

# **Training Report**

## **on**

# **Cultural Heritage Protection**

**Training Course for Researchers in Charge of Cultural Heritage Protection  
in Asia and Pacific 2013 - Kiribati -**  
1 August - 26 August, 2013, Nara, Japan



Cultural Heritage Protection Cooperation Office,  
Asia-Pacific Cultural Centre for UNESCO (ACCU)  
Agency for Cultural Affairs, Japan  
Nara National Research Institute for Cultural Properties

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Opening Ceremony at ACCU Nara Office



Mr Niwa (left) explained the display in Asuka Historical Museum.





Mr Hirasawa lectured on conservation of cultural landscape (at NNRICP).



At Nara Palace Site  
(Excavation Site Exhibition Hall)



Storage system of artefacts (at NNRICP)





Practical training of photography; Image correction of photo data

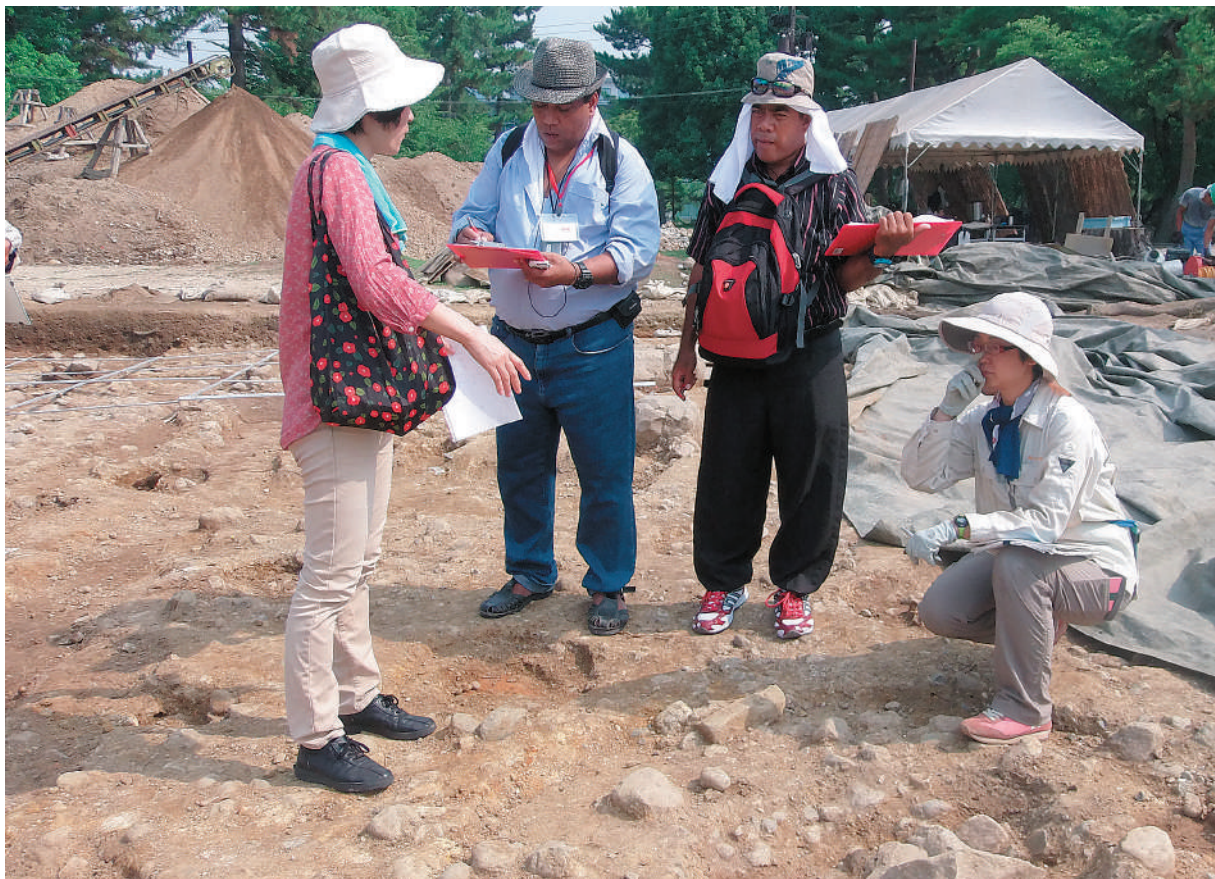


Practical training of photography; Photo session of artefacts





A lecture of map data creation using GIS



Ms Ban (right) explained how to conduct an excavation (at Kofuku-ji Temple)





A lecture by Mr Kimura at Itsukushima Shinto Shrine, the UNESCO World Heritage site



A lecture by Ms Edani on the cultural landscape of Oku-Asuka  
(Right; a relic related to traditional religious rituals)





Mr Hidaka (right) explained the storage system in National Museum of Ethnology.



A lecture by Mr Iida on the display of folklore resources (at National Museum of Ethnology)

## *Preface*

The Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO (ACCU Nara) 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 establishment, our office has been implementing a variety of programmes to help promote cultural heritage protection activities, in close cooperation with the Agency for Cultural Affairs, Japan (Bunkacho); National Institutes for Cultural Heritage, National Research Institute for Cultural Properties, Tokyo and Nara; the Nara Prefectural Government; the Nara Municipal Government; universities; and museums.

The ACCU Nara's activities encompass training programmes for the human resources development; international conferences and seminars; the website for the dissemination of information relating to cultural heritage protection; and the World Heritage Lectures in local high schools. In addition to those, ACCU Nara offers "Local Training Workshop" which dispatches a group of lecturers from Japan to one of Asia-Pacific countries and implements the practical training on cultural heritage protection on sites. Besides, we annually appoint "International Correspondent" from each country for the purpose of establishing closer ties with the countries in the Asia-Pacific region, who will periodically send latest reports on cultural heritage protection in their country.

Our office has been conducting two types of the training course in Nara: for the group and for the individuals. The group training course offers the opportunity to sixteen experts from Asia-Pacific region for about one month with two themes in alternate years: "Preservation and Restoration of Wooden Structures" and "Research, Analysis, and Preservation of Archaeological Sites and Remains." Meanwhile, the individual training course is organized for a few experts from one country on the specific theme according to their requests.

The Republic of Kiribati is an island group scattered over a wide span of the Central Pacific Ocean. Kiribati is in need of verification and documentation of cultural properties, including archaeological sites and remains, based on the unified standard. However, they are facing with the shortage of human resource and technology to deal with the situation. Therefore, ACCU Nara has decided to offer a training course as part of a cultivation of human resources. In this training course, we have introduced the legal protection system required for the procedures as well as the landscaping and utilization of cultural properties.

Finally, we would like to express our sincere appreciation to Agency for Cultural Affairs, Japan (Bunkacho); Nara National Research Institute for Cultural Properties; Nara National Museum; National Museum of Ethnology; Nara Prefectural Board of Education; Hyogo Prefectural Board of Education; Hiroshima Prefectural Board of Education; Kobe Municipal Board of Education; and Yakushi-ji Temple for their cooperation and support.

*NISHIMURA Yasushi*

*Director*

*Cultural Heritage Protection Cooperation Office,*

*Asia-Pacific Cultural Centre for UNESCO (ACCU)*

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# I. Introduction

1. General Information
2. Programme Schedule



At East Palace Garden, Nara Palace Site



# **1. General Information**

## **1. Organiser**

The course is jointly organised by Agency for Cultural Affairs, Japan (Bunkacho); Asia-Pacific Cultural Centre for UNESCO (ACCU); and National Institutes for Cultural Heritage, Nara National Research Institute for Cultural Properties.

## **2. Background**

The cultural heritages in Oceania have not been fully recognised due to their geographical conditions as island countries dispersed in the Pacific Ocean, and moreover, the human resource for protection and investigation are still under development. In recent years, some cultural heritages in Vanuatu, Papua New Guinea and the Marshal Islands were inscribed on the World Heritage List, but as yet, the number of registration in such countries is still small.

The Republic of Kiribati is an island nation comprised of numerous atoll islands, such as the Gilbert Island, the Phoenix Island and the Line Island as the main island groups close to the equator. Since 2010, a natural heritage in the Phoenix Island Protected Area has been registered as a World Heritage site. Although an effort for the registration of cultural heritages has currently been put forth, considering the possible damages due to environmental changes, such as the rise in sea level, there is an urgent need to implement a range of measures for protection as well as gaining an understanding of the actual situation.

Under these circumstances, mapping of the cultural heritages has been completed in Kiribati, and the upcoming tasks, such as the management of data, acquirement of knowledge and practical techniques for legislative preparations toward the protection of cultural heritage, and development of human resources concerning the project, have been addressed as the urgent priorities.

Based on this current situation in Kiribati and in response to a request from the government of Kiribati, ACCU Nara has decided to invite officials with a purpose of providing the broad knowledge and practical techniques of research, documentation, management and utilisation.

## **3. Date and Venues**

Date: 1 August (Thur.) to 26 August (Mon.) 2013. [26 days]

Venues: Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO (ACCU Nara); Facilities and museums of cooperating organisations.

## **4. Objective of the Training Course**

This individual training course aims at providing participants with the broad knowledge and practical techniques concerning to measures for research and documentation (survey, actual measurement, photography etc.), management and utilisation.

## **5. Training Curriculum**

- Introduction to Recording/Documentation of Archaeological Sites and Artefacts



- Recording/Documentation of Archaeological Site and Remains (Survey, Actual Measurement and Photography)
- Maintenance, Management and Utilisation of Sites (Introduction, On-site Training)
- Management and Utilisation of GPS and GIS Data etc.

## **6. Participants**

### **Natan Itonga (Mr)**

Cultural Officer, National Culture Centre & Museum Division, Ministry of Internal & Social Affairs

Date of Birth: 15 October 1966 (Age 46)

### **Tiaontin Enari (Mr)**

Senior Cartographer, Land Management Division, Ministry of Environment, Land and Agricultural Developments

Date of Birth: 21 June 1970 (Age 43)

## **7. Process of Invitation**

The Republic of Kiribati recommended two applicants suitable for the above mentioned invitation programme as participants. Then ACCU Nara Office has determined to invite two applicants as participants through close examination.

## **8. Others (Past achievement to accept participants)**

Since 2000 when the above-mentioned invitation programme started, 47 participants from 15 countries have been accepted.

## **9. Certificate**

Each participant will be awarded a certificate upon the completion of the course.

## **10. Language**

English is the main working language of the course.

## **11. Expenses**

Expenses for the training course will be borne by ACCU and comprise the following:

### **(1) Travel expenses:**

Each participant will be provided an economy-class return air ticket between the international airport nearest to their residence and Kansai International Airport (KIX), and domestic transportation costs between KIX and their accommodations in Nara.

### **(2) Living expenses:**

Participants will be provided daily subsistence allowances during the training course, beginning from 1 August (Thu.) to 26 August (Mon.) 2013. Arrangements and payment for accommodations will be

made by ACCU Nara. Also, the accommodation expenses on the way to and/or from Japan will be covered by ACCU Nara.

## **12. Secretariat**

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# Individual Training Course Schedule 2013 (1 August - 26 August)

## Kiribati

	Date	9:00-12:00	13:00-16:00	Lecturer	Venue
August	1 Thur.	Opening Ceremony (10:00- )	Guidance to the Programme	ACCU Nara	ACCU Nara
	2 Fri.	On-site Lecture "Historic Monuments of Ancient Nara"		ACCU Nara NOJIRI Tadashi	Todai-ji Temple, Kasuga-taisha Shrine and National Museum in Nara
	3 Sat.				
	4 Sun.				
	5 Mon.	Designation of Remains and Protection System	Maintenance and Utilisation of Re- mains	NAKAJIMA Yoshiharu	NNRICP
	6 Tue.	The History of Preservation of Nara Palace Site	On-site Training “Case Study of Site Maintenance (Nara Palace Site)”	OHIRA Kazuhiro NAKAJIMA Yoshiharu	NNRICP, Nara Palace Site
	7 Wed.	Conservation of Cultural Land- scape and Its Protection System	Practice “Zoning Schemes”	HIRAWASA Tsuyoshi EDANI Hiroko	NNRICP
	8 Thur.	On-site Lecture Cultural Landscape in the Asuka Area		EDANI Hiroko HIRAWASA Tsuyoshi	Asuka Area Asuka Historical Museum
	9 Fri.	On-site Training “Recording/ Documentation and Survey Method of Artefacts”	Storage and Maintenance System of Artefacts	BAN Hikaru ISHIMURA Tomo AOKI Takashi TAMURA Tomomi	Kofuku-ji Temple NNRICP
	10 Sat.				
	11 Sun.				
	12 Mon.	On-site Lecture “World Heri- tage: Buddhist Monuments in the Horyu-ji Area etc.”	On-site Lecture. “Conservation and Management of Temple Architec- ture”	BABA Hiromichi	Horyu-ji Temple Yakushi-ji Temple etc.
	13 Tue.	Management and Utilisation of GPS/GIS Data I		MORIMOTO Susumu	NNRICP
	14 Wed.	Management and Utilisation of GPS/GIS Data II		MORIMOTO Susumu	NNRICP
	15 Thur.	Management of Photographic Data		NAKAMURA Ichiro	NNRICP
	16 Fri.	Cultural Heritage Management in Practice I (Fiji)	Cultural Heritage Management in Practice II (Micronesia)	ISHIMURA Tomo	NNRICP
	17 Sat.				
	18 Sun.				
	19 Mon.	Museum Exhibition in Practice		IIDA Taku, HIDAKA Shingo, KUBO Masatoshi	National Museum of Ethnology
	20 Tue.	Exhibition Method and Utilisa- tion	Cultural Heritage Management in Practice III (South Eastern Asia)	NAKAGAWA Aya WATANABE Junko TASHIRO Akiko	NNRICP
	21 Wed.	Risk Management for Cultural Heritage		MURAKAMI Yasumichi HIGASHI Kazue	Preservation Districts for Groups of Historic Buildings, Kobe City
	22 Thur.	On-site Training “Conservation and Management of Cultural Heri- tage I”		KIMURA Nobuyuki	Special Historic Spot Itsukushima
	23 Fri.	On-site Training “Conservation and Management of Cultural Heri- tage II”		Hiroshima Peace Memorial	Hiroshima City (Hiroshima Peace Memorial)
	24 Sat.				
	25 Sun.				
	26 Mon.	Submission of Final Report / Closing Ceremony			ACCU Nara

ACCU Nara: Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO

NNRICP: Nara National Research Institute for Cultural Properties

## II. Summary of Training Course



Yumedono, Horyu-ji Temple





## Summary of Training Course

1 August (Thur.)

### Opening Ceremony

The opening ceremony was held at ACCU Nara. The Welcome Address by the Director of ACCU Nara requested that, as it was the hottest season of the year in Japan, the participants should take care of themselves during their stay, while increasing their knowledge. After that, the ACCU staff members and the participants introduced themselves to each other. Mr Enari introduced the division to which he belongs, and described his engagement in the creation of an archaeological-site distribution map in Kiribati, as well as his hopes to utilise the knowledge acquired through this training for his work upon his return. He added that this was his first visit to Japan. Mr Itonga expressed his gratitude for the invitation to attend this training. He also he and Mr Enari belong to two different divisions, which are cooperating in the creation of the archaeological-site map. He hoped to use the results of the training for the protection of cultural properties in his own country.

### Guidance to the Programme

ACCU Nara provided a brief overview of the training curriculum, precautions regarding the training, life in Japan, and the history of Nara.



Opening Ceremony



Gift presentation by participants



Orientation



2 August (Fri.)

## **On-site Lecture “Historic Monuments of Ancient Nara” Todai-ji Temple, Kasuga-taisha Shrine**

WAKIYA Kayoko (ACCU Nara)

- The participants toured the Nandaimon Gate (lit. Great South Gate) and the Hall of the Great Buddha of Todai-ji Temple. Although many of the existing buildings of Todai-ji Temple are the rebuilt ones, such structures as a part of the Hokke-do Hall, Shoso-in (treasure house), Tegaimon Gate, etc. remain in their original state from the time period in which they were constructed. Incidentally, the Nandaimon Gate was rebuilt in the Kamakura period in the construction form of that time period (a.k.a. the Great Buddha style). The Hall of the Great Buddha has been reconstructed many times, and the present-day Hall of the Great Buddha, the scale of which has also been reduced from the original size, was rebuilt in the Edo period.

The participants asked questions about the maintenance, meaning of ornaments of the temple, etc.

- The lecturer explained the tradition of periodical reconstruction of Kasuga-taisha Shrine, and that although the buildings of the shrine are rather new, because they have been rebuilt every 20 years; the construction form is exactly the same as that used in the time period of its original construction, and has been passed down from generation to generation. The trainees remarked that they were very interested in the various rituals and rites of the shrine as examples of the intangible heritage.



At Todai-ji Temple



At Kasuga-taisha Shrine

## **Nara National Museum**

NOJIRI Tadashi (Nara National Museum)

- The lecturer provided a brief regarding the background of the establishment and history of the Nara National Museum. Nara has many Shinto shrines and Buddhist temples which have national treasures. In order to exhibit/preserve the Buddha statues, etc. among those treasures, the museum was constructed in 1895. Following this, the West Annex was



A lecture by Mr Nojiri



built in 1972, and the East Annex was built in 1997, thereby reaching the scale of the present-day.

- About 450,000 visitors come to the museum each year. In addition to the permanent exhibition, special exhibitions are held four to six times a year. An especially large number of visitors attend the special exhibition held in the autumn of each year of the Shoso-in (treasure house) Exhibition, exhibiting articles left by Emperor Shomu.
- A participant asked whether the museum buildings were originally designed/allocated on the premise of future expansion. The lecturer explained that the museum initially did not have any plans for expansion, but added the buildings from necessity.
- The museum issues a newsletter four times a year to introduce its activities, including details of exhibitions, to a large number of subscribers. Various fliers and leaflets have been created in both English and Japanese.

#### 5 August (Mon.)

### **Designation of Remains and Protection System, Maintenance and Utilisation of Remains**

NAKAJIMA Yoshiharu (NNRICP)

- The lecturer began his lecture describing the current protection system used in Japan. He introduced the types and numbers of the designated cultural properties covered by the Law for the Protection of Cultural Properties, while describing differences in designation and registration (selection). The registration system aims to protect cultural properties leniently while utilising the properties, and not to place restrictions on properties in the same way as the designation system.
- Following this, the discussion turned to the current conditions of cultural property protection in Kiribati. The participants explained that in Kiribati, cultural properties belong to individuals or groups. Many people do not know the value of cultural properties. Although mapping of cultural properties is currently underway, and the situation of the cultural properties is gradually becoming clear, registration/designation at the state level has not yet been established.  
survey (mapping) is proceeding around the capital, but has not yet been completed. With regard to archaeological sites, the locations have been identified via GPS, and recorded by video.
- The lecturer commented that Kiribati will need to complete the classification of those cultural



A courtesy visit to Mr Matsumura, Director General, NNRICP (left)



A lecturer by Mr Nakajima



properties and the consequent protection measures. The participants responded that in Kiribati, the law such as the Law for the Protection of Cultural Properties and the registration systems have yet to be established.

### **Maintenance and Utilisation of Remains**

- The lecturer explained the maintenance and utilisation of archaeological sites by using the text of the abridged version of “the Guidebook for the Improvement of Historical Sites, etc”.
- The lecturer explained the philosophy (basic policy) of maintenance and consequent conservation/ utilisation. Following this, he briefly explained the basic principles of skills and techniques for maintenance/improvement.
- The participants watched a slide show of examples of environmental improvement (land reclamation, land-feature improvement, drainage, etc.) of conservation facilities (including signs and description boards) and archaeological sites, as well as presentations of archaeological sites and remains. The lecturer mentioned that, when carrying out maintenance/improvement, they always strive not only to facilitate it so that visitors are able to gain a good understanding of archaeological sites, but also to make the sites harmonize with the surrounding landscape.

6 August (Tue.)

### **The History of Preservation of Nara Palace Site**

OHIRA Kazuhiro, NAKAJIMA Yoshiharu (NNRICP)

- The lecturer provided a brief introduction, using PowerPoint, of the history of the conservation of Nara Palace Site as well as the maintenance/improvement techniques. To begin with, he described the extent and structure of Nara Palace Site and Nara Capital ruins, then subsequently, the history of the surveys and conservation of Nara Capital/Nara palace Sites.
- The brief introduction of the history of improvement/maintenance was as follows: In 1970, the “Archaeological Site Museum Plan” was set up; and in 1978, the basic concept was established. This basic concept, still operational to date, defines the status of the Museum as: (i) the base of research/study of archaeological sites; (ii) space in which visitors may understand the ancient capital



A lecture by Mr Ohira at Nara Palace Site

through experiences; and, (iii) the development of techniques related to the conservation/research of archaeological sites and artifacts, dividing the site into six zones. In 2009, Nara Palace Site became a national government park; and consequently, relevant planning/zoning is proceeding.

- Following this, the lecturer introduced techniques including engraved markings indicating “fill-up” on the stones, replenished to (for example) an archaeological site composed of stones as an improvement/maintenance measure.
- After that, as an example of utilisation of cultural properties, the participants visited the Nara Palace Site Museum in which the artifacts excavated from Nara Palace /Nara Capital sites are exhibited. They toured the permanent exhibition and the exhibition planned for the summer.

### **On-site Training “Case Study of Site Maintenance (Nara Palace Site)”**

OHIRA Kazuo, NAKAJIMA Yoshiharu (NNRICP)

- In the afternoon, the Participants toured inside Nara Palace Site. The tour started with the restored building of the Daigokuden (Imperial Audience Hall), then visited the Excavation Site Exhibition Hall, Toin (East Palace) Garden, and the Remains of Heijokyo Sakyo Sanjo Nibo Palace Garden.
- At the Excavation Site Exhibition Hall, which displays the excavated site in a shelter, the participants listened to an explanation about the problems of conservation, including the growth of lichen, etc.



At Nara Palace Site



At Excavation Site Exhibition Hall



A lecture at Nara Palace Site



- The participants toured the Toin Garden and Remains of Heijyokyo Sakyo Sanjo Nibo Palace Garden. The lecturer explained that the current garden was reconstructed/restored on the refilled site of the original garden, and that at the Palace Garden, the original archaeological site is being displayed as is. The participants heard about such difficulties in archaeological-site conservation that each different conservation method is associated with different problems.

7 August (Wed.)

### **Conservation of Cultural Landscape and its Protection System**

HIRASAWA Tsuyoshi, EDANI Hiroko (NNRICP)

- The lecturer stated that “cultural landscapes” could be defined as those, any individual of which is unworthy, but as an aggregation (comprehensive understanding) is worthy, or those, the value of which is produced based on the premise that people are living there, and those change at all times. The Landscape Act was established in 2004, in order to protect such landscapes.

These new frameworks were set up on purpose to protect the areas/parts that cannot be protected by the existing protection system.

- Cultural property protection system of Japan

The cultural property protection system of Japan can be divided into three types based on cultural importance; municipal designation, prefectural designation, and national governmental designation. Even if a cultural property is designated as such by national government, it is basically to be managed/maintained by the owner under the instruction of the municipality or the prefecture in which



A lecture by Mr Hirasawa and the presentation by participants

the property is located. The owner of the designated cultural property should follow the instructions of the national government for the maintenance/management of such property to receive subsidies, etc. The amount of subsidies differs depending on the designation type; municipal designation (municipal subsidies only), prefectural designation (municipal and prefectural subsidies), and the national designation (subsidies of municipality, prefecture, and the national government). Accordingly, the owner's burden also differs. Communication with owners is undertaken by a competent local public body. In short, the cultural property protection system of Japan is a system under which a cultural property is managed by the owner with the support of the national government and the competent local government.

- The lecturer introduced the activities of investigations of cultural landscapes undertaken by the NNRICP (e.g. Uji City, Shimanto district, etc.).

### **Practice “Zoning Schemes”**

- Mr Itonga made a PowerPoint presentation about the cultural heritage of Kiribati. He introduced the mapping data that he is currently creating. Mr Itonga commented that the map creation was completed, and that he was next going to fill in the locations of the cultural heritage. He also commented that they were making preparations aiming towards inclusion on the UNESCO World Heritage List.
- In Kiribati at present, things are still at the stage of general understanding of domestic archaeological sites and their evaluation. The lecturer and participants discussed the kind of “stories” that should be prepared in order to apply to be listed as a UNESCO World Heritage site, using examples of the archaeological sites of Kiribati.
- For example, Itsukushima Shrine located in Miyajima Island of Japan was added to the World Heritage List mainly due to the magnificence of the water-front buildings. The Atomic Bomb Dome (a.k.a. Hiroshima Peace Memorial) was included in the list, because it conveys the cruelty of atomic weapons to the world. In other words, these sites have a story that can be conveyed only at that site. On the other hand, some sites were included as one single archaeological site, and other sites share a single common story. In addition, some tangible and intangible cultural properties make sense only when they are considered together. It will be necessary for Kiribati to review a story that can be elevated to the global stage, together with archaeological sites of neighboring nations.

8 August (Thur.)

### **On-site Lecture “Cultural Landscape in the Asuka Area”**

EDANI Hiroko, HIRASAWA Tsuyoshi (NNRICP)

As part of the training programme, the participants visited Kayanomori settlement with the *Mezuna* (a Shinto's female straw rope) Asuka-kawakamini-imasu-usutakihime-no-mikoto Shrine, Inabuchi settlement with the *Ozuna* (Shinto's male straw rope) in Oku-Asuka area, and the Ishibutai-kofun Tumulus (lit. stone-stage tumulus) as well as the Asuka Historical Museum.

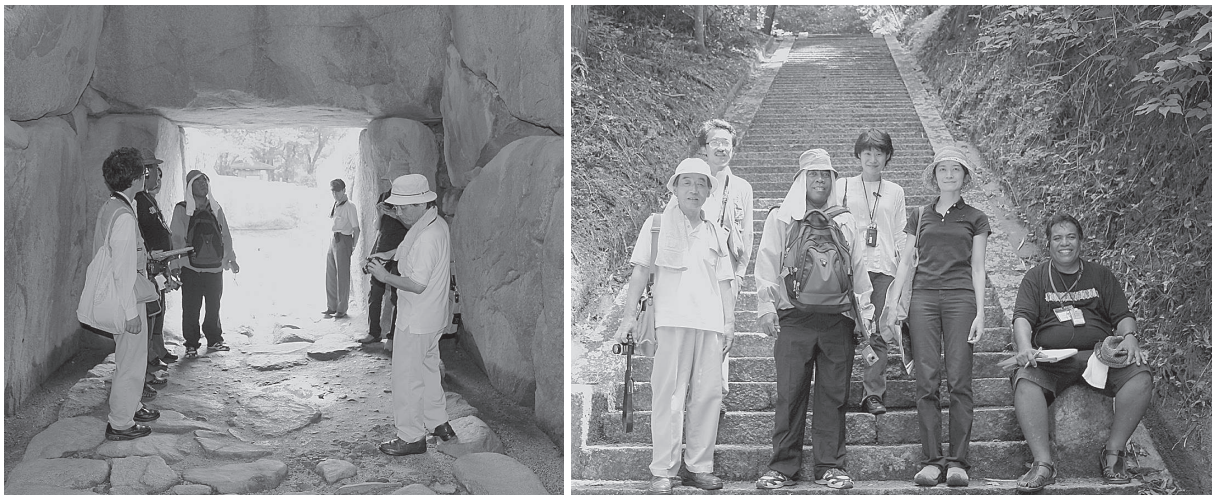
- The lecturer discussed the cultural landscape, taking the “*Tsunakake* Rites (lit. straw rope rites)” passed down at the Kayanomori and Inabuchi settlements as an example, and the participants actually watched the rope at the sites.



- At Kayanomori settlement, the participants visited a hut, in which the settlement residents make the straw festoons to set up spiritual/magical barriers across the main accesses to the settlement for the *Tsunakake* Rites. The lecturer explained the rite for which the ropes are made once a year, and changed to new ones. This rite has a story to form a cultural landscape.
- Spiritual/magical barriers to block out plagues and to protect the residents are set up as a traditional event at Kayanomori settlement by hanging a straw rope, referred to as *Mezuna* (lit. Shinto's female rope), across the entrance of the road leading into the settlement, as well as across the Asuka river. Meanwhile, at Inabuchi settlement, a straw rope, referred to as *Ozuna* (lit. Shinto's male rope), is hung.



A lecture by Ms Edani (an explanation of traditional ceremony in Asuka area)



At Ishibutai-kofun Tumulus

At the entrance of shrine in Oku-Asuka

- In the afternoon, participants toured the Ishibutai-kofun Tumulus. At the Asuka Historical Museum, the participants listened to an explanation from Mr Takafumi Niwa, Researcher. Mr Niwa briefed them on the current status of the conservation of the wall paintings and unearthed wooden artefacts. They asked many questions about conservation of the wooden artefacts.

9 August (Fri.)

### **On-site Training “Recording/Documentation and Survey Method of Artefacts”**

ISHIMURA Tomo, BAN Hikaru (NNRICP)

- On-site training for proceeding with a survey at an excavation site and how to collect artefacts.



Training place: The excavation site of the west vihara of Kofuku-ji Temple, currently undergoing excavation by the NNRICP, which is involved with the restoration/improvement work of the buildings of Kofuku-ji Temple.

- The participants listened to an explanation of descriptions of archaeological remains that have been clarified in the past, as well as how to collect the artefacts based on zoning, structural remains, and succession of strata. In addition, the lecturer explained how to use various tools used for excavations, etc.
- Mr Ishimura guided the participants to the cloister, South Great Gate, etc. He also explained about improvement techniques and indication methods.



A lecture on the site of pillar holes by Ms Ban at the excavation site



A lecture by Mr Ishimura (at Kofuku-ji Temple)

## Storage and Maintenance System of Artefacts

AOKI Takashi, TAMURA Tomomi (NNRICP)

- The lecturer introduced via PowerPoint presentation how artefacts collected from an archaeological site are sorted in the sorting room. The unearthed artefacts are washed with water, sorted, etc., and then registered in the ledger (card type) before being stored.
- For ledger management via a database (computer), not only backups but character data should be



A lecture by Mr Aoki at NNRICP



A visit to conservation science laboratory in NNRICP

saved. For reference's sake, the NNRICP uses FileMaker Pro as registration software, while using Adobe Photoshop for image data.

- The lecturer explained the artefact storage system. Precious articles (important artefacts) are stored in a place in which temperature and humidity are controlled.
- After watching the operations of earthenware-washing as well as restoration using plaster, the participants moved to the laboratory of conservation science. Ms Tamura explained the conservation treatment for wooden artefacts, etc. using fluorescent x-ray analysis, a vacuum freeze dryer, and PEG.
- The lecturer also explained the plotting of actual-measurement drawing of artefacts. The NNRICP carries out digital tracing using Adobe Illustrator. Incidentally, they use “Adobe InDesign” for editing reports. The lecturer finally explained how to use a 3D scanner, etc.

### 12 August (Mon.)

#### **On-site Lecture “World Heritage: Buddhist Monuments in the Horyu-ji Area etc.”**

- A volunteer guide introduced the allocation of the buildings of Horyu-ji Temple, a UNESCO World Heritage site. Participants asked about the types of Buddhist statues. The guide explained that divine grace differs, depending on the individual Buddha statues such as Bhaisajyaguru (Buddha able to cure all ills), Sakyamuni (sage of the Sakyas), and Amitabha Tathagata.



At the front of Horyu-ji Temple



The five stories pagoda

#### **On-site Lecture “Conservation and Management of Temple Architecture”**

BABA Hiromichi (Nara Prefectural Board of Education)

- The participants toured a restoration site of the East Pagoda of Yakushi-ji Temple.
- To start, the lecturer explained the time period of the construction and the background of Yakushiji Temple, the structure of the East Pagoda, and the restoration process.
- It was determined that this restoration was to include total dismantlement, taking into account the hollowing of the central pillars, distortion of the foundation, drooping of the eaves, etc. The first layer and the foundation are to be restored for the first time.
- Following this, the participants toured a restoration site. After an explanation of the investigation of the construction time period and construction members based on dendrochronology, the participants climbed up to the second layer.





On-site lecture at the restoration site of Yakushi-ji Temple

- Nara, Kyoto, Shiga, and Wakayama prefectures have their own systems and experts to restore traditional wooden buildings by themselves. The other prefectures, however, generally tend to consign restorations to the private sector.

13 August (Tue.)

### **Management and Utilisation of GPS/GIS Data I**

MORIMOTO Susumu (NNRICP)

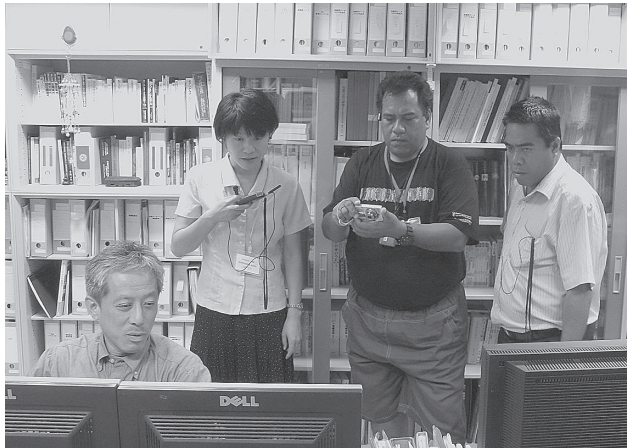
- The lecturer briefed: (i) the recording, analysis, and disclosure of the data of archaeology and cultural properties; and, (ii) the use of the GIS for conservation. It is still difficult to say that the GIS is effectively utilised in the fields of archaeology and cultural properties.
- Careful attention should be paid to digital data, through which ascertainment of facts is rather difficult, and therein remains a challenge of how to secure correctness and truth. As a recording medium, digital data has a short history, and there remains uncertainty as to how long it can survive. When using digital data for recording, care should be taken to secure the method for long-term recording.
- For identifying a large number of data acquired through an excavation, it is effective to utilise GIS data. For example, it can record exactly the information of individual locations of walls, ditches, and holes, and the location of unearthed artefacts. It can also indicate excavation data, while showing

- land features. Furthermore, it is useful for the formulation of an improvement/maintenance plan.
- Although information disclosure is indispensable, in order to use acquired information effectively, the updating of such data will become a heavy burden in the future, especially in the developing countries.

14 August (Wed.)

### **Management and Utilisation of GPS/GIS Data II**

MORIMOTO Susumu (NNRICP)



A lecture by Mr Morimoto



An explanation on how to use GIS data

- The lecturer discussed the comprehensive methods of using the GIS including the specific uses and applications of the GPS/GIS, as well as problems. The GIS using methods vary, depending on the user. For example, in a time of disaster, the GIS shows gas pipes, subway systems, and roadways; on the other hand, applied to archaeology, the GIS can be used to show the distribution of arefacts within an archaeological site.
- The participants also listened to an explanation of the current problems involving the GIS: that it; (i) cannot secure permanent conservation as a recording method; (ii) has to be constantly updated to a new medium; and, (iii) has no firm conservation method.
- Incidentally, after returning to Kiribati, the participants informed us that they formed a GIS operation team, that they themselves became the lecturers and held training sessions, and took the first step toward the framework of GIS utilisation.

15 August (Thur.)

### **Management of Photographic Data**

NAKAMURA Ichiro (NNRICP)

The lectures proceed with in the order: Classroom learning → Photographing practice → Computer processing of photographed data.

- Photography is a medium to transfer the record/information of cultural properties. Photographing of cultural properties targets archaeological sites, artefacts, buildings, documents, townscapes, landscapes, etc.
- The lecturer explained photographic methods, selection of camera, and the types of films. Photographic method (types of photos/cameras) for archaeological sites and artefacts should be





A practical training on photography; lectured by Mr Nakamura

Remote photography

selected, depending on the object being photographed.

- Following this, the mechanism of photographing was explained. The lecturer explained and demonstrated that a photo should be taken at the appropriate exposure by adjusting aperture and shutter speed, and that the depth of field varies, depending on the difference of aperture and/or the binocular vision of lenses (telephoto, standard, and wide-angle).
- Practice of outdoor photography. The participants took photos by changing the physical relationship between the sun and subjects, or by adjusting the aperture. In addition, the participants took portrait photographs by using reflector boards, and experienced the effect of the boards. After that, they watched a demonstration of remote photography.
- The participants learned that in order to manually compensate for color temperature (color photo), a gray card should be in the picture to use the White Balance tool effectively. When taking photos of cultural properties, it is necessary to record the colors precisely.
- In the afternoon, the participants practiced the photography of artefacts. They learned lighting whereby the shadow differs depending on the position of lights and amount of light controlled with tracing paper. After practicing photography, each participant experienced the work to create proper photos by carrying out the inspection of the photographed data via computer software, compensation of brightness, adjustment of the White Balance, etc. Raw data was saved after being converted to JPEG files.
- The standard saving format of digital data is JPEG or TIFF files. It is necessary to save the data on a



DVD and other media (including computer) in parallel. Furthermore, these data should be stored in different places. It is also necessary to keep the data in a visible form such as printouts, etc.

16 August (Fri.)

### **Cultural Heritage Management in Practice I (Fiji)**

ISHIMURA Tomo (NNRICP)

- The lecturer discussed the research on Fiji, an ESD programme undertaken in cooperation between the University of the South Pacific and Japanese government. The theme of this programme was sustainable development of communities, based on the balance of the environment, economy, and society. The lecturer introduced some actual examples in which the balance was lost, and accordingly, the traditional lifestyle was lost. In an area, in which floods have increased due to environmental variation, traditional houses have disappeared, and have been replaced by stilt houses. In addition, the lecturer briefly gave examples in which traditional industries and the related traditional landscapes have disappeared due to the increase in cheap imported products. On the other hand, as a successful example, the lecturer introduced a village which maintains its traditional lifestyle by utilising their traditional houses as a resource of “Eco tourism” and has, consequently, secured income. The participants were interested in the system of this successful example, and asked many questions. They recognised the necessity to look to many factors, in order to protect traditional cultures.
- At the same time, it is required to save various traditional techniques and performance arts that are in danger of disappearing in the form of data. The participants watched a video film which recorded the manufacturing work of a traditional canoe.



A lecture by Mr Ishimura

### **Cultural Heritage Management in Practice II (Micronesia)**

- The lecturer introduced the efforts toward the UNESCO World Heritage inscription for the Nan Madol site.
- The biggest challenge against the inclusion of the Nan Madol site was, above all, management

itself. Consequently, preparatory work toward the inclusion began with educational campaigns and workshops for the local residents, as well as the creation of maps (of archaeological site range). Although, at present, the site is separately managed by the national government, local community, and the landlord, the consent of the local community for cooperation toward World Heritage listing has been obtained on the condition that a framework is set up in which even after any such inclusion on the World Heritage List, the local community can generate income through, for example, entrance fees, etc. Submission of documents for nomination is scheduled for 2014.

- The participants listened to an explanation of the detailed contents of the documents for nomination to the World Heritage listing. Currently, Micronesia is making efforts for the inclusion of the Nan Madol site and the “stone coins” on the World Heritage List. The lecturer explained the factors necessary for adding values to these archaeological sites by using the documents actually submitted.

19 August (Mon.)

### **Museum Exhibition in Practice**

KUBO Masatoshi, IIDA Taku, HIDAKA Shingo (National Museum of Ethnology)

#### **Lecture by Mr HIDAKA Shingo**

- Brief introduction of the management plan at National Museum of Ethnology
- PowerPoint lecture on IPM (Integrated Pest Management)
- Short visits to the 3rd storage room, which stores the earliest objects
- As looking at numerous artefacts from all over the world, a participant was asking how they came to be stored here. According to the lecturer, the researchers went overseas for field work and brought them back as evidences for their reports.
- Short visit to special storage room and the article inspection room



A courtesy visit to Director General of Museum



A lecture by Mr Kubo

#### **Lecture by Mr KUBO Masatoshi**

- Power-Point lecture on “Problems in Managing Cultural Resources; Sharing and Protecting Intellectual Properties, Ethical Consideration”
- Introduction to the theory called “Forum-type Collaboration,” which advocates the mutual relationship among the researchers, the original sites where the artefacts were excavated, and the audience.

- Explanation on the merits and requirements concerning Forum-type Collaboration and significance and risk in cultural sharing.
- A participant mentioned the concerns as he is the one who holds and controls the connection between museum and the original sites.

### **Courtesy visit to Director General of Museum and Exhibition Visit**

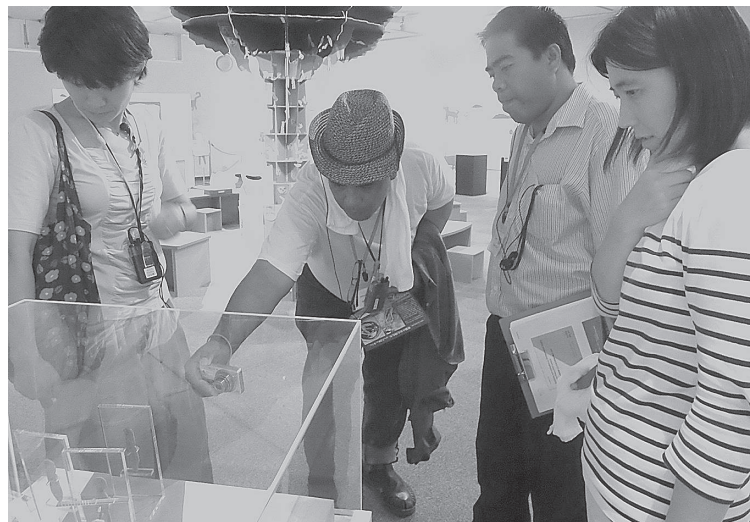
- Director General, Dr Sudo, welcomed the participants, and they had a talk on Warrior Monuments and a *Mwaniebwa* (large meeting house).
- After the visit, they looked around the main exhibition (focused on Oceania, Eastern Asia, and special exhibition “Weapons into Art” ).

20 August (Tue)

### **Exhibition Method and Utilisation**

WATANABE Junko, NAKAGAWA Aya (NNRICP)

- The Nara Palace Site Museum which belongs to the NNRICP is a museum dedicated to the presentation/exhibition of the excavation results of the Nara Palace Site that neighbours. The lecturer mentioned that the museum aims to attract a large number of visitors by contriving various attempts to create significant exhibits, while explaining specific examples of the exhibits.
- The museum holds exhibitions every year under such themes as “Sensory Excavation Site” or “In the Head of an Excavation Researcher”, etc. comprehensible even to children. The museum is also aware of the importance of communication with the visitors through exhibits, while working out a large number of projects such as “Visitors Participatory Exhibits” through which the visitors and researchers dialogue with each other.
- The lecturer introduced an attempt to adopt an exhibition-evaluation system through which the museum listens to the opinions of visitors, external institutions, etc. as reference to the future plans/ exhibitions. The lecturer also explained various artifices, showing the display pedestals, display tools, etc. used for actual exhibitions.
- The participants tried the “*Fukuwarai* game” a kind of game like “Pin the tail on the donkey” at the



A lecture by Ms Watanabe



experience corner. The participants showed interest in artifice for displays, and asked many questions including whether it was a real article or replica. While actively questioning and making notes, they mentioned that they wanted to attempt these artifices in Kiribati.

### **Cultural Heritage Management in Practice III (South Eastern Asia)**

TASHIRO Akiko (NNRICP)

- The lecturer explained the overview of the current state of the NNRICP and its international cooperation activities with Viet Nam, Cambodia, and Myanmar, as well as the overview of archaeological site conservation. The lecturer described the details of the Southeast Asian cultural heritages, exemplifying Thailand which maintained independence in Southeast Asia, and Indonesia, which has had a colonial history of 300 years.
- The lecturer and participants discussed what is required to protect and utilise cultural heritages, while following the history of the UNESCO World Heritage Convention. They also reviewed the attempts of Cambodia to utilise a heritage while living in it, as well as the problems rising due to being managed and controlled.



A lecture by Ms Tashiro



Mr Murakami

21 August (Wed.)

### **Risk Management for Cultural Heritage**

MURAKAMI Yasumichi (Hyogo Prefectural Board of Education)

- The lecturer explained the actual damage caused by the Great Hanshin Earthquake as well as the consequent damage to cultural properties and countermeasures taken, based on the actual examples. The lecturer stated that, modern techniques/materials were used in terms of safety after the said earthquake although traditional techniques and materials should be used for repairs of historic buildings as much



Mr Murakami, explaining the aseismic structure of brick walls



as possible, in light of authenticity, as general principals

- With regard to the Great East Japan Earthquake, the lecturer also introduced the know-how to set up a framework to investigate the damage situation of cultural properties. In both earthquakes, it was indispensable for the restoration of cultural properties to develop consensus-building with local residents.
- Finally, the lecturer mentioned that since the loss of historic buildings means the loss of memory, it is necessary to repair and pass them down. To this end, it is necessary to develop human resources involved in the restoration of buildings.

### **The Ijinkan Houses Restored after the Earthquake, Kitano, Kobe**

HIGASHI Kazue (Kobe Municipal Board of Education)

[Weathercock House] The participants made a courtesy call on Mr Doi Kazutaka, Director. In the house, the participants listened to an explanation of the restoration work conducted after the earthquake from Mr Murakami and Ms Higashi. Following this, the participants toured the model of reinforcing construction method below the stairs, and the reinforced chimney as well as the equipment to check the inclination of the building in the loft.

[Moegi House] The participants witnessed the chimney that fell down due to the earthquake was on display in the garden. After that, they entered the building. The participants became interested in the



A lecture by Ms Higashi at Kitano district, Kobe city



Kitano district, Kobe city

tiles decorating the fireplace, asking many questions in rapid succession regarding whether they were original, where the place of origin was, and who manufactured them. The lecturer responded that it was verified that the places of origin of the tiles are England, Hong Kong, etc.

During the tour around the city streets, the participants saw a sign of cultural-property designation on a house owned by an individual. A participants asked if the daily-maintenance cost for the designated building is covered by the individual owner. The lecturer responded that as the building is personal property, the daily maintenance should be covered by the individual owner, in principle; however, for repairs, a subsidy system is available.

[Graciani House] The participants toured the building (restaurant) restored after being destroyed by fire. The restoration work was implemented under the instructions of Kobe city. The lecturer mentioned that the owner (judicial person) shared 1/3 of the total restoration cost.

## 22 August (Thur.)

### **On-site Training “Conservation and Management of Cultural Heritage I”**

KIMURA Nobuyuki (Hiroshima Prefectural Board of Education)

- At the Itsukushima Shinto Shrine, the participants listened to an explanation of the structure of the Great Guard Frame, the Tamatori Festival, and the Maroudo Shrine, as well as the relationship between the effects of ebb and flood and the splicing of the pillars at their base. A participants asked



A lecture by Mr Kimura at Itsukushima Sinto Shrine, World Heritage site

how the tide level influences the buildings when a spring tide occurs. The lecturer responded that, in the past, the highest tide level reached 30 centimeters above the floor when a spring tide occurred. Even so the buildings were safe, because the gaps between floor panels reduced the effects of the tidal rise.

- The participants climbed Mt Misen. A lecture was given on the viewing platform of the *Shishi-iwa* (lit. lion rock). Itsukushima Shinto Shrine is not only a Special Historic Site/Special place of Scenic Beauty but also a World Heritage site. The zoning is composed of: (i) the core zone including the shrine pavilions of Itsukushima Shinto Shrine, a sea in which the Great Guard Frame stands, and





A lecture by Mr Kimura in Mt Misen (World Heritage site)

the primeval forest of Mt Misen; and, (ii) the buffer zone including the other parts of the island and a part of the sea. The grounds for the conservation of this cultural property mostly conform to the Law for the Protection of Cultural Properties, and some regulations related to the Ministry of Land, Infrastructure and Transport and the Ministry of Environment. The zoning is determined through the process that, at first, a plan is formulated in the committee, and then discussions are held with the institutions concerned.

### 23 August (Fri.)

#### **On-site Training “Conservation and Management of Cultural Heritage II”**

- “Hiroshima Peace Volunteers” guided the participants to the Hiroshima Peace Memorial Museum and the Peace Memorial Park. The Museum is composed of the first, second, and the third floors of the East Baiding, in addition to the Main Building. The first floor of the East Baiding exhibits the history of Hiroshima until the atomic bombing, and documents the damage situation with panels, screen images, miniatures, etc. The second and the third floors of the East Baiding exhibit the current status of nuclear weapons and efforts toward peace; meanwhile the main building displays the materials of the bombed area, etc.
- The participants moved to the Peace Memorial Park, and toured Hiroshima National Peace Memorial



The Hiroshima Peace Memorial Museum



At Hiroshima Peace Memorial Park

Hall for the Atomic Bomb Victims, memorial cenotaph, “Peace Flame”, and the “Children’s peace Monument.” At the Motoyasu Bridge, the participants saw an original pillar remaining in a handrail. At the Hiroshima Peace Memorial (a.k.a. Atomic Bomb Dome), the participants heard that the dome is reinforced with steel framing in order to prevent collapse and so it can be passed down to future generations. A volunteer guide said that steel frames were applied to the dome for the first time in 1967.

26 August (Mon.)

### **Closing Ceremony**

Followed by the submission of the participants’ final report, Closing Ceremony took place in ACCU Nara office. Director Nishimura shared his wishes that the new knowledge and experiences acquired



Closing Ceremony at ACCU Nara office





Mr Nishimura, Director of ACCU Nara, awarded the certificate of completion to each participant.



Song presentation by participants



With staff of ACCU Nara

by the participants would be shared with the people of Kiribati, and he awarded the certificate of completion. After receiving the certificate, Mr Enari shared his reflection of his first training course like this in his life. He told that he had gained a lot of knowledge while he was in Japan including new technical terms, procedures of excavation, and so on, through various cultural activities and from different lectures. He was excited to share the Knowledge with his colleagues. Mr Itonga also reflected upon his time in Japan. He shared that the training course helped him build up onto what was known to him, and he remarked that the success of the country of Kiribati would be the success of ACCU Nara. He passionately promised that he would boldly approach to his office to encourage them to proceed toward tentative listing of World Heritage sites. Afterwards, both of them sang a beautiful song in Kiribati as a thank-you gift. Everyone kept it to their heart with the hope of continuing close relationship with them and their country.



### III. Country Reports by Participants



At Itsukushima Sinto Shrine





## Natan Itonga

National Culture Center and Museum

Culture and Museum Division

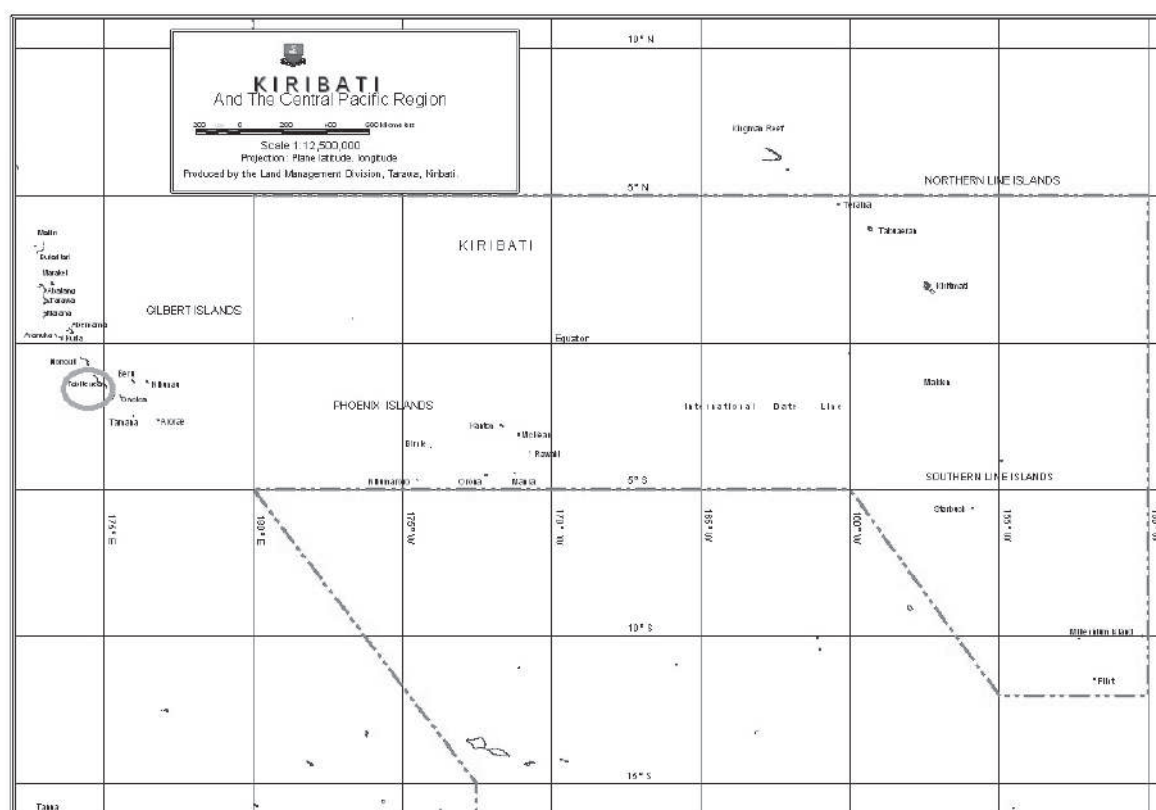
Ministry of Internal & Social Affairs

Republic of Kiribati

## Kiribati Report

### Cultural Mapping under Recurrent Budget, Netherlands Fund in Trust and EU SPC Action Plan

Kiribati has 33 islands, of which only 22 are inhabited. A total of 20 inhabited islands were mapped from 2005 to 2012 under the recurrent operating budget of the country.



The cultural mapping operated internally by our own office was to implement the policy of “preservation, protection and promotion of Kiribati Culture” by identification and documentation of Kiribati cultural heritage, both intangible and tangible, from one end of the country to the other.

Strategies for the mapping:

- a. Consultation with members of the community in the main village meeting house with audio and video recording during the interviews and sharing from the community.
  - Histories of the village and village leadership system
  - History of their village since the time of the early settlers, early traders (pre-European era), Christian period and before, and during colonization by the British.
- b. Outdoor Mapping: Video and audio recording of the sites mentioned during the first meeting in the village meeting house.
  - More stories by informants on the cultural and historical sites
  - Plotting of the sites on GPS
  - Collection of artifacts as samples of oral stories from sites

If one island has 10 different villages, then our mapping visits will cover about ten times as much during the two week stay on each island.

Each year from 2005 to 2012 we mapped about three islands. On each island there were about 10 villages. Each village had about 10 cultural and historical sites, which means for each island we plotted a total of about 100 GPS locations for a mixture of cultural and historical sites.

The whole of Kiribati has about a thousand GPS locations overall, however less than 10 locations have been identified as being well mapped and documented, so the EU-SPC Fund assisted the project for one site while seven other sites were documented and mapped fully by the Netherlands Funds-in-Trust (UNESCO) with the help of the University of Minnesota (for further details of the mapping, see the PowerPoint presentation “KIRIBATI UNESCO WORKSHOP FINAL”).

In August 2012, Professor Chen and a team of seven students from the University of Minnesota carried out a one week Cultural Heritage Conservation mapping and survey exercise at three selected endangered cultural sites and three main local structures. The team was partially sponsored by the Netherlands Funds-in-Trust through the UNESCO project.

Their main activities were:

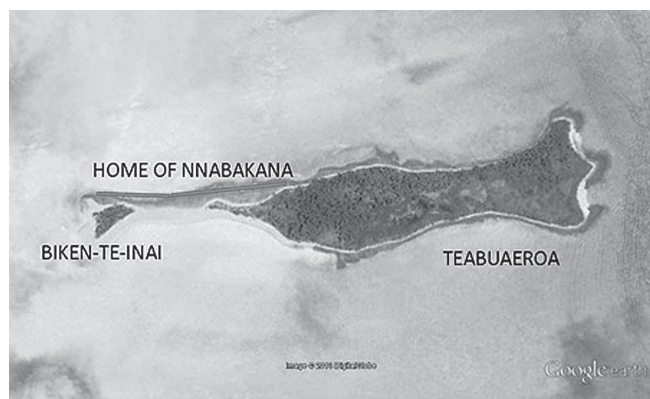
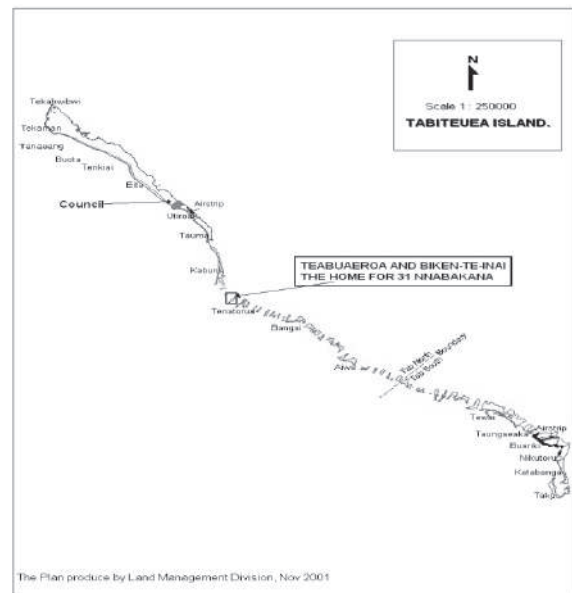
a. Mapping of cultural shrines

b. Mapping of traditional meeting house structures

In 2012, the EU (European Union) and SPC (Secretariat of the Pacific Communities) projects entered into a contract with a local consultant to assist Kiribati in the implementation of the “Structuring the cultural sector in the Pacific for improved human development” project in Component 1 of “Endangered Cultural Heritage Mapping in Kiribati.”



The most significant site that was chosen is one of the cultural historical sites related to the civil wars fought by our ancestors that have remained in their original form from approximately the 1600s. The mapping was done with the assistance of the community in order for them to learn and appreciate the value of their cultural properties. If possible, the result of the mapping could be used to propose tentative listing for eventual UNESCO World Heritage protection.



### Findings of the Mapping Exercise using the Baseline Method.

The presentation was held on Monday, 11th June at 1000 hrs. The purpose of the presentation was to give the community an opportunity to comment on data and issues they considered controversial, especially the striking story of Kaitu and Uakeia's conquest adventure.

The findings of the mapping exercise are listed hereunder in brief, as presented during the consultation:

- The total number of Nnabakana discovered was 31.
- The number of broken Nnabakana under 3 m height = 4
- The number of broken Nnabakana over 3 m height = 7
- The number of broken Nnabakana with only a few stones remaining = 19
- The number of Nnabakana still intact with a height of 4.1m = 1 (This is the normal height for all Nnabakana according to one informant.)
- Distance between each Nnabakana varies from 15.6 m to 0.80 cm
- The bases of the existing Nnabakana also vary between 6.6 m and 4 m.
- The Nnabakana are located alongside a rocky shoreline that adjoins the two islets of Biken-te-Inai on the lagoon side and Teabuaeroa on the ocean side, covering a clear space between the two islets. With that location, Nnabakana are vulnerable to tidal waves and rises in sea level. Some of the broken ones have been impacted by such natural phenomenon.
- On both sides of the two islets are passages through which small boats and canoes can pass and marine larvae and fish are flushed with the changing tide. On the lagoon side there is a very wide intertidal area of fine sand that is exposed at low tide. This area constitutes one of the most important fishing grounds for sand-moth (ibo), a delicacy for the people of Tabiteuea.
- The Nnabakana are made of stone slabs stacked to resemble a I-Kiribati warrior. According to record, "the stone warriors were two spans high and armed with multipronged wooden spears." There is no sign of multipronged wooden spears and the remaining Nnabakana have lost the top stone that resembles a human head.
- As stated earlier, most of the Nnabakana are broken and looked more or less like heaps of loose stone slabs that can be easily removed or destroyed by tidal waves from raised sea-levels. Human activities could also contribute to the deterioration of Nnabakana.





- The two islets in close proximity to the Nnabakana are customary owned islets. The shoreline on which the Nnabakana are located is exclusive by law. The shoreline is owned by the government or island council up to the highest water mark.
- The Nnabakana were erected by Kaitu and Uakeia's warriors probably in the mid-17th Century (approximately 1650).
- Kaitu and Uakeia were not warriors, Kaitu was a navigator and Uakeia a soothsayer, according to the Tabiteuean version of the story. The third companion was Kaiuea, a warrior. Kaiuea returned to Beru with his son Biua.



View from the northern side of the islets. (Photo by B. Eritaia)

- It is believed by Tabiteueans that Kaitu and Uakeia did not make war on Tabiteuea. They erected Nnabakana to scare away the approaching enemies from Tabiteuea North, but the strategy failed. Kaitu and Uakeia knew very well that they would not succeed, so they set sail and sailed northward, leaving the Nnabakana behind on Teabuaeroa. The Nnabakana civil war site is seriously affected by the waves and currents, which is likely to cause the whole site to disappear in the near future.

## Tiaontin Enari

GIS Unit

Land Management Division

Ministry of Environment, Land and Agricultural Development

## INTRODUCTION

Digital map data within the Mapping Unit of the Land Management Division (LMD) is held in MapInfo GIS software. Kiribati comprises three island groups: the Gilbert Islands, Line Islands and Phoenix Islands; in total, there are 33 coral islands in Kiribati. This report is based on the mapping system for Bairiki. Bairiki is the main town (village) in Tarawa, where most government ministries are based, on Tarawa island, the capital of Kiribati. The geographic coordinates/location of Tarawa are latitude 1° 19' North and longitude 172° 58' East. The GIS Unit within the Division is trying to put all the islands of Kiribati into the system, mainly displaying land boundaries, private leases, government leases on outer Islands such as airfields, primary and secondary schools, clinics, private leases in the form of cadastral mapping.

The map of Kiribati provides detailed information on the exact geographic position of the country. Back in the 1970s to the 1990s, a theodolite (survey instrument) was the main equipment for collecting data, operated by LMD Surveyors. From early 2000 until the present, other modern devices such as total stations, GPS, and scanners have also been used to collect data so that maps can be produced. Geo-referenced raster images are other sources that can also be used to update maps. The GIS software mainly used are MapInfo and Erdas. The Land Management Division office also has a mapping system called the Kiribati Land Information System (KLIS).

### 1.1 Kiribati Groups

The table below shows the names of the islands in each respective group.

<b>Gilbert</b>	Makin	Butaritari	Marakei	Abaiang	<u><b>Tarawa</b></u>	Maiana	Kuria
	Aranuka	Abemama	Nonouti	Tabiteuea	Onotoa	Beru	Nikunau
	Tamana	Arorae	Banaba				
<b>Line</b>	Caroline	Flint	Kiritimati	Malden	Starbuck	Teraina	Tabuaeran
	Vostock						
<b>Phoenix</b>	<u>Birnie</u>	<u>Enderbury</u>	<u>Kanton</u>	<u>Mackean</u>	<u>Manra</u>	<u>Nikumaroro</u>	<u>Orona</u>
	<u>Rawaki</u>						

### 1.2 Kiribati Map Projections

Originally, all MapInfo data was stored in 'Non-Earth' tables with bounds chosen to accommodate the rectangular coordinate extents of each island on local coordinate systems. This was done so that accurate 'plane' lengths and areas of objects could be obtained in MapInfo, and so that available

precision of tables was to millimeter level.

In 1980 the Australian army used Doppler satellite observations to establish geodetic coordinates based on the WGS72 datum for a number of islands. A number of these were established on points previously established by an Ordnance Survey, thus providing a relationship between the local datum and WGS72 (and WGS84). Some of the Cartesian shift parameters for these relationships were calculated by Ordnance Survey and some have been calculated internally. The parameters have been incorporated into custom datum definitions used by the survey section in MapInfo ('MapInfow.prj' appendix 2). The accuracy of these shift parameters and the relative position of islands will be refined in the future as GPS surveys are conducted on outer islands and control networks on these islands are established on the WGS84 datum (or its successors).

### **1.3 Topographic detail**

At present, comprehensive topographic detail is available only for Tarawa. This data was photogrammetrically captured from 1:8,000 scale photography taken in June 1998 and is designed to meet 1:2,500 mapping specifications. The topographic data for Tarawa includes tables for buildings, roads, contours, coastal definition lines, spotheights, and miscellaneous line, point and polygon features. A limited amount of topographic data for other islands has been digitized from existing maps, mainly 1:25,000 scale.

### **1.4 Control Point Data**

Rectangular survey control coordinate values in meters for most of the islands are based on local coordinate systems. These coordinate systems comprise a local datum and TM (Transverse Mercator) projection parameters. These local coordinate systems are defined on the OSD photomaps of each island. Some mapping in the Line and Phoenix Islands is based on the WGS72 datum. Recent Tarawa mapping is based on the WGS84 datum. Each coordinate system is defined in a custom version of the file "Mapinfow.prj".

Primary survey control on the islands of Kiribati was originally provided from astronomic observations and control survey triangulation networks surveyed by Ordnance Survey. These observations and control surveys established a local datum and control coordinate values based on Transverse Mercator projections for each island.

### **1.5 Data Collection**

The photos below show the processing on how the data collection made. Total Stations, GPS, and scanners are the main devices or tools used by the Division to obtain data.

A LMD surveyor capturing data in the field using a Total Station

This is part of the mapping process by which all data can be captured or collected.

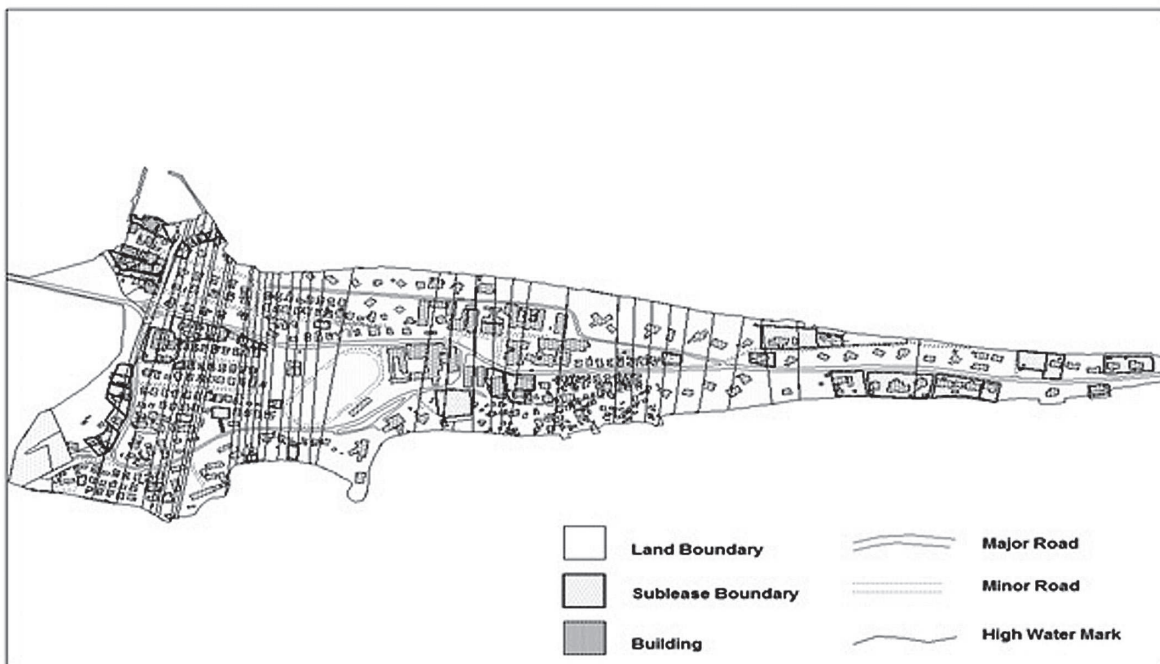


Plot point 179A located in the ground. The coordinates of this point were captured and saved in the Total Station, from where the data could be downloaded to a computer.

Below is a vector map of Bairiki showing the location of point 179A (small red circle).



Map of Bairiki showing point 179A and a browser overlay with a QuickBird pan-sharpened raster image.



### **Key for Bairiki Map**

- A. Land Boundary:** Land plot data. Shows land ownership. Often extending from lagoon to ocean, depending on the particular island. Marked by boundary stones and bounded on the coastline by the high water mark.
- B. High Water Mark:** An interpreted line which marks the top of the beach. This line is often marked by a ridge line. This line is used as a Cadastral boundary marking the limit of landowner plots and other types of land holding.
- C. Building:** Digitized building
- D. Road:** Digitized road
- E. Minor Road:** Digitized road
- F. Sublease Boundary:** Polygons representing subleases.

### **1.6 GIS Software**

MapInfo version 10.0 (GIS software) and Erdas Imagine version 9.0 for remote sensing are the main GIS software applications now being used within the Division.



### **1.7 Kiribati Land Information System**

The Kiribati Land Information System (KLIS) has been developed on the basis of the initiatives commenced in 1996 in the Land Management Division to store land information in two computer databases, namely MapInfo (GIS software) and Access. KLIS aims to improve the integrity of each individual database, as well linking the databases together so as to provide accurate, reliable, up to date and integrated information.

## **1.8 GeoReference Raster Images**

Aerial photographs, satellite images, images of maps, and analysis of images are the other main sources for updating maps for Kiribati. Above is one type of image for Bairiki. Bairiki is the Capital Town in Tarawa, where most government buildings (Office of the President, Ministry of Labour, Ministry of Finance, etc.) have been constructed. The whole of Bairiki has been leased by the government since the 1940s.

## **Conclusion**

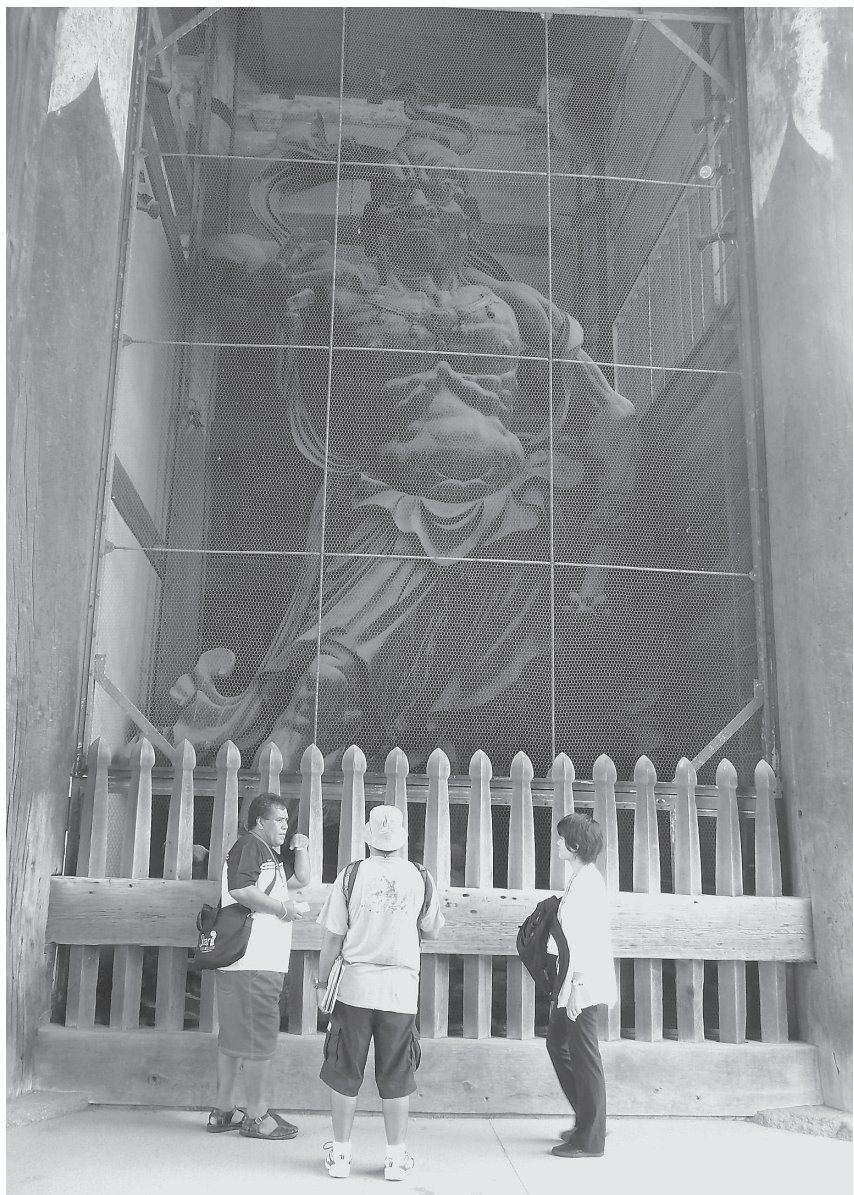
Most maps as well as raster images in the Land Management Division have not been updated; on the other hand, it is very hard to clarify or determine the exact position of the high water mark or roads, especially on outer islands. To solve this, we need more funding to purchase more up-to-date raster images, devices and computers. The Land Management Division aims to eventually establish all islands on the WGS84 datum.

## **Problem and Needs in the GIS Unit within the Land Management Division**

As the GIS Unit within the Land Management Division lacks experience in this field, we therefore need more training related to GIS. One of the main problems is finding funding for the training, therefore the training in this Unit is limited.



## IV. Final Reports by Participants



At the South Gate (Todai-ji Temple)



**Natan Itonga**

National Culture Center and Museum

Culture and Museum Division

Ministry of Internal & Social Affairs

Republic of Kiribati

**Nara ACCU Individual Training Course Report**

**1st August 2013 – 26th August 2013**

**Acknowledgements**

I must thank the organizers of this intensive training for us from Kiribati on behalf of our Government and the Ministries that we represent.

Also, I would like to thank our lecturers and assistants at all lecture sites, indoor and outdoor, our guides, our ACCU staff assistants, drivers, and our interpreter.

Finally, but not least, our thanks go to all Directors of all the institutes, prefectures, NGOs and museums that we visited, and especially to the ACCU NARA Office Director for all the generousities and for making the program successful.

Our future development in Kiribati will be the fruit of the “seed” you have sowed in our soul, mind and might. Our knowledge, skills and experience with you is the success to share in the future to our people and to both our countries, Japan and Kiribati.

TE MAURI TE RAOI AO TE TABOMOA

LOVE, PEACE AND PROSPERITY



## **Programs / Lectures**

Day 1 - Historic Monuments of Ancient Nara

Day 2 - Designation of Remains and Protection System/Maintenance and Utilization of Remains

Day 3 - The History of the Preservation of Nara Palace Site

On-site Training “Case study of Site Maintenance (Nara Palace Site)”

Day 4 - Conservation of Cultural Landscape and its Protection System/Practice “Zoning Scheme”

Day 5 - On-site training “Cultural Landscape in the Asuka Area”

Day 6 - On-site training “Recording/Documentation and survey method of artifacts”

Storage and maintenance system of Artefacts

Day 7 - On-site Lecture “World Heritage: Buddhism Monuments in the Horyu-ji Area”

On-site Lecture “Conservation and Management of Temple Architecture”

Day 8 - Management and Utilisation of GPS/GIS Data I – NNRICP

Day 9 - Management and Utilisation of GPS/GIS Data II – NNRICP

Day 10 - Management of Photographic Data – NNRICP

Day 11 - Cultural Heritage Management in Practice I (Fiji) – NNRICP

Cultural Heritage Management in Practice II (Micronesia, Nan Madol) – NNRICP

Day 12 - Museum Exhibition in Practice (OSAKA, National Museum of Ethnology) – OSAKA

Day 13 - “Exhibition Method and Utilization” – NNRICP

“Cultural Heritage Management in Practice III (South east Asia)” – NNRICP

Day 14 - “Risk Management for Cultural Heritage” – Kobe

Day 15 - On-site training “Conservation and Management of Cultural Heritage I” – Itsukushima

Day 16 - On-site training “Conservation and Management of Cultural Heritage II” - Hiroshima

## Introduction

This course lasted for 24 days, so we only had three weeks plus a few days to complete the lectures from Day 1 on 1<sup>st</sup> August to the last day on 26<sup>th</sup> August 2013.

The content of the course was determined by the needs of each country for cultural heritage protection, so whatever my country required me to learn for the development of my culture office and the Government, ACCU NARA accommodated in the program within the limited time of three weeks.

The program was designed to provide two different sessions each day of the week, morning and afternoon. There was not much time to lose, so timing was so crucial that not one session was to be missed. The following program as shown in the content guide should clearly illustrate in detail the main objectives and vision of the program, and the goals that were to be achieved at the end of each lecture.

## Programs and Lectures

### Day One - Historic Monuments of Ancient Nara (Todai-ji Temple and Kasuga-taisha Shrine)



As far as the history of Buddhism, Shinto and Hindu is concerned, the ancient Nara monuments, temples and shrines are the major focus of the lectures, however I learnt some symbolic elements of the site such as:

1. Deer - an icon of NARA - tamed and not to be killed by people
2. Statues of the “A” and “M” as in ALPHA and OMEGA in the gate of the temple
3. Meaning of LARGE (size) as in “POWER” or “AUTHORITY”
4. Seasons of Nara (Japan) especially during the fall, with the cutting of deer antlers, and rice springing up into new life
5. The symbolic meaning of waving the incense smoke from the worshipping area over one’s head, which will cause a person to be “WISER and more INTELLIGENT”
6. Patterns and designs used in the temple decorations
7. Symbol of water purification

Historical change of power from the Emperor to Buddhism, in the 4th century under the Emperor, and in the 8th century when NARA became the capital. The reconstruction and conservation history of the site, the method of reinforcement used for the buildings and wooden pillars and the use of replicas.



## **Day 1 - Historic Monuments of Ancient Nara (Nara National Museum)**

The mapping and zoning of the site was well explained here with the historical development of the Nara National Museum.

As the management system of the Nara National Museum, the four main buildings of exhibits (North, South, West and East wings) were changed regularly according to the Special Exhibit themes and the mixed exhibits. The main exhibits seen on this date were Buddhist sculptures of different types together with images such as two-dimensional paintings and drawings, and three-dimensional or relief sculptures of Buddhism-related elements. Most of the items displayed for public view were also collected from private owners on loan, to be returned after the show.

The use of educational materials is so important, and most of these were designed and printed by private companies.

The pre-planned program was already designed for a three month period and two to three years in advance. Most importantly, the exhibits and program of the Museum are planned to coincide with the different seasons, especially during the school holidays (summer) where small children, students and parents are be able to visit the museum to view the exhibits. The main key is the promotion of Buddhism, artefacts (religious items) and history.

## **Day 2 - Designation of Remains and Protection System (morning)**

### **Maintenance and Utilization of Remains (afternoon)**



The major part of both lectures was to understand the schematic system used for the cultural properties of Nara and the strategies for designation of cultural properties.

The following is what I learnt:

- a. Concept of protection
- b. Conservation of historic sites
- c. Utilization of historic sites
- d. Utilization of opening sites to the public
- e. The Japanese Law for the Protection of Cultural Properties along with its enactment history.
  - A well designed schematic diagram for cultural property was also explained, showing different types of cultural properties, namely TANGIBLE, INTANGIBLE, FOLK, MONUMENTS, CULTURAL LANDSCAPES, GROUPS OF TRADITIONAL BUILDINGS, ETC



- A study of the number of designated cultural properties of Japan and a database of an exact analysis and reports of the owners of the treasures and cultural properties, which are categorized into fine arts and crafts and structures, and performing arts and craft techniques. Some are considered as National Treasures and others as Important Cultural Properties, while some have individual recognition and others group recognition.
- Systems and measures for the protection of cultural properties of Japan.



- Cultural landscapes are also included in the Important Cultural Properties/National Treasures.
- The visit to Nara Palace site also showed restoration and conservation methods as well as the history of representation of the Nara Palace site.

The photo above shows a wall representing the kind of ancient wall that existed around the Nara Palace site.

The photo on the far right shows exhibits of what the excavated site looks like, but this is a 1:10 scale of the actual site. The displays showed how the sites are being re-excavated and reutilized so that the actual sites can be shown to the public.



### Day 3 - The History of the Preservation of Nara Palace Site

#### On-site Training “Case Study of Site Maintenance (Nara Palace Site)”



Office of the Imperial Household at right

The photo below is a representation of the original posts that were used in the ancient period.



The photo at far left shows the reconstructed scenery of an early pond, but importantly, the original materials and style of building have been retained.



## Day 4 - Conservation of Cultural Landscape and its Protection System

### Practice “Zoning Scheme”

Different cultural landscape categories and the law as protection for these properties.

Valuing of cultural properties are by “time,” “space,” and “livelihood.”



In order to designate cultural properties, the three factors above have to be considered, and valuing and protection should always be based on the Landscape Law. The zoning is well marked and designated for different cultural landscapes, and the best examples shown are in the town in the Asuka area (photos above and below).



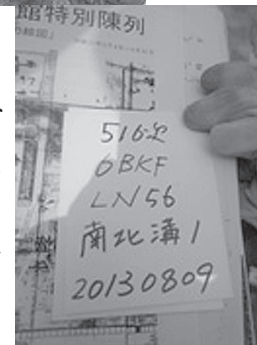
## Day 5 - On-site training “Cultural Landscape in the Asuka Area”

The landscape in the Asuka area shows the unique landscape of the area, with an authentic river and landscape used for cultivation, and a river for spiritual and livelihood needs. The border or zones of the different towns (villages) are divided by the hanging ropes across the bridge, which are always renewed each year. The zoning is divided between Inabuchi and Kayanaruminomikoto (goddess). The ceremonial festival of the rope hanging is well practiced and performed each year. Interestingly the female rope is assisted by a Buddhist priest while the male rope is assisted by a Shinto priest by anointing and blessings!

**Day 6 - On-site training “Recording/Documentation and survey method of artefacts”  
Kofuku-ji Temple site**



The method of registration and identification of artefacts found at the excavated sites are labeled according to the system as seen on the right. The same numbers are used throughout the system for identification and storage purposes.



Storage and maintenance system of artefacts

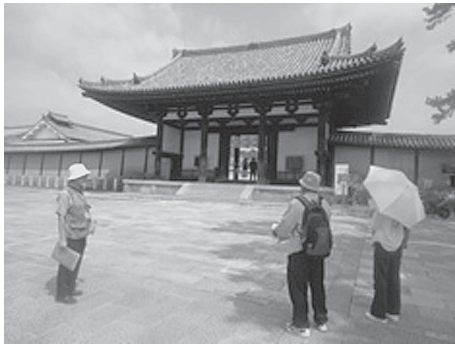


Cleaning of artefacts found at excavated sites





**Day 7 - On-site Lecture “World Heritage:  
Buddhism Monuments in the Horyu-ji Area”**

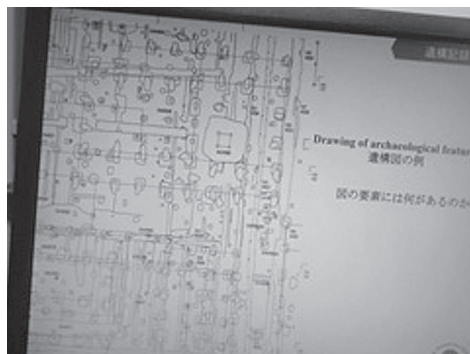
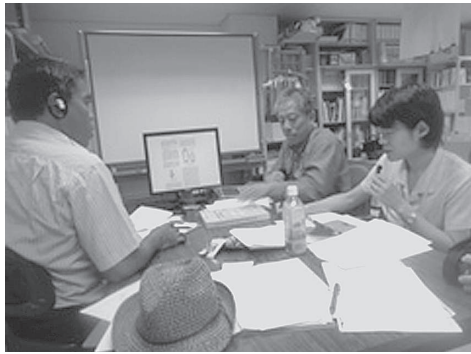


**On-site Lecture “Conservation and Management of Temple Architecture”**



These are designated as both Important Cultural Properties and World Heritage Sites.

## Days 8 & 9 - Management of GPS/GIS Data I & II - NNRICP



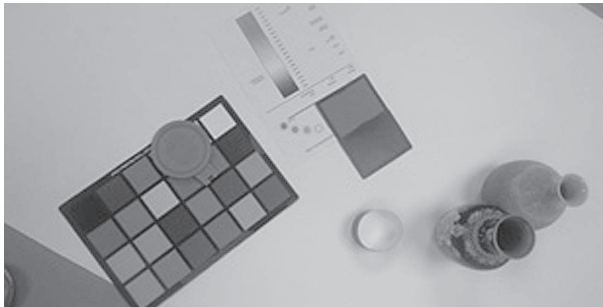
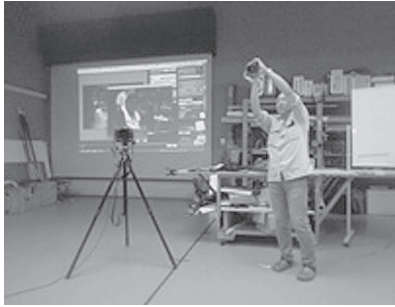
A Geographic Information System (GIS) is a system designed to capture, store, manipulate, analyze, manage and present all types of geographic data.

The GIS is used for the acquisition of data, analysis, publishing and preservation. Due to changes in the models of machines and products, the data storage system easily becomes obsolete and is required to be replaced. The data has to be kept raw and a backup copy is always necessary. The collection of data is one of the electronic methods used nowadays for preserving the information of artefacts, archaeological information, etc.

Methods of preservation are also required to be devised. Maps of the archaeological sites are recorded into layers using the GIS or LPS (Local Positioning System).

## Day 10 - Management of Photographic Data – NNRICP

1. Theory of photography and its importance in photographing artefacts in a quality way
2. Application of techniques using cameras and artificial light in the studio
3. Methods of using the correct aperture and shutter speed for quality results
4. Application of techniques using cameras and outdoor photography
5. Applying auto balance white by using the color grey
6. Editing and application of photo editing on a PC using Photoshop



### **Day 11 - Cultural Heritage Management in Practice I (Fiji) - NNRICP**

The method of ESD (Education for Sustainable Development) was introduced during this session, which had been practiced in a study involving a village in Fiji (Navala village, in Viti Levu). The ESD approach was to consult with local communities and to involve them to participate by sharing and exchanging ideas about the issues in their village. The village's major objectives were to maintain the indigenous form of houses and to attract visitors who would be able to enjoy the village in a local, traditional way.

The ESD approach involves promoting the well-being of the environment, society and the economy in a balanced way, so as to maintain the sustainable development of the community.

Village rules are formulated to ensure fair observation of this principle and to keep the community as local as possible. An example of such a rule is that no one is allowed to build houses using modern materials. The only way to maintain the balance between the three aspects (environment, economy and society) is to have sufficient money for sustainable operation of the program.

The approach plays the role of introducing sustainable tourism and sustainable development to the community.

### **Cultural Heritage Management in Practice II (Micronesia, Nan Madol) - NNRICP**

In the case of Nan Madol in FSM, the area was placed on the World Heritage Tentative List and so far, the functioning of the site is a little troublesome in terms of the shared management among the three custodians. The site is in an island area that the Chief has authority over. Similarly, the island is also owned by one person who also insists in getting his share from incoming visitors entering from the sea side. Thirdly, the Government of FSM also has a share in running the site.



The above example of Nan Madol could be a good guideline for Kiribati cultural properties if there is a lot of involvement by the local people and community. But the approach used for this site, of sharing among three parties, has to be introduced if it is the only possible solution.

The ESD approach as done in Fiji could be an alternative to apply to local communities, to ensure that sustainable development is well organized by the people themselves, knowing that they are the custodians of the site.

### **Day 12 - Museum Exhibition in Practice (OSAKA, National Museum of Ethnology)**

The Osaka National Museum of Ethnology is located on the former site of the 1970 World Expo. Since it was established it has become the main museum for ethnology in Osaka.

The general functions of the National Museum of Ethnology (NME):

- (1) Ethnological and anthropological research
- (2) Collection, conservation of ethnographical materials and information
- (3) Public Exhibition

The major concept found in this session was the system of PEST CONTROL, which is required for all incoming artefacts from overseas. The different methods of pest control were introduced:

1. Heating method
2. Temperature method (low temperature freezing)
3. Nitrogen (also tried in pesticides)
4. Oxygen

The question arises as to why have different ways of controlling pests? The answer is simply that each type of artefact requires a different method of control due to its particular qualities. For example, paper artefacts cannot be treated in a very warm system or very cold system. Control and preservation of the artefacts is essential and the methods of storage also vary in these storage facilities, with the artefacts sorted according to material type, such as fabric, canvas, paper, wood, metal, etc.

Pest control is carried out periodically and the system is applied so that each artefact is maintained and treated throughout.



Lecture by Professor Kubo Masatoshi:

The second part of the lecture by Professor Kubo Masatoshi, who basically based his topic on “FORUM-Type Collaboration”. This system or approach was implemented since 1970 to 2000 and involved the neighboring rights of each contributor and performer.

He also explained the renaming of “Ethnographical Materials” to “Cultural Resources”, as the term “ethnography” implies that materials are viewed from the describing-side only.

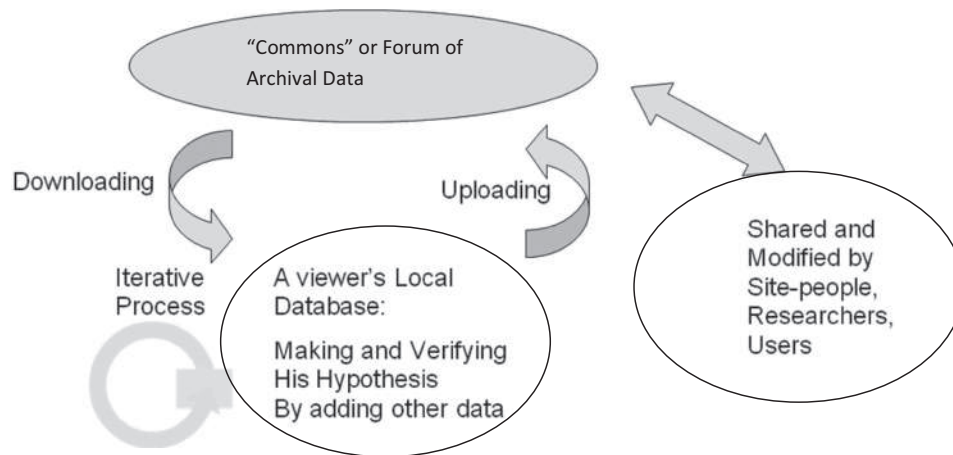
The term “cultural resources” implies:

- 1) Primarily owned by people living at the site
- 2) Resources for understanding one’s own culture as well as other cultures
- 3) They are also a kind of “global commons” toward the “treasury of human wisdom”

And from the above came the system of “FORUM-Type Collaboration” (see the diagram on the next page for a clearer description).

Forum-type Data Sharing with Iteration:

among researchers, people living at the site, viewers



The major part of the lecture outlined the risks of sharing data and archival properties in a section titled “Significance and Risk in Sharing Cultural Resources.”

- (1) With whom, for what purpose: for academic purposes, to provide feedback to original people living at the site, to set a forum for discussion, etc.
- (2) Risk caused by anonymity: plagiarism, imitation, alteration, ethical infringement, political use, commercial use, etc.
- (3) Balance between the sharing and protection of various rights: the most important point in managing cultural resources.

Certain measures for prevention of the risks above were all detailed in the presentation by Professor Kubo Masatoshi.

### **Day 13 - “Exhibition Method and Utilisation” – NNRICP**

The method of exhibition in the Nara Palace Site Museum was shown to us, especially in regard to how the objects (artefacts) are displayed so that they are not easily damaged. The method includes using soft materials for display, supports for artefacts and safety measures to avoid damage and the exhibits falling in the case of an earthquake or accident.

I noted that correct and cautious use of the display materials should always be carried out to avoid damage to the displays or to the artefacts.

Most of the artefacts displayed are replicas of the actual items, which helps also to preserve the original authentic ones.

Different kinds of exhibition methods are also introduced, such as the Communication through Exhibition by Participation (participatory exhibition), which is communication between the artefacts, the visitors and the curators.



The exhibitions act as a learning environment where they involve the visitors, who provide feedback and responses about the displays. This makes it more interesting and allows people to understand more of the exhibition.

Most importantly, the overall exhibits allows the three—visitors, artefacts and curator—to share viewpoints on the exhibits by having evaluation forms to fill in, which are integrated into part of the displays.

### **The Second Part of the session was “Cultural Heritage Management in Practice III (South East Asia)” – NNRICP**

In the case of cultural properties and cultural sites in South East Asian countries, the major focus in this session was on the site of Angkor Wat in Cambodia.

Due to the Cambodian Civil War, the cultural sites and monuments of Cambodia were partially destroyed. Since then, Angkor Wat, which is the oldest monument in Cambodia, has been restored through participation of the community.

Certain safety measures and laws have been formed to maintain its sustainable operation, but most importantly, HERITAGE TOURISM is encouraged as a conservation method and for development purposes.

I realize here that cultural heritage tourism should be encouraged in order to allow the site to be continually maintained and to attract more people from outside to visit.



## Day 14 “Risk Management for Cultural Heritage” - Kobe

In the case of the session above the major highlights were the major causes of damages to the heritage of Japan such as in the frequent destructive events such as earthquakes and tsunamis.

The history of earthquake destruction in Japan was also introduced, with an explanation of the many cultural heritages in Japan that have been destroyed by natural disasters. The history of the Kobe earthquake was recalled, showing the damage to highways, wharfs, apartments, traditional houses, as well as the fires that ignite and burned down homes and infrastructure.

Since then, the Board of Education and other related bodies have formed and designed the only way to avoid such disasters by creating anti-seismic devices and facilities to avoid earthquakes. A new building code was put in place, and a warning system on mobile phones was introduced. A disaster recovery system and other formalities have been established in order to increase the level of preparation for quakes, and making it easier to escape from danger.

One of the major roles of the Board of Education is to make sure that the cultural sites in Kobe are well restored and maintained, and secured. Most of the properties that are from the old times are designated as cultural heritages and the sustainable management of the sites and structures are well monitored, allowing them to be viewed publicly.



The picture at left shows how the management of cultural heritages in Kobe through the monitoring of the status of the building by installing “line of gravity measures” to show if the building has tilted or moved off the center of gravity.

## Day 15 On-site training “Conservation and Management of Cultural Heritage I” - Itsukushima

There were two major parts to this lecture.

The first part, featured the World Heritage Site of Itsukushima Shinto Shrine. The major session here was mostly about the methods of conservation and preservation of the site and restoration. Although they are trying to authentically restore the site to its original appearance, the height has been changed

a little, and during the high spring tide, the floor of the whole building is covered with seawater except for the place of the shrine itself.

The second part of the session, which was the most important part, was held at the main viewing area at the summit of the Gondola Shelter, with a detailed description of the preservation and management of the Itsukushima Shinto Shrine as a World Heritage listed property, its legal basis in law, the reasons why it became a designated World Heritage Site, the preservation management and control measures, and other major acts and ordinances that govern the operation of the site.

Under the risk management countermeasures and responses taken when disasters hit or attack the site, three major disasters have occurred and they were all taken care of, such as Typhoon No. 18 in Sept 2004, Typhoon No. 14, Sept 2005 and the annual spring tides that affect the shrine site on the floor of the cloister.

The zoning and demarcation of the whole island was also introduced and how zoning has been used to cover a variety of areas with different purposes and ownerships. The methods and conventions used was also noted as “the Ramsar Convention,” the International Convention of Conservation.

### **Day 16 On-site training “Conservation and Management of Cultural Heritage II” -Hiroshima**

The visit to this site was very sensitive due to the tragedy of the A-bomb and how this affected the citizens of Hiroshima. Despite looking at issues from the perspective of natural history, I understand how the authorities since 1945 have tried to restore the whole of Hiroshima, which had been devastated by the A-bomb.

All buildings of important cultural value and village settlements were lost and completely destroyed.

Hiroshima city today portrays itself to the whole world as the City of Peace, and campaigns for a peaceful world for the benefit of all mankind today and into the future.

### **CONCLUSION:**

The most important aspect of this full intensive training for us, as participants from Kiribati, is that it has given us the resources and the capacity to enable us to use useful methods, strategies and skills to preserve and protect our Kiribati HERITAGE.

It has provided me with inspiration and should assist me in the management of the various cultural departments with development activities, promotions and awareness through consultation, as well as collaboration with culture-related NGOs and stakeholders.

Top priorities in cultural heritage in Kiribati that will be implemented from this inspirational

experience are:

- a. Formulation of the registration strategy of the National Registration of National Cultural Properties
- b. Allocation of cultural data to the appropriate documentation in database form
- c. Proposal to the Kiribati government to ratify the ICH (Intangible Cultural Heritage) Convention
- d. And the ratification of other conventions such as UCH (Underwater Cultural Heritage), which will also leads to the conservation of cultural properties of Kiribati
- e. Ratification of the DCE (Diversity of Cultural Expression) Convention, which will also lead to the conservation and protection to our ICH and cultural landscapes (the use of traditional plants for cultural ornaments, costumes, local herbs, house materials, food, etc.)
- f. To carry out the demarcation and rezoning of cultural sites and cultural properties using GIS
- g. Recording the current collections and information in DATABASE format
- h. The training of young people and communities on the conservation and preservation of cultural properties by ESD or community awareness workshops
- i. Promotion of cultural heritage by hosting annual cultural festivals (National Culture Day - targeting 10<sup>th</sup> July as National Public Day)
- j. Improving the method and exhibition formalities for a more participation and involvement by the community (public)
- k. Improving the Cultural Center and Museum activities for public use
- l. Redesign the roles and activities of the office staff for a more collaborative style and continuity

I have listed below all the areas that have been a great help for me to use as tools while working towards the protection strategies of cultural protection and conservation in Kiribati.

- Risk management
- Archaeological management and systems
- Excavation formalities and management
- Exhibition of artefacts in museums
- Quarantine management on artefacts
- Preservation methods and management
- Database and cataloging systems for artefacts and excavated items
- Photographic recording of artefacts for museum use and data collection
- Mapping using the methods and grid systems for registration of excavated sites and artefacts
- National Cultural Properties
- National Treasures
- World Heritage Inscription strategies,
- Zoning and demarcation (buffer zones etc.)
- Conservation methods on artefacts
- Criteria for World Heritage submissions for inscriptions based on:
  - a. National Cultural Properties
  - b. Tentative listing
- Understanding of NARA
  - a. Cultural properties
  - b. History of Shintoism and Buddhism
  - c. Palace history and museum
  - d. Institute Museum
  - e. Cultural landscapes
- Risk management versus natural disasters, remedies and mitigation systems.
- Collaboration between archaeologists, researchers, cataloguing and storage facilitators, exhibitors, curators, photographers, cultural site managers, museum and temple keepers and guides, local communities and officials



## **Tiaontin Enari**

GIS Unit

Land Management Division

Ministry of Environment, Land and Agricultural Development

### **Cultural Heritage Protection in the Asia-Pacific 2013 –Individual Training–**

#### **Summary:**

Experience and knowledge were the main keys to this report as there were many lectures with different topics. During the training, most of the different topics were very interesting and useful as the situations could be compared with some similar situations in Kiribati. Above and below ground investigation of archaeological sites as well as historical sites and buildings are now the main needs of the Culture Office in Kiribati but these activities could not be proceeded with due to the lack of experience.

Below are some of the topics during the lectures.

#### **Conservation of Cultural Landscape and its protection system practice – Zoning Scheme**

- This was an outside lecture and we saw the importance of the cultural landscape to one village outside the town. Most cultural landscape sites are created by human activities like farming etc.
- Zoning was also one of the most useful topics in this training as we are currently working on a zoning project for Kanton Island in the Phoenix Island Protected Area (PIPA).

#### **Storage and Maintenance System of Artifacts**

- This was based on an archaeological excavation site. The site is about 500 years old. The excavation site is quite very interesting because, as in Kiribati, there are a lot of places that need to be excavated according to the old stories from the past (historical sites). Due to the lack of staff experience, this task could not be carried out.

#### **Management and Utilization of GPS/GIS Data**

- Data Acquisition, Analysis, Publishing and Preservation: This was based on archaeological sites where records of investigation and management of these records are needed. It tells us what kind of records we should use, especially for the information or data in GIS.
- More experience of the internal operations of GPS as described in the lecture, e.g., main control center, tracking station, etc.

#### **Management of Photographic data**

- Roles, and types of photographs of cultural properties, and digital photograph image format.

This provided an understanding of the differences between RAW image format, JPEG format and TIFF format. In Kiribati, photographs are very common as there are a lot of cameras used. The Culture Office also uses cameras as a tool to take pictures of excavation sites, artifacts and more.

#### **Cultural Heritage Management in Practice (South East Asia)**

- There was a description of the current situation on one island in the Micronesia Islands regarding the conflict between the government, the community and a landowner in relation to a cultural heritage site on the island. Common practice in the Pacific Region as well as Kiribati regarding such conflicts was also described.

#### **Conservation and Management of Cultural Heritage**

- This was concerning heritage sites, and how to conserve and manage them. We learned a lot from one island in Hiroshima as well as the place in Hiroshima where the A-BOMB exploded. (Hiroshima National Peace Memorial Hall for the Atomic Bomb Victims).

#### **Introduction:**

The country of Kiribati, from the Pacific Region, participated in the Individual Training held in Nara, Japan from 1<sup>st</sup> to 26<sup>th</sup> August 2013. It was the first time for Kiribati to participate. The venue of the training was mainly in the NARA NATIONAL RESEARCH INSTITUTE BUILDING.

Two participants were involved in this training: one from the Culture Office under the Ministry of Internal and Social Affairs and another from the Lands Management Division (GIS Unit) under the Ministry of Environment, Lands and Agricultural Development.

The Geographic Information System is one of the most important and useful units where it can be collaborated with the Culture Office in undertaking mapping activities on cultural properties in Kiribati. However, most outer islands in Kiribati have their own different shrines, monuments, historical sites and buildings, and these cases all need proper mapping, which can easily locate the different sites as well as entering the information in GIS.

This report shows how important and useful the Individual Training was, what kind of experience and knowledge was gained e.g., the preservation and protection of sites and how to utilize these skills in our country.

#### **What kind of experience in GIS did we learn from this Individual Training?**

Two days of GIS lectures were conducted by Susumu Arimoto, Chief of the Information Section. GPS was the main topic and hereunder is a list of things learned from the lectures:

- GPS Signal: This showed us how to use a GPS signal. We could not get or capture a point on the ground if the vertical bar lines indicating the GPS signal were not all active. This means the larger the number of active signal bars, the more accurate your ground point is.

- A full explanation of the inner and outer workings of the GPS system.
- Topography and structure such as the Digital Elevation Model and Digital Surface Model.
- Map Projection System. Kiribati is now using WGS84 map projection.
- Different devices to be used for storage data, such as DVDs, external hard drives, flash drives and more
- Backup data, such as how often should data be backed up, e.g., once a week, twice a week or longer than that. It depends on the data capacity. In the Lands Division, there is no proper schedule for backups so this should start soon.
- The overlay layers for vector maps and raster images are also part of the training in GIS. The picture is accompanied by an explanation on how these two maps overlay each other.
- Zoning: the Lands Department is currently in need of this training as there is a lot of government land and private land requiring zoning.

### **The use of Geographic Information System in Kiribati**

GIS in the Lands Division has its own data or layers for outer islands, such as coastlines, roads, buildings, village boundaries, airfields etc., and all these layers have already been mapped, with the original data, except that for cultural properties, kept in the Lands Office. As a result of this training, the lands office should now do proper mapping for all cultural properties on all the islands of Kiribati.

GIS in the Lands Department will also create new layers such as shrines, monuments, relics, historical sites and buildings, and other objects that fall under the category of Cultural Properties. This is the result of this training, as all cultural properties are important and should be mapped.

### **Some GIS tasks in Kiribati related to this training**

- Mangrove Demarcation on outer islands in Kiribati are now ongoing, and in the areas we have already done, some sites within the mangrove areas have been identified as shrines, monuments or relics. Even when they are located in the mangrove areas, proper mapping has not been done as the Lands Departments has not yet considered whether they should be mapped or not. However, as the result of this training, we have concluded that all cultural properties should be mapped properly.
- Shrines and relics are also sometimes used by landowners to indicate a land boundary, and in such cases this will assist the Lands Department to indicate or identify the land boundary if needed for courts or other bodies related to land issues.
- Mapping coastal erosion on outer islands in Kiribati is also one of the main tasks. This task is related to landscape cultural properties, as some shrines, monuments are located near the shoreline and can be affected by waves, sea currents or rises in the sea level. In this case mapping for all the cultural properties in Kiribati located along the coastline should be done to encourage people or communities to construct sea walls to protect shrines or monuments from erosion.



### **How to utilize this after Training?**

A lot of experience and knowledge was gained from this Individual training. Most of this was based on different topics covered from the beginning of the training until the end. Sharing this experience with our staff in our different Ministries is the only way to expand it.

On GIS, I will organize in-house training on this for our local staff, especially GIS staff, in order for them to know the importance of cultural properties and why we should do proper mapping. As I am the officer in charge in this section, I have a chance to map all the cultural properties as I saw the importance and value of proper mapping as the result of attending this training.

**The photos below show the important of this Individual Training, especially in GIS and other topics.**



This map shows a vector layer only without a raster image, and is based on one of the archaeological sites in the Middle East.



This map shows the vector and raster as two layers overlaid on top of each other.

The above photos were taken during the lectures in Management and Utilization of GPS/GIS conducted by Mr. Morimoto, the Chief of Mapping Data at Nara National Research Institute for Cultural Properties





The same photo shown after processing on the computer, it is clearer than the one on the previous page.

This was real training as I took the photo, then I did processing on the computer in order to make it clear.



This is our practice in how to use a camera in order to take a shot.



This photo shows participants doing photo processing on a computer.

### **Conclusion:**

Most people in Kiribati, especially high ranking people and younger children, would probably not recognize the important role of culture within their family or community. This is because the new



generation is now basically concentrated on modern life or education, thus there is a family culture problem. With the expansion of the experience and knowledge gained from this training to the staff in our Ministries, as well as discussions with people including children, the problem will be minimized.

Apart from that, the standard of GIS in Kiribati is not high, so we need higher-level training such as hands on training, especially regarding the mapping of cultural properties.

### **Acknowledgements**

As the Individual Training is now completed, I would like to give thanks to the ACCU OFFICE who funded and organized the Individual Training; and also to the ACCU staff for accompanying us during the training, our lecturers, our translator, and all the people who were involved in this training; and lastly to the Nara National Research Institute for Cultural Properties as our main training venue. I hope Kiribati will participate again in this training in future.



## V. Appendix

1. List of Participants
2. List of Lecturers and Interpreter
3. Staff Members, ACCU Nara



At Kasuga-taisya Shrine





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