

To: Prof. Seiichi Nakamura

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From: Josué D. Murillo

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Subject: Training in Japan

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From November 13 to 28 of the current year, I had the opportunity to travel to Japan to receive training on 3D scanning. I traveled together with Adán Guerra to receive this training provided by the Director of the Copan Archaeological Project (PROARCO), Seiichi Nakamura, and Komatsu University.

Photos of the airplane tickets



On November 14, we took a tour around the city of Tokyo, where we visited the Senso-ji Temple in the Taito district (Asakusa). It is one of the oldest temples in the city of Tokyo.

This Buddhist temple is a very impressive place due to its history and culture, especially its iconic entrance, which is famous for its large red lantern. It is a beautiful place that offers peace and tranquility to all the people (tourists) who visit it.



In the afternoon of that day, we traveled by train to the city of Ueno.

On Saturday, November 15, in the city of Ueno, we visited the National Institute for Cultural Properties, Tokyo, the Tokyo National Museum, and the National Museum of Western Art.

The Tokyo National Museum, which is the oldest and largest museum in Japan, holds more than 120,000 pieces of Asian art and artifacts. This collection includes national treasures and important cultural properties. The museum is organized into several buildings (Honkan, Toyokan, Heiseikan), which house exhibitions of Japanese art, Asian art, temporary exhibits, the tea ceremony, theater, the samurai world, and Buddhism.

The National Museum of Western Art is a museum dedicated exclusively to Western art. It was established in 1959 based on the collection of Kojiro Matsukata. Its collection includes works of art from the 15th to the 20th century.

We left these museums deeply fascinated by the impressive exhibitions in each of them, which showcase the past and present of the Japanese people.



Sunday, 16/11/2024

On this day, we participated in the training at the National Research Institute for Cultural Properties, Tokyo, taught by Professor Noguchi. We also observed a demonstration of several scanners by the company Artec3D Japan, which are very interesting cutting-edge technologies. In addition, we presented the practical case from Honduras (work at 10L-7).



Monday, 17/11/2025

On this day, we had the pleasure of meeting with the president and vice president of Komatsu University, with whom we discussed future projects and potential visits to Honduras. Afterwards, they gave us a tour of the university campus.

Tuesday, 18/11/2025

On this day, we visited the museum of Kanazawa University, where they showed us the university's museum. It is located within the university campus and, although it is somewhat small, it is very interesting. They also showed us the progress being made in the registration of artifacts using 3D scanning. In the afternoon, we participated in a Spanish class with Professor Ogawa's students.



That same day, we visited Kanazawa Castle and the Maeda family gardens.

Wednesday, 19/11/2025

On this day, we carried out administrative work at the Komatsu University offices. We also experienced the virtual reality presentation (Temple 16) of the Maya Site of Copan. Afterwards, we visited the main tourist attractions in the city of Komatsu.

Thursday, 20/11/2025

On this day, we visited the Buried Cultural Properties Center of Komatsu University, where they showed us the museum containing artifacts recovered from excavations carried out in the city of Komatsu. They also demonstrated the techniques they use for the proper treatment of artifacts (ceramics, wood) for their evaluation, restoration, registration, cataloguing, and conservation. All collection and conservation areas are properly climate-controlled, and the storage facilities for artifacts are well organized. (The methods they use to treat artifacts here would be very interesting to apply in the storage rooms and galleries of the CRIA.) We also presented the practical case from Honduras (excavations at 10L-7 and 10L-24).

We also visited the medical campus of Komatsu University, where they showed us the use of 3D technology in the medical field, among other applications. They also gave us a tour of the campus where future professionals in the field of medicine are trained.

In the afternoon, we visited the Ataka Museum, a small but very interesting museum where we were able to interact with the technology they use. This technology could be applied in the museums located in the city of Copan Ruinas (a proposal for the IHAH authorities).



Friday, 21/11/2025

On this day, we visited the Natadera Temple, where we carried out three-dimensional topographic work in one of the rooms of the temple. We took more than 26 points to create the 3D topography of this room, assisted by Professor Noguchi.

We then visited the temple and the rescue excavations currently being conducted there. They also explained the problems they face due to humidity and the increasing height of the trees throughout the temple grounds.

This temple is a truly wonderful place, and I was delighted to visit it. It is one of the most amazing places my eyes have ever seen.

At night, we traveled by train to the city of Nagoya.



Saturday, 22/11/2025

On this day, we attended the XR Meetup Aichi event, where we participated in the presentations and workshops held at this major event. The presentations were very interesting and showcased the latest in 3D technology, some of which is still in the testing phase. This event is held annually in this city and, this year, it had 150 participants. In the afternoon, we had a hands-on experience with the 3D devices that were featured in the presentations.



Sunday, 23/11/2025

On this day, we attended a workshop held at a hotel adjacent to Nagoya Castle. During the workshop, we were shown the use of 3D scanning using the Scaniverse application, which has been used to monitor the damage to the walls surrounding Nagoya Castle. This damage is compounded by earthquakes and typhoons throughout Japan. We were also taught the procedures to follow for proper restoration.

They use three methods for 3D scanning: manual scanning, photogrammetry, and Gaussian splatting. 3D technology has also been used for creating animated drawings (for example, Pokémon and others).

In the afternoon, we conducted some 3D scanning tests on some of the internal walls of Nagoya Castle using the Scaniverse application. Afterwards, we toured the entire Nagoya Castle.



Monday, 24/1/2025

On this day, we had the opportunity to visit and explore the Toyota Commemorative Museum of Industry and Technology, a very interesting museum that showcases the company's beginnings (as a textile company) and its evolution over the decades into an international automobile manufacturer. The museum was founded in 1994, and during our visit, we were able to see textile looms, automobile exhibits, and fascinating interactive displays.



In the afternoon of the same day, we went to Nagoya University, where we visited Professor Morishima's laboratory. He showed us and explained the results and the ongoing process for the final analysis of the muon plates installed during the years 2018, 2019, and 2024–25 in structures 10L-11 and 10L-8. The data collection process for the plates placed in these temples is very slow and meticulous, and it is still ongoing.



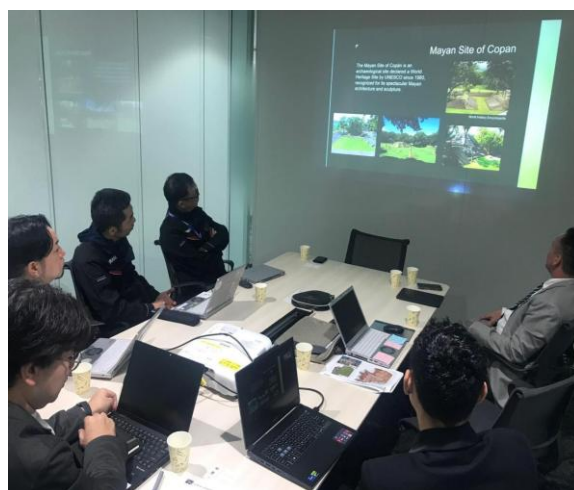
Tuesday, 25/11/2025

On this day, we visited the offices of Yamaha Motor to meet with staff from the company who had visited Copan Ruinas, Honduras, during the first week of October of this year. During this meeting, they showed us their involvement in technology and the development of mobility products (motorcycles, ATVs, robotics, and others).

The main purpose of our visit and meeting with the company executives was to see and learn about the unmanned helicopter intended to perform aerial surveys over the Copan Maya Site and its surroundings using LIDAR technology. This helicopter has already been used in Japan for crop irrigation and is currently employed for mapping using LIDAR technology, which has shown excellent results in several sites in Japan. It is expected to be used soon for aerial surveys over the Copan Maya Site, at the end of the meeting, we had the opportunity to see the helicopter, which is very lightweight (weighing less than 200 pounds) and can perform continuous flights of up to 3 hours.



Photos taken during the visit to Yamaha Motors



In the afternoon of the same day, we met with staff from the company Elysium, who also showed us the work they carried out at the Copan Maya Site during the current year, as well as other projects they have completed using virtual technology. These technologies could be very applicable in Copan Ruinas, especially to better promote all the tourist sites there and use them as an example to promote the ecomuseum. In the evening, we had a gathering (dinner) with staff from both Yamaha Motors and Elysium.

Wednesday, 26/11/2025

On this day, together with Professor Noguchi, we visited the excavation site in Shizuoka. These are rescue archaeological works being carried out due to the city's expansion, which requires the area to be cleared in order to preserve part of the history of this castle. We were able to see the excavations and the museum they have on-site, which displays the artifacts recovered from the excavations in this area.

In the afternoon, we visited Sumpu Castle, where we also observed the archaeological rescue work being carried out at the site. Here, the work is not for construction purposes, as this castle is a national treasure.



Excavation work carried out at this temple

Thursday, 27/11/2025

On this day, we visited HoloLab, the company responsible for installing the 3D tour in the Archaeology Museum of Copan Ruinas. They showed us the virtual tour of the entire Copan Maya Site, including the tunnels, as well as the new technological advancements they are implementing in this city.



Technological Innovation by HoloLab

Friday, 28/11/2025

This was our last day of training in Japan, and we took the opportunity to do some shopping (souvenirs). In the afternoon, we traveled from Narita to Houston and then to San Pedro Sula.



Airline Tickets Japan–Houston–San Pedro Sula

On my part, I feel very happy not only to have visited this beautiful country, which is highly organized in all aspects, but also to have experienced its unique culture. Its tourist sites are extraordinary, and its people are very special. It is evident in many ways, especially when comparing with our own third-world country (Honduras). I was fascinated and delighted to visit such beautiful places, as well as the impressive museums and universities. I am very grateful for the support we received from all the professors who assisted us during our visits to various places (universities and others).

I believe that our presentation on the work carried out using 3D technology and Scaniverse at the Copan Maya Site, specifically on structures 10L-7 and 10L-24, was well received and generated great interest at the museums and universities where we presented it.

I am truly impressed by the technology currently used in Japan, which is continuously being innovated and applied for the analysis, registration, restoration, and utilization of various movable and cultural assets in different prefectures across the country.

I hope that one day we can make use of at least some of these technological innovations in our own activities in Honduras, specifically at the Copan Maya Site.

Thank you for this wonderful experience of traveling to receive this training, which is, was, and will continue to be of great help in expanding our knowledge and applying it in our area of work.

INFINITE THANKS.