

# Tokyo University of the Arts COI Site

Culture Sharing

International Conference for the  
Safeguarding of Cultural Heritage  
in Conflict Areas in Abu Dhabi

Professor Miyasako, our Research Leader presented on the topic Beyond Safeguarding Cultural Heritage “Towards World Peace” at the “International Conference for the Safeguarding of Cultural Heritage in Conflict Areas” held in Abu Dhabi on December 2nd and 3rd, 2016. The Crown Prince of Abu Dhabi, the President of France, Director-General of UNESCO, the President-Director of the Musée du Louvre, the President of the Metropolitan Museum of Art, and Culture Ministers from numerous countries were all present. Professor Miyasako proposed the concept of achieving world peace by producing clones of cultural properties that are old or have been shipped abroad, destroyed or lost, or perhaps those that cannot be made open to the public. In addition, we displayed a clone cultural property (reproduced ceiling painting of the East Great Buddha niche in Bamiyan) at the venue, and exchanged words with Mr. Hollande, President of France and Mr. Martinez, the President-Director of the Louvre.

Arts & Science LAB. COI news

# HYOUTRE

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## Geidai Arts Special 2016 Disability and Arts

Disabilities and Expressions



"Geidai Arts Special 2016 - Disability and Arts" for the 6th time, was held at the Sogakudo Concert Hall at TUA on December 3rd and 4th, with technical cooperation from Yamaha Corporation (Yamaha), a COI participating company. Roughly 1,500 people attended.

On the first day, we had a "Music in the dark" performance for the 3rd time, an orchestra formed by visually impaired musicians and sighted musicians play in complete darkness, without any lighting. There was also for the first time "Note - my story", a joint performance between TUA students and "Inclusive Field for Dance", a group that includes a diverse range of physicality including those in wheelchairs.

On the second day, there was a talk session by Junko Koshino, a fashion designer, and Shinichi Yoshida, a table tennis Paralympian on the theme of "disability and fashion". During the main concert "Colors you can hear and Sound you can see", Mr Andrés Godoy, one armed guitarist, invited from Chile, and Ms Natsuki

Hashimoto, a blind soprano singer, both performed wonderful music. The audience were in awe of the "Ode to Joy" from Beethoven's Symphony No 9, sang by students from Tokyo Metropolitan Hachioji Special School and Tsukuba University's Special Needs Education School alongside Geidai philharmonia Orchestra.

Furthermore, there was a first-time joint performance by children with hearing impairment playing traditional drums the Kodaiko with orchestra in the background. For this performance, a special system that displays the volume and the music sheet as it is played in real time on iPads was developed by TUA's "Research on disability and expression" and "Research on synesthetic media" groups together with the Research & Development Division of Yamaha and Tsukuba University's Special Needs Education School for the Deaf. This fostered great interest and expectation for future innovation in the field of disability and artistic expressions.

## The development of application to support musical performance & 3D printed animation

"Synesensory" Media

On December 4th, 2016, the Geidai Arts Special event "Disability and Arts" was held at the Sogakudo Concert Hall. At the main concert of the event, we presented the results of our research on how to visually express sound.

We unveiled an iPad application that supports people with hearing impairment perform music. This was jointly developed by the "Research on disabilities and expressions" group and Yamaha Corporation (Yamaha), and introduced for the first time at this concert. Through Yamaha's sensor equipment that reads the volume of the music being played, the "Research on synesthetic media" group designed the whole system including the user interface, and made it possible to see the volume on iPads. This assisted the children from Special Needs Education School for the Deaf, University of Tsukuba to play the snare drums. As a result, the volume and the pace of the joint performance with the Geidai Philharmonia Orchestra was perfect.

At the concert last year, the students from Yokohama City Special Support School for the Visually Impaired created objects that we turned into animation. It was well received by the students and the school but we were not entirely satisfied with the result because the students were not able to see the final animation because of their impairment. This year, we created 3D printed animation that can be "seen and touched" instead, in the hope of being able to share the animation with the students themselves.



Just like last year, we used our photogrammetric technology to import the objects in 3D data, and added the walking animation using CG software. But this year, we printed the object data for 12 frames in 3D to create 12 white miniature dinosaurs on a 8cm by 8cm stand. By lining them up in the correct order, one can see how the dinosaur walks two steps, completing a loop of walking motion. The 12 dinosaurs were displayed in the hall alongside their original objects so that they can touch and imagine how a dinosaur would walk by moving their feet and tail little by little.

We filmed the 3-minute animation by slowly moving the miniature dinosaurs. For the screening, the orchestra played "In the Hall of the Mountain King" by Peer Gynt. Dinosaurs marching to the music had a humorous and charming effect on the audience, and we had very warm feedback that it was fun and enjoyable. It is only the beginning of our journey to try to lower the barriers between the senses, for instance, visualizing sound and haptizing animations. The "Research on synesthetic media" group would like to continue our research with the aim to create links between senses and expressions.

## National Museum of Myanmar exhibits "Clone Cultural Properties" as part of its public collections

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The reproductions of the mural paintings found in Bagan, Myanmar, referred to as "Clone Cultural Properties" has been displayed at the National Museum (Nay Pyi Taw) built in 2015 as part of its public collections. The Bagan Temples are regarded as one of the three greatest Buddhist sites in the world. The damage to most parts of the mural paintings, due to looting, theft and natural disasters, is severe. Around 400 towers were damaged by the earthquake in August 2016. We would like to contribute to the reconstruction of the disaster-stricken area and help expand the tourism industry by promoting culture sharing using clone cultural properties, in cooperation with the government of Myanmar.



## Exhibition booth at Science Agora

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"Science Agora 2016" was held at the National Museum of Emerging Science and Innovation, between November 3rd - 6th, and our exhibition booth was open on November 5th and 6th. "Science Agora" means a place connecting science and society. The theme of our booth was "the secret of color: fusion and mixture". We aimed to create a booth that would act as an entry point to a sphere of learning across areas such as science, geography and history through paintings. Our workshop titled "let's create crayons in the color of Van Gogh" was hugely popular across different age groups. The workshop participants picked their favorite out of 10 colors and mixed it with beeswax, then poured the liquid into a mold to make their very own crayons.



## "Arts and Robotics"

Robotic Performing Arts

I started a curriculum called "Arts and Robotics" in the latter half of 2016. This is probably the first attempt in the world for an Arts university to explore the potential of art involving robots.

Nowadays, it is hard to find a modern art museum without audiovisual artwork. But it is only in the last 20 years or so that this has become the norm.

Considering that, we will likely enter an era where it would be impossible to find modern art museums without robots, in the next 20 years. I can easily imagine artistic robots being created and it will be commonplace to find installation art using those robots.

During the semester, the class was split into three groups to learn how to control a robot and to create their own artwork using their expertise in music, art etc. For the presentation on the last day, the students maximized the use of lighting and sound effects, and considering this is only the first year, their achievements exceeded my expectations. From next year, I will ensure the curriculum is even more interesting and try to make the quality of the students' artworks even better.



Finally, I would like to say that I am proud to have started such a world-leading curriculum at the Tokyo University of the Arts.

## 16th National Handicapped People Arts and Culture Festival in Aichi The Power of Art × TUA COI Site's exhibition "Paintings and Sculptures You Can Touch"

(Aichi Art Culture Center, December 7th-11th)

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The purpose of the festival is to raise the quality of the lives of people by promoting handicapped people to participate in art and cultural activities and for others to deepen their knowledge about handicaps. It takes place once a year, with all the prefectures taking turns to host. At the 16th festival in Aichi, we exhibited a total of 11 clone artworks that you can touch, including scented ukiyo-e, oil and mural paintings. There were many visitors, including those with a handicap. 322 people kindly responded our survey, and there were many useful points of feedback to apply to future usage of clone cultural properties. For example, people with visual impairment tend to prefer touching ukiyo-e paintings as it is easier to feel the outline of the objects drawn, rather than oil paintings which are made up of tiny touches of the brush.



## Structural problems of the COI Site and my proposal to companies

Kei ARAI SRL

Associate Professor, Graduate School of Fine Arts  
Department of Conservation, Tokyo University of the Arts

Needless to say, COI is a project that involves both industry and academia. At the time of the launch, there were two concerns: first, that the number of participating companies was low and second, the lack of dedicated supply of human resources. We now have more participating companies, however, the companies are not proactive in seeking their research topic. This is due to the way in which the companies joined COI, for instance, the cooperative relationship between the Tokyo University of the Arts (TUA) and JVC Kenwood had existed even before they applied to join; some companies joined because they were invited to join by the COI Site; and others only applied to join after the COI project had already started. In principle, the research topic should be set not by TUA but by companies who should benefit from implementing the research findings to real situations in society. TUA choosing the research topic to implement is almost like using COI project funds as fuel when it is supposed to be treated as a lubricant. The participating companies should be proactively suggesting research topics and utilizing TUA and COI project in this manner.

TUA employs different types of staff, including "Tenured Academic Staff" that are not involved in COI projects; Professors (senior) that are invited to teach at TUA because of their prior achievements elsewhere; Researchers or Assistants (young) employed after graduating from TUA. Out of these types of employees, only young Researchers and Assistants work on COI projects. They are hired on a contract which may be renewed every year, for the duration of the COI project, so their positions are not very secure (the participating companies sometimes mistake their position for a young full-time employee). These Researchers, who each have distinct skills, are able to implement the ideas put forward by companies, so this could potentially be used by companies as a source of obtaining valuable talent and manpower.

Finally, in order for participating companies to take a more proactive role, it is also necessary for them to join the operational team of the Site that controls the project planning, budget allocation and determines internal personnel issues. There is, however, currently only one member from the companies list, the Project Leader Tamura from JVC Kenwood in the team. All the other members of the operational team belong to TUA. The duration of the project is limited. As we look to enter the third year of this project, I would like to again request companies to adopt a more proactive attitude.



The Asahi Shimbun  
Cultural Projects Department

Reiko HORIKOSHI (Director)

Toko YOSHIBA (Producer)



—What does the Cultural Projects Department of the Asahi Shimbun (Asahi) do as an organization?

This company has a history of 138 years since its foundation, and the Cultural Projects Department have been active for nearly 137 years. We have organized events involving the local community such as fireworks and cultural events as part of our CSR history. Most of our current work focuses on exhibitions. After WWII, we have organized much-talked-about international exhibitions such as of “La Vénus de Milo” and “Tutankhamun”. The exhibition on “Collection of Museum Boijmans, Bruegel’s “The Tower of Babel” will take place this year as part of that stream. We not only do international art but also numerous Japanese art exhibitions including “The National Treasure ASHURA and Masterpieces from Kohfukuji”. As we move through the times, the theme of our exhibitions have greatly diversified. Our exhibition range includes Japanese manga comics like “ONE PIECE” and “NARUTO” but also characters like “Miffy”. We try to take on an avant-garde attitude to produce innovative cultural events.

—How would you like to contribute to TUA’s COI project, as a participating company?

This company possesses the know-how in organizing exhibitions by borrowing contents like artworks from all over the world. The basic idea is for exhibitions to create opportunities for people to easily access artworks and cultural properties in their local area without having to travel far. In addition, by being creative with the way the works are displayed, it is possible to give the audience an experience unique to that exhibition. For example, by making it possible to see Buddha statues from every angle, when in reality, one would not be able to see the back of the statue, or gathering the paintings of one artist spread out around the world in one exhibition.

What both the TUA and this company have in common is the philosophy behind our work, first to showcase real artworks, and second, to continue to explore new possibilities beyond the current work. For this project, we would like to cooperate with TUA COI Site to find ways to showcase our contents in an even more clear and attractive manner to the visitors. I believe that together with TUA, we can use state-of-the-art 3D screening technology, VR, walk-through software, robots and more to create new contents.

Furthermore, we can provide support for projects that COI is

involved in with research institutions overseas such as in the Netherlands. We have built a wide network of long trusted relationships with various overseas institutions and we can provide our support in organizing exhibitions and events. We also have in mind a long-term goal of someday showcasing the COI Site’s work on research and development, as a special exhibition.

—Please could you talk us through the highlights of your collaboration with COI Site on “The Tower of Babel” exhibition?

COI is creating a huge reproduction of “The Tower of Babel” painting by Bruegel using its highly accurate reproduction techniques. By enlarging the painting by 300%, it becomes apparent how carefully it was painted to the very minute detail. For instance, there are about 1,400 people painted in the work, but even when it is enlarged by 300%, every person is properly painted.

We have created a 3DCG video content that expands our imagination into the interior of the tower that Bruegel never actually painted, which should lure the visitors. At the exhibition, the visitors first see the actual painting, followed by the video content that explains the details of the painting, which will provide the visitors with an even deeper viewing experience.

—Please could you tell us about your outlook on 2020?

We have a rare opportunity where all eyes will be on Japan as we host the Tokyo Olympics in 2020. The year of the previous Tokyo Olympics, 1964, is coincidentally the same year as the exhibition of “La Vénus de Milo” which saw more than 1.72 million visitors. It was around that time that Japan started to introduce more foreign art and culture into the country. Now, as we look towards 2020, we have a great opportunity to showcase to the world Japanese art, crafts and Cool Japan contents so we would like to support that.

I imagine there will be a move towards accommodating multilingualism, more barrier-free access and universalism. We aim to research and develop new technologies and media, and implement these for the benefit of society in cooperation with COI Site. We organize 4 or 5 major exhibitions per year, and we hope to use these events where millions of people from all walks of life gather in one place, as an opportunity for COI to conduct experiments for their research and also provide something of added value for the customers.

