

Project for the Creation of “Stand-in Buddhist Statues” by High School and University Students: Conveying Wakayama’s Cultural Properties to the Future

Wakayama Prefecture



Background and Reasons for Deciding to Undertake the Project

In Wakayama Prefecture, more than 280 Buddhist statues and other cultural properties were stolen or damaged between 2008 and 2019—and those are only the known cases. These Buddhist statues had been enshrined in village temples and small worship halls as objects of faith. Many of the places where this damage occurred are small villages with declining populations or remote mountainous areas. Frequently, there is no one living permanently at the temple and consistent upkeep by local residents is difficult due to an aging population and other factors.

The temples where the damage occurred are places of faith that play an important role in tying together members of their respective local communities. Thus, losing the Buddhist statues that are objects of faith for the community causes residents both material loss and mental suffering in addition to the cultural loss for Wakayama Prefecture. Measures are needed to not only prevent the theft and damage of Buddhist statues in regional temples and worship halls, but also protect these statues from being damaged in major Tokai/Tonankai/Nankai earthquakes or other disasters that are predicted to occur.

A project aimed at resolving these issues was launched in FY2012. Overseen by the Wakayama Prefectural Museum, this project involves Wakayama Prefectural Wakayama Technical High School students creating 3D printed Buddhist statues that are then coloured by Wakayama University students. The finished Buddhist statue copies are enshrined in

the temples of the original statues as *O-migawari Butsuzo* (“Stand-in Buddhist statues”), while the actual statues are stored at the Wakayama Prefectural Museum and other institutions.



Inside the Nishiyama Kannon Hall where artefacts have been stolen or damaged

Project Aims

1. Provide a means to protect Buddhist statues (cultural properties) from theft or damage and maintain places of faith in regional communities
2. Resolve issues faced by regional communities and maintain local communities

Project Outline

In creating *O-migawari Butsuzo*, Wakayama Prefecture first selects Buddhist statues that are a priority for preservation and holds discussions with the statue’s administrator and/or local community members. Once their consent to duplicate the statue has been obtained, Wakayama Prefectural Wakayama Technical High School students measure the statue’s three-dimensional data, which is then

adjusted using CAD. A copy of the statue is then made using a 3D printer. The output plastic Buddhist statue is polished to prepare the base and then Wakayama University students colour the plastic statue using acrylic paint so that the completed statue looks the same as the original statue. When completed, the *O-migawari Butsu* travels with the high school and university students that created it to the original statue's temple and is presented to the local community.



Measuring a statue using a 3D scan



Colouring a 3D-printed plastic statue using acrylic paint.

Project Features and Innovation

• Creating Buddhist statues—which are traditionally handcrafted by artisans—using 3D printers and other cutting-edge equipment and technology has realised the production of elaborate duplicate statues by high school students and university students.

• Government-academia collaboration has enabled the creation of duplicate statues—which is normally extremely expensive—to be achieved for the cost of materials.

• With regard to the issues facing regional communities, the project can also involve high school and university students—future community leaders—in the resolution of these issues.

Results of the Project

• From FY2012 to FY2021, a total of 32 *O-migawari Butsu* were enshrined at 17 locations.

• The project has directly led to the resolution of issues, with local community members making comments such as “Now I can sleep with peace of mind at night” and “I have the same faith in the Buddhist statue that the high school students made as I do in the real statue”.

• Within the period that the project activities were spreading, there were no cases of cultural properties being stolen or damaged in 2020 and 2021.

• In 2019, the project received the 8th Platinum Vision Award’s “Sparkling Activity” Award for Excellence.



An original Buddhist statue (left) and its 3D-printed *O-migawari Butsu*

Issues and Responses

- Although numerous requests for *O-migawari Butsu* have been received, mass production is not possible because the statues are created through a system utilising the high school students' practical training (within their class curriculum) and the university students' volunteer activities (university-recognised; no credits). The project is being continued as a model program.
- Initially the colouration of the duplicate statues was performed by Wakayama Prefectural Museum staff but is now carried out by Wakayama University students under the museum's volunteer system. However, there are unstable factors in securing workers capable of doing the work to a certain standard. Moving forward, there is a need to broadly recruit members of the general public who are interested in carrying out the colouration work.

Future Developments (Anticipated Results, Outlook for the Project, Issues, etc.)

The Wakayama Prefectural Museum displays 3D-printed Buddhist statues, made using the same method as *O-migawari Butsu*, as replicas that visitors may touch, providing an environment where not only the visually impaired but all museum visitors are able to touch and enjoy the exhibits while appreciating them.

Many of the Buddhist statues and other artifacts stored at temples around Japan are culturally valuable, and their preservation and management are a national issue. Accordingly, it is expected that similar initiatives using this project as a model will spread nationwide.



Dedication of an *O-migawari Butsu*

Reference URLs

<https://www.hakubutu.wakayama-c.ed.jp/>

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Key Terms