

Conversations From the Field

BRYAN LOWE AND AKIKO WALLEY WITH KIT BROOKS

WHAT IS A REPLICA: REFLECTIONS FROM *SHŌSŌIN THE SHOW*

In July 2025, Kit Brooks, curator of Asian art at the Princeton University Art Museum, conducted an interview with Bryan Lowe, associate professor of religion at Princeton University, and Akiko Walley, Maude I. Kerns Associate Professor of Japanese Art at the University of Oregon, on the role and function of replicas and the recent exhibition *Shōsōin THE SHOW: Japanese Imperial Treasures*, on view at the Osaka Museum of History (June 14–August 24, 2025) and the Ueno Royal Museum in Tokyo (September 20–November 19, 2025). (See fig. 1.)

Built in the eighth century as the repository of the Tōdaiji temple in Nara, the Shōsōin preserves around 9,000 objects and 10,000 documents, including manuscripts, textiles, ceramics, lacquer, and metalwork, many of which came to Japan along the Silk Road from China, Southeast Asia, Iran, and the Middle East. As opening the Shōsōin requires the emperor's permission, only a handful of privileged individuals have had access to its contents through much of the repository's history. Since the 1870s, under the auspices of the government, artists and researchers have made physical replicas of the treasures by painstakingly re-creating their original materials and methods of production. More recently, the Office of the Shōsōin has worked with the Japanese printing company Toppan to produce high-fidelity printed and digital reproductions. The current exhibition *Shōsōin THE SHOW* contains only replicas, both physical and digital.

Kit Brooks: Would you introduce yourselves and explain how your work relates to the Shōsōin?

Bryan Lowe: I teach in the Department of Religion at Princeton University, focusing on seventh- through ninth-century Japanese religions, especially Buddhism. Akiko and I just taught a graduate seminar on the Shōsōin together, and tied to that, we also held an international conference at Princeton where we brought in the director of the Office of the Shōsōin, as well as representatives from Toppan, the company that is working on digital replicas of Shōsōin objects. My interest in this project is from a professional and personal perspective, as I use Shōsōin materials in my research, and I'm interested in thinking about replicas more generally.

Akiko Walley: I teach Japanese art history at the University of Oregon, in the Department of the History of Art and Architecture. My specialization is seventh- to eighth-century

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Bryan Lowe and Akiko Walley with Kit Brooks. "What Is a Replica: Reflections from *Shōsōin The Show*." *Ars Orientalis* 55 (2025): 185–96



FIGURE 1. *Shōsōin THE SHOW*: Stage 02 moving image

Buddhist art, and I am now moving into the Nara period (710–784) and learning more about the Shōsōin. I have thought about replication, not as a research topic but as a user. For my research on early Buddhist reliquaries, some examples are only accessible for close examination in the form of replicas. Also, I learned recently that the bronze Śākyamuni Triad at Hōryūji, an object that I worked on for my first book, was “cloned.”

Kit Brooks: Could you give a brief description of what makes these replicas different from those in other replica projects?

Bryan Lowe: It might be helpful to explain some of the history of Shōsōin replicas and why they are necessary. Firstly, since the eighth century, parts of the Shōsōin have been under what they call the Imperial Seal System, which means no one has access without the emperor’s permission. Every year, for about seventeen days, the Office of the Shōsōin collaborates with the Nara National Museum to hold an exhibition of select original objects, but for the most part, even researchers cannot access the Shōsōin collection without the emperor’s permission. Replicas provide a promising avenue to learn more about these otherwise inaccessible objects.

Replication began in the seventeenth century with drawings of some of the treasures—but after the 1870s, craftsmen began to make physical replicas, largely for the world’s fairs. After the 1923 Kantō earthquake, people wanted to make reproductions as it was recognized that objects could easily be destroyed. There was little progress because of World War II, but in 1972, the Office of the Shōsōin started in earnest to make precise and scientifically accurate replicas. They have only made fifty in about fifty years, and one of the objects alone took eight years to create.

Kit Brooks: Which object took eight years?



FIGURE 2. Five-stringed *biwa* lute of *shitan* with mother-of-pearl inlay, the Shōsōin Treasure (North Section 29), mid-8th century. Red sandalwood and shell, 108.1 (overall) x 30.9 (max.) cm. Courtesy of the Office of the Shōsōin Treasure House, Imperial Household Agency, Japan

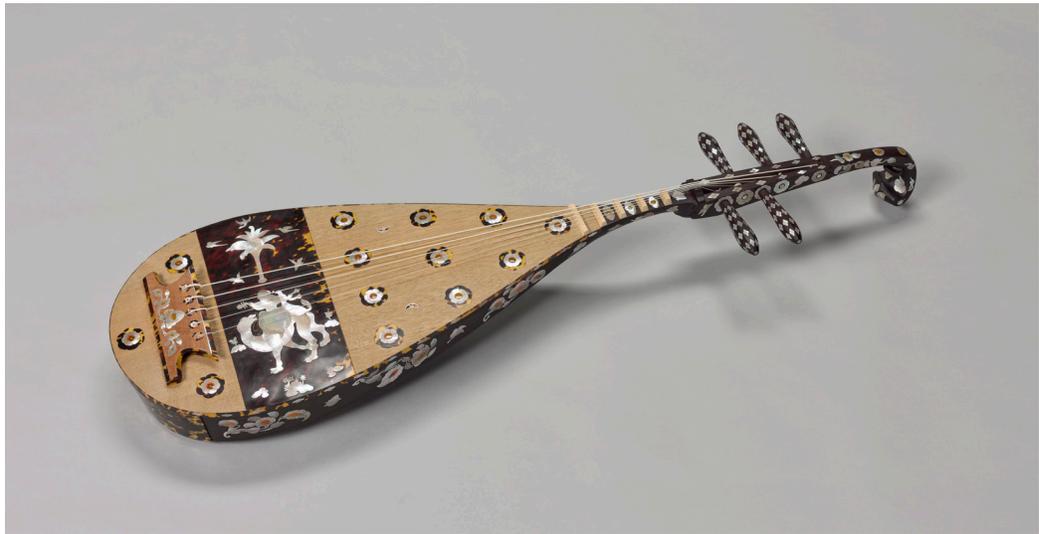


FIGURE 3. Reproduction (“reappeared reproduction”; *saigen mozō*) of the five-stringed *biwa* lute of *shitan* with mother-of-pearl inlay. Courtesy of the Office of the Shōsōin Treasure House, Imperial Household Agency

Bryan Lowe: It is the *Biwa*, a five-string lute (figs. 2, 3). It has 649 inlays of tortoiseshell and mother-of-pearl. The replication project is extremely important, but it still doesn’t help with access to the original objects.

Akiko Walley: What is interesting is that Machida Hisanari and Ninagawa Noritane, the two individuals who were involved in the 1872 survey of the Shōsōin objects that led to modern-style replication, were also part of the establishment of museums in Japan. From the start, replication for museums was a core mission and involved people connected to the Shōsōin. As the objects are not accessible, in 2018 the Shōsōin became actively engaged in digital technology. Their elaborate digital archiving was ahead of the curve, and one year later, in 2019, the Japanese government began to focus on digital transformation. The initiative accelerated after Covid, for like the Kantō Earthquake, which highlighted the importance of physical replicas, Covid emphasized the usefulness of digital replicas (fig. 4). In 2023, Japan’s Museum Act was revised to explicitly position digital transformation as one of the missions of the nation’s museums.

Kit Brooks: Thank you for contextualizing those previous replica programs and their origins. That leads to the next question, on the lifespan of a replica. On the one hand, people might think that a digital replica is longer-lived because it exists in the ether rather than as a physical object that can be damaged in just the same way as the original. On the other hand, I think we’ve all had experience with projects that were developed for digital platforms that are now inaccessible or broken. Given the Shōsōin’s deep investment in the concept of replicas, do you have any knowledge of how long they think these replicas will last?

Bryan Lowe: I don’t have inside information about their plans or about the technology behind it. I suspect that they are aware of these issues and think about them in ways that address some problems they’ve had in the past. For example, my research on the Shōsōin deals with manuscripts. The Shōgozō is a sutra repository under the auspices of the Office of the Shōsōin that contains thousands of manuscripts. In the early 2000s, they started digitizing these materials, and when I was a naïve graduate student at Princeton, I asked



FIGURE 4. 3D digital data of the original five-stringed *biwa* lute of *shitan* with mother-of-pearl inlay; (left) front side and (right) detail of the mother-of-pearl floral design on the back. Produced under the supervision of the Office of the Shōsōin Treasure House, Imperial Household Agency, using the photography and measurements collected by the Office of the Shōsōin Treasure House, Imperial Household Agency, and TOPPAN Inc. Planning and Production of the 3D digital data by TOPPAN Inc

a shocked librarian to purchase the digital images of the sutra manuscripts—the total cost at present is 27,900,000 yen, a little less than \$200,000 at today's exchange rate. The library, in fact, started acquiring them, which was remarkable, but the format was on CD-R and the collection continues to be published on DVD-R. In other words, purchasing these digital images would cost a library hundreds of thousands of dollars for a technology that is no longer accessible/current. One other thing I'll add is that what really surprised me is that although *Shōsōin THE SHOW* was pitched as a digital exhibition, it contained more physical replicas than digital media. I think the two formats complement one another, and the digital replicas can't replace physical ones precisely because physical objects can last longer.

Kit Brooks: Do you think the replicas will make a difference to the way you teach these materials in the future, or is it just more of the same but more technologically advanced?

Bryan Lowe: Two things excited me about the exhibition as related to my teaching. One was how much we can learn about the techniques used to make the objects through studying the process of creating physical replicas. To give an example, one highlighted object was a *shaku*, which is like a ruler; it is made of ivory and dyed red, and then engraved using a technique called *bachiru*, where you scrape away the dye of the ivory to reveal the original color beneath,



FIGURES 5. Red-stained ivory shaku with *bachiru* decoration, the Shōsōin Treasury (North Section 13, 乙), mid-8th century. 29.7 x 2.5 x 0.6 cm. Office of the Shōsōin Treasury House, Imperial Household Agency

which can then be colored further, creating incredible designs (fig. 5). In making replicas, the artists learned how to dye ivory, which is incredibly difficult, and we can now understand more about the creation of these objects, which revolutionizes our teaching. The second important takeaway is accessibility, and I think this is the promised land. The digital content is mostly geared to the public, and I don't know how the digital materials will be available to researchers. At present, it is primarily through exhibitions, and you still have to be in Japan for that two-and-a-half-week period. There are high-quality photographs on <https://shosoin.kunaicho.go.jp/en-US/>; but they are not nearly at the level of definition used in *Shōsōin THE SHOW*. Still, digital technologies allow for a much wider viewing public.

Akiko Walley: I think the digital replica project is interesting because of how it differs from the replicas the Shōsōin has made in the past. Beginning in 1972, their mission for physical replication has been to create *onaji mono o mō hitotsu*, “one more of the same thing,” which explains why they are focusing on materials and techniques to create an exact replica of each object as it was first created. There are two different kinds of replication—one is to replicate how the object looks today, *genjō mozō* (present-condition reproduction), and the other is to replicate its state when it was created, *fukugen mozō* (reconstructed reproduction), often based on a careful collaborative investigation—involving scholars, artists, and conservators—into the period techniques and available materials. The 1972 project is solely about *fukugen mozō*, but they call it *saigen mozō*, “reappeared reproduction,” to be precise. For this current digitization project, it is actually a 3-D scan of the original object as it is today. By combining



FIGURE 6. Original (left) and reproduction (right) of the armrest of *nishiki* with phoenix design on purple ground, the Shōsōin Treasure (North Section 47). The original is from the mid-8th century. Silk fabrics, bast-fiber fabric, *igusa*-mat and *makomo* plant; 79 x 25 x 20 cm. Courtesy of the Office of the Shōsōin Treasure House, Imperial Household Agency

the two systems of reproduction, you are getting a re-creation to study the technique and original look and feel, as well as the digital scan of the current state of the object, all of which is very useful for research as well as teaching.

Last year, the annual Shōsōin exhibition showed the original of a treasure called the Armrest of *Nishiki* with Phoenix Design on Purple Ground (*Murasaki-ji ōtori-gata nishiki no on-shoku*) together with the physical replica and the digital replication (fig. 6). I was comparing it to what happened with the Hōryūji Triad, where the Tokyo University of the Arts Center of Innovation (COI), with support from the Ministry of Education, Culture, Sports, Science, and Technology, and Hōryūji, created three physical “replicas” (fig. 7). One, a *kurōn bunkazai* or “clone cultural property,” which replicates how the sculpture looks today, in minute detail. A second, a “super-clone cultural property,” approximates what the sculpture was like when it was originally made. The third, a “hyper-cultural property,” is quite experimental—a triad mainly in glass to show that the body of the Buddha is made of light. Of course, artisans didn’t have that sort of glass technology in the seventh century, but the idea is that if they did, they might have used it to capture the Buddhist teaching about the Buddha’s body more effectively than gold gilding. This replica is a more creative, future-looking interpretation. I realize that for the 1972 Shōsōin project, they could not have made the *kurōn bunkazai*, because, as we can see in the case of the Hōryūji Triad, to re-create how a historical object presently appears, one would have to add both the patina and the damage. The creators of the “cloned” triad used bronze and the lost-wax technique just like the original statue, but they had to intentionally make it look old. If you were to create *onaji mono o mō hitotsu* of an eighth-century Shōsōin treasure as it remains today, then you would have to spend thirteen centuries making it because artificially applying the passage of time (as makers did for the “cloned” triad) and calling it *onaji mono* (the “same thing”) would be a lie. For the Shōsōin’s idea of *saigen mozō*, they cannot physically reproduce how it looks today, but a digital replica can provide that aspect.

Kit Brooks: What I’m learning is it’s a totality of replicas that work together. I think another interesting point is that by making the *saigen mozō*, the craftspersons are doing a different



FIGURE 7. The “Three Shaka Triads” (in the “Archaeological and Buddhist Site” initiative). Replication of the Shaka triad at Hōryūji, Nara prefecture, Japan. Examples of (right) “cloned cultural property” (*kurōn bunkazai*), (center) “hyper cultural property” (*haipā bunkazai*), and (left) “super-cloned cultural property” (*sūpā kurōn bunkazai*). <https://www.iki-jp.com/worksgallery/works02.html>. Courtesy of Tokyo University of the Arts

kind of replication by re-creating technical knowledge, so there is an ineffable replica in the mind and hand of the artisan, in addition to all the different types you have already categorized.

Bryan Lowe: Akiko has steered us in a fascinating direction in which replicas can be framed as a return to the past, while they’re also often forward-looking and innovative. Going back to the 1870 replicas of Shōsōin objects, produced for the world’s fairs, there was a strong connection to the industrial policy in Japan—a forward-looking idea. In the current exhibition, the most impressive gallery is completely dark, with three physical replicas, but the real attraction is the moving images. For example, they take a motif that includes a deer image, and the deer suddenly emerges out of the object and starts prancing across the screen. Obviously, the physical object is stuck in time, but when they transformed it into a digital image, they were able to animate it. As with the glass Buddha, such treatment captures the contemporaneous views of the day, as the objects were understood to be empowered living works tied to Buddhist heavens and pure lands and were not seen as static. Although this technology changes the object, it can get us closer to how the objects may have been originally perceived. The final gallery of the exhibition was also exciting and presented collaborations with contemporary artists, such as fashion designers who had made dresses based on Shōsōin motifs. For example, a label in this gallery read in part: “The creativity of those alive today is helping carry our story into the future. . . . As the spirit of the Shōsōin gains new forms, a new history will be transmitted.” In this way, this kind of replica is forward-looking, constantly evolving. This is important because when we think of the word *replica*, we often think of

a copy, a return to the past, but this project and others in Japan are theorizing what it means to re-create something, to make a replica. It is not reducible to the traditional notion of a copy.

Akiko Walley: I am reminded of a comment by some of the participating artisans in the *saigen mozō* project who claimed that they studied the original carefully, but if they only replicated it, the object would be “dead.” They had to strike a balance between faithfully reproducing the original and injecting life into the replica that they created. Copied lines look dead because the artist is too careful to trace them, and there is no life or movement. A digital replication is impressive, but it could lose its audience’s attention quickly unless it projects the innate life of the original object.

Kit Brooks: I wonder if we are just coming up against the deficiency of the word *replica* as it is used in everyday conversation.

Bryan Lowe: Akiko already mentioned the terminology of replicas, which, in some ways, gets in the way. The former director of the Shōsōin, Nishikawa Akihiko, has written about the different Japanese terms, many of which Akiko already mentioned: *mosha* (drawn copy), *mozō* (reproduction), *fukuseihin* (re-created object), *repurika* (replica), *kopī* (copy), and so on, noting how these terms carry a negative nuance—the implication that the objects are merely derivative. As Akiko was saying, at the Shōsōin they have used the term *fukugen mozō*, which means a reproduction that returns to the original state. Nishikawa Akihiko remarked how other institutions used terms such as *saigen bunkazai* (re-appeared cultural property). These terms are not necessarily satisfactory, especially the term *replica*, because it suggests the notion of repeating without relaying how exciting, vivid, and lively these reproductions can be; we need better words in both Japanese and in English for a copy of something. We have been trained to think of copying as boring, but copying is an opportunity for growth, learning, re-creation, and development. For now, we are limited in some ways by the language we use to describe replicas.

Akiko Walley: For the Shōsōin, in particular, *repurika* means something specific: It is simply about appearance. The website for Shōsōin *THE SHOW* uses the word *replica* only one time, when referring to the famous blue glass cup. Glass artists, in collaboration with metal artists, created a *repurika* that replicates the appearance of the original, but does not reproduce the original materials or techniques.

In English, they are using *reproduction* for *mozō* and *replica* for *repurika*. They are very conscious both in English and in Japanese to use different terminology for a “reproduction” versus a “replica.”

Kit Brooks: I’m thinking of the language of modern and contemporary art, where we talk about artworks that exist as “multiples.” It is almost as though the artisans are creating a multiple of the original object, and it partakes in the original’s essence just as much as the original does.

Akiko Walley: Related to that—this is not in any way a criticism, it’s just an observation—I think it is interesting that there is a duality in the discourse surrounding Shōsōin objects. When we talk about the originals, we often hear about the objects’ connections to other parts of the world, but for the reproduction of the same object, the *Biwa* for example, it becomes more about Japanese technology, the Japanese aesthetic of *utsushi* (duplication), and Japanese industry. If we are to think about Shōsōin objects holistically to include both the original and the reproduced, this duality in discourse reveals how the Shōsōin exists at the intersection of two kinds of evidence used to bolster the sophistication of Japanese art



FIGURE 8. *Ōjukukō* (incense wood; also known as Ranjatai), the Shōsōin Treasure (Middle Section 135), 8th–9th century. Aloeswood, 156 cm. Courtesy of the Office of the Shōsōin Treasure House, Imperial Household Agency

and culture since the modern era: its transoceanic cosmopolitanism and unmatched domestic artisanship.

Kit Brooks: Have there been instances where you had previously seen an original Shōsōin object, but when you saw the replica, you became aware of things you weren't before?

Bryan Lowe: There are different ways to appreciate the objects. The seventeen-day exhibitions at Nara are so crowded that it is hard to see the objects closely, but at the exhibition of the replicas in Osaka you could get closer and look at the replicas more easily. Also, the digital images were projected on enormous screens, which allowed visitors to see details that were otherwise not visible, even if you were able to handle the objects. Finally, there were videos throughout the exhibition showing how objects were made. They were placed right next to the works, and you could look at the replica and watch the video at the same time. These all helped me learn things that I wasn't previously aware of.

Akiko Walley: Bryan, when you were at the exhibition, did it make you want to see the originals?

Bryan Lowe: You talked earlier about how the exhibition displayed the original armrest alongside its physical and digital replicas. I saw the physical replica of the armrest at *Shōsōin THE SHOW* and immediately wanted to see it next to the original. The Imperial Seal System, however, has a complicated legacy. At the Princeton conference that Akiko and I organized, the director of

the Shōsōin, Iida Takehiko, gave a fascinating presentation that was a compelling defense of the Imperial Seal System. He argued that the reason we still have these treasures today is precisely *because* access has been so limited. I think there is something to that statement, but the creation of reproductions and digital tools can also be used as justification for perpetuating a system that limits access to the original materials. This approach is particularly regrettable for researchers. The reproductions become a substitute when there is, of course, an inherent value in looking at the original. But the Shōsōin objects were already off-limits long before the creation of replicas and digital images, and the Shōsōin is making an effort to make materials available to researchers, as far as it is possible within the confines of the Imperial Seal System.

Akiko Walley: It is interesting that if you go to the Japanese landing page for the website for *Shōsōin THE SHOW*, it includes inspirational and enticing phrases. For example, they use the word *ishi* (intent) twice. The first instance, *uketsugareru ishi* (intent to be passed on), is probably about preservation, and in the second instance, *hozon o koe, ishi mademo* (intent even beyond preservation) is more about the *ishi* of the original creators. I thought the phrases were very much future oriented.

Bryan Lowe: Interestingly, when talking about this Shōsōin exhibition, we mostly talk about reproductions and replicas, but it was also heavily marketed as multisensory. For example, you could experience the smell of the Ranjatai, which is, without exaggeration, the most famous incense in the history of Japan (fig. 8). If you attend a regular Shōsōin exhibition, you obviously cannot smell it. Here, they had re-created the smell and had a little glass with the aroma inside. In other Shōsōin exhibitions, they have had reproductions of the sounds of the five-string *Biwa* for visitors to hear.

Akiko Walley: I totally agree that a lot of these reproduction projects are trying to highlight the multisensory or tactile experience of the object. In thinking about what could be improved about the current state of the Shōsōin replicas, since the physical objects are *saigen/fukugen* (reappeared/reconstructed), an animated digital replica could be used to re-create the passage of time, from the creation of an object to its present state. Then it would be more of an accompaniment to the physical *saigen mozō*, connecting the original to the present.

Kit Brooks: Bryan, were there any reactions from visitors to the exhibition that stood out to you?

Bryan Lowe: I was impressed by how long people were looking at the objects, even at the digital images, which visitors could record and photograph. There was a seventeen-minute loop video, and visitors were recording it in its entirety on their phones. The public seemed to be really engaged; I have not heard how the research community has reacted. I was certainly blown away by the exhibition.

Kit Brooks, PhD (Harvard), 2017, is curator of Asian art at the Princeton University Art Museum. Their recent exhibition projects include *Staging the Supernatural: Ghosts and the Theater in Japanese Prints* (2024) and *Ay-Ō's Happy Rainbow Hell* (2023), the first exhibition dedicated to the psychedelic Japanese Fluxus artist Ay-Ō (b.1931) organized in the United States. Brooks has served on the Advisory Board of *Ars Orientalis* since 2023, and was Japan Foundation Assistant Curator of Japanese Art at the National Museum of Asian Art in Washington, DC, from 2019 to 2024. Email: kitbrooks@princeton.edu

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