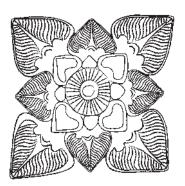
The Workshop 2013 for Protection of Cultural Heritage in Kandy, Sri Lanka

21-26 October 2013



Cultural Heritage Protection Cooperation Office,
Asia-Pacific Cultural Centre for UNESCO (ACCU)
Agency for Cultural Affairs, Japan

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757 Horen-cho, Nara 630-8113 Japan

Tel: +81 (0)742 20 5001 Fax: +81 (0)742 20 5701 e-mail: nara@accu.or.jp

URL: http://www.nara.accu.or.jp

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Preface

The Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO (ACCU) was established in August 1999 with the purpose of serving as a domestic centre for promoting cooperation in cultural heritage protection in the Asia- Pacific region. Subsequent to its inception, our office has been implementing a variety of programmes to help promote cultural heritage protection activities, maintaining partnerships with international organisations, such as UNESCO and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM).

The ACCU Nara's activities include, training programmes for the human resources development, the international conference and seminar, the website for the dissemination of information relating to cultural heritage protection, and the world heritage lecture in local high schools. In addition to those, ACCU Nara periodically publishes International Correspondent Report based on contributions from appointed correspondents in the region and also conducts a regional training workshop which dispatches a group of lecturers from Japan and implements the practical training on cultural heritage protection on sites.

The Workshop 2013 for Protection of Cultural Heritage in Kandy, Sri Lanka, was the seventh attempt of ACCU Nara. We were fortunate enough to receive the cooperation and support from Department of Archaeology Sri Lanka, Ministry of National Heritage, as a co-organiser. I would like to extend my sincere gratitude to Dr Senarath Dissanayake, Director General of Department of Archaeology, Dr Jagath Balasuriya, Minister, Ministry of National Heritage, Dr Gamini Wijesuriya, Project Manager, Site Unit, ICCROM, Rome, Mr Hemantha Welivita, Embekka Temple; and to all related staff and parties for their cooperation. Also, special thanks to Mr B.R.M.M.P.B. Ratnayake and Mr Rasika Dissanayaka, Department of Archaeology, who served as great contacts between Sri Lanka and Japan, as well as being always on site with us.

The advantages of implementing the regional workshop are as follows:

1) A number of participants from one country can attend the workshop at one time.

ACCU Nara has invited a few participants from a single country to the Individual Training Course held in Nara. However, participation is usually limited to two or three experts. It would be extremely efficient to accept a number of people from one country at one time for providing opportunities to acquire expertise for the protection of cultural heritage.

2) The working language of the training course is their native language.

As a general rule, the working language used in both group and individual training programmes is English, which sometimes gives difficulty in understanding the content of the training course for some participants from Asia-Pacific region. Not all the participants are fluent in English. In order to resolve this kind of limitation on the communication, we have decided to use Sinhalese for this workshop. We believe that participants can understand the lecture and instruction more easily and accurately with

interpretation.

(3) The teaching materials are locally available artefacts

Different from the programmes in Nara, participants in this workshop make use of artefacts or vernacular houses indigenous to their own country for the practical training, which is familiar and useful for them. For this year, the theme of the workshop was recording/documentation and research methods for wooden structures; and formulating conservation and management strategies, so we used

a traditional building, Embekka Temple, as the venue for practical training.

When organising a workshop overseas, the most important part is the selection of the theme and a venue of the training course. The preliminary survey should be made prior to selecting the appropriate theme which is most urgently needed for the country, because the training programme should also have

a long-term effect on the protection of cultural heritage after the workshop has concluded.

Lastly, I would like to express my appreciation to Nara National Research Institute for Cultural Properties, the Japanese Association for Conservation of Architectural Monuments (JACAM), and Nara Prefectural Government for their cooperation in dispatching their officials to our workshop. I am also thankful to the Agency for Cultural Affairs, Japan (Bunkacho) for their continuing support.

NISHIMURA Yasushi

Director

Cultural Heritage Protection Cooperation Office,
Asia-Pacific Cultural Centre for UNESCO (ACCU)

Contents

Preface

I.	Introduction	
	1. General Information ·····	3
	2. Programme Schedule ·····	4
II.	Workshop Journal	5
III.	Reports by participants	35
IV.	Tek	53
V.	Appendix	
	1. Participants ·····	61
	2. Instructors ·····	62
	3. Interpreters ·····	62
	4. Collaborators ·····	63
	5. Co-organiser ·····	63
	6 Staff Members ACCII Nara ·····	64

I. Introduction



Embekka Temple, Drummers Hall

1. General Information

The Workshop 2013 for Protection of Cultural Heritage In Kandy, Sri Lanka

1. Organisers

This course is jointly organised by Agency for Cultural Affairs, Japan (Bunkacho); the Asia-Pacific Cultural Centre for UNESCO (ACCU); and Department of Archaeology, Ministry of National Heritage, Sri Lanka.

2. Background

In Sri Lanka, there are six cultural properties that have been inscribed on the World Heritage List. There exist not only various stone structures, but also abundant wooden structures such as temples and vernacular houses. The high temperature and humidity along with strong sunshine has been causing rapid deterioration of these cultural properties, and it has become an urgent matter to record/document, conserve, and manage them as well as conducting research study. In spite of numerous wooden heritage sites in need of immediate action for conservation, there are not sufficient professional architects. Therefore, capacity building of human resources in architectural restoration has also become an urgent task for the government.

In consideration of this situation as well as in response to a request from the Department of Archaeology Sri Lanka, Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO has decided to co-organise the workshop in Kandy, Sri Lanka, on recording/documentation and research method for wooden structures and formulating conservation and management strategies, as part of its cooperation for cultural heritage protection in the Asia-Pacific region with the Department of Archaeology, Sri Lanka.

3. Venue and Country

Kandy, Democratic Socialist Republic of Sri Lanka

(Training Venue: Embekka Temple, Lecture Venue: Tourmaline Hotel)

4. Date

From 21 October (Mon.) to 26 October (Sat.) 2013

5. Themes

Recording/documentation and research methods for wooden structures; and formulating conservation and management strategies

6. Curriculum

Lecture:

Preservation/restoration of wooden structures

Recording/Documentation of wooden structures for formulating a restoration plan (An orientation for practical training)

7. Practical Training:

Drawing by measurement

Damage survey and drawing up a restoration plan (presentations and discussion)

Formulating management strategy (presentations and discussion)

8. Participants

Fifteen researchers, engaging in investigation, research and preservation of cultural properties in Sri Lanka, who belong to research institutes, the management and preservation office for cultural properties or museums.

9. Language

The main working language of the training course is Sinhalese with consecutive interpretation from Japanese.

2. Programme Schedule

	Date		Morning (09:00 – 12:00)	ning (09:00 – 12:00) Afternoon (13:00 – 16:00)	
10	21	Mon.	(10:00-11:00) Opening Ceremony (11:30-) Orientation for the Workshop	Lecture: Overview of Wooden Structures in Kandy Case Study of Restoration of Wooden Structures in Japan	Mr Ratnayaka (DoA) Mr Kondo (JACAM) Mr Hayashi (NNRICP)
	22	Tue.		ctical Training: Drawing a Floor Plan and a Section Plan mbekka Temple: Waharkada Gate and Drummers hall)	
	23	Wed.	Practical Training: Drawing a Section of Wooden Structures (Embekka Temple : Waharkada Gate)	Mr Kondo, Hayashi and Yoshida	
	24	Thur.	Practical Training : Damage Survey at (Embekka Temple : Waharkada Gate a	Mr Kondo, Hayashi and Yoshida	
	25	Fri.	Practical Training : Formulating Resto (Embekka Temple : Waharkada Gate)	Mr Kondo, Hayashi and Yoshida	
	26	Sat.	Lecture: (9:00-10:00) Recording Technique of Carving Using CAD (10:30-12:00) Presentation and Discussion: Restoration Plan	(13:00-14:30) • Presentation and Discussion: Restoration Plan • Evaluation from Instructors Closing Ceremony (14:30-)	Mr Yoshida, Kondo and Hayashi

II. Workshop Journal



Colonial-style shop houses in Colombo

16 October (Wed.)

ACCU Nara staff and two instructors departed from Kansai International Airport to Sri Lanka via Bangkok.

17 October (Thur.)

Visit to the Embassy of Japan in Sri Lanka

ACCU Nara staff met Mr SASAI Daiji, first secretary. They informed him that they have finally reached the stage at which they are able to hold a workshop, and expressed our gratitude to him for providing information to them throughout the course.





Visit to the Department of Archaeology, Ministry of Cultural Affairs and National Heritage, Sri Lanka/pre-meeting

The Sri Lanka team included Dr Senarath Dissanayaka (Director General), Mr Prasanna B Ratnayake (Actg. Director), Mr D.A. Rasika Dissanayaka (Actg. Assistant Director), and Mr Deepal Wijetilake (Actg. Director) from the Department of Archaeology; while the Japanese team included Mr







HAYASHI Yoshihiko (NNRICP), Mr YOSHIDA Mitsuyoshi (Nara Prefectural Board of Education), who were the two of the instructors, as well as Mr NISHIMURA Yasushi, Director of the ACCU Nara, and other three staff members as well as the interpreters.

To start, Director Nishimura introduced the instructors and expressed his appreciation for the cooperative framework of the Sri Lanka team in the past. Following this, final confirmation and arrangements were made for the details of the workshop. After that, the Japan team reviewed the training materials and made additional purchases, as required.

18 October (Fri.)

After having Mr KONDO Mitsuo, the instructor from JACAM, join the Japan team, they left Colombo in the morning and arrived at Sigiriya, a World Heritage site, in the afternoon. Sigiriya is the ruins of the capital in the 5th century, which was added to the World Heritage List in 1982. When it was constructed, many wooden buildings (e.g. palace, temples) were structured, whose platforms are the only part left at present. They inspected the palace, temple ruins, etc. in order to collect information necessary to conduct training sessions on the ancient structures of Sri Lanka.

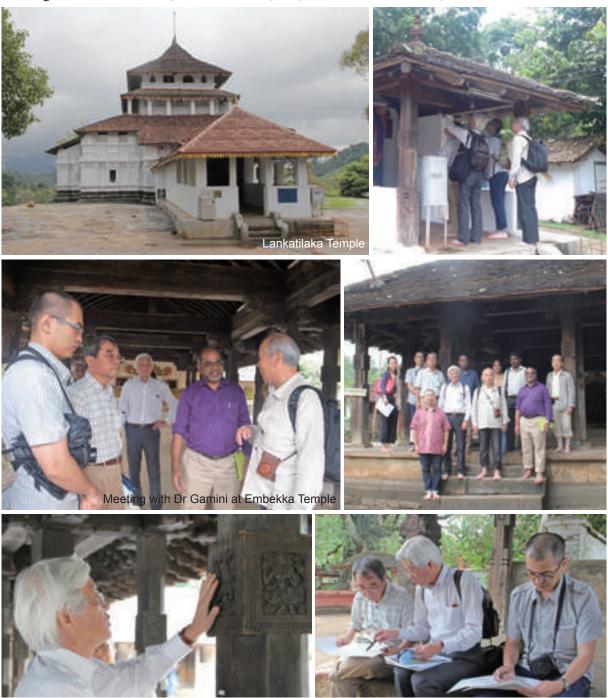


19 October (Sat.)

The team moved to Kandy city and inspected wooden buildings. They visited the Audience Hall of "the Temple of the Tooth" which has a similar structure to Embekka Temple (on-site training venue). The instructors exchanged their opinions with one another, with regard to the architectural features including the pillars, beams, crossbeams, roof materials, etc. and their structures.

20 October (Sun.)

The team left the accommodation for the on-site training venue. On the route, they visited Lankatilaka Temple, constructed around the same period as Embekka Temple. Lankatilaka Temple is a brick building with a wooden roof, window frames, etc., and has a wooden hall, which resembles Embekka



Temple.

We met Dr Gamini Wijesuriya of ICCROM and staff members of Department of Archaeology at Embekka Temple and reviewed the contents of the training sessions. Following this, the instructors confirmed the conditions of the training site.

21 October (Mon.)

Opening Ceremony

The opening ceremony for the training began with a traditional lamp-lighting ceremony, and then the national anthems of Sri Lanka and Japan, respectively, were played.







Guest Speeches

To start, Dr Senarath Dissanayake (Director General, Department of Archaeology, Sri Lanka) expressed his gratitude that the ACCU Nara selected Sri Lanka as the venue of the workshop. He also mentioned that he was glad for the transfer of new knowledge and techniques from Japan to Sri Lanka through this workshop.

In addition, he stated that in the past, no international projects focusing on the conservation of wooden buildings have been undertaken in Sri Lanka, and that he believed that this event was the first such attempt for this purpose, the significance of which was extremely important.

Dr Gamini Wijesuriya (ICCROM project manager) transmitted a congratulatory address of Dr Stefano De Caro, the ICCROM Director General, for the opening of the workshop. Prof Gamini Wijesuriya introduced himself that he has been engaged as an instructor of the ACCU Group Training since 2001. He mentioned that the ACCU is an organization which has rendered services for cultural heritage protection in the Asia-Pacific region since the establishment of its programs in 1999, and that he hopes that the contents of the training sessions are so fulfilling that as many people as possible would participate in it. He concluded by saying that through this workshop, a greater number of cultural heritage sites would be protected and bequeathed to future generations, and that he firmly believed that friendship between Japan and Sri Lanka would be deepen further.

Mr Nishimura (Director, ACCU Nara) expressed his gratitude to the institutions concerned, Central Cultural Fund (CCF), the National Museum, and the Department of Archaeology, in opening the workshop. After that, he presented an overview of the projects of the ACCU Nara. Mr Nishimura concluded his greeting by saying that despite the training lasting for only one week, he hopes that the human network among the participants from three different departments/agencies would be further developed through this workshop.





Presentation of letter of appreciation to Embekka Temple

The ACCU Nara presented Embekka Temple a letter of appreciation for its cooperation in the organisation of this workshop project.

Dr Jagath Balasuriya (Minister of National Heritage) initially thanked the ACCU and the Japanese government for organising the workshop. The Minister also stated that it is the first time in Sri Lanka that an international workshop concerned with the conservation of wooden buildings is held. He said that he realised that more than 5000 wooden structures in Sri Lanka, including Embekka Temple, are the evidence of the fact that the ancestors possessed outstanding techniques. He also maintained these heritage site are to be bequeathed to the future, and as one of the very few nations which has a ministry of cultural heritage, he wished to build a framework to protect the cultural heritage as a matter of national concern.

Mr Rasika Dissanayaka (Department of Archaeology, Sri Lanka), the representative of the project secretariat, expressed his thanks to the ACCU and the Japanese government for selecting Sri Lanka





as the workshop venue, and to all the staff members of the institutions/department concerned with the workshop organisation (CCF, National Museum, Department of Archaeology), Mr Hemantha Welivita representing Embekka Temple, and to Hotel Vin Bino (accommodation for the participants) and Tourmaline Hotel Kandy (accommodation/ classroom learning venue for the ACCU).

After moving to the training room, the instructors and the ACCU staff members were introduced. The participants also introduced themselves.

W ooden Buildings in the Kandy Region"

Instructor: Mr Prasanna B. Ratnayake (Department of Archaeology)

Mr. Ratnayake presented a brief of the types and recording methods of wooden buildings in Sri Lanka. He mentioned that, although actual measurement and photo recording of the wooden buildings have been implemented, there exist problems in the shortage of staff members and funds, and sufficient time cannot be spent for recording, creating difficult conditions for cultural heritage protection in Sri Lanka nowadays. Even so, Mr Ratnayake also introduced computer graphics content, etc. created by using current measured values, and used for the conservation planning, etc.





O verview of the Japanese Architectural History"

Instructor: Mr HAYASHI Yoshihiko (NNRICP)

Mr Hayashi commentated on architectures of Buddhist temples, Shinto shrines, and private houses, etc. by time period. He presented a PowerPoint briefing about Japanese wooden buildings.

O verview of the Repairs of Wooden Buildings in Japan"

Instructor: Mr KONDO Mitsuo (JACAM)

Mr Kondo presented an overview of restoration of Japanese historical buildings classified as cultural properties involving total/partial dismantlement of structures, covering its procedure, method and

subsidy system. After that, he introduced details of such restoration work taking the Seki family residence (17th century private house) for an example by using PowerPoint. In addition, Mr Kondo explained the restoration process of wooden buildings in Japan in a flow process, describing the preliminary survey, the uneven settlement of the buildings, survey of pillar inclination degree, damage investigation including scratch-mark investigation, etc., and the process of the dismantlement/restoration work as well as restoration plans.

Following this, the participants asked various questions such as whether or not to antisepticise the wood materials of the buildings, details of the underpinning method, whether or not to use modern nails for the repair work, the repair method for clay walls, etc.



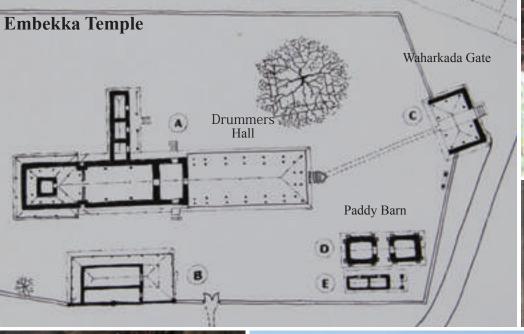
22 October (Tue.)

Creation of plan/sectional views

To start, Mr Kondo, an instructor, explained the entire schedule for the on-site training (creation of plan/sectional views, procedures for damage investigation, etc.). After that, the participants were

divided into five groups (three persons per group). The instructors informed each participant group about the training schedule of the day and the method to create a plan view. Instructions included that a plan-view sketch should be made by selecting a part (of the temple) which is close to the original state, and that the allocation and balance of the pillars should be represented at a size of 70 percent of an entire drawing paper. Following this, under the supervision of the instructor in attendance of each group, the participants drew the plan view of the main gate and the dancing hall, and those who finished the task more quickly created a sectional view.











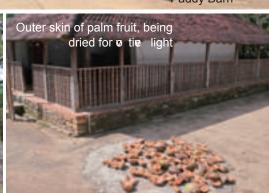


Cariv ng of Drummers Hall









23 October (Wed.)

Actual measurement/survey on the background of construction

In the morning: To start, Mr Kondo held a briefing concerning the operational schedule of the day. After that, under the instruction of Mr Hayashi and Mr Yoshida, the participants filled in the major dimensions in the plan/sectional views they sketched via a laser level meter.





In the afternoon: The instructor explained the trace/mark investigation carried out in Japan to verify the number of times post-construction restorations have been carried out, etc., taking the construction members used for the roof truss and beams of the main gate as samples. He introduced skills to examine whether the pillar material had been processed by a hand axe or sawed using a ripsaw, in light of the scratch marks remaining on the pillar, and to estimate the date of the repair, as well as to analyse the time period of the repair based on nails used. Many participants provided feedback that it was very interesting since they had not heard about such detailed observations ever before.



24 October (Thur.)

Creation of framing plan/Damage investigation

In the morning: The participants drew up a framing plan for each of the foundation, pillars, beams, bracket complex, and the roof of the main gate so that they could later fill in the damage investigation





results. In the order of speed of drawing completion, the participants proceeded with damage investigation under the supervision of their instructor.

In the afternoon: The participants measured the inclination of the pillars, and investigated the subsidence of the foundation by using the laser level meter, level gauge, plumb bob, etc. After the instructor lectured about the detailed investigation method for damage, two participants demonstrated

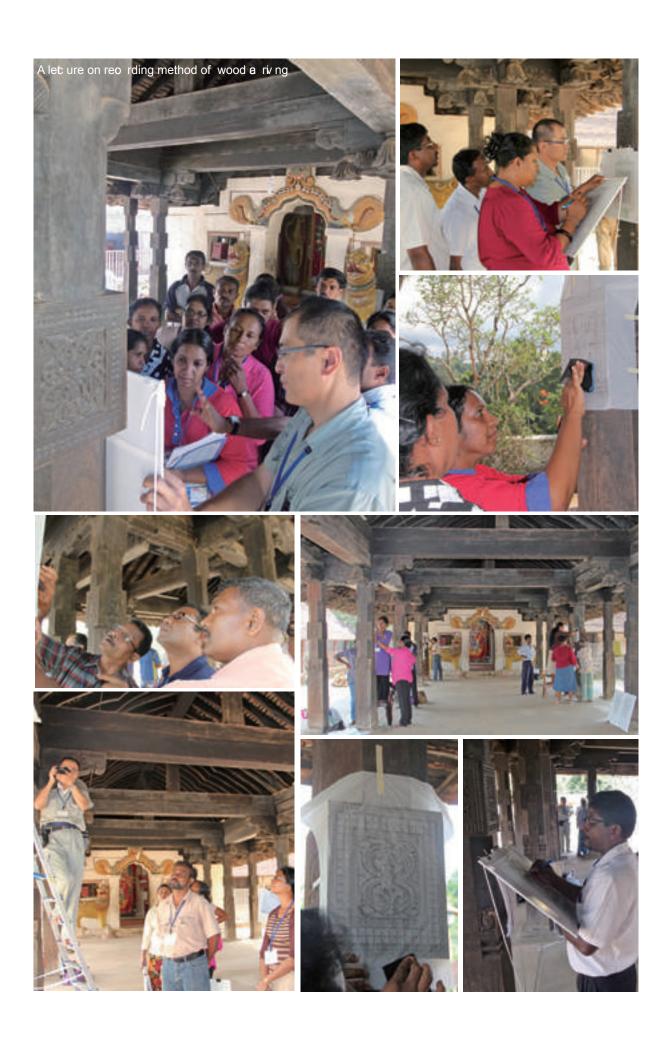
the method as representatives of the participants. They struggled to measure the inclination of the pillars.

25 October (Fri.)

Creation of repair plan/Recording method of sculptures

In the morning: Each training group wrote up the results of the damage investigation carried out on the previous day, and each created a repair plan.





In the afternoon: Many wooden buildings of Sri Lanka are decorated with extensive wood carving. Especially elaborative sculptures remain in Embekka Temple. The recording method for carving was included in the request list from the Department of Archaeology of Sri Lank at the preliminary survey stage. Accordingly, Mr Yoshida, instructor, lectured and demonstrated the recording method for wood carving using a rubbing. Participants reported that it appeared to be a very simple and useful recording method, and they had not experienced such a method of recording before. Furthermore, Mr Yoshida lectured about photography methods at the site.

Newspaper coverage

The Sunday Times, a local paper, covered the workshop. Mr Nishimura, Director of the ACCU Nara, provided a brief about the workshop, and the cooperative relationship between Sri Lanka and Japan, etc. Additionally, Mr Hayashi, an instructor, responded to questions about Japanese repair methods for wooden buildings, as well as his impressions about wooden buildings in Sri Lanka, etc. The article appeared with photos on 10 November.



26 October (Sat.)

S culptures Recording Method Using CAD"

Instructor: Mr YOSHIDA Mitsuyoshi (Cultural Properties Conservation Division, Nara Prefectural Government)

Mr Yoshida introduced, via PowerPoint, an operational flow from photographing to drawing-creation

using CAD with regard to the recording method for wood carvings of Tanzan Shinto Shrine in Nara Prefecture. He also demonstrated a method for drawing the sculptures of Embekka Temple in the same manner as used for those of Tanzan Shinto Shrine, through the flow from sculpture photographing to the drawing method using CAD. Mr Yoshida also described the key points in photographing, creating composite photos, and drawing profile lines. In addition, he presented a complete record of the sculptures of Embekka Temple, and lectured regarding the method to create precise drawings based on a rubbing. Following this, a video which records the entire Yakushi-ji Temple of Japan through a 3D laser survey, was presented as a new method of recording for an entire building.



Presentation by the participants of the restoration plan of the main gate of Embekka Temple

The participant groups presented their restoration plans in order from Group 1. In contrast to Japan, where total dismantlement is adopted for restoration of seriously damaged wooden structures, repair is made on a half disassembly basis in Sri Lanka. Groups 1 to 4 proposed a repair method which leaves the original state intact as much as possible. Their proposals with regard to the distinction between rotten and original members of the framework, as well as to ground subsidence reflected the contents of the training instructions.

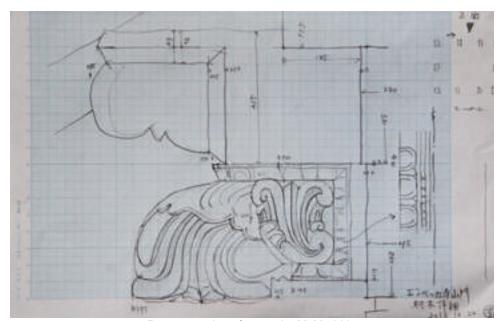


Meanwhile, only Group 5 proposed that the total dismantlement work, unprecedented in Sri Lanka, should be undertaken, upon listening to the lectures given, in order to restore the main gate of Embekka Temple to a sound state. In short, the Group 5 members made the judgment that the half-disassembly/repair work would not ensure the long-term conservation of the main gate in light of the inclination of the pillars and ground subsidence. Group 5 also presented: (i) a restoration method by completely disassembling/reassembling the gate after reinforcing the foundation; and (ii) a deduction that, based on the investigation of traces/marks of the pillar materials, the present-day roof shape was the one altered in later period, and the original shape should be a Kandy type steeple roof.

Reviews by the instructors

Mr Kondo: "Although there is no single right answer to how to approach repairs, the original should, in principle, be maintained as much as possible. All presentations understood this principle well. Group 5 expressed an interesting opinion that despite the stone finish of the original floor, the actual finish of the floor should conform to the maintenance and usability of Embekka Temple, because the temple is still in active service. This is a good opinion that considered well the balance between the conservation and use of the buildings. Japanese wooden structures remain through the periodical small-scale and large-scale repairs in the past. The point is that it is crucial to find out when a large-scale restoration should be carried out."

Mr Hayashi: "Although this might be a Japanese perspective, I am afraid that the main gate of Embekka Temple is in an extremely critical condition. It has been found that the gate is vulnerable to horizontal force, in light of the structure of the pillars. Accordingly, the point of repairs would obviously be the reinforcement of the pillar-installation points by straightening the pillars on the



Dog mentation of ano n by Mr Yoshida

foundation stones. To this end, it will be crucial to replace the pillars and to repair the foot parts of the pillars. I hope you, the participants, will have the keen eyes to take proper measures at the proper time."

Closing Ceremony

Address of the representative participant:

Ms M.P. Chandima Prabodhani Kumari (National Museum Department)

"I am very much honoured to have participated in this workshop. Furthermore, it is of great significance in the cultural heritage protection of Sri Lanka that the members of the three different departments/institutions, CCF, Department of Archaeology, and National Museum, could join together. I would also like to express my gratitude to the three instructors who diligently gave us lectures, as well as Mr Rasika Dissanayaka of the Department of Archaeology, the two interpreters, and the ACCU members. The knowledge we have obtained through this training will be a great help for us in our future work."











Mr P. Ratnayake (Actg. Director, Department of Archaeology, Ministry of National Heritage)

"After having heard the lectures of the instructors and the presentations of the participants, I noticed that the participants have acquired a great deal of information. This workshop held in Sri Lanka also provides such wonderful advantages that the 15 experts of fellow men/women, who face the same challenges in their homeland, have the opportunity to discuss with acquainted fellows in front of the familiar wooden structures of Sri Lanka. This joint training of the three different departments/institutions will produce good cooperation and advantageous effects. Finally, I think that this workshop was an excellent opportunity for the participants to learn Japanese culture, working hard, through the Japanese instructors who diligently worked at any time. I hope this relationship will be further deepened in the future, too."

Mr Nishimura, Director of the ACCU Nara, conferred the training-completion certificate with a commemorative gift to the 15 participants and the coodinator, Mr Rasika.

Address of Mr Nishimura

I hope the participants will take active roles in cultural heritage protection in Sri Lanka in cooperation with each other among the three departments/institutions in the future. Furthermore, please remember the ACCU Nara after you return home."

In the evening, the Japan team left for Colombo, and arrived at Colombo at night.



27 October (Sun.)

The Japan team left for the airport at night and saw off Mr Kondo who returned to Tokyo area.

28 October (Mon.)

The team left Colombo at midnight, and via Bangkok, they arrived at Kansai International Airport in the evening.

































III. Reports by Participants



Wood Carving of Embekka Temple



1. G.A. Manel Devika

Regional Archaeological Office (Western Province)

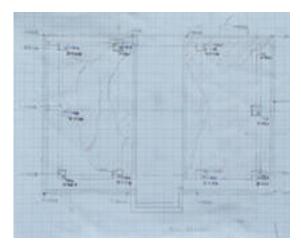
Department of Archaeology

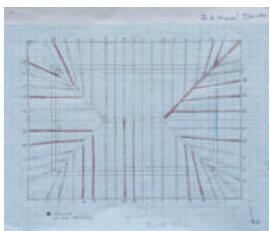
I'm very happy to be one of the participants of the workshop on protection and preservation of cultural heritage. I must be thankful to ACCU Nara for making arrangements to hold this type of effective programme in Sri Lanka and also given me the chance to acquire new techniques and knowledge, too.

The experts of ACCU Nara who participated in the programme were very cooperative and they shared and made us aware of the latest knowledge and practical techniques very effectively. I can say the workshop was very enjoyable, interesting and memorable one. Actually we actively participated in the activities. I'm happy to say that I could gain knowledge about rich culture & history of Japan and how they try to protect and preserve wooden buildings. So we can use such types of techniques for our wooden items, too. Also, this will help the group of fifteen members in Sri Lanka to promote the protection and preservation of cultural heritage in our country.

As a technical officer of the Archaeological Department in Sri Lanka, I'll take necessary steps to protect and conserve our wood carvings and wooden buildings according to your techniques.

Once again, I would be very thankful for ACCU Nara team and I suggest making arrangements to hold this type of workshops in Sri Lanka to share new things with us for the protection and preservation of our cultural heritage.







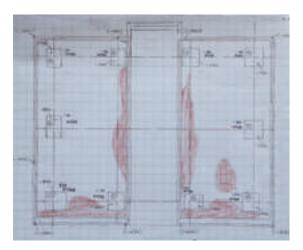
2. L.D.D. Ranjani RathnalthaRegional Archaeological Office (Western Province)
Department of Archaeology

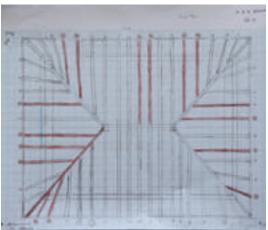
I am very much happy to be a participant at the local workshop on timber conservation held at Embekke Devale, sponsored by Asia-Pacific Cultural Centre for UNESCO, Nara, Japan, and organized by the Department of Archaeology. There were fifteen participants from three different organizations and it was a good opportunity to get the knowledge on documentation of timber buildings for conservation. Although I have been working as a technical officer for nearly 25 years for the Department of Archaeology, this was the first time I had engaged in such a systematic and important full time training on timber conservation.

We had several experienced lecturers from Japan, who taught us the new techniques in measuring recording and drawing of the monuments. We learned to see the monuments in a different eye with the vision given to us. The lecturers were friendly to us and also the interpreters gave us a very clear understanding about the lectures.

The entire team was very much enthusiastic in the field work as well as homework after the sessions. We have enjoyed both times in the field and at the hotel, which gave me a panoramic view. Although it was a tight scheduled program, we didn't feel tired.

I am very much thankful to ACCU Nara for the opportunity given to us and hope that I would be able to improve my knowledge and practical conservation works in the future to serve the country better.



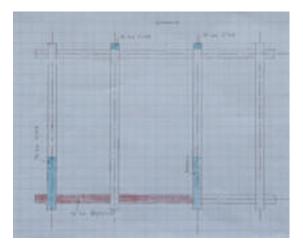


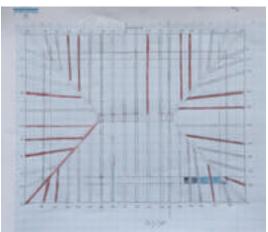


3. M.S.Subhashini. Kumari. ChandrasomaRegional Archaeological Office (Western Province)
Department of Archaeology

The workshop was good and very interesting. I felt very lucky to be one of the participants of this workshop. This workshop has given me knowledge to improve on cultural heritage preservation for my future. I got a lot of new knowledge in the field of conservation work mainly of wooden structures. And also through this workshop practical conservation methods, planning and techniques were provided to us. The lectures we were very important and it was useful for my job. I increased the knowledge about cultural heritage of Sri Lanka.

I was glad to be a participant of this workshop, and I hope this kind of workshop will be given to our members in the future as well.







4. B.M.A.P.Basnayake

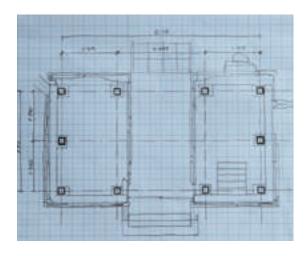
Architectural Branch

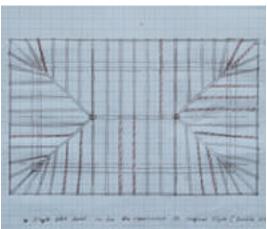
Department of Archaeology

I was lucky to be a participant of this important workshop. Although we have done similar works in the Department of Archaeology in Sri Lanka, it gave me a great experience with new knowledge and techniques, and it was a great help for my professional development. Collecting systematical data of the wooden structure is the most important aspect, which I gained through this workshop. It was very helpful to make the restoration proposal. Computer aided drawing of a decorated column head was very interesting to learn and I have improved my knowledge in that, and I assure that I can do it more accurately than I did before.

The lecturers and the staff of the Cultural Heritage Protection Office ACCU Nara were very friendly. They were not hesitating to share their valuable knowledge with us. Without interpreters, we will not be able to gain that knowledge. I must thank them, too. I am sure I will try to add this experience to my future restoration projects of wooden structures. Finally I would like to thank ACCU Nara for conducting an important workshop like this in Sri Lanka, and the Department of Archaeology for giving me this great opportunity.

"Domo Arigato Gozaimasu"



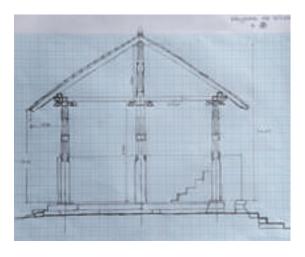


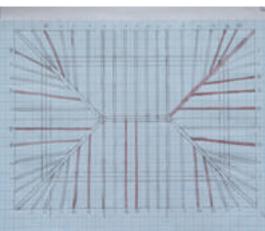


5. L.P. Nayana de SilvaArchitectural Branch
Department of Archaeology

This workshop was very interesting and memorable for me. I was very proud to be a participant of this workshop, which was a valuable experience. I got a lot of information and learned the new conservation methods and techniques of wooden buildings. In this workshop, I met new friends in different institutions but the same field of cultural heritage. The lecturers from Japan were very knowledgeable and friendly. They honestly shared their knowledge with us. With the help of interpreters, we could get a very good understanding on restoration methods. Sketching, taking measurement and inspecting a cultural property were done in a very systematic method. So I would like to thank staff of ACCU Nara for giving me to this valuable opportunity.

Thank you.





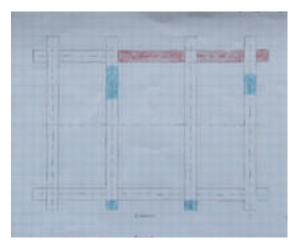


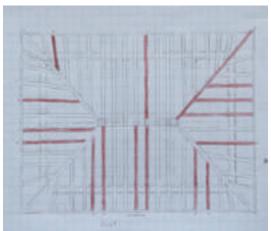
6. K.M. Renuka DamayanthiRegional Archaeological Office, Central Province
Department of Archaeology

It is a pleasure for me to join this project conducted by ACCU Nara. It was very important for me that they selected Embakke Devala site for this training which is under my supervision. During the training period, we got knowledge and experience on building conservation. This was a real opportunity given to us for improving our strength and overcoming weaknesses. As central region of the country is having lot of ancient buildings, this workshop was useful for correct documentation of them and for adopting correct conservation techniques. Therefore, conservation activities of other buildings can also be done in a very effective manner.

During the training, all the details were explained in a simple manner, and therefore, it was very easy to understand. The unity as a team was one of the factors for successful completion of the workshop. The activities given after the course work helped us understand the course details in a deeper manner. I take this opportunity to thank all the participants in the workshop for their teamwork to complete it successfully. Also, I thank all lectures and instructors who participated and educated us, giving their full capacity. I thank Department of Archeology for providing us this valuable opportunity as well.

Thank you.



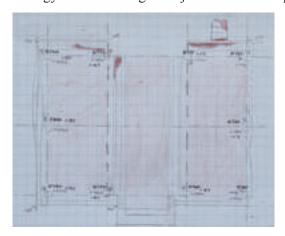


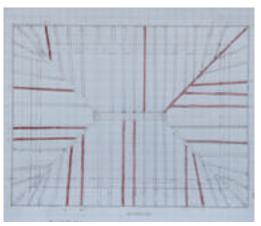


7. K.P.K.G.B. Gunaratne
Regional Archaeological Office, Central Province
Department of Archaeology

I consider this opportunity given me to attend this workshop by ACCU Nara is a tribute. As a fresh researcher in this field, I would like to give heartfelt thanks to ACCU Nara and the Department of Archeology for the opportunity granted. I got several opportunities to contribute in conservation of various archeological buildings in the past. But only through this workshop, I got correct and very deep understanding on methodical building conservation. In this workshop, I have studied about methodical record keeping of the components of building in a scientific manner and adopting ideal conservation techniques using the recorded data.

It was also helpful for me to understand and correct the shortcoming of the past conservation which we have done and to do the future conservation in a very correct manner. Though I did not have trainings on drawing, this workshop gave me a good understanding and knowledge about measured drawing. It is also important to say about the training environment created during the full training period. Throughout the training, all of us were doing everything as a family with fun and co-operation. Everyone was engaged very enthusiastically in the good learning environment and I believe that it was one of the factors for successful and effective completion of this workshop. I think we have got maximum benefits out of this training and I suggest continuing this workshop further to educate us on various treatment methods required in conservation of building and monuments. By this, we would be able to study various facts, causes and effects on the destruction of ancient buildings and appropriate conservation techniques. I take this opportunity to thank all lectures who participated to teach us these valuable methods and techniques with their utmost dedication. Also I grant my gratitude to Department of Archeology for facilitating us to join this workshop. Thank you.





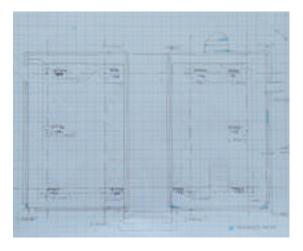


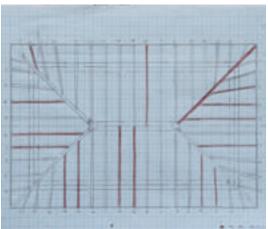
8. U.H.G. Priyantha Ratnasiri
Regional Archaeological Office, Central Province
Department of Archaeology

I am glad to be a participant of the workshop that was held by ACCU Nara, Japan. I felt that the training was very interesting and meaningful.

The participants' skills and the knowledge about measuring and recording wooden structures were at various levels, and I was not above a satisfactory level before participating in this workshop. The contents of the course work were very clear and well-focused. Methods were introduced step by step, and it was much easier to understand. So I could change my attitudes from the workshop, and now I am confident enough to use these methods for my further works in a meaningful way. It would be helpful to protect our heritage.

As a Sri Lankan, I highly appreciated your dedication and cooperation in this regard. Also, I hope for your further cooperation to protect our heritage as well. Thank you very much.







9. M.P. Chandima Prabodhani KumariNational Museum, Colombo
Department of National Museums

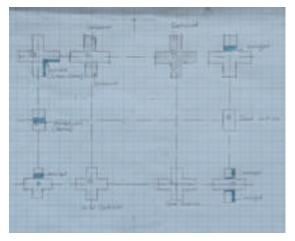
I have been employed at Colombo National Museums Sri Lanka as a Conservation Officer/Head of the Conservation Unit (Acting). In Sri Lanka and Kandyan region, there are various forms of cultural heritage which are of great value from a global point of view. Proper investigation, analysis preservation and development of these sites and remains are required of heritage professionals in order to ensure that these important monuments are safeguarded for future generations. ACCU Nara, in partnership with ICCROM, organized a training course on this topic with a view to build the capacities of professionals who had been working on Embekke Devalaya, Kandy.

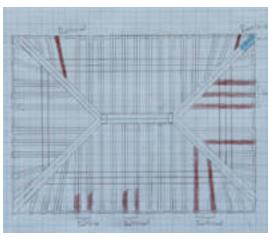
This course aims to provide participants with the latest methodologies and technologies for recording/documentation and research methods for wooden structures and management of Embekke Devalaya.

By participating in this programme, we gained a lot of knowledge, regarding:

Knowledge and skills related to techniques of recording and analytical methods for Embekke Devalaya, Kandy; Preservation of wooden structure and its future task; Drawing by measurements; Damage survey and drawing up a restoration plan, and Formulating management strategy

This knowledge given to us both theoretically and practically was especially new and latest acquired knowledge and techniques in this progremme. It is a very great help for our professional career. We will apply our knowledge and experience from this training programme. With these remarks, I would like to convey my deepest gratitude to the excellent work that was performed by the organisation committee of this programme. Director and the guest lecturers from ACCU Nara who invested a lot of time in making this course a success. Thanks to you all the instructors that shared the knowledge with us.







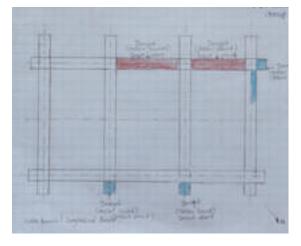
10. P. Rashmi. Samanmali GunawardenaNational Museum, Ratnapura
Department of National Museums

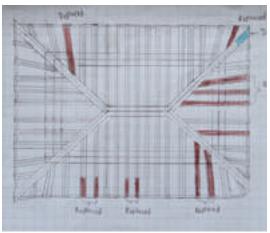
I have been employed at the Ratnapure National Museum Sri Lanka as a research assistant.

I participated in ACCU Nara Work Shop which was held at the premises at Embekka Dewalaya in Kandy. I gained a vast knowledge in recording, documentation and wood conservation by the new technology which was introduced to us by the experts. Adding to what we presently learn in Sri Lanka, regarding preservation of archaeological monuments, we gained a vast knowledge by the new technology which was introduced to us by the Japanese archeology experts.

Accordingly, what we learned by participating in this archaeology workshop will be a granted advantage to us to popularize the archaeological values in the museums and the whole archaeology field in Sri Lanka. In addition, the Japanese experts gave us their valuable knowledge in conservation of archeological monuments, recording, documentation, wood conservation and time programming.

Finally, we thank ACCU Nara Directorate, Japanese experts, and the staff for their very kind cooperation extended to us by giving their valuable expert knowledge in archaeology, enabling us to give a valuable service to Sri Lankan citizens in the archaeological field.





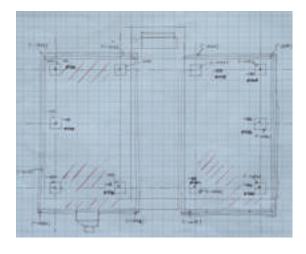


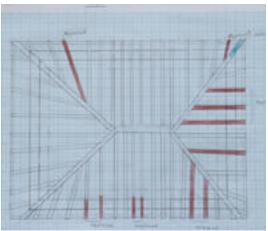
11. J.A.N.K. Jayaweera

Wayamba Cultural Quadrangle, Panduwasnuwara Project
Central Cultural Fund

It is with a great sense of gratitude to mention this specific workshop was a good opportunity to gain knowledge to improve my skills on cultural heritage preservation as well as the practical techniques for my future carrier. Through participation of the workshop, I gained experience and new knowledge in the field of conservation work, mainly of wooden buildings.

It is much appreciated that the organising commity can arrange a course on the advanced document preparation and conservation treatment of wooden structures with a longer duration in the future. I would suggest for the similar workshop should be implemented for a longer period in order to acquire the knowledge which can be directly practiced in our work. The work shop was limited to a very short period for one week, and I hope that it should be organised as series of more advanced workshops in the future. The whole workshop was conducted satisfactory and shortly, and I would like to appreciate this programme, and I also like to forward my gratitude to the organisers of the course, which was very helpful to do my duties entrusted upon me by Central Cultural Fund.





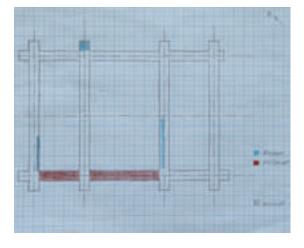


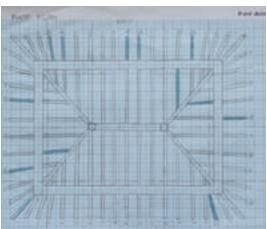
12. B.G.W. Mahinda BandaranayakeWayamba Cultural Quadrangle, Ridigama Project
Central Cultural Fund

I am very glad to confirm that we have learned a lot of positive feedbacks, skills and knowledge from your excellent training sessions. Not only have we all learned a lot, but it has also been a very pleasant cooperation with us.

Contemporary civilization is always beset with issues like expressed globalization. ACCU Nara carried out a workshop which promotes UNESCO's Convention for the Safeguarding of Intangible Cultural Heritage (2013). In particular, we placed emphasis on programmes which encouraged community participation in safeguarding activities and production of materials which conveyed the spirit of UNESCO's Convention. Therefore, I have developed my science and technology for conservation as part of the improving conservation and management practices through the World Heritage Convention programme area. This course used tools and methodologies developed within the World Heritage system (wood conservation) to train professionals to better safeguard all types of heritage sites.

Again, thank you so much for your commitment. I greatly appreciate the assistance you have provided us.







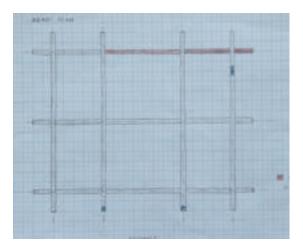
13. T.M.M. Ratnayake

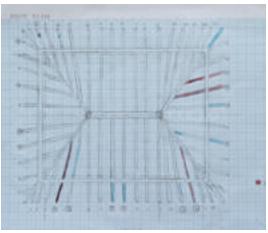
Wayamba Cultural Quadrangle, Dambadeniya Project

Central Cultural Fund

The Workshop of Protection Cultural Heritage in Kandy was a wonderful and important experience in my lifetime as a conservation officer. Also, it was held at the ancient architectural important place of Embekka Devalaya in the Kandy city. In this training period, I could study the measuring, leveling, preparing sketch and structural drawing and also reporting of the wooden structures. So as a participant, I could improve my knowledge in the field of conservation of wooden structures, and it can be used for future activities in my country, too. I hope this type of workshop can be held on a regular basis for future conservation staff.

Finally, I would like to thank staff of Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO, Department of Archaeology and Central Cultural Fund for the selection and for giving this opportunity to me.



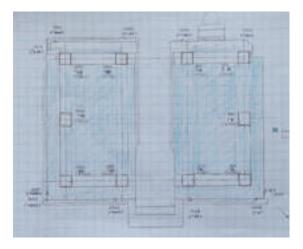


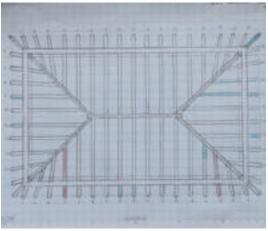


14. S.M.I Malkanthi Samarakoon *Kandy Project Central Cultural Fund*

I am fortunate enough that I have got an opportunity to participate in the workshop organised by you. I gained a lot of experience from it. From the ancient time, Sri Lanka has been rich in carvings and wooden monuments. However, those have been destroyed day by day due to many reasons such as weather, climate, and so on. Traditional methods are mostly used to conserve these valuable places in Sri Lanka. You have given us vast knowledge on how to practice conservation, using modern technology. I am thankful to the officers of ACCU Nara for giving us good practical and methodical knowledge in a short period, and also I would appreciate if you could include wood preservation in your future programs. It would be highly productive.

Finally, I would like to give my heart-felt thanks to Archaeological Department in Sri Lanka and Nara Institute in Japan.

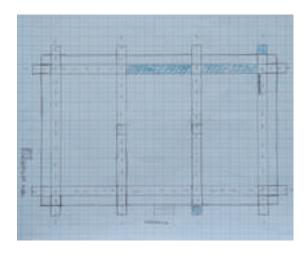


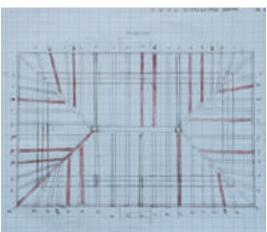




15. H.M.G. G. Thilakaratne BandaKandy Project
Central Cultural Fund

It is a great honor for me to have an opportunity to participate in a workshop like this. I appreciate that this program was held in a historical famous place like Embekka. As a carpenter, I am engage in conservation of sites, so I gained massive knowledge, working on the sites like these historical places. I appreciated about the instructions and knowledge given to me at continues conservation tasks using modern technology and modern equipment.





IV. Text



Golden Temple of Dambulla

Restoration of buildings designated as Cultural Properties in Japan

Mitsuo Kondo

1. Types of buildings designated as Cultural Properties

Buildings designated as Cultural Properties in Japan consist of (i) National Treasures/Important Cultural Properties designated by the national government and (ii) Tangible Cultural Properties designated by prefectures and municipalities. There are also buildings registered as Registered Cultural Properties. The total number of all these buildings adds up to more than 20,000. The scope of buildings spans extensively from the Kondo hall and five-story pagoda of the Horyu-ji temple built in the latter half of the 7th century to the Main Building of the National Museum of Western Art built in 1959. The types of buildings include shrines and temples, castles, houses, and modern architecture as well as civil engineering structures including bridges and tunnels.

At present, 4,250 buildings are designated as National Treasures and Important Cultural Properties for preservation.

Classification of buildings designated as National Treasures and Important Cultural Properties

National Treasures	262 buildings	
Important Cultural Properties	3,972 buildings	

Breakdown as of 2008

	Shinto shrines	31.5%
Defere 1967	Buddhist temples	30.4%
Before 1867	Private houses	20.4%
	Others	17.7%
	Vernacular Houses	40.0%
After 1867	Industrial heritage	30.6%
	Others	29.4%

Classification by period before 1867 (number of buildings)

Classification	Before the end of the 8th c.	Before the end of the 12th c.	Before the end of the 16th c.	Before 1867
Shinto shrines	0	4	352	795
Buddhist temples	28	35	493	551
Private houses	0	0	3	652
Others	1	12	183	449
Subtotal	29	51	1031	2447

2. Fate of buildings designated as Cultural Properties

More than 90% of buildings designated as Cultural Properties in Japan are made from wood, and most of them are situated outdoors. These buildings are highly likely to be damaged due to a warm climate characterized by frequent rain and high humidity as well as frequent natural disasters such as typhoons and earthquakes. In particular, the roofs and the frames are directly exposed to weather and therefore are susceptible to damage. If left unattended, the damage would immediately affect the main structures. Periodic restoration is indispensable to maintain buildings for an extensive period of time. Unlike stone buildings made from solid materials, wooden buildings cannot be preserved without taking care of the damage.

Unlike stone and brick buildings, wooden buildings can be easily extended and renovated. Thus, many wooden buildings are different from how they looked when they were initially built. This is one of the features of wooden buildings that were used for a long period of time.

3. Preservation and restoration through subsidized projects

In Japan, preservation and restoration projects have been undertaken with substantial support (but under strict regulations) from the national government (50–85% of the project cost), prefectures, and municipalities in accordance with a law enacted in 1897.

Preservation and restoration projects are classified by the extent of damage.

Types of restoration projects (Figures in the parentheses show results for FY 2008.)

	Type of restoration project	Remarks
Fundamental restoration (98)	Total dismantlement and restoration (52)	Dismantling an entire building
	Partial dismantlement and restoration (46)	Dismantling a building except part of its structure
	Restoring the roof (201)	Reroofing
Maintenance and restoration (295)	Partial restoration (45)	Partially restoring the wooden part
	Painting restoration (49)	Repainting

Fundamental restoration: when the foundation is subject to differential settlement, the frame is distorted, or structural components are significantly decayed

Fundamental restoration is required every 100–200 years. Restoration engineers must be present on site.

Maintenance and restoration: when one part is damaged

Restoration engineers are not required to be present on site. Instead, they offer on-site guidance once or twice a month. The restoration cycle is about 30 years for roofs made from plant materials and about 50 years for tiled roofs.

4. Preservation and restoration based on a thorough investigation

In the process of dismantling a building, components are classified by period, and a careful investigation is conducted to identify signs of modifications in later periods and confirm specifications in respective restoration periods, etc. and thereby reveal (i) the history from initial construction to date and (ii) characteristic techniques. Based on the results of the investigation, a policy is established to seek restoration to the current condition or to the original state. Efforts are made to repair and reuse damaged components wherever possible. If damaged components have to be replaced, new components of the same material, dimensions, and specifications as those of the original components are processed and assembled using traditional techniques.

5. Records of investigation and restoration work

In the case of fundamental restoration, restoration engineers prepare detailed pre-restoration and completion drawings during the restoration work period. These drawings are hand-drawn using India ink for long-term preservation.

A restoration work report is also prepared to document investigation results, details of the work, photos (before, during, and after restoration), drawings, and reference materials. In principle, the restoration work report is intended to be preserved as a scientific record.

6. Case report

Name of building Seki family residence (main building and study) designated as an

Important Cultural Property

Address 1220 Kachida-cho, Tsuzuki-ku, Yokohama City, Kanagawa Prefecture

Construction period Main building: in the first half of the 17th century

Study: in the first half of the 18th century

Year of designation 1966

Restoration policy Main building: dismantlement and restoration

Study: partial dismantlement and restoration

Project period 36 months (completed in October 2005)

Project cost 341,136,000 yen

Reason of restoration
In both the main building and study, the foundation was subject to

differential settlement, and the frame was significantly inclined. In particular, damage to the roof truss was caused by insects and a leak in the roof. The roof was also damaged due to deterioration through age.

V. Appendix



Lankatilaka Temple

1. Participants

1. G.A. Manel Devika

Regional Archaeological Office (Western Province), Department of Archaeology

2. L.D.D. Ranjani Rathnalatha

Regional Archaeological Office (Western Province), Department of Archaeology

3. M.S.Subhashini. Kumari. Chandrasoma

Regional Archaeological Office (Western Province), Department of Archaeology

4. B.M.A.P.Basnayake

Architectural Branch, Department of Archaeology

5. L.P. Nayana de Silva

Architectural Branch, Department of Archaeology

6. K.M. Renuka Damayanthi

Regional Archaeological Office, Central Province, Department of Archaeology

7. K.P.K.G.B. Gunaratne

Regional Archaeological Office, Central Province, Department of Archaeology

8. U.H.G. Priyantha Ratnasiri

Regional Archaeological Office, Central Province, Department of Archaeology

9. M.P. Chandima Prabodhani Kumari

National Museum, Colombo, Department of National Museums

10. P. Rashmi. Samanmali Gunawardena

National Museum, Ratnapura, Department of National Museums

11. J.A.N.K. Jayaweera

Wayamba Cultural Quadrangle, Panduwasnuwara Project, Central Cultural Fund

12. B.G.W. Mahinda Bandaranayake

Wayamba Cultural Quadrangle, Ridigama Project, Central Cultural Fund

13. T.M.M. Ratnayake

Wayamba Cultural Quadrangle, Dambadeniya Project, Central Cultural Fund

14. S.M.I Malkanthi Samarakoon

Kandy Project, Central Cultural Fund

15. H.M.G. G. Thilakaratne Banda

Kandy Project, Central Cultural Fund

2. Instructors

Prasanna B. Ratnayake

Acting Director (Architectural Conservation)

Department of Archaeology, Ministry of National Heritage
Sir Marcus Fernando Mawatha, Colombo 00700, Sri Lanka
Tel & Fax: (+94) 112693216, (+94) 112696250

prasannabratnayake@gmail.com



KONDO Mitsuo

Exective Director

The Japanese Association for Conservation of Architectural Monuments (JACAM)
2-32-15 Nishinippori Arakawa-ku, Tokyo 116-0013, Japan Tel: (+81) 3 6458 3642 Fax: (+81) 3 6458 3643



HAYASHI Yoshihiko

m kondo@bunkenkyo.or.jp

Director

Department of Cultural Heritage Nara National Research Institute for Cultural Properties (NNRICP) 2-9-1 Nijo-cho, Nara 630-8577, Japan Tel: (+81) 742 30 6812 Fax: (+81) 742 30 6811



YOSHIDA Mitsuyoshi

hayashiy@nabunken.go.jp

Restoration Architect

Nara Prefectural Board of Education, Cultural Assets Preservation Section
30 Nboriohji-cho, Nara 630-8501, Japan
Tel: (+81) 742 27 9865 Fax: (+81) 742 27 5386
yoshida-mitsuyoshi@office.pref.nara.lg.jp



3. Interpreters

Panini Dushmantha Kudavidanage

Translator / Interpreter
No. 140/2, Major Ranjith Fernando Mawatha, Koralawella,
Moratuwa, Sri Lanka
Tel: (+94) 112657260
paninidk1222@gmail.com



Ananda Peramune

Translator / Interpreter

25/1. Vijitha Road, Nedimala, Dehiwala, Sri Lanka

Tel: (+94) 777 602321



4. Collaborators

Gamini Wijesuriya

Project manager, Site Unit, ICCROM, Rome

Jagath Balasuriya

Minister, Ministry of National Heritage

Nanda Wickramasinghe

Secretary, Ministry of National Heritage

Gamini Adikari

Director General, Central Cultural Fund

Hemantha Welivita

Embekka Temple

Basnayake Nilame

Embekka Temple

SASAI Daiji

First Secretary, Embassy of Japan in Sri Lanka

5. Co-organiser

■ Department of Archaeology, Sri Lanka

Senarath Dissanayake, *Director General of Archaeology*Prasanna B. Ratnayake, *Acting Director (Architectural Conservation)*Deepal Wijethilake, *Deputy Director (Promotions)*

Coordinator

D. A. Rasika Dissanayaka, Acting Assistant Director (Promotions)

Supporting Staff

L. M. Gunatilake Banda, *Acting Assistant Director (Central Province)*H.P.S. Karunaratne, *Senior Technical Officer*Wasana Sirimalwatte, *Publication Officer*

6. Staff Members, ACCU Nara

NISHIMURA Yasushi, *Director*TAKAHASHI Wataru, *Deputy Director*KOBAYASHI Ken'ichi, *Director, Programme Operation Department*WAKIYA Kayoko, *Director, International Cooperation Division*HORIKAWA Kazuko, *Chief, Planning & Coordination Division*MIDORIKAWA Aya, *Chief, International Cooperation Division*NISHIDA Michiko, *Staff, Planning & Coordination Division*SHIMOMURA Nobuhito, *Staff, International Cooperation Division*

Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO (ACCU)

757 Horen-cho, Nara 630-8113 Japan Tel: (+81) 742 20 5001 Fax: (+81) 742 20 5701

e-mail: nara@accu.or.jp

URL: http://www.nara.accu.or.jp



Memorandum of Understanding

