# Old Meets New: How advanced digital technology can assist in the preservation of world heritage in Japanese temples

- World Heritage Site Ninna-ji Temple's Approach to Managing Cultural Properties -

2014.12.17 Chijo Onishi Ganjo-ji Temple



- I. The History of Ninna-ji Temple
  - From Establishment to Today –
- II. Maintaining the Collection
  - Current Problems and Innovations –
- III. Utlizing Digital Archinves
  - Recording and Preserving for Posterity –



#### I. The History of Ninna-ji Temple

- From Establishment to Today -

1. Temple Exterior



Bird's-Eye View



**Temple Grounds** 



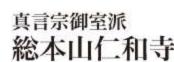
- I. The History of Ninna-ji Temple
  - From Establishment to Today -
- 2. National Treasure Kondo/Important Cultural Property Nio-mon Gate



National Treasure Kondo

Important Cultural Property Nio-mon Gate





- I. The History of Ninna-ji Temple
- From Establishment to Today -

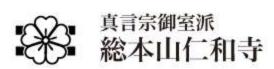
3. Inside the Palace



Shinden



Cloister



#### I. The History of Ninna-ji Temple

- From Establishment to Today -
- 4. Important Cultural Property Five-Storied Pagoda & Omuro Cherry Blossoms





Five-Storied Pagoda and Omuro Cherry Blossoms

Important Cultural Property Five-Storied Pagoda



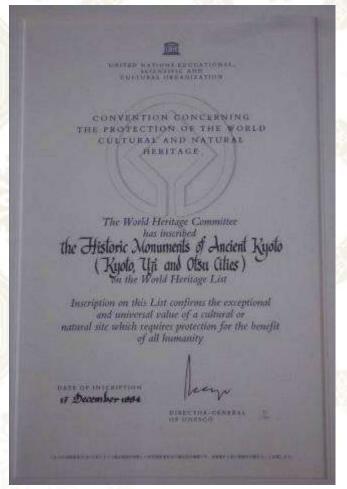


#### I. The History of Ninna-ji Temple

- From Establishment to Today -

5. World Heritage Registration







#### Cultural Properties at Ninna-ji Temple:

- 12 National Treasures, 45 Important Cultural Properties, 1 Resgistered Cultural Property, Tens of Thousands of Other Items
- The total number of nationally sanctioned cultural properties in Japan as of September 2011:
  - 1,082 National Treasures, 12,811 Important Cultural Properties, 8,525 Registered Cultural Properties

#### Main Cultural Properties

- 1. Buildings (National Treasure Kondo, Important Cultural Property Five-Storied Pagoda, Important Cultural Property Nio-mon Gate, Shinden)
- 2. Sculptures (National Treasure Amida Triad)
- 3. Paintings (Important Cultural Property Kenshou Shoji Painting)
- 4. Writings (National Treasure Sanjujyo Booklet)
- 5. Handicrafts (National Treasure Karyo-Binga Metallic Lacquer Booklet Box)



1. Buildings (National Treasure Kondo)



2. Sculpture (National Treasure Amida Nyorai Seated Sculpture), Painting (Important Cultural Property Kenshou Shoji Painting)

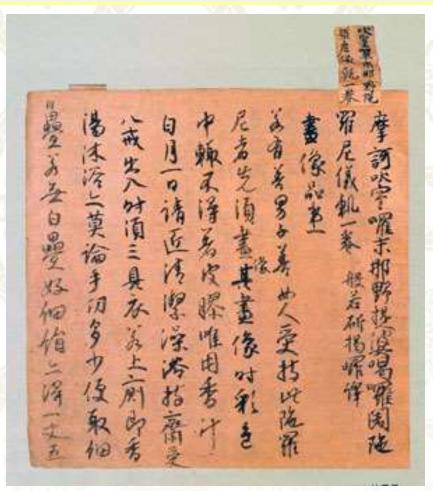




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3. Writings (National Treasure Sanjujyo Booklet), Handicrafts (National Treasure Karyou-binga Metallic Lacquer Booklet Box)







- **III.** Maintaining the Collection
  - Current Problems and Innovations -
- 1. Storage Room Interior, Storing Ancient Documents

- 2. Installation of Thermo-Hygrometers, Dehumidifiers, etc.
- 3. Mold Removal (Alcohol Cleansing), Identifying Insect Damage, Cleaning

#### **III.** Maintaining the Collection

- Current Problems and Innovations -
  - 1. Storage Room Interior Storing Ancient Documents (1/2)







## II. Maintaining the Collection-Current Problems and Innovations-

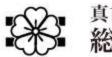
1. Storage Room Interior • Storing Ancient Documents (2/2)



Mold Outbreak



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## II. Maintaining the Collection ~Current Problems and Innovations~

2. Installation of Thermo-Hygrometers, Dehumidifiers, etc.

Dehumidifier, Thermo-Hygrometer
Adhesive Sheet for Identifying Insect Damage





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## II. Maintaining the Collection

#### ~ Current Problems and

#### Innovations~



3. Mold Removal(alcohol cleansing) • Cleaning



**Removing Mold** 



### II. Maintaining the Collection

~ Current Problems and Innovations~

3. Mold Removal (alcohol cleansing) • Cleaning

**Installing Adhesive Sheets** 



#### Cleaning



## III. Utilizing Digital Archinves ~ Recording and Preserving for Posterity ~

I. About Digitalization

II. Examples of Digitalization

III. Kyoto University Digital Archives

#### III. Utilizing Digital Archinves

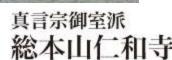
#### ~ Recording and Preserving for Posterity ~

1. Portrait of Emperor Uda · Shiki Mandala









### III. Utilizing Digital Archinves

#### ~ Recording and Preserving for Posterity ~

2. Omuro Mandala (Woodblock Print)



Scan of the Print



Mirror Image





#### Ninna-ji Temple Kannondo

The Kannon-do was built as part of the temple reconstruction in the 17th century. The chief image enshrined inside is a Thousand-Armed Kannon



#### Ninna-ji Temple A Meeting in Kannondo



#### Ninna-ji Temple Kannondo Digitalization Project



#### **High-Definition Analytic Digitalization of Wall Painting**

■ LED technology has had a revolutionary influence on recording cultural properties



#### Considering the Practical Applications and Management of Rights to High-Definition Digital Images

Crossing over disciplines, specialists from a variety of fields (Buddhist art historians, cultural property conservation scientists [researchers of condensation/ dryness and the effects of and counter-measures to mold], cultural property restoration specialists, etc.) have had the opportunity to exchange ideas and consider the practical applications of high-definition digital images.



Also, exploratory meetings have been held with experts (attorneys and patent lawyers) regarding managing rights to high-definition digital images, and there are plans to continue these meetings into future.

## World Heritage Site Ninna-ji Temple's Approach to Managing Cultural Properties

2012.9.3 Ninna-ji Temple Onishi Chijo

