Thun, Associate Professor (NTNU), Roald Renmælmo, Ass. Professor (NTNU) Oddmund Aarø, Håvard Huseby	<i>Please wear shoes and clothes suitable for outdoor use and according to the weather!</i>
12.00 – 13.00	Lunch provided at Eidstu, a		

	traditional farm		
13.00 – 14.30	Lectures on choice of material quality for repairing a traditional window made of pine and for making traditional wooden roof shingles from spruce	Guides: Terje Thun, Roald Renmælmo, Oddmund Aarø, Anders Gimse	
14.30	Bus to Forseth Sawmill (10 min)		
14.30 – 15.30	Forseth sawmill, cutting lumber; investigating and assessing the materials		
	Coffee/ tea break		
Ca. 17.00	Bus to Trondheim (30 min) check-in at Nidaros Pilgrimsgård next to the Cathedral.		Nidaros Pilgrimsgård, Kjøpmannsgata 1, 7013 Trondheim
	Free evening in Trondheim		
Thursday 2 June			
08.15	Departure from hotel, 10 min walk to the NTNU University Museum		<i>Trondheim</i>
08.30 – 9.15	Introduction to the medieval history of Trondheim, guided tour of the exhibitions.	Ian Reed, researcher / archaeologist, Norwegian Institute for Cultural Heritage Research (NIKU)	
09.30 – 10.15	Guided tour of the conservation laboratory at the museum of The Royal Norwegian Society of Sciences	Jørgen Fastner, Senior Engineer, Department of Archaeology and Cultural History, NTNU	
10.15 – 11.00	Coffee break, walk 15 minutes to the Archbishops Palace Museum		
11.00 – 11.45	Guided tour of the Archbishop's Mint	Jørgen Fastner	
11.45	Taxi to Ringve Music Museum		
12.00 – 13.00	Lunch provided at Ringve Music Museum		
13.00 – 13.30	Introduction to the Museum	Ivar Roger Hansen Director of the Museum, Lars Erik Melhus, museum educational officer and architect	
13.30 – 13.45	Coffee break		
13.45 – 15.15	Two parallel sessions: Group 1: Visit the conservation workshop. Group 2: Restoration of the Museum buildings after the fire. Exchange groups	Vera de Bruyn-Ouboter, conservator of musical instruments. Lars Erik Melhus, Tor Marschhauser, Head of operations, and Trond	

		Eide, Architect and County Antiquarian for Sør-Trøndelag County.	
15.15 – 16.00	Coffee break, taxi to the museum storage facilities		
16.00 – 17.00	Guided tour of the storage facilities	Vera De Bruyn	
17.00 -	Free evening in Trondheim		
Friday 3 June			
08.45	Departure from hotel to the city library		<i>Trondheim</i>
09.00 – 10.30	The warehouses of Trondheim	Introduction by Gunnar Houen, City Antiquarian and Elisabeth Kahrs at the Trondheim City Cultural Heritage Office	
10.45 – 11.30	On water logged wood, research done by Mycoteam	Trygve Devold Kjellsen, Mycoteam	
11.30 - 12.00	Dendrochronology and results,	Terje Thun, Associate Professor, National Laboratory for Age Determination, NTNU University Museum	
12.00 – 13.00	<i>Lunch (provided)</i>		
13.00 – 14.45	Guided tour in a warehouse,	Trond Eide, County Antiquarian and architect and Torgeir Moslet, carpenter.	
15.30 – 22.04	Departure Train to Oslo. Arrival Oslo Central Station at 22.04		

Resource persons on the trip:

Anne Nyhamar **Phone (+47) 98 22 87 21**

Sjur Mehlum **Phone (+47) 98 20 27 96**

Jon Nordsteien **Phone (+47) 90 01 64 04**

Marco Fioravanti

Leif Anker

What to bring:

- warm clothes and comfortable shoes suitable for walking!
- rainwear/ waterproofs
- bottle of water (and snacks) for the bus journey

Meals provided are indicated in the programme. All beddings and towels are provided

The Completion of the Stave Church Programme - what have we learnt?

Conference Programme 14th - 15th June 2016

Venue: The Oslo School of Architecture and Design, Maridalsveien 29.

Day 1: Tuesday 14th June

08:30 - 09:00	Coffee and registration
09:00 - 09:15	Welcome by the Director General (Riksantikvaren) Jørn Holme
09:15 - 09:30	<i>Kristin Bakken</i> : Introduction
09:30 - 10:00	<i>Leif Anker</i> : What is a Stave Church?
10:00 - 10:15	Short break
10:15 - 11:00	<i>Sjur Mehlum</i> : The Stave Church Programme - Principles, ideology and method
11:00 - 11:40	<i>Terje Planke</i> : Craftsmanship as a research strategy in the Stave Church Programme
11:40 - 13:00	Lunch
13:00 - 13:40	<i>Evgeny Khodakovsky</i> : Stave Churches, history and research: a view from Russia
13:40 - 14:20	<i>Mark Gardiner</i> : Stave Churches - a view from England
14:20 - 15:00	<i>Gunnar Almevik</i> : New perspectives on medieval wooden churches in Sweden
15:00 - 15:30	Coffee break
15:30 - 16:30	Summary, questions and discussion
17:00 -	Social gathering and informal dinner at <i>Mathallen</i>

Day 2: Wednesday 15th June

09:00 – 09:20	<i>Kristin Bakken:</i> Recap of the previous day and introduction to Day 2.
09:20 – 10:00	<i>Mille Stein:</i> The interior of Rollag Stave Church; a collage from the past.
10:00 – 10:40	<i>Tone Olstad:</i> “To the Glory of God and for the church's adornment.” Distemper decorative paintings in the Stave Churches
10:40 – 11:00	Short break
11:00 – 11:40	<i>Ebbe Nyborg:</i> Treasures of Danish Parish Churches 1100-1800.
12:00 – 13:00	Lunch
13:00 – 13:40	<i>Terje Thun:</i> Dendrochronology – Material analysis and dating
13:40 – 14:20	<i>Erik Langdalen:</i> The relevance of Stave Churches today.
14:20 – 15:00	<i>Leif Anker:</i> Stave Church Research – some perspectives on the history
15:00 – 16:00	Discussion: The way ahead. Conclusions and summary

Changes to the programme might occur

Keynote speakers

Dr. Kristin Bakken, Head of Department, Department of Conservation. The Directorate for Cultural Heritage (Riksantikvaren)

Leif Anker, Senior Advisor, Cultural Heritage Cultural Heritage (Riksantikvaren)

Sjur Mehlum, Senior Advisor, Head of the Stave Church Programme. Cultural Heritage (Riksantikvaren)

Mille Stein, Paintings Conservator /Senior Researcher Emerita. Norwegian Institute for Cultural Heritage Research (NIKU)

Tone Olstad, Paintings Conservator / Researcher. Norwegian Institute for Cultural Heritage Research (NIKU)

Dr. Terje Thun, Associate Professor, Norwegian University of Science and Technology (NTNU)

Helene Svarva, PhD Candidate, Norwegian University of Science and Technology (NTNU)

Dr. Terje Planke, Senior Curator Norsk Folkemuseum, Associate Professor, University College of Southeast Norway

Dr. Ragnar Pedersen, Professor Emeritus, University of Oslo

Ebbe Nyborg, Editor, National Museum of Denmark

Dr. Evgeny Khodakovsky, Head of Department of Russian Art History, St. Petersburg State University

Dr. Gunnar Almevik, Associate Professor in Heritage Conservation, University of Gothenburg

Dr. Mark Gardiner, Senior lecturer, University of Belfast

Appendix 6: ICWCT Lecturers and Resource People

Course Directors:

Anne Nyhamar, Senior Advisor, International Section, Riksantikvaren

Sjur Mehlum: Senior Advisor, Section of Conservation, Riksantikvaren

Co-organiser/ NTNU representative: Jon Ivar Nordsteien: Assistant Professor, Department of Architectural Design, History and Technology, NTNU

Lecturers:

- **Per Otto Flæte**, Senior researcher Treteknisk (Norwegian Institute of Wood Technology)
- **Marco Fioravanti**, Associated Professor of Wood science and technology, University of Florence.
- **Nigel Blades**, Preventive Conservation Adviser, National Trust, UK
- **Johan Mattsson**, Manager R&D in Mycoteam, Oslo
- **Marte Boro**, Senior Advisor, Riksantikvaren
- **Shayne Rivers**, Senior lecturer, West Dean College, UK
- **Hanne Bjørk** and **Anne Cathrine Hagen**
Møbelverkstedet (The Furniture Workshop), Oslo
- **Håkon Gøthesen**, Independent craftsman and windows specialist, Oslo
- **Peter McCurdy**, Architect and Manager, McCurdy Craftsmen & Consultants.
- **Sónia Duarte** (stand-in for Lina Nunes) Laboratório Nacional de Engenharia Civil, Libon.
- **Jon Brønne**, Paintings conservator, Vel Bevert, private consultancy. Oslo
- **Rohit Ranjitkar**, KVPT - Kathmandu Valley Preservation Trust
- **Nobuko Inaba**, University of Tsukuba, Japan
- **Chiara Bertolin**, Associate Professor, NTNU
- **Merete Winness**, NIKU
- **Gamini Wijesuriya**, project manager ICCROM
- **Joseph King**, Director for Sites Unit, ICCROM

In addition to the above list, the following lecturers and advisors contributed to the case studies/field work:

The Viking Ship Museum, The Museum of Cultural History, Oslo:

Jan Bill, Professor, University of Oslo

Susan Braovac, Conservator

Bjarte Aarseth, Wood carver

Norsk Folkemuseum:

Stian Myhren, Head of Section for Building Preservation

Terje Planke, Senior Conservator in the Section for Building Preservation,

Mogens With, Architect

Craftsmen: **Ole Johan Haavengen**, **Ole Jørgen Schreiner**, **Geir Johansen**,

Edvard Undall, **Christian Winther-Larsen**.

Oslo City Museum: Lars Roede, Former Directo

Appendix 7: Evaluation forms

The following questions were distributed after every Unit of the course:

Please rate the following from 1 to 5 and provide additional comments.

1 = very poor; 2 = poor; 3 = adequate; 4 = good; 5 = very good

Composition and Contents of Unit: 1 2 3 4 5

Comments:

Clarity of overall Unit: 1 2 3 4 5

Comments:

Usefulness of resource materials: 1 2 3 4 5

Comments:

Relevance/Applicability to your work: 1 2 3 4 5

Comments:

Time allocated for presentation/discussion: 1 2 3 4 5

Comments:

Standard of lecturers: 1 2 3 4 5

Comments:

- Were there any lecturers who were particularly good? Who? What did you like in particular?
- Were there any lecturers who were particularly poor? Who? Please explain why.
- Which presentations / sessions were most useful to you and why?
- Which presentations/sessions units were least useful to you and why?
- Which topic(s) was/were totally new to you?

The following questions were distributed on the last day of the course:

Please rate the following from 1 to 5 and provide additional comments.

1 = very poor; 2 = poor; 3 = adequate; 4 = good; 5 = very good

1. Was the information and practical assistance *preceding* the course sufficient?
1 2 3 4 5
2. Was the information and practical assistance *during* the course sufficient?
1 2 3 4 5
3. Was the clarity of information regarding the course schedule sufficient?
1 2 3 4 5
4. What is your impression of the practical organisation of the course?
1 2 3 4 5
5. Was the duration of the course
Too short____ Just right ____ Too long ____
6. Was the number of participants convenient?
1 2 3 4 5
7. Was the accommodation provided at Anker Apartments in Oslo satisfactory?
1 2 3 4 5
8. In general, did you find the lectures interesting and informative?
1 2 3 4 5
9. Was the balance between objects and buildings satisfactory?
1 2 3 4 5
10. Did you find the academic level of the course satisfactory?
1 2 3 4 5
11. Did you find the participant presentations beneficial?
1 2 3 4 5
12. Will what you have learnt on the course be useful for your work?
1 2 3 4 5
13. Would you recommend the course to anyone in your home country?
1 2 3 4 5



Thank you class of 2016!