Completed Removal of the Wall Paintings in Kitora Tumulus
By Hayakawa Noriko, Center for Conservation Science and Restoration Techniques

The Center for Conservation Science and Restoration Techniques has been removing the wall paintings of Kitora Tumulus as part of a project called the Investigation on Conservation for special historic site Kitora Tumulus, commissioned by the Agency for Cultural Affairs. We had aimed to complete the removal of the paintings in the next spring term following the intensive removal in the spring and autumn of 2009. However, we removed all plaster from the stone chamber walls during this term earlier than the planned schedule (autumn 2010). This work was attributed to the proficiency of the engineers in removal, as well as to the development and improvement of the machines, tools and materials promoted by the National Research Institute for Cultural Properties, Tokyo. The work in the stone chamber was finished in a series of conservation projects of the wall Paintings in Kitora Tumulus, starting with the removal of Seiryu (blue dragon) on east wall in 2004. We will begin treating and mounting the wall paintings in the conservation facility.

Survey on Yamaji (Mountain Road) Painted by Yokoyama Taikan
By Shioya Jun, Department of Research Programming

Yokoyama Taikan, a giant of modern Japanese-style paintings, painted Yamaji when he was 43 years old (in 1911, stored by Eisei-Bunko Museum and deposited by Kumamoto Prefectural Museum of Art). It is an important piece in which Taikan heavily used
the “touchés”, a reputed technique consisting of the blending of the Western impressionist school and the Southern school of Chinese painting at the time the piece was made public. It was the vanguard of the 'new Nanga-style painting', prevalent in the Taisho Period, escaped from the hazy style attempted by Taikan in the Meiji 30's. In addition, Mr. Arai Kei (Tokyo University of the Arts) recently pointed out that Yamaji likely used mineral pigments, which were new at that time. This painting is thus noteworthy even when examining the materials used in Japanese style paintings during the era.

On the occasion of the restoration of Yamaji, the Eisei-Bunko Museum, which owns the painting, and our Institute will begin joint research, conducting many-sided investigational studies with Mr. Miyake Hidekazu of the Museum. To start with, on October 10, we conducted near-infrared reflectance photography and qualitative analysis using the fluorescent X-ray analysis method at the Kumamoto Prefectural Museum of Art where Yamaji has been deposited. This was done together with Mr. Arai mentioned above, Mr. Taira Yuichiro and Ms. Ogawa Ayako (both, Tokyo University of the Arts), in cooperation with Mr. Hayashida Ryuta at the Kumamoto Prefectural Museum of Art. The result of research revealed that Yamaji consisted of an abundant amount of modern pigments, which are different from conventional pigments. The restoration will continue for a period of one year. We will gather the obtained survey results, the progression status of the restoration, and various types of information that include reviews from the time the work was made public. We would like to release such items publicly as fundamental materials.

Survey on Deterioration of Maki-e and Lacquer (Urushi) Coating in the Main Shrine of Tsukubusuma-jinja

By Kitano Nobuhiko, Center for Conservation Science and Restoration Techniques

The Center for Conservation Science and Restoration Techniques has been investigating the deterioration of maki-e (gold-relief lacquerwork) and lacquer (urushi) coating in the main shrine of Tsukubusuma-jinja. The main shrine of Tsukubusuma-jinja, located on
the Chikubujima isle in Lake Biwa, Shiga, is one of the buildings which represents the Momoyama culture. It is said that part of the palace of the Fushimi Castle was brought to this isle and reassembled to become a shrine. It is famous for the lacquer (urushi) coated columns and beams running between columns, on which the paulownia and chrysanthemum crests and patterns of flowers and birds were decorated using maki-e techniques and the full-color woodcarving on the walls of nave (gejin) and doors. As 75 years have already passed since the last repairs were made, damage to the roof and coating is noticeable. Furthermore, decoration using gorgeous maki-e techniques inside the building, which is highly ranked together with that in the Koudaiji Otamaya in Kyoto, has seriously deteriorated, and has become problematic among the individuals concerned. Therefore, the Center cooperated with the repairs currently being promoted by the Shiga prefectural education board and Tsukubusuma-jinja, and conducted basic research to identify the cause of the deterioration phenomena, and then made investigation to prevent deterioration within the special environment of Lake Biwa. We will make use of the achievements obtained on this occasion in order to conserve the valuable maki-e and lacquer (urushi) coating of the main shrine of Tsukubusuma-jinja in the best state possible.
Survey at Joshibi University of Art and Design Museum (JAM)
By Kikuchi Riyo, Department of Intangible Cultural Heritage

As part of joint research at the Joint Research Center for Fashion and Clothing Culture, we surveyed the textiles at JAM on July 12, 2010. This joint research started in November 2008, aiming to clarify the relationship between the Mitsui-family descendent short-sleeved (kosode) kimono owned by the Bunka Gakuen Costume Museum and the associated Maruyama-school costume design. We conducted the detailed survey on the short-sleeved kimonos, which were in the possession of the now-defunct Kanebo Ltd. and now owned by JAM, focusing on those similar to the Mitsui-family descendent kosode, including the techniques, design and tailoring. We will advance a close investigation on the findings obtained through the surveys, aiming at the issue of a report in next fiscal year.

Conservation of Wall Paintings of the Ajanta Caves Research Project - Overview of the 5th Mission Report
By Suzuki Tamaki, Japan Center for International Cooperation in Conservation

The National Research Institute for Cultural Properties, Tokyo and the Archaeological Survey of India (ASI) conduct joint research on the conservation of the wall paintings of the Ajanta Caves, under the framework of the Exchange Program of International Cooperation of Cultural Heritage commissioned by the Agency for Cultural Affairs and the government subsidized budget for the Cooperative Project for the Conservation
of Cultural Heritage in West Asia. We aim to share knowledge on conservation and exchange conservation techniques that are necessary for this project.

The wall paintings of the Ajanta Caves have many problems - the leaking of water from cracks in the base rocks, biological damage, artificial damage, and discoloration caused by past treatment and the deterioration of colored layers. Noticeable things among these problems are the blackened and whitened bat excrement and the yellowed and darkened varnish (shellac, PVAC) coated on the surfaces of wall paintings. We have currently not yet discovered any effective methods that would lead to assured conservation. To overcome these problems, we conducted cleaning trial of the wall paintings of Cave 2 during this fifth mission [from November 14 to December 4, 2010]. Utilizing the scientific analyses and documented data accumulated up until last year, we examined appropriate conservation methods together with the Indian conservation specialists.

Cooperating for the Reconstruction of the Historic Townscape of Padang, Indonesia
By Akieda Yumi Isabelle, Japan Center for International Cooperation in Conservation

In the framework of the Cooperation Project for the Rehabilitation of Earthquake-affected Cultural Heritage in the historic district of Padang in West Sumatra, Indonesia, commissioned by the Agency for Cultural Affairs, we have been conducting activities to support Padang. The city suffered severe damage from the earthquake of September 30, 2009. Our sup-
port consists in integrating together with local bodies the protection and conservation of cultural heritage within the more general urban reconstruction process. As a first step in a series of surveys and activities to be executed until February 2011, we conducted a field survey on the state of restoration of historic buildings and townscape from October 16 to 25.

In this survey, we recorded the current status of the town one year after the earthquake, taking the data of the damage assessment survey of November 2009 (immediately after the earthquake) as basis for comparison. Although the rubble had been cleaned and the bustle of the town had returned, the state of restoration of the buildings that make up the historic townscape was varied. The number of registered heritage buildings, whose restoration had advanced was very limited, and many buildings were left untouched since the earthquake; some lots had been cleared completely.

In the discussions with the governor and the local organizations concerned, our understanding matched in that the protection of cultural heritage contributes to the reconstruction of the town and that the cooperation of specialists, government and residents is important. We will thus continue working with local specialists, cooperating with the central, state and city governments. An on-site workshop on written cultural heritage is planned for November, and workshops on historic buildings and townscape will be held in December and January in Padang.

Immediately after our survey team returned from its mission, an earthquake and tsunami hit West Sumatra again. Although Padang did not seem to have suffered heavy damage, this disaster strengthened our desire to contribute to the reconstruction of the town and the maintenance of a safe living environment through the protection of cultural heritage.

Safeguarding of the Bamiyan Site Project - Overview of 10th mission

By Abe Masashi, Japan Center for International Cooperation in Conservation

Japan Center for International Cooperation in Conservation has been conducting the Safeguarding of the Bamiyan Site project jointly with Ministry of Information and Culture, Islamic Republic of Afghanistan since 2003. This year, we dispatched the 10th mission from July 9 to 30 to conserve mural paintings and conduct archaeological investigations.

In the conservation of mural paintings, we started work in caves C (a), C (b), D and D1 which are adjacent to the East Giant Buddha. Damage caused by vandalization, objects being cut out and sold, and graffiti by tourists was especially conspicuous in these easily accessible four caves. This year, we completed emergency treatment of the mural paintings remaining in cave C (a) and the veranda part of cave D. The work in these four caves will continue for opening to the public from next year on.

Organizing materials of archeological objects obtained in previous missions was conducted. These objects were discovered while making trial excavation investigations in different spots and cleaning Buddhist caves, and are very important materials that tell us about the history of the Bamiyan Valley. We also conducted a preliminary survey on the Shah-e Zohak site, a candidate for excavation and investigation from next year on, and the spot where a castle is thought to have existed in the Bamiyan site.
From October 3 to November 2, the Japan Center for International Cooperation in Conservation conducted the 9th Mission for Conservation of Wall Paintings in the National Museum of Antiquities of Tajikistan. This was part of the Exchange Program of International Cooperation of Cultural Heritage planned by the Agency for Cultural Affairs. During past missions, we examined the methods of mounting wall painting fragments on a support and decided on a basic policy. In this mission, we reviewed part of the operation process, aiming to further reduce the weight of support and shorten the operation time.

In addition, we held a workshop entitled the Conservation of Wall Paintings from Central Asia 2010 at the above-mentioned museum from October 21 to the 27. At the third workshop during these missions the theme was mounting, which is the last process of wall painting conservation work. Five conservation specialists participated in the workshop: one conservator from both Kazakhstan and Turkmenistan in Central Asia, two conservators from the Mural Restoration Laboratories at the State Hermitage Museum, Russia, and one conservator from the Dun Huang Academy, China. Three trainees from the National Museum of Antiquities of Tajikistan also participated in the workshop. Using the mounting methods improved during this mission, all participants experienced all the processes of mounting wall painting fragments on a new support.

During the mission, we completed the conservation treatment of six wall painting fragments among those excavated from the Kala-i Kahkaha I site, and exhibited them at the above Tajik museum. Three trainees from the National Museum of Antiquities of Tajikistan learned methods for mounting wall painting fragments and the filling up of the lost portions on the surface of wall paintings. They were able to independently perform all conservation treatment processes. We hope that these trainees will con-
From October 5 to 13, researchers of the Center for Conservation Science and Restoration Techniques conducted a workshop related to the restoration of paper cultural properties at the lecture room of Asian Art Museum Berlin as part of the Cooperative Program for the Conservation of Japanese Art Objects Overseas. The workshop held this year consisted of three courses - the basic course (20 people), the beginners' course (12 people) and the intermediate course (7 people) - on hanging scrolls, targeting conservators at museums and art museums, and restorers of paper. In the basic course, a lecture was given on paper, adhesive and restoration, and conservation. In the beginners' course, the structure and handling of parchment were explained, and in the intermediate course, the participants focused on the handling of paintings. We hope that through this workshop, the participants will continue conservation even after this project is completed. We also hope that they will contribute to the conservation of valuable cultural heritage in Tajikistan.

By Nakayama Shunsuke, Center for Conservation Science and Restoration Techniques

Inside the lecture room of Asian Art Museum Berlin
Training of Iraqi Specialists for Conservation
By Abe Masashi, Japan Center for International Cooperation in Conservation

The Japan Center for International Cooperation in Conservation have used the government subsidized budget for the Cooperative Project for the Conservation of Cultural Heritage in West Asia and UNESCO/Japanese Funds-in Trust and invited Iraqi conservation specialists to Japan every year since 2004 for training on conservation of cultural heritage.

This year three specialists in conservation - Ali Ganim, Nafla Nabil and Fadil Abdul Hadi - have been invited from the Iraq National Museum, and training will last for about three months from September 22 to December 9. They are to receive training on equipment for the conservation of cultural properties, lectures and practical training on conservation of wood products and metal products. It is also planned that they visit the National Research Institute for Cultural Properties, Nara, the University Museum, the University of Tokyo, The Institute for Cultural Studies of Ancient Iraq, Kokushikan University and the Hitachi High-Technologies Corporation.

Training to clean the surface of metal
International Course on Restoration of Japanese Paper
By Kato Masato, Center for Conservation Science and Restoration Techniques

The International Course on Restoration of Japanese Paper was held from August 30 to September 17. Among approximately eighty applicants engaged in the conservation of cultural properties around the world, ten participants from Ireland, Australia, Malaysia, etc. were selected. Various topics covered in the lectures included material studies, bibliographies and so on. In the practical sessions the participants made infillings of missing parts, lining, attached axial rods, and produced a work into a hanging scroll. They also challenged Japanese-style book binding. In the study tour, the participants visited Mino city, a place famous for handmade paper also used for restoration as well. They also visited the restoration studios, such as the traditional mounting studio and the cultural property conservation studio of the Kyoto National Museum. The

Workshop on Conservation and Use of Cultural Properties "The Present and Future of Gas Fumigants"
By Sano Chie, Center for Conservation Science and Restoration Techniques

On October 19, 2010, the National Research Institute for Cultural Properties, Tokyo hosted a workshop titled as in the above, with the co-host being the Kyushu National Museum. This workshop was intended for the persons in charge of conservation at the museums, art museums, etc. and the persons in charge of protection of cultural properties in local governmental organizations in the Kyushu, Chugoku and Shikoku districts. During this workshop, the colors of five Japanese paintings which changed due to the tent fumigation in the warehouse by use of a drug with the active ingredient of aluminum phosphide, which is not allowed to be used for the fumigation of cultural properties, was discussed. In response to this accident, we considered the urgent need to promote understanding of the fumigation of cultural properties, and held the workshop in cooperation with researchers whom are collaborative members of the Center for Conservation Science and Restoration Techniques. The following presentations were made: "Management of borrowed art objects for exhibitions" by Mr. Asaka Hiroshi, the Cultural Property Conservation Instructor at the Arts and Culture Section of the Agency for Cultural Affairs; "Details on the chemicals designated by the Japan Institute of Insect Damage to Cultural Properties" by Mr. Miura Sadatoshi, the Director of the Japan Institute of Insect Damage to Cultural Properties; "Characteristics of gas fumigant and impacts on cultural properties" by Ms. Sano Chie, the Head of the Conservation Science Section in the Center for Conservation Science and Restoration Techniques at the Institute; and "Fumigation performed in museums - as part of IPM (Integrated Pest Management)" by Ms. Honda Mitsuko, the manager of the museum science section of the

handed down techniques and knowledge lead to the promotion of conservation and use of Japanese paper cultural properties, and furthermore, it is expected that they will be applied to the repairing and conservation of Japanese art objects overseas.
The 24th Conference on International Cooperation on Conservation titled “Thinking of conservation with a protective shelter” was held on July 8, 2010, with 71 participants. Protective shelter are sometimes used to conserve sites. To understand the advantages and disadvantages of protective shelter, it is necessary to know their state after a certain number of years have passed since they were built. For this reason, we asked three persons to make presentations and then we had general discussions. First, Mr. Anat Bamurunwonsa of the Fine Arts Department of Thailand gave a lecture titled “Protective shelter for a pair of Buddha’s footsteps in the Prachinburi Province.” This was followed by Mr. Irisa Tomoichiro of the Cultural Properties Protection Division, Fukuoka Prefecture, who delivered the lecture “Varied forms and current status of protective shelter in Fukuoka.” Then, Ms. Shin Eun-Jeong of the National Research Institute of Cultural Heritage, Korea, gave a lecture titled “Current status and case study in covering roofs for stone cultural properties in Korea.” The lectures and discussions made us recognize, for site conservation, the need to appropriately decide on specifications of protective shelter, after understanding the conditions such as the ambient environment of sites, and the importance of continuously monitoring the built roofs.

44th Public Lecture: The Dynamics of Interaction between Objects and People
By Emura Tomoko, Department of Research Programming

The Department of Research Programming of this Institute holds a public lecture every autumn in order to disclose the results of our research on art history. This public lecture is the 44th with the first held in 1966. Since 2006, we have established a common theme titled “The Dynamics of Interaction between Objects and People”, and four researchers from both within and outside the Institute gave presentations on October 15 and 16.

On October 15, Mr. Tsuda Tetsuei (the head of Archives Section of the Department of Research Programming) gave a presentation, entitled “Creation of the statue of the virtuous founder of Shinran School on the Amida Rure
Land Buddhism in the medieval period", on the background of the creation of the life-sized statue of the school successors and the meaning of the creation of the statues. Dr. Suga Miho (associate professor at Okayama University) gave a presentation entitled "Beauty of flowers and grasses - Space of pavilions at the Tsukubusuma-jinja Shrine", and clarified the formative expression and space configuration based on the detailed investigation of pavilions while using a great deal of pictures. On the following day, Mr. Takahashi Toshiro (curator at the Naritasan Calligraphy Museum) gave a presentation entitled "Imperial Court Poets and Calligraphy", and clarified the cultural role of the activities of poets whom gathered in the Imperial Court of Poets (opened in 1888), in terms of the background pertaining to the maintenance and expansion of the modern imperial system. Mr. Shioya Jun (Head of the Art Research Materials Section at the Department of Research Programming) gave a presentation entitled "Akimoto Shatei and Japanese-style paintings in the Meiji Period". He focused on the activities of Akimoto Shatei, a brewer in Nagareyama who played an important role as a supporter of Hishida Shunso as leader of Japanese-style paintings in the Meiji Period. During the presentation he clarified the reception to artworks during the Meiji Period.

We had 114 and 86 audiences respectively on each of the two days. On the first day, Mr. Itsuo Ikushima, the Chief Priest of the Chikubushima-jinja Shrine and his wife, attend-
ed in relation to the presentation of Dr. Suga. On the second day, Ms. Akimoto Yumiko, a water-color painter and the grandchild of Akimoto Shatei attended in association with Mr. Shioyas' presentation. Mr. Itsuo Ikushima and Ms. Akimoto Yumiko answered the questions from the hall and the public lecture ended successfully. From the results of the questionnaire performed after the lecture, we have learned that the audience was very satisfied with the content. We would like to actively plan for the transmission of the results of research conducted by our institute.

Exhibiting Panels of the Institute at Ueno Junior High School, Taito-ku, Tokyo
By Katsuki Gen’ichiro, Department of Research Programming

On October 30, the National Research Institute for Cultural Properties, Tokyo exhibited panels at a school festival at Ueno Junior High School in Taito-ku, Tokyo. We displayed two subjects: The clarifying of the structures of nohkan and ryuteki flutes by X-ray photography, and the survey and investigation of Buddha statues by X-ray photography.

The panels previously exhibited at the entrance of the Institute were reused, and both subjects were investigated using X-ray photography and results were seen. Students at the junior high school know well that the state of one’s chest can be revealed by X-ray photography during physical checkups. Therefore, we think that they understood what material of cultural properties this method is effective for and what can be revealed with the research results.

This is the second time that the panels of the Institute have been exhibited at the school festival at Ueno Junior High School. Although the exhibition was on display for only one day, it provided a good opportunity for approximately 300 students, teachers, and parents to know that a research organization which protects cultural properties and hands them down to future generations exists near Ueno Junior High School.

We hope that this activity will continue cooperation with school education and with the local community.

Exhibited the Panels Obtained by Joint Research Investigation with the Tokugawa Art Museum
By Emura Tomoko, Department of Research Programming

The Department of Research Programming is investigating early modern genre paintings, such as Genre Figures, said to be based on the romance of Honda Heihachiro and Lady Senhime, as a joint research project with the Tokugawa Art Museum. 2010 is the 75th anniversary of the opening of the Museum, and upon this occasion a special exhibition called the "Treasures of the Owari Tokugawa Family" was held (October 2 to November 7). In light of this opportunity, on display since September 28 are the enlarged picture panels of Genre Figures and Kabuki Performance and Audience (both are important cultural properties) as part of research investigation results. Genre Figures is a relatively smaller two panel folding screen, 72.2 cm height. We had the image outputted by magnifying it by approximately 3.5 times in order to match the Honda Heihachiro’s height with the average body height of 157 cm that was assumed from the male remains of the feudal lord class in the Edo Period. When the right panel is enlarged with the same degree of magnification, the
"Genre Figures" exhibited on panel

"Kabuki Performance and Audience" exhibited on panel
female in a *kimono* with crest of hollyhock, the central figure, will match the average height 146 cm of the wives and concubines of feudal lords in the same way. This lets us know that the difference in physical size between males and females of the time is accurately reflected in the portraits. *Kabuki Performance and Audience* is 36.7 cm length, made up from two scrolls on which there are six pictures each. We had this scroll output by magnifying it by approximately 2.5 times. We can clearly confirm the color expression by delicate gradations and the elaborately drawn textural differences, and focus attention on detailed description, which has been overlooked until now. When the line drawings and the state of colors are observed in detail, the intention and reason for the expression techniques will come up. We will apply the information thus far obtained to the study of works and will work to deepen the understanding a variety of art pieces.

Photos Taken at the Dawn of Japanese Aviation History in the Tokorozawa Airfield Made Public

By Nakayama Shunsuke, Center for Conservation Science and Restoration Techniques

The Center for Conservation Science and Restoration Techniques began to make public, on the website, the photos of airplanes such as the Farman, taken at the beginning of Japanese aviation at the Tokorozawa airfield. These photos were donated by Mr. Kitagawa Masanobu, who lives in Tokorozawa in January 2009. The photos were taken by the late Mr. Kitagawa Hideo, the father of Kitagawa Masanobu, at the Tokorozawa airfield. The main recording media were glass plates. We are extremely grateful to Mr. Kitagawa Masanobu and other relevant individuals for the conservation of these glass plates and the making public of these digitized photos on the occasion of the memorable 100th year of Japanese aviation. The photos posted on this occasion include the first airplane to fly in Japan, Aikoku (Patriot)-go and many other precious shots. These will definitely be very valuable materials for researchers and people who are interested in aviation. The Center will continue to make public such valuable data in the future.

The first Japanese-made plane of the Imperial Japanese Army (1911)
Publications

75 Years of the National Research Institute for Cultural Properties, Tokyo: Text
2006 marked the 75th year of the establishment of the Institute. In commemoration of this anniversary, 75 years of the National Research Institute for Cultural Properties, Tokyo: Text was published. 2010, Chuo Koron Bijutsu Shuppan (+81-(0)3-3561-5993), Price: ¥36,750

Investigative Report on the Handscroll "Autobiography" by Huai-su
A report on the investigation of Autobiography by Huai-su in the collection of the National Palace Museum using optical methods. Huai-su of Tang dynasty is famous for the graceful style of calligraphy. This report contributes a new perspective to the discussion of the scroll. Color illustrations of high-resolution digital images and images by optical methods, such as infrared, and a report by Prof. Ho, a researcher of the National Palace Museum, are included. 2005, The National Palace Museum, Taipei, Price: NT$800

Listed Works of the Exhibitions in the Taisho Period
This is the publication succeeded the previous one, Listed Works of the Exhibitions in the Meiji Period published in 1994. It covers more than 30 major exhibitions held from 1907 to 1930. Chuo Koron Bijutsu Shuppan, Price: ¥26,250

Liturgy of Buddhist Services at Todaiji in March
A collection of reports on the liturgy of Buddhist services held at Todaiji temple in March by Sato Michiko, researcher emeritus of the Institute. Formerly reported in periodicals, they have been republished. 4 volumes, 2005, Hozokan (+81-(0)75-343-5656), Price: ¥58,000

Science for Conservation
Science for Conservation has been published since 1964. It contains articles on studies of conservation and restoration of cultural properties conducted by the Institute. The articles can be downloaded as PDF files from the website of the Center for Conservation Science and Restoration Technique (http://www.tobunken.go.jp/%Ehozon/hozon_pdf.html).

Conservation of Industrial Heritage 6- Problems on the Conservation of Industrial Heritage
Until now, several publications have been made on the conservation of industrial heritage based on presentations given during conferences on this matter. In this publication, papers presented at a follow-up conference held in 2005 are recorded. 2008, not for sale

Series of Instruments for Protecting Cultural Property [3]: Database on Laws for Protection of Cultural Property
This book introduces the Japanese Law for the Protection of Cultural Property in English. Leading judgments in this field have been summarized in Japanese and placed immediately after related articles of the original law in force. 2009, not for sale