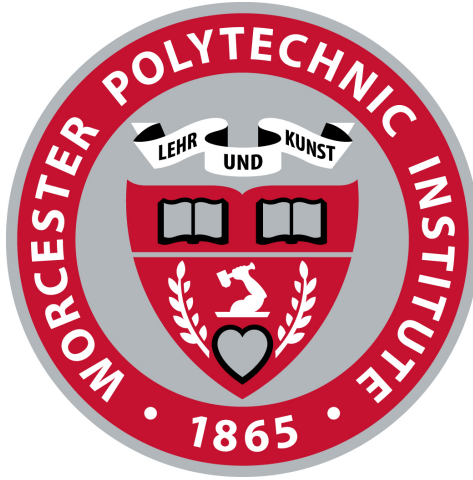# LOST SANCTUARIES: HOW TO REVITALIZE AN ABANDONED SHRINE

An Interactive Qualifying Project
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Abstract

This project explores potential actions for revitalizing an abandoned Shinto shrine, Shirahige Daijin, located in Kyoto, Japan. To understand the history and significance of the shrine, the project team conducted interviews with neighbors, attended festivals at active shrines, and visited local government offices. The information collected was then combined into an interactive map that includes photographs, 3D scans, 2D maps, and soundscapes from the site. To explore options for revitalization, the team visited other well-maintained shrines to determine how they attract visitors, generate money, and are maintained. They also spoke to neighbors of Shirahige Daijin to get their views on revitalization. The team also created a stakeholder matrix and a list of community-based future steps for revitalization.

Acknowledgements

Table of Contents

List of Figures

Executive Summary

Shintoism is the indigenous religion of Japan, practiced in forest and mountain shrines. Because of urbanization and culture shifts, many Shinto shrines are at risk of abandonment including Shirahige Daijin, a mountain shrine in Kyoto, Japan. Protecting heritage sites like this one is a community effort, requiring the support of locals and funding from the government.

Shinto religion highlights the strong connection between humans and nature. As a religion rooted in community and oral passing down of traditions and beliefs, Shintoism is a flexible religion with a large diversity of worship practices. Shrines are a physical place for worshipers to pray and are often meaningfully located in nature to worship specific nature deities. Whether in the form of a stone, statue, or tree, a shrine can be anything within nature that one finds an animist connection with.

This project explored potential actions for revitalizing an abandoned shrine, Shirahige Daijin. We did so by understanding the history of the shrine, documenting its physical space and cultural significance, and generating a list of community-based ideas for restoration.

To understand Shirahige Daijin, we first needed to understand the general history of the shrines and other activities present at them. We conducted interviews with neighbors and attended festivals at active shrines. We visited the local government offices to collect more information on the shrine.

We combined all the information collected from the shrine site into an interactive map published on a website. This interactive map includes photographs, 3D scans, 2D maps, and soundscapes from the site. Our interactive map gathers different perspectives to enable individuals unable to visit the shrine in person with a comprehensive visual and sensory experience.

To explore options for revitalization, we considered our new understanding from our previous methods. Shirahige Daijin can serve as a case study for revitalization solutions for other abandoned shrines. By visiting and observing other well-maintained shrines, we determined how they attract visitors, how they generate money, and who is involved in maintaining a shrine. .By speaking to neighbors of Shirahige Daijin, we were able to get first hand accounts about the locals' perception of the shrine and their views on revitalization. We also created a final

stakeholder matrix to depict everyone that assisted us in generating potential solutions. Finally, we created a list of future steps people can take when considering revitalizing a shrine.

Having first-hand experience gave valuable insight into the project. We visited Shirahige Daijin regularly and worshipped at other neighboring cultural heritage sites. The team booked a guided tour of abandoned shrines within Kyoto and attended the Hitaki-Sai Fire Festival on Mount Inari.

In the process of researching, we spoke to a few experts. Interviews with two local neighbors and a tour guide, Nishida-san, Okamura-san, and Manabu-san, respectively, made us understand how social structures and conditions in the area may have changed. From an anthropological perspective, Professor De Antoni from Kyoto University offered information about the relationship between space and place. Katsuji Iwahashi from Jinja Honcho informed us that Shirahige Daijin was not registered as an organization and considered a private shrine on private property.

We visited government offices and public libraries to learn more about the history of Shirahige Daijin. Through the Bureau of Legal Affairs, we found that six people owned the house until 1978. Then, all ownership was transferred to Takashi Iwano-san. The team visited the Kyoto City Tax Office to find a way to contact him, but the Tax Office refused to release any information. We went back the next week to the Bureau to obtain the floor plan, land ownership records, and house ownership records back to 1900. At Kyoto Prefectural Library, we found the location of Shirahige Daijin in 1922, 1951, and 1978 maps. With those, it was determined that the shrine predates the rest of the neighborhood.

In summary, through our background research, speaking with locals, and consulting with experts, we conclude that the best way to protect an abandoned shrine is by involving the community in its restoration and continued maintenance. We believe that involving the chonnaikai, a Japanese form of homeowner's association, will result in structured and lasting change. Furthermore, restoration could have unintended side effects like increased tourism or taxes. It is vital to involve the neighbors in the decision-making process about whether the shrine is revitalized and to what extent. In the short-term, we believe that selling candles at the site, repairing candleholders, and organizing a neighborhood shrine clean-up day could immediately benefit the shrine.

1.0 Introduction

What makes a space sacred? On the outskirts of Kyoto, Japan, in the dark conifer forests of Mount Inari, lies Fushimi Inari Taisha. It is an ancient and beautiful shrine dedicated to the Shinto nature god, Inari, visited by many thousands of tourists, pilgrims, and other visitors every year. They pay their respects to the deity, take travel photos, and learn about Shinto and Japan's past. Without a doubt, it is sacred. Now, there are fewer caretakers and visitors because of the aging population, culture shifts in youth, and migrating people. Some sites that were once revered are now in ruin. There is a multitude of abandoned shrines all across Japan. Even within Kyoto, the hub for most of Japan's religious sites and sacred spaces, abandoned shrines pepper Mount Inari.

This issue is not just local to Japan or Shintoism. Across the world, people pass on their culture through the buildings where their ancestors lived, socialized, and worshiped. They fight a constant battle against natural decay to protect these monuments. From the steady patter of wind, rain, and snow to sudden catastrophes like earthquakes and tsunamis, historic buildings are in constant danger of destruction. Furthermore, their antiquated materials and lack of use make them even more susceptible to dereliction.

Within Japan, deterioration is not exclusive to shrines. The societal shifts affect other religious sites like temples and the housing market, creating more and more *akiyas*. An akiya is an empty home, a consequence of the aversion of the younger population to older buildings like the traditional wooden *machiya* that constitute Kyoto's old quarters. Many houses in the rural areas near heritage sites are machiya. With machiya becoming stigmatized in the market, fewer working people reside near cultural heritage sites, and the cycle of neglect continues.

This project aimed to understand the issue of abandoned shrines by looking at a singular case study of a site on Mount Inari called Shirahige Daijin. We also compared our case study with other examples of religious sites around Japan to observe how people interacted with the shrines. We visited various government offices and interviewed neighbors to investigate and inquire about the causes behind the shrine's state today and what led to its decline. We also interviewed experts to learn more about the historical and anthropological influences behind Shintoism and people's interaction with shrines. Once we understood the history of the shrines in Mount Inari using a first-hand account of caretakers and tourists, we generated documentation

and catalogs of the site through 2D layouts, 3D scans, photography, and sketching. We then compiled all the documentation into an interactive map showcasing many points in the shrine area. By visually representing the shrine and taking interviews, surveys, and catalogs of the site, we could understand what currently exists at the site and document the space for future studies.

Potential futures for the shrine must balance economic feasibility, environmental sustainability, and ease of maintenance, all while preserving the sacredness of the site. How can the abandoned shrine be self-sustaining without exploiting its rich cultural heritage for profit? How do we find the balance between tradition and modernity when talking about religion, especially in Kyoto, a city known for its graceful balance of new and old? Is there a way for the government to promote Shinto sites without sacrificing the separation of church and state? This paper sets up a framework to provide answers and revitalization solutions for abandoned places through such questions.

In this paper, we provide a background defining cultural heritage sites and highlighting the importance of maintenance and revitalization of such sites to preserve culture, history, and religion across the globe. We analyzed other cultural sites outside of Japan and how other projects have tackled revitalization to understand how we might approach this project for shrines in Mount Inari, Japan. We then examined how the locals around Mount Inari and Kyoto interact with the shrines and the significance of such a sacred space existing and being maintained. This paper outlines the methodology we used to collect data and understand the area around the abandoned shrine. The methodology part includes our interview question list, survey question lists, technologies, and a map of the shrines we visited to collect our data. The results section includes the findings and deliverables we obtained at the end of the project. Finally, we conclude by examining the broader repercussions of our research on shrines: understanding their historical importance in Japan and predicting their future role in Japanese society.

2.0 Background

Humanity is uniquely gifted with a diaspora of cultures and history. They make us unique as a species and imbue us with radical diversity of thought. Although word-of-mouth and, more recently, written documents can convey culture, our greatest and most impressionable demonstrations of culture are the monuments and buildings we leave behind. These can last for millennia - consider the Sphinx of Giza. As the Sphinx's broken nose and plundered graves show, natural and manmade threats erode even the most well-constructed monuments. Thus, in Japan and around the world, people make great efforts to preserve and protect their historical sites. Preservation takes many forms, and the strategies that work in some parts of the world do not necessarily translate to others. The local society, geography, and materials play an intrinsic role in finding the right solution. In the case of abandoned shrines on Mount Inari, their preservation hinges on the Shinto religion and the people of Kyoto. The issues that plague these communities, like the diminishing number of Shinto worshipers and elderly urbanization in Kyoto, also significantly affect the shrines.

2.1 Cultural Heritage Sites

From the United Nations Educational, Scientific, and Cultural Organization (UNESCO), a cultural heritage site meets one of five criteria (UNESCO, 2021):

I.   Represent a masterpiece of human creative genius.

We often remember great minds of the past through their writing and art, but in some cases, their ingenuity is only left behind in the monuments and sites they erected. Consider Imhotep, the Egyptian architect who first envisioned the pyramids. The stepped pyramids of Cheops and the ancient inscriptions within are the only remnant of his brilliant mind.

II.   Exhibit an important interchange of human values, such as developments in architecture.

The story of humanity is a story of progress, and it is written in our architecture. For example, the Taj Mahal is more than a mere mausoleum. It represents an interchange of traditional Indian tools and materials and the invading Mughal religion and architecture.

III.   Bear unique testimony to civilization or cultural tradition, either living or disappeared.

In some cases, the stones they moved and the walls are all that is left of ancient civilizations. From the mysterious circle in a plain English field at Stonehenge to the exotic moai of Easter Island, these sites hint at the secrets of a culture long gone.

IV.   Be an outstanding example of a type of building that illustrates a significant stage in human history.

Heritage sites are inseparable from the beliefs of their time period; in some cases, they are the most prominent symbol of these beliefs. Ponder the perfect symmetry of Florence's Great Dome, an inescapable show of neoclassical rebirth in Europe, and as intelligent and unique as Michelangelo's art or Galileo's astronomy.

V.   Be an outstanding example of a traditional human settlement or human interaction with the environment in ways now impacted by irreversible change.

We often speak of the shifting sands of time, but in reality, time has also shifted sands (and mountains, rivers, and forests). The once tropical city of Ur in Sumer is now a dry desert wasteland as the Tigris and Euphrates rivers dried up. However, the ruins remain as a glimpse into the settlement that once existed there.

In short, the most precious heritage sites add irreplaceable knowledge to our understanding of the past. Their importance is decided by society at large, as we pick and choose which sites to preserve and which to construct over (Silverman & Ruggles, 2007).

2.2 Cultural Heritage in Japan

The cultural heritage of Japan stretches back several thousand years. Although much has changed over that time, the basic tenets of Japanese culture - Shinto beliefs and respect for nature - have remained throughout (Iwahashi, 2014). This is visible in the art and architecture of Shinto shrines across the country. Many of these shrines are as old as Japan itself. No one knows when exactly the first shrines emerged, but evidence of Shintoism dates as far back as the 6th century AD (UNESCO, n.d.). Up until only recently, it was difficult for researchers within academia to conduct research in regard to the origins of Shintoism as a religion and its architecture. In some cases, people who were found investigating Shintoism were suddenly fired or demoted. It has been theorized that the Japanese government was behind this in their efforts to conceal any ties

of Shintoism to Chinese or Korean religions, as to appear unique and original as a religion (Ratay, n.d.).

Today, the Kansai region of Japan containing Kyoto and Mount Inari is over 98% ethnically Japanese. However, indigenous civilizations in Japan also had an impact on Shintoism. The Jomon people were an early civilization of hunter-gatherers that existed in Japan from about 14,000 BCE to 300 BCE. They were spread throughout Japan but were especially abundant on the main island of Honshu (Heritage of Japan, n.d). From their pottery, relics, and stone carvings, it is known that the Jomon created stone circles in the woods, buried their deceased, and placed ceremonial offerings on graves (Ibid.). Beyond this bedrock of animist belief in living stones, the evidence of Jomon influence on Shinto beliefs is limited; however, a religion extremely close to modern Shinto began being practiced during the Yayoi period lasting from 300 BCE to 300 CE directly following the Jomon period (Cartwright, 2017).

The Yayoi people were a combination of indigenous Jomon and immigrating tribes from Korea and China (Rodriguez, 2018). Some historians see Shinto as the result of this cultural collision. Some believe that Shinto is a purely Japanese religion that predates the Yayoi period. No one has proved either theory, but regardless, Shinto art and traditions were significantly shaped by these prehistoric people (Ibid.). Note that the indigenous Shinto religion looked different from Shinto religion today. This can be explained by the influences of Buddhism that arose in the 6th century BCE. While Shintoism and Buddhism exist as separate characterizations of religion today, both contain nuances and influences of other religions.

Origins of Shinto Shrines in Kyoto

For the local residents of Kyoto and Mount Inari, these Shinto heritage sites represent much more than mere vacation sites. With the immense number of shrines dispersed around Mount Inari, shrines truly serve as a unifying center for surrounding neighborhoods and residents in a political, economic, and territorial sense. To locals, shrines are viewed not simply as a structure or location, but as the connection between humanity and the countless elements of nature (Nelson, 1996).

The geographical location of shrines plays a significant role in the practices associated with them, as it is believed that specific deities, also referred to as kami, protect particular geographical areas. Each shrine usually has at least one associated deity, and visitors pray to

those deities. Kami are believed to live in the forest, woods, and groves. Additionally, according to the Shinto religion, when an individual passes away, they return to nature as a spirit. Because of this belief, most shrines can be found within nature. The forests, wood, and groves established next to shrines are called *chinju-no-mori*. They are an important feature of Shinto shrines. Whether on the top of a mountain, along a river, or in a forest, shrines are a place to worship nature deities and those who have passed and had their spirits returned there. In ancient times, most prayers wished for abundant harvests of grain, various rain conditions for ideal crop growth, and general peace throughout the nation. As time passed and local circumstances changed, prayers also differed, with locals praying for social status boosts as opposed to life necessities, such as good matches in marriage. More recent prayers focus on prosperity in businesses, household safety, and improvement in the performing arts (Fushimi Inari Taisha, n.d.).

For example, Kamo River is one of the two main rivers that flow through Kyoto, as shown in Figure 1. Called the "river of wild ducks," the Kamo River flows from the mountains north of Kyoto down towards the south of the city (Kimota, n.d.). Along the river, a multitude of Shinto shrines worships various deities associated with the river and other naturistic aspects of the Kamo River. The Kamo shrines, located towards the northern part of the river, are two major Shinto shrines - Kamigamo Shrine and Shimogamo Shrine, which are dedicated to the Shinto deity of thunder. Other shrines, as well as Buddhist temples along the Kamo River, are dedicated to various water and elemental deities. Additionally, some shrines on Mount Inari are on streams that branch off the Kamo River. People would often visit these shrines along the Kamo River and smaller streams that are connected to the Kamo River to pray for favorable weather conditions and flood prevention.

Figure 1. Kamo River, "river of wild ducks".

Fushimi Inari and Surrounding Shrines

Fushimi Inari Taisha is the head shrine in Kyoto. It is made up of thousands of torii gates of impressive magnitude and is the leader of the thirty thousand sub-shrines in the city. It was founded in 711 by the Hata family and in 816 moved to its current location. It predates the move of the capital to Kyoto in 794. In the Heian Period, specifically in 942, the site became imperial patronage and was designated the highest rank for Shinto shrines. The emperor at the time fell ill and in order to appease the gods it was appointed such high status and power. The structure as we know it today was constructed in 1499 and named Important Cultural Property of Japan (Asano, 2017). The site sits at Mount Inari's base, the first Shinto shrine tourists visit. The hike toward the mountain's summit takes around 2 hours in total. The halfway point is called the Yotsutsuji intersection, where most hikers stop. Gate density decreases while hiking up the mountain, so there is less and less to see as traveling along it (Japan-guide, 2018). As a result, the

higher shrines are problematic, and, because of the aging population, many sites lack a working community to take care of them.

The shrine we will be mainly working on is called Shirahige Daijin (白鬚大神). Though the information online is scarce regarding documentation and the history of the shrine, there are a few things to note about the site. It is conveniently located 20 minutes away from the head shrine Fushimi Inari Taisha and a 30 minute walk from Shichijo Station. It is on the northern slopes of Mount Inari in the woods behind a suburban neighborhood. Alongside it, is a waterfall leading to a stream and a pathway to other shrines in the area. All the shrines are dedicated to Inari, patron of rice and fertility. They are decorated with foxes and red torii, linking them spiritually to Fushimi Inari Taisha. The biggest shrine in the space is Fushikura Taisha, the cave shrine, adjacent to Shirahige just a few steps below it. Both places are mostly abandoned. Their state is not in ruins as we initially thought, more so unkempt. Leaves sprawl across the site path, and weeds and moss grow over the structures. There is a house beside both shrines that was previously inhabited by the shrine's caretakers. Now, it has been vacant for decades. A current picture of Shirahige Daijin can be found in Appendix I.

<u>Customs and Traditions of Shintoism</u>

At its core, Shintoism has no rules or dogmas. Instead, it is a religion of holy nature sites: waterfalls, forests, and other places. The holy sites are marked by red torii gates and shimenawa ropes made of hemp and adorned with white cloth patterns (Teuuwen et al., 2003). Subtle differences in the shape of the torii's kasaki (top-bar) and nuki (cross-bar) as well as the angle of the posts indicate which primal god, or kami, is worshiped at the shrine (Yamaguchi, 1946). The shape imitates two trees with branches overlapping and a bird perched in the middle. Passing through is believed to purify visitors before they enter the shrine (Manabu-san, 2022). In all shrines connected to the Fushimi Inari shrines, the torii are all Inari torii, as shown in Figure 2.

Figure 2. At Fushimi Inari in Kyoto, the most common type of Torii is the Inari torii with curved kasaki and widened base at the bottom of the posts.

In addition to the torii, shimenawa straw ropes also mark the borders of Shinto sacred spaces, shown in Figure 3. They are draped over torii, encircle sacred trees, and are even given as belts to top sumo wrestlers since they are believed to be blessed by the gods (Yamaguchi, 1946). The shimenawa are decorated with stripes of white cloth called nusa. Some believe they represent the hands of the Emperor reaching out to provide a blessing (Ibid.).

Figure 3. Shimenawa ropes protect the great 700-year-old tree at Gosha Daimyojin on the back slopes of Fushimi Inari.

Shinto shrines play host to a number of festivals throughout the year. While each shrine hosts different festivals, most host a festival in late October or early November to celebrate autumn (Littleton, 2002). At Fushimi Inari, this festival is called Hitaki-sai (Figure 4). Priests burn prayer sticks on massive cedar pyres and perform a slow elaborate dance called kagura. This festival is meant to summon the kami, Inari, back from the rice fields to rest at the shrine. It brings fortune and good luck to those who gather there to welcome her return (Niwaka, n.d.). Fushimi Inari and many other shrines also host shichi-go-san, which translates directly to '7-5-3', a festival where children of those three ages are blessed by the kami. There are also

spring festivals to pray for bountiful crops and massive float festivals in the summer, the biggest of which is Gion Matsuri in Kyoto (Manabu-san, 2022).

Figure 4. The cedar fires at Hitaki-Sai produce a thick silver smoke that covers the entire ceremonial grounds.

Though Shintoism holds all nature to be sacred, certain plants and animals are especially important. For example, the Japanese cedar, or sugi, is revered throughout the country for its straight solid trunks. Shinto sites are often surrounded by protected shrine forests of sugi (Omura, 2004). These trees can grow steadily for several hundred years. Their trunks often measure over a meter wide (Okamura-san, 2022). Another sacred plant is the sakaki tree, as shown in Figure 5. Its waxy green symmetric leaves are often used in Shinto rituals to summon a deity and bless the food before it is offered to the kami (Manabu-san, 2022). The red soil which sakaki grows best in, most common on the southern islands of Kyushu and Shikoku, is also used

to make the red dye that gives torii gates their signature color (Ibid.). It is rich in mercury and other preserving minerals that traditionally prevented the wooden gates from rotting.

Figure 5. Sakaki bushes grow sporadically in the woods surrounding Fushimi Inari.

Inside the protection of the torii and shimenawa, Shinto shrines contain inscribed stones which name the kami and sometimes display a short prayer. Alongside the stones is an assortment of gifts placed there by worshipers. These include small candles, incense, flasks of sake, tea biscuits, and miniature torii gates. In addition, there is an offering box where worshipers can toss coins.

In addition to stones and gifts, larger shrines contain statues ranging from animals to Buddhas to representations of the kami. Near Fushimi Inari, shrines often contain stone fox statues, such as those shown in Figure 6. Inari is the goddess of the harvest, and the foxes are believed to drive away rats and pests that would ruin a healthy crop (Yamaguchi, 1946). The foxes are often clothed in red bibs to protect them against demons and evil spirits (Manabu-san, 2022). Shrines also sometimes hold Jizo (Buddha) statues, sacred to children, or Fudo Myoo, a Buddhist king believed to slay demons and fend off evil.

Figure 6. The stone foxes often carry objects in their mouths such as the key to Inari's granary, a scroll, or a precious jewel.

Though Shintoism was influenced by outsiders as far back as the Yayoi period, a major transformation occurred in the 8th and 9th centuries with the arrival of Buddhist and Confucian ideals from China. New architectural styles like the 8-post gates traditional to Buddhism and Chinese-style curved gable roofs became assimilated into Shinto architecture (Rujivacharakul et al., 2000). On Fushimi Inari, the shrines became surrounded by temples and in some cases, even shared the same grounds (Manabu-san, 2022). There was backlash, evidenced by some Shinto priests beginning to research *koshinto*, a supposed prehistoric version of Shinto that is purely Japanese (Hirai, 2000).

In the 1800s, the Japanese government formalized Shintoism into a state religion with sects for various deities known as kami. As the religion grew, shrines began springing up across the nation, providing Japanese people a place of worship. After World War II, State Shintoism collapsed. As Japan industrialized, people moved into the city to pursue jobs. Separated from the

rural shrines central to Shintoism, the locals' beliefs faded. However, soon new shrines were built closer to the city. They became foci for weddings and luck ceremonies. In many ways, this shifted Japan back towards the traditional Shinto faith (Ratay, n.d.). As demonstrated by State Shinto and the subsequent return to naturistic beliefs, Shintoism occupies a flexible role in Japanese society. It evolves with people's and government's needs while maintaining an intrinsic role in the Japanese consciousness (Manabu-san, 2022). Even Japanese people who self-identify as Buddhists often still follow Shinto traditions of birth and childhood festivals. Shinto, like the sacred bamboo, springs back from external forces that try to mold it into an unnatural form.

Today, Shinto shrines occupy a new role in Japanese society. In addition to their traditional role of providing locals a place of worship, the shrines are a yearly attraction to millions of pilgrims and foreign tourists (Young-Sook et al., 2018). There are about 85,000 active shrines across Japan and thousands more local shrines. They also host various festivals ranging from New Year's celebrations to harvest rituals (BBC, 2014). The shrines have a multifaceted role in society; they protect many forests, waterfalls, and rivers believed to host sacred *kami*. To the new generation, they are better known as the setting for Ghibli movies like *Spirited Away*. Some scholars even ask, "Is Ghibli a modern *kami*?" Undoubtedly, the Shinto shrines are still pivotal to Japanese culture (Young-Sook et al., 2018).

2.3 Cultural Shifts and the Need for Revitalization

As previously established, cultural heritage is vital to conveying and understanding how humans act, believe, and dream. Cultural heritages can come in tangible objects like monuments, buildings, and shrines; intangible forms of heritage include stories and experiences. By preserving and even revitalizing cultural heritage, humans can pass on unique cultural diversity to future generations. A need for revitalization of cultural heritages occurs due to a cascade of issues stemming from social trends of family life to the overall aging society in Japan. Since WWII, western trends have influenced these cultural shifts and changes to the rural population landscape.

Shifts in Gender and Social Norms

Society's paradigm of traditional family life was clearly reflected in the rural mindsets in Japan. Men and women were expected to go off to work at the age of fifteen (Tanaka & Iwasawa, 2010). The eldest son was expected to take care of the family and become the successor when it was time to do so (Ibid.). Additionally, marriages were mainly arranged due to the separate nature of men and women (Ibid.). However, the conjugal family system was established in 1947 under the new post-war constitution to support individuals over the traditional family system (Ibid.). As a result, arranged marriages were no longer the norm.

Post-war Japan began experiencing a decrease in birth rate and fertility rate and an increase in the population's longevity. Current trends show that younger generations deviate from the traditional ideas of settling down at a younger age. The economic boom after WWII and rapid urbanization presented more employment opportunities for men and women. Correspondingly, they adopted new ideas of moving to urban areas to pursue higher education and better jobs to escape family obligations. Consequently, the number of Japanese marriages is fewer and tends to happen later in life than in previous years. As a result, underpopulated rural areas have low fertility and a high proportion of middle-aged singles. The lifetime celibacy rate between 1995 and 2005 of never-married at ages 45–49 and 50–54, increased from 1.45% to 15.96% for men, and 1.35% to 7.25% for women (National Institute of Population and Social Security Research, 2008). Fewer marriages contribute to low fertility rates and the overall aging population of Japan. As the Japanese family model changes, tradition slowly fades as well as an emphasis on faith. "The state is very conservative and wants to maintain the heteronormativity of marriage and this pink-and-blue, binary system of the sexual and gendered division of labor," Robertson said. (Parker, 2022). The younger generations' shifting perspective on family life and their migration into more urban areas have led to the abandonment of many homes.

Urban Migration due to cultural shifts

In this context, "urban migration" is being used to describe the movement of the Japanese population from rural areas to urban areas to pursue different opportunities. Urban migration of younger individuals has contributed to the abandonment of many homes and, in turn, the abandonment of religious sites like temples and shrines. In rural places like Iwate Prefecture and Oshu-City, the population has dropped about 9% over 15 years (Traphagan, 2018). The net urban

migration value of Iwate Prefecture in 2016 was -3,987 people (Ibid.). Accordingly, Tokyo had a migration rate of 74,000 migrants into the city in 2016 (Ibid.). Urban migration has exacerbated the already declining population caused by low fertility rates. On the rural side, urban migration has left many homes empty and abandoned. An estimated 8.5 million homes are currently vacant in Japan, approximately 15% of all houses and residences nationwide (Ibid.). In addition, many of these abandoned homes are never put back on the housing market for resale. It is clear how much urban migration has contributed to housing vacancies.

Effects on Abandonment of Religious Sites

Changing sociocultural trends and urban migration also negatively affect other parts of society, especially the religious sector. Urban migration directly correlates to an increase in abandoned shrines, temples, and other sacred spaces throughout Japan. For example, priests and local residents are the people who primarily care for and maintain Buddhist temples (Traphagan, 2018). This responsibility is passed on through the family.

Shinto shrines fall under the responsibility of people called kannushi or shinshoku. The kannushi live on the premises of the shrine site and are also responsible for the maintenance and upkeep and leading prayer for certain kami (Nishimuta, 2007). For larger shrines, the kannushi have to get certified and appointed to their position. For smaller family shrines, the caretaker responsibility is passed down through the family (Manabu-san, 2022). A caretaker's daily duties include ensuring the site remains clear of leaves, debris, and trash for worshipers and visitors. During festivals and auspicious days, caretakers hold religious ceremonies. Additionally, many smaller shrines are maintained by the local community association called a chonnaikai (Gillespie, 1999). An important distinction is that some shrines have separated the caretaker role into just cleaning and caring for the shrine. These shrines have priests for religious ceremonies and caretakers specific to the maintenance of the shrines. Usually, income within the family is too low to maintain the temples and shrines without additional funding or local support. Due to the falling population in rural areas caused by urban migration, local support is also diminishing. The higher number of older people without any surviving children threatens the sustenance of these temples and shrines.

While shrines and temples fill different roles in Japanese society, they both face the risk of abandonment due to changing age demographics and urbanization. Caring for one's ancestors

is one of Japan's most significant religious practices, and Buddhist temples routinely host rituals celebrating elders. Families return to the temples where their parents and grandparents worshiped since childhood. Now, due to low fertility rates, much of Japan's aging population has no successors to carry on their family traditions or pray for them. Even those who do often struggle since their children feel little responsibility to take time for old traditions. As a result, Buddhist temples have increasingly fallen into disuse.

Abandoned Shinto shrines mirror the trend of abandonment seen in Buddhist temples. Shrines in rural areas are especially vulnerable, since many farmers' children no longer live near the shrines their elders worshiped at. After World War II farming communities shrank since modern agriculture relies more on machines and requires less people. Japanese people moved to the cities, abandoning their ancestral rural shrines when they did so. Shintoism is a farmer's religion. The major Shinto festivals celebrate harvests and planting. Nevertheless, these farmers' shrines have been all but forgotten along with farming rituals. For example, tradition is highly respected in Japan, but since there are such fewer farmers, many of the Shinto rites related to rice cultivation are not as important to the local community as they once were.

While Shinto shrines do not host death rituals like Buddhist temples, they host other rites of passage and festivals for families (Manabu-san, 2022). Just like the Buddhist rituals for celebrating elders, these rites are at risk of being forgotten. In the past, the shrines were centers of life for the local community where children would meet after school and young adults would even go for a date. Now that there are fewer youth in Japan, especially in rural areas, the shrines have lost this role. Across Japan, the decreasing youth population has put religious practices at risk of being forgotten and religious spaces at risk of being abandoned. Without caretakers, financial support, and locals who care, sustaining the plethora of small shrines dotting Mount Inari will be difficult.

2.4 Role of Locals and Government in Religious Matters

<u>Local Relation to Shinto Religion and Shrines</u>

Shrines serve as a place of worship where visitors can offer prayers and perform other traditions to honor the deities connected to that shrine as part of the Inari pilgrimage. The Inari pilgrimage is a staple of Mount Inari, with locals and other worshipers completing the trek up the

mountain to visit various shrines and partake in several traditions of worship. Some ancient pilgrimage practices are no longer popular. However, the concept of pilgrimage, and ensuring its accessibility to any worshiper, remains prevalent (Smyers, 1997). Shinto religion, as previously established, is fluid and dynamic, unlike other religions which can be rigid and strict in their practices. Shinto practices are flexible and ultimately leave it up to individual interpretation and the decision of the individual worshiper to perform the customs and traditions needed to fulfill their connection with the religion and to the nature deities. There is a heavy focus on allowing worshipers to discover this connection to nature and the elements on a personal level. Researchers surveyed locals of a particular shrine in Kyoto and Japan to identify their primary purpose for visitation. The main reason locals visited the shrine was to connect with the nature surrounding the shrine and appreciate the natural beauty of the scenery (Nelson, 1996).

Festivals often serve as a way to bring the community together at the shrine. These events center around the veneration of the deities associated with a particular shrine (Nelson, 1996). Many shrines, in fact, are designed for festivals and the celebration of history behind their origins and symbolism. Large open spaces are intentionally designed into the layout of the shrine for festival performances by local artists and volunteers (Religions, 2021). Both locals and tourists can enjoy, worship, celebrate, and learn about the Shinto religion and the local traditions at a particular shrine in the form of multiple festivals throughout the year. More information about tourism and its impacts on Japanese society can be found in Appendix N.

Government Involvements and Regulations

From the sheer number of shrines that exist in Japan, it is intriguing to explore the relationship between the government and these cultural heritage sites. Governments around the globe are working on laws and protecting their historic sites within these laws, just as numerous worldwide organizations are attempting to preserve cultural heritage. For example, the National Historic Preservation Act (NHPA) was created in the United States in 1966, the most extensive and comprehensive historic preservation law ever passed by Congress (Burt, 2015). According to this law, all the historic structures affected by federal projects must be documented in standards issued by the Secretary of the Interior (National Historic Preservation Act). Through the NHPA, archaeologists and other preservation professionals reviewed over 109,800 federal projects in 2018 (Society for American Archaeology, 2019). All these regulations made it possible to

discover 27,000 significant resources, including archaeological sites and historic properties. This law also safeguards historical and archaeological sites by subjecting them to governmental regulations and keeping watch over them to ensure that no actual destruction, damage, or removal of property is observed.

Similar to the US, Japan has a law protecting cultural heritage known as the Law for the Protection of Cultural Properties. This law contains a "designation system" (指定制度) where selected important places and historic sites are defined as cultural properties (Cultural Property (Japan), 2022). Cultural properties have limitations on repairs, modifications, and removal of property unless the government approves it. There are three different classification levels, arranged from general to more precise: national, prefectural, and municipal. As of 1 February 2012, there were approximately 16,000 nationally designated, 21,000 prefectural designated, and 86,000 municipally designated properties present in Japan (Cultural Property - Japan, 2022).

Shintoism has been woven into the ways of Japanese culture long before Japan was a unified nation. Buddhism was a branch of the government within the Tokugawa shogunate, from 1603 until 1867. Since temples registered the population it hindered the spread of Christianity and became rather unpopular. In 1898, Shinto became the state religion, and the emperor presented himself as Shinto divinity. At the start of the Meiji Period, in order to avoid criticism and to make Shinto the state religion, the government separated Shinto from Buddhism (Hirai, 2000).While Shinto shrines received a lot of funding from state officials, the government shunned Buddhism and tore down temples (Stripes Okinawa, 2018). In 1946, the Allied Supreme Commander in Tokyo ordered the disestablishment of Shinto as the state religion in Japan, officially separating religion from the state in the nation regarding funding and taxation. In addition, all government sponsorship for any Shinto shrine or other Shinto religious site was terminated to lift the pressure on Japanese citizens to believe in the Shinto religion (Holtom, 1946). Disestablishing Shinto from the government cut off funds allocated toward Shinto causes.

Shrines have been decreasing in number since the Meiji era. However, in 1983, the Japanese government linked temples and shrines with the nation's tourism and economic income influx, mainly from major shrines in Kyoto. The government proposed a small head tax on these major shrines to generate more funds for restoring other historic buildings and religious sites in Kyoto. This tax collection proposal was called the Kyoto Old Capital Preservation Cooperation

Tax and aimed to tax the visitors of the major shrines in Kyoto, as the city government could not tax the shrines themselves due to the separation of religion and state. The Kyoto Buddhist Association, representing over 1,100 temples in Kyoto, rebelled and refused to impose a tax on their visitors. The Kyoto Buddhist Association claimed that visitors were there to worship at a religious institution rather than a tourism business (Badone & Roseman, 2004).

In the end, the separation of the Shinto religion and state persisted. The Japanese government does not fund or control Shinto shrines at any level of governance, nor do they impose a tax on these religious sites of worship or their visitors. Through the constant efforts of major temples and shrines, these religious sites remain free from government regulation regarding funding and tax collection. Instead, Japan's only government involvement with Shinto shrines is in their protection through the Law for the Protection of Cultural Properties.

The problems facing revitalizing shrines today are finding ways of promoting shrine care without imposing religion on the locals once again and affiliating government funds to a specific faith.

2.5 Preservation of Cultural Heritage at a Global Scale

Heritage serves as a source of identity and is a crucial component of community empowerment since it enables vulnerable groups to engage in social and cultural life. While it has a significant role in society, sometimes heritage can disappear in communities.

UNESCO, a well-known cultural organization that works to preserve cultures and historic sites, maintains a catalog of at-risk sites called the Danger List. Cultural properties on this list meet one of two criteria. The first is *ascertained danger*. These heritage sites have either endured severe deterioration of materials, architecture, and natural space or lost significant historical authenticity and cultural significance. The other category of sites is *potential danger*. This includes properties threatened by lack of conservation policies or threats from aggressive urban development, armed conflict, or climate change and natural disaster. Unfortunately, many heritage sites can end up on this list without proper care. Worse yet, their deterioration slips through unnoticed if they are not well-known enough to receive attention. That said, international efforts taken by UNESCO to preserve the sites on their danger list exemplify local and national efforts as well (UNESCO, 2022).

UNESCO mentions that culture is one of our most powerful resources to transform societies and renew ideas in today's interconnected world (UNESCO, 2022). One of their many successful initiatives is preserving Angkor City in Siem Reap, Cambodia. Angkor Wat was part of a sprawling city as big as London. It was the heart of an empire extending from southern Vietnam to Laos and from the Mekong River to Eastern Myanmar between the 9th and 15th centuries (Ibid.). Due to its location, most temples and buildings experienced many large floods and protracted droughts, leading to their abandonment when this cultural monument was rediscovered in 1860. UNESCO and more than 30 countries, including Japan, supported this large-scale preservation project. Researchers focused on making this place more livable for inhabitants and balancing the touristic interests and socio-economic needs of Cambodian people. UNESCO's International Coordinating Committee (ICC) created the ZEMP (Yang et al., 1994) to protect Angkor Wat. "ZEMP for Angkor Wat concentrated on determining the sustainable level of press on the archaeological sites coming from tourism, everyday social activities, and environmental impacts, and then proposing a legal framework and administration to manage and protect the area in good repair in the future" (Zemp in Angkor, n.d.).

The ZEMP included numerous research accomplishments in professional fields that required gathering and analyzing data around the area. Traditional methods, such as helicopter field surveys and aerial photography[1], were insufficient to gather enough information. Therefore, the ZEMP included the latest GIS (Geographic Information System) technology at the time to map the area and collect and analyze data. There was no standardized methodology for documenting historic sites, and researchers did not have centralized databases that could access universal information. Therefore, researchers created ZEMP to solve these problems. It gave local Cambodian authorities a source to reference if they encountered any problems after the completion of the preservation project. As shown in Figure 7, the ZEMP planned and organized the urban conservation zone, urban expansion zone, tourist development zone, and historic conservation area. Separation of the area allows for setting different regulations for different development zones. For example, restricting foot traffic in the historic conservation zone prevents the deterioration of the buildings in that area. When ICC first published this concept plan in 1994, computers had not yet advanced to their current level of sophistication. However, refined maps of the same style are still in use today because they support the development of

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[1] taking of photographs from an aircraft or other airborne platforms

nearby communities and businesses while also protecting the environment and cultural heritage of the site. Therefore, GIS-supported 2D satellite images are a helpful universal tool for planning and preserving historic places.

LEGEND

──────── NATIONAL ROUTE 6	─ ─ ─ ─ ─ PARK BOUNDARY
■■■■■■■ PARK MAIN ROAD	URBAN CONSERVATION ZONE
── ─ ── ─ LOCAL ROADS	HISTORIC CONSERVATION AREA
·············· SHUTTLE BUS ROUTES	URBAN EXPANSION ZONE
◉ VISITOR RECEPTION CENTRES	TOURIST DEVELOPMENT ZONE
·····▣····· BUS STOPS	
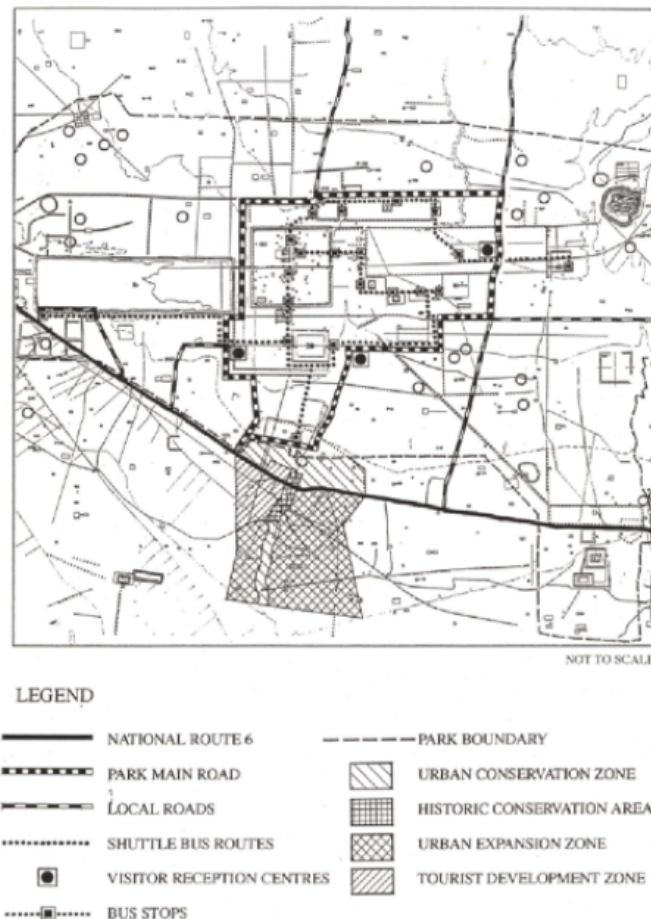
Figure 7. Indicative concept plan of the park transport system from ZEMP (Yang et al., 1994).

In 2004, APSARA National Authority and ICC-Angkor reviewed the conservation of Angkor Wat and the ZEMP project (Yang et al., 1994). As a result, the committee decided to remove Angkor Wat from the UNESCO World Heritage in Danger List, making ZEMP one of the successful examples of GIS applications in preserving cultural sites and protecting the area's inhabitants. After many years, we now have more advanced technology for mapping areas.

Tuborg Havn in Copenhagen, Denmark is an example of 3D city modeling. The city requested a 3D model of the neighborhood's buildings in Copenhagen for future use in urban planning tasks such as flood prediction analysis, shadow impact analysis, viewshed line of sight analyses, and more (Weitz et al., 2021). For this project, the point cloud[2] collected by an airborne laser scanning system (ALS[3]) was processed using ArcGIS software to 3D map the buildings (Borisov, 2022). ArcGIS is an online cloud-based mapping and analysis software used to create maps, analyze data, share and collaborate (What is ArcGIS Online, n.d.). In addition, online documentation and lectures can be accessed through the ArcGIS website. The city of Copenhagen is shown on the website as one example of using LIDAR technology to extract 3D models of buildings. LIDAR (Light Detection and Ranging) is an optical remote-sensing technique that uses laser light to sample the earth's surface densely, producing highly accurate x,y, and z measurements (What is Lidar Data? - ArcGIS Pro, n.d.). While ArcGIS would be a suitable software solution for mapping the shrines in Japan, it is not open-source software, making it inefficient in terms of cost. Likewise, QGIS is a similar open-source geographic information system that is free for public use. Previous researchers mentioned that ArcGIS can provide an invaluable mapping process if the project has a budget. However, if the project does not have a budget for the software, QGIS can achieve equivalent performance with a less user-friendly interface (Besch et al., 2019).

Preservation of Cultural Heritage within Kyoto

Kyoto is known as the former imperial capital of Japan. According to UNESCO, it's one of the best preserved ancient cities in the world and it was listed on the World Heritage List in 1994 because of the collection of religious and vernacular architecture. In order to protect and preserve the rich heritage of Japan, a legal framework designated by the Scenic Landscape Districts was published in 1930.(Kyoto: Preserving the thousand shrines, 2016) This framework covers 17,938 hectares of area today. This system was transformed into the Ancient Capital Preservation Act in 1966 (Ibid.). Additionally, Agency of Cultural Affairs was created as part of the Japanese Ministry of Education. This government office protects the cultural assets in Japan at national level. In the modern world, Kyoto faces the challenge of modernity, as new

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[2] A set of data points
[3] Laser measurement system mounted on an aircraft

styles of building and structures began to emerge in the area, and high-rise buildings, along with power lines, outdoor advertising, and other infrastructure, disrupted the surrounding cityscape. The local administration of Kyoto revamped the preservation plan in 1997 to encourage the planned conservation of the new modern structure in the city(Ibid.). The Kyoto Centre for Community Collaboration was founded to adopt a comprehensive approach with the involvement of various public and private partners. City officials have decided to set regulations for new structures in the area including design, material color, infrastructure, roof style facades, balconies, gates and fences (Ibid.). With its preplanned system for the preservation and administration of its historical monuments, Kyoto has earned a spot as an Asia-Pacific best practice case study for its effectiveness in achieving a balance between development and cultural conservation (Ibid.).

Within Kyoto itself, the most significant example of attempting the restoration of a shrine was the site at the top of Mount Inari, a prominent place of worship. It burned down during the Onin Rebellion in the 15th century. After much effort to revitalize it, the renovated shrine was wrecked again due to the typhoons. If we look at Mount Inari shrine history, we can observe that there are two separate periods where workers rebuilt the shrines as a whole - 1499 and 1694 (Fushimi Inari Taisha, n.d.). Shrines must constantly be rebuilt since once a shrine is permanently gone, the site where the shrine used to stand is a Shinseki. This means the deity still inhabits the site but it no longer has a home (Fushimi Inari Taisha, n.d.).

Japan, even as one of the most urbanized countries in the world, has more shrines and cultural heritage sites than convenience stores (Sripes Okinawa, 2018). It is urbanized as well as it is traditional, rich in customs, and upholds specific values. Shrines and their decay are not specific to Japan; it is a phenomenon comparable to several cultural heritage sites around the globe. The Hwangnyongsa Temple in South Korea (UNESCO World Heritage Site in 2000) was destroyed by fire, and although there are few traces left, the government is seeking its restoration (Kim et al., 2018). Then we have Bosnia and Herzegovina, specifically the destruction of the central Bazaar Čaršija in Sarajevo, destroyed amid war and unrest (Ćorović & Obralić, 2021). The factors contributing to the state of Shinto shrines in Kyoto also make the situation unique. Unlike the previous cultural heritage site that faced deterioration, Shirahige Daijin's condition is due to abandonment as opposed to war or natural disasters.

Similar is the case of The Temple of Borobudur in Indonesia. Borobudur is a Buddhist temple, abandoned in the year 1000 and unkept until its rediscovery in 1972. UNESCO set to restore the temple and initiated an international safeguarding campaign. (UNESCO World Heritage Centre, 2022). The problems it faced were the deterioration rate of the building stone after several years of lack of maintenance, the damage caused by visitors, and the deposit of acidic ash due to the eruption of Mount Merapi. Currently, the property has plans of once again becoming a Buddhist pilgrimage site. However, the lack of control of commercial activities and an adequate tourism management strategy has been harmful. A few programs are in place to revitalize the site fully. Monitoring programs are in place to supervise visitors in the temple. Researchers are determining the effects of acidic ash on the environment and planning the steps for conservation. They have also established a risk preparedness plan. The Borobudur Heritage Conservation Office has also created community programs to build awareness of cultural heritage. (UNESCO World Heritage Centre, 2022*).

Sanro-Den of Sukunahikona Shrine is a prayer hall in Shikoku, Japan. It venerates Sukunahikona, a dwarf deity of human arts. The shrine became abandoned after a decrease in followers of the deity. In turn, locals volunteered in an attempt to preserve the historic site. Still, Sanro-Den decayed rapidly. The roof and ceiling fell, causing the building's interior and the floor to collapse. Sanro-Den appeared in the 2014 World Monuments Watch, and the World Monuments Fund launched a conservation project. Activists restored the beams, floor, and ceiling, replaced wood, and created a medicinal garden. The project finished in 2015. Sanro-Den's new uses include a cultural exchange center, a heritage tour location, and a private event space. Volunteers hope that the shrine's success will encourage the preservation of the other abandoned sites in the area (World Monuments Fund, n.d.).

2.6 Defining Success in a Cultural Heritage Site

For us to deem the restoration of Shirahige Daijin successful, there are three notions to have in mind - community awareness, sustainable revitalization, and fiscal responsibility. For community awareness, there need to be comprehensive strategies to inform the public. For example, the temple of Borobudur in Indonesia created a community outreach program within schools. The program shifted students' conversations about cultural heritage sites and promoted

volunteering for local restoration projects. As a result, there was more considerable interest in the temple. The generated interest inspired the area's volunteers to aid in the restoration process. Soon, the volunteers began restoring nearby temples and shrines that also needed help. If revitalization is successful, it should unite the community. The process of restoration involves - traditional building techniques that are passed down and add to the value of the site's cultural heritage. Once restored, the sites serve as religious spaces for the neighborhood.

For sustainable revitalization, the methods used to restore a site must not impact the environment irreversibly. For example, ethically sourced cypress from the surrounding area was used in the Sanro-Den in the Sukunahikona Shrine to closely match the original monument's materials and support local vendors. Additionally, a sustainable site should grow gradually without creating nuisances for the neighbors. We can achieve sustainable growth by building appropriate tourism and commercial management strategies. Finally, sustainable revitalization ensures that cultural heritage sites maintain themselves for their original purpose.

The last notion is financial stability. Funds are required for the shrine to remain in good condition. As seen in the Sanro-Den space, the site was converted into a private event host. It is rented out as a means of profiting, besides simply donations from supporters. Other shrines obtain revenue from religious tokens and souvenirs. Diversifying the forms of income for a shrine is essential in making it self-sustaining in the long run.

3.0 Methodology

Our project focuses on a shrine site called Shirahige Daijin, located on Mount Inari. To address why this particular shrine has been abandoned, we have identified a project goal, three objectives to accomplish the project goal, and different methods to address each objective accordingly. The project goal was to develop potential methods to revitalize abandoned shrines around Mount Inari by looking at the case study of Shirahige Daijin. The first objective was to understand the history, events and the state of the shrine over the past few decades. Through background research, interviews, and visiting various government offices and organizations, we covered a brief history of how the shrine was established, what the shrine means to locals, and how the shrine became abandoned. The second objective was to develop an interactive map of the shrine's space. This interactive map combined various forms of documentation to create a cohesive and encompassing visual of Shirahige Daijin's space. We visualized the state of the shrine in 2D maps, 3D scans, photographs, and sketches, which was valuable in understanding its spatial qualities and general visual qualities. In addition, we created a catalog of each shrine within the area and its current condition. The last objective was to develop potential ideas for revitalization using our new knowledge from Objectives 1 and 2. Utilizing these objectives and methods, we studied what makes a shrine successful and considered whether we can incorporate some of those ideas into Shirahige Daijin. We then used our enhanced understanding of Shirahige Daijin and local shrines to explore community-based actions to restore and repurpose the abandoned shrine. Appendix B contains a chart summarizing our project objectives, methods, and deliverables.

3.1 Objective 1: Understand Shrines: History, Events, and Their State Today

In order to address the first project objective, we learned more through lived experiences, conducted interviews, observed visitors to the shrine, and visited various government offices to understand the history, meaning and value of Shinto shrines. Fulfilling this objective provided insight into the shrine's current state and any potential interactions people still have with the abandoned shrine. Caretakers' expertise explained how a shrine could reach its current state of

abandonment. Speaking with visitors provided a better understanding of what attracted people to these places whether it was familial ties or just curiosity about the abandoned space.

Lived experience helped us better understand the shrines. We took a guided tour of Mount Inari to gain a tourist perspective. Discovering what foreigners learned about the shrines and what information was left out helped us interpret the foreigners' answers to interview questions. We also worshiped at the shrine in the following traditional Shinto custom:

1. Wash at the *temizuya*, a ceremonial basin where visitors ladle water onto each hand and rinse their mouth.

2. Approach the shrine from the right of the path. The middle is reserved for the kami.

3. Offer a coin or two at the offering box, preferably 5 yen, since it is considered lucky.

4. Take a moment for contemplation at the shrine. Bow twice, clap twice, bow again. Taking time to pray respectfully gave us perspective through the eyes of a Shinto worshiper.

We partook in several other traditions. First was Omo-karu Ishi, a form of rock divination, using two lanterns and a jewel-shaped stone to hear the kami's yes/no answer to any question. At Neagari Matsu, we rubbed the exposed roots of a half-sawn tree and left a small monetary donation to pray for good fortune. At Kodama ga ike, the 'echo pond,' we learned about the belief that if you have lost someone dear and clap, the echo will return from the direction in which they can be found. Oseki san, a form of Inari, has a mailbox on the mountain trail. We sent postcards here as a surefire way to cure a cough. Rubbing Ninaigi, a bent tree on the mountain, was to cure stiff shoulders from carrying heavy loads. Ohitaki no moeatu, the last ritual, used the charred cedar boughs from sacred fires in November. People believe this charcoal to be potent medicine to cure all ailments - even cancer (Smyers, 1997). Participating in the rituals of Mount Inari integrated us into the community and culture we studied.

Interviews were an essential method to learn more about Mount Inari shrines from first-hand accounts. We conducted interviews with neighbors, authorities and caretakers of successful shrines, and other experts who provided general insight into abandoned shrines. Using open-ended questions to prompt long answers helped us fully grasp their knowledge of the situation. From interviewing experts about Shinto shrines and the nuances behind them, we established a baseline of knowledge. With this information, we found insight into how shrines are established, the cultural significance, and the public perception behind abandoned shrines.

We interviewed Manabu-san, tour guide on Mount Inari, due to their depth of knowledge and familiarity of the area. Additionally, we followed up with Manabu-san post tour and asked questions about the meaning of different symbols found at Shirahige Daijin. The question we asked during both interviews can be found in Appendix D. We also interviewed social science experts such as anthropology professor Andrea de Antoni from Kyoto University to grasp the significance of human interaction to shrines. The questions for this interview can be found in Appendix E. We also attempted to consult with local historians like Takagi Hiroshi, head of Kyoto history at Kyoto University, to learn more about the neighborhood's history. However, they were unavailable for meetings. Based on our understanding of Shirahige Daijin, until approximately 30 years ago, some caretakers lived on the premises. From interviews with two local neighbors, Nishida-san and Okamura-san, we understood how social structures and conditions in the area may have changed, leading to the abandonment of the shrines. We also gained insight into how the space was previously cared for and maintained. The questions for the interview with neighbors can be found in Appendix C. We also left letters to other neighbors hoping they would also be able to provide us with information. However, on one reached out. These letters can be found in Appendix G. From the interviews of authorities of other successful shrines on Mount Inari like Fushimi Inari Taisha, we got an inside perspective on how they treat visitors and care for the shrine to maximize funding and publicity without harming the sacredness of the shrine. A digital map of all the places we visited and observed can be shown in Appendix H. The Statement of Informed Consent for all the interviews is shown in Appendix A.

Finally, we visited several local organizations to seek archived documentation and learn more about our shrine. The Kyoto Bureau of Home and Legal Affairs (Homu Kyoku) had a floor-plan and ownership records of the abandoned house and property, including the current address of the former residents. They were publicly available. The Kyoto City Tax Office had more detailed records about the house; however, we needed permission from the house owners to gain access to these. Since we had the owner's new address, we sent them a letter asking for access. Jinja Honcho is the head organization of many Shinto shrines in Japan, and almost all shrines are at least registered there (Iwahashi, 2022). We traveled to Tokyo to visit Jinja Honcho and to inquire about the abandoned shrine. However, they had no records on Shirahige Daijin and were also notoriously difficult to contact (De Antoni, 2022). However, we also talked to and interviewed Katsuiji Iwahashi, Deputy Director of the Secretarial Department at Jinja Honcho.

He was able to offer predictions about the history behind Shirahige Daijin. The questions we asked him can be found in Appendix F. He was also able to look at the legal documents we obtained from Homu Kyoku and tell us what the documents contained. We also reached out to Meiji Jingu, a leading Shinto priest school in Kyoto, but they refused to take an appointment.

At Kyoto Prefectural Library, we found several old maps indicating that the shrine was present as far back as 1926. This was further substantiated by the online maps provided by Ritsumeikan University's History department (Yano et al., 2018). The shrine is located in Higashiyama Ward, but the Higashiyama Ward Office had no publicly available information about the shrine. A summary of the discovered shrine history can be found in Appendix O.

3.2 Objective 2: Document and Map the Space

In this objective, we documented the abandoned shrines through photographs, sketches, a 2D interactive site map, and a 3D shrine model. Architectural trends convey technology and cultural influences from the past. Carefully recording drawings, plans, photographs, 3D models, and data related to historic sites can help preserve cultural heritage (McKee, 1970). Conditions in the area can change significantly over the years, especially if caretakers neglect the shrine area. With the help of documentation, future researchers will be able to compare the shrine's conditions between the present and future. This work can help determine if future preservation methods worked, what needs to be changed and provide ideas for iteration in long-term projects. Thus, documenting and visualizing the shrine area helped understand its spatial qualities.

In order to develop potential solutions for revitalizing Shirahige Daijin, we created an interactive map of the surrounding area. This interactive map with several pinpoints includes images, videos, soundscapes, sketches, and historical information about various parts of the shrine site. To create this map, we created a catalog of the shrine which includes the engravings on the stone, conditions of the shrine, and a picture of the shrine in order to identify it easily. Creating this interactive map allowed us to explore the area better and document the current situation of the area in every aspect. This interactive map provides a holistic view of how tourists and locals interact with this area and gives us a better picture of why the community abandoned the place. The interactive map will serve as a guideline for future studies to get the different

perspectives of Shirahige Daijin. Furthermore, understanding what draws people to these sites sparked ideas to revitalize Shirahige Daijin. Appendix M contains the finalized interactive map.

It was imperative throughout this process to preserve the sanctity of Shinto belief and stay true to the ideals of Shintoism in our mapmaking while being respectful of the environment and neighboring homes. First, we left notes for the neighbors explaining our research project and plans to learn more about the shrine. These letters can be found in Appendix G. We also had the opportunity to talk with a few neighbors in-person to inform them of our project so they were aware of what we were doing at Shirahige Daijin. Regarding mapmaking, we used a map of part of Fushimi Inari shrines as a template and foundation for our interactive map, as shown in Figure 8. This allowed our map to stay aligned with maps of others that already exist of Fushimi Inari shrines.

Figure 8. Map of one collection of shrines located on Fushimi Inari Taisha. Each shrine is numbered, with the name of the main shrine labeled with its name in kanji.

We involved different sensory details in the interactive map to fully immerse the user into the experience of being inside Shirahige Daijin. Sound is one particularly important sense, but often difficult to involve in a map. Utilizing recordings at different sections of the area, we represented the environment's various sounds at different pinpoints of the area. This involved much of what Shinto considers sacred, such as the water, the birds, and the rustling of trees. This careful listening of the sound allowed us to create a sense of place and connect the individual to nature. As cleverly stated by Kathryn Allyn and Roza Tchoukaleyska (2020) in their research Soundscaping the Archives: Disrupting Boundaries through Sensory Research, "They are an occasion to sit down and listen, to absorb the auditory texture of a place, and feel how echoes, hums, or a subtle buzz can shape our response to a site. Making sure that the microphones are unimpeded and pointed outwards, pressing the record button on the voice recorder creates a moment of hyper-awareness of your own presence and the many nearly silent shuffles of paper and people. In the beginning, this process encouraged a slowing down, of tuning into the surroundings, and moments of trying to imagine what the recorder might be hearing." (Soundscaping the Archives: Disrupting Boundaries through Sensory Research (wpi.edu)). Appendix L contains our team's soundscape recordings.

Since "photography is a way of seeing which is particularly characteristic of the present era," photographs helped document the location's current deterioration (McKee, 1970). Numerous photos were taken on-site for use in the interactive map. Photography captures every exact detail of a space, unbiased; however, sketching brings out the user's experience. Although researchers have used photography for many years for documentation purposes, photographs cannot provide the experience of being present in the area. Another way to capture visual imagery in a way that is more personal is via sketching. Sketching the state of the shrines from a selective viewpoint allowed us to look at the structure from a human perspective. "Drawing is fundamental to being human – as fundamental as walking and talking. For whenever we walk or talk we gesture with our bodies, and insofar as these gestures leave traces or trails, on the ground or some other surface, lines have been, or are being drawn (Ingold, 2011a, p. 177)" (Full article: Observational sketching as method (wpi.edu)).

Although photographs contain a higher resolution in the images, they do not fully convey depth and scale since they can only provide a 2D view. On the other hand, 3D scanning is a new and detailed way of documentation. Although it might not be developed as much as photography

methods, it has been used by numerous organizations and projects to document spaces. For 3D scanning purposes, we first considered ArcGIS as a potential mapping method. However, it was deemed infeasible due to the heavy tree cover over the shrine. Instead, we used the new generation iPad's LIDAR (light detection and ranging) technology with the Polycam app to collect data points on-site. Polycam can create a 3D map of the area by using the measurements between data points collected from the LIDAR camera. We created a 3D map of the shrine, which has a walkthrough effect. Appendix J contains three example scans performed at WPI. Based on the example scans, we identified that PolyCam is not accurate for scanning the trees. Dense tree coverage in the area can cause distorted shapes of the buildings and statues. However, given the technology and the budget, the app was the best option to 3D scan the area. Appendix K contains 3D scans of Shirahige Daijin. Even if the structures are distorted in the 3D scan, we could use the app to create blueprints based on 3D scans. We also used the blueprints created from Polycam in the interactive map. Future research could make use of this 3D map so that researchers could examine the shrine virtually rather than physically visiting the site. A Youtube video made in 2020 shows an example from the Inari Shrine, where the video implements 3D scanning of the shrine into Virtual Reality (McKinnon-Dunning, 2020).

Additionally, we used sketches to capture details that photographs can not capture, such as floor plans and general sections or areas typically obscured from view, such as construction detail (McKee, 1970). We combined the GIS systems with GPS on our phones to get measurements of the shrine site. By getting the specific coordinates using GPS, we inserted these points on Google Earth Pro and used a built-in measurement tool to measure the distance between the points; this shaped the outline of a 2D map to measure the size of the area. Google Earth Pro provides a user-friendly interface and more professional data processing tools than Google Maps. On the other hand, ArcGIS and QGIS provide a real-time 2D/3D view. However, we preferred to use Google Earth Pro's since it is a free-use software and more user-friendly, which makes it easier to reference and use for future investigation of the shrines. Furthermore, GIS technologies are ineffective due to the dense tree cover over Mount Inari. We used a measuring tape for small measurements since it will provide more accurate results. Finally, we created a 2D measured area drawing using all these data by using AutoCAD. Within PolyCam, we also generated blueprints of any space we three-dimensionally scanned. In Figure 9, research from UC Berkeley includes an example of a 2D layout of the Izumo shrine complex.
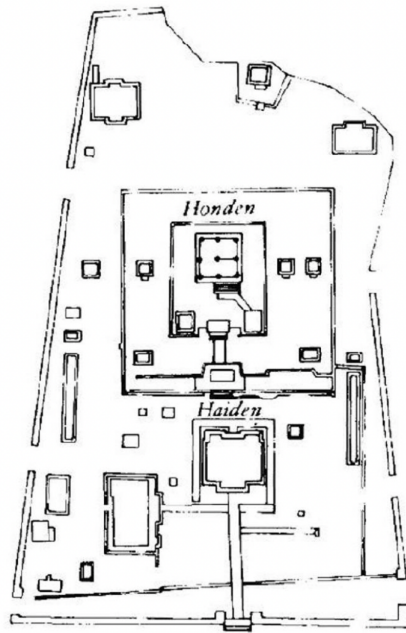
Figure 9. Drawing of Izumo shrine complex (Rujivacharakul, 2000).

In this research, we created a catalog of the area, including the surrounding object's current conditions to see the site's overall situation. "An inventory is essentially the preliminary investigation of a sizable area to find out what it contains value or interest, of a given nature (i.e., architectural, historical, industrial, etc.)" (McKee, 1970). For example, we mentioned the condition on our inventory list if an object, statue, or building was damaged.

We combined all the findings, including photographs, 3D scans, 2D maps, and soundscapes into an interactive map published on a website. Further researchers and people who want to study Shirahige Daijin can use this interactive map to sense the site through visuals and audio. ArcGIS provides a StoryMap creator where people can have a stronger sense of place, illustrate spatial relationships, and add visual appeal and credibility with an interactive map (ArcGIS). However, ArcGIS is a paid and expensive and not open-source software. If we created the map on ArcGIS and ever discontinued the subscription to ArcGIS, the website would not be available for future use. Since we wanted this map to be further edited by other researchers, we needed open-source software. After researching similar resources to create an interactive map, we decided to create this interactive map using StoryMap by Knightlab, as shown in Figure 10. Knightlab's StoryMap is an open-source software where the map we make will be available

online as long as the website is up and running. Additionally, this StoryMap can be downloaded and further edited by other people.
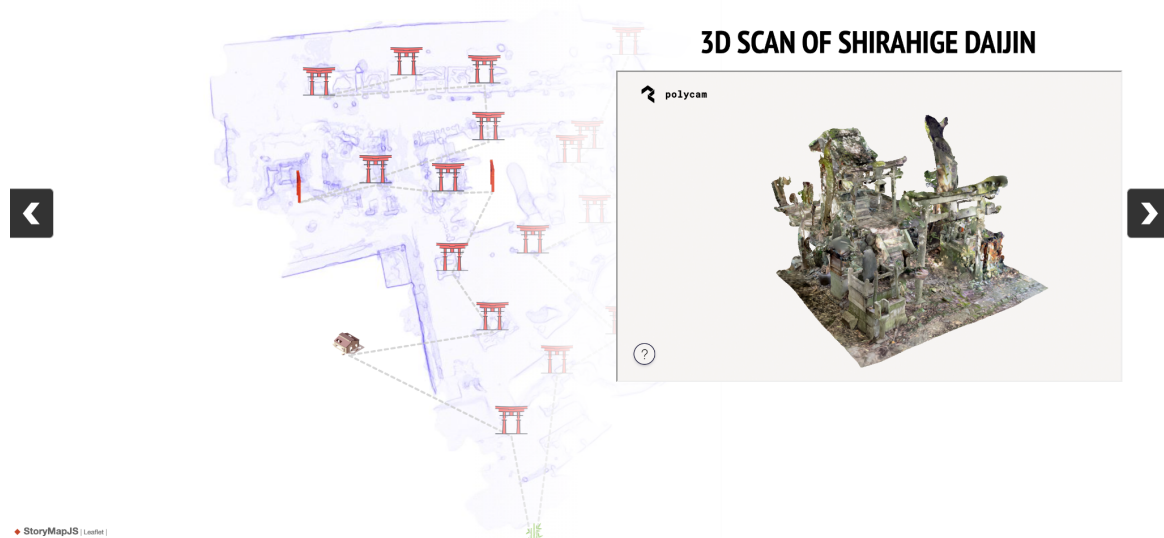
Figure 10. Initial screen of final interactive map created with Knightlab's StoryMap software.

3.3 Objective 3: Develop Potential Ideas for Revitalization

To establish a revitalization plan, through talking to people, we have determined how valuable a shrine is to its community and how it can be sustained in the long run. One way we have done this is by looking at well-maintained shrines around Mount Inari and analyzing them on a case-by-case basis. Through observation, we noticed how neighboring sites attract people to the site, how they raise funds, and how many people are directly involved with the shrine's upkeep. In addition, visiting cultural heritage sites within the same social, cultural, and economic scope has provided a helpful direction to map out steps for revitalization.

In addition, learning about the area's history surrounding Shirahige Daijin and how culture shifts play a direct role in a shrine's upkeep has been valuable when developing ideas. With the methods of data collection detailed in Section 3.1, we have spoken to individuals familiar specifically with Shirahige Daijin's history. Neighbors that lived for decades in the area informed us about the neighborhood's past and their thoughts on its possible future. This

first-hand experience and research done at local Kyoto libraries have provided us with clear insight into what change is plausible for Shiraige Daijin. Along with speaking with government authorities, it has also highlighted the disregard given to shrines in a similar situation to the case study.

Given that different authorities and parts of the community come into play when making changes to local heritage, we decided to construct a finalized stakeholder matrix (Appendix P). In it, it is easy to visualize people's relationship with the project. Our goal is to make information straightforward. For any future group of students or researchers looking into revitalizing the shrine at full scale, knowing who to contact and their level of interest in being a part of the project will be vital. A stakeholder matrix with a catalog of the state of the structures will provide an objective and quantitative source of the condition of Shirahige Daijin for future research.

The project deliverables described by the methods above will be documentation of the shrine space, a digital map, a catalog, and a list of possible future steps. The documentation of the shrine will keep a record of its state today, and along with the digital map, it will clarify how elements in nature interact with the space. Both of these results support the last deliverable - the potential solutions.

4.0 Finding and Analysis

4.1 Initial Visit and Exploration

On our first day in Japan, we set out to find the abandoned shrine at the base of Mount Inari. Working only with the coordinates provided by our sponsor, we were navigating unfamiliar terrain. As we approached Higashiyama Ward, we stumbled upon a local standing on the front steps of his home. Here, we would learn that this man's name was Nishida-san. We asked him for directions to Shirahige Taisha, what we thought was the name of the shrine in ruins. He promptly led us up the back entry trail for Fushimi Inari Taisha and sent us on our way (Figure 11). Confused at the elevation where we were standing and the seemingly clean idols around us, we confirmed we strayed further and further as we followed the trail Nishida-san sent us on. The team decided to leave the trail and seek out some sites around the neighborhood where we first arrived. Some areas were closed off. However, several torii gates lingered around one area next to a house. Upon entrance, it was clear that Shirahige Taisha was within its premises.

As we split and analyzed the property, Nishida-san reappeared. He questioned why we were standing at the abandoned site since Fushimi Inari Taisha was at the trail's peak. We proceeded to explain that we were students from America looking for Shirahige Taisha, and we pointed at the structure that we studied. He looked frazzled and informed us that the structure was named Shirahige Daijin. Within the complex, it sits next to Fushikura Taisha (as opposed to Fushikura Daijin as it is labeled on Google Maps), but he assumed that we were tourists wanting to see the famous red gates. The team explained the purpose of our visit to the shrine, and though Nishida-san was weary of foreigners at first, he meticulously answered the questions we had planned.

Appearance-wise, the property and the experience of visiting were much different than we initially thought. It is vast and cold, the cedar trees creating shade all hours of the day. Moss and leaves covered the stones in the structure. The house is wholly neglected. Bicycles, motorcycles, and mattresses linger around the housing complex—spiderwebs and rat droppings around the porch. The entrance door had been previously forced open. Nishida-san told us the house had been empty for around 30 years. He had been living there for 35 years, and the owners left as soon as he integrated into the neighborhood. Not many people visit Shirahige Daijin, a

few neighbors that share a pathway take time to sweep but barely anyone goes to venerate. On the other hand, Gosha Daimyojin, a shrine that is right next door, had a constant influx of visitors and worshipers.

Nishida-san emphasized the importance of receiving permission from whomever it concerned before we made any permanent change to the shrines. We explained how we believed Shirahige Daijin was under the jurisdiction of Fushimi Inari and that we would be visiting them to seek information. Nishida-san took matters into his own hands and assisted us in making a phone call to Fushimi authorities. As a result, we determined that Shirahige Daijin is not under their jurisdiction, and Nishida-san recommended we contact legal authorities around Kyoto to figure out who the legal owner of the property is, whether it is the government or a private organization.

Figure 11. Nishida-san guiding us to Shirahige Daijin.

4.2 Guided Tour of Mount Inari

The following day, we booked a guided tour of the hidden gems of Mount Inari. The purpose of taking a paid visit to Fushimi Inari was to determine what information was available to tourists and how in-depth the tour was. The company with the most services provided for local Kyoto tours is MagicalTrip. The specific hiking tour chosen had over 150 written reviews, far more than any other tour on TripAdvisor, so it is the most popular amongst Eastern and Western travelers. The experience was around 3 hours long. As a group, we wrote down our expectations for the tour and a set of interview questions for the expert (Appendix D). In the afternoon, we

met with our tour guide, Manabu-san, outside Tofukuji station. The other person on tour was a Latvian solo traveler. Manabu-san then guided us to the back entrance of Fushimi Inari, passing by Shirahige Daijin, shown in Figure 12. He explained that the shrine was abandoned due to cultural shifts and being in a secluded area. In the walking tour, he explained the religious culture in Japan, what is sacred to Japanese people, how shrines form, the humble origins of Shinto, and how multi-religious shrine complexes are made. A walking map of the tour can be found in Figure 14.

`   The tour, while very helpful in learning the geography and history of the area, was not as enriching to our knowledge of Shintoism. The information provided was for tourists at an introductory level, and Manabu-san did not use accurate terminology when referring to shrines (Figure 13). All of this is in an attempt to make Shinto more accessible and understandable to beginners, but the lack of specifics and broad brushstrokes of what Shinto truly is, at times, doesn't accurately represent the faith and its origins.
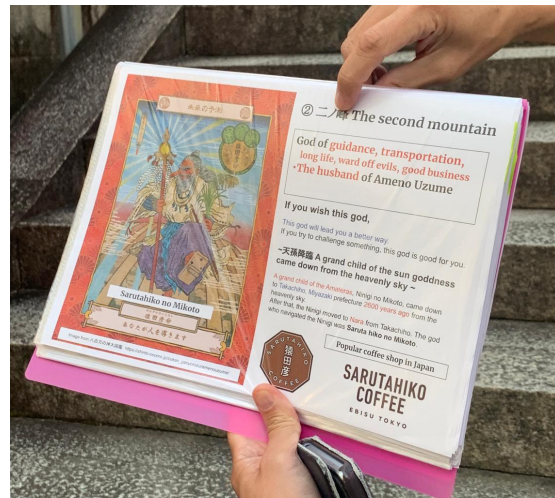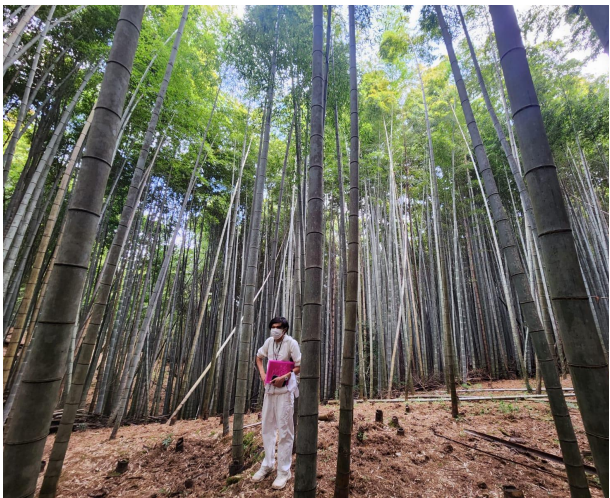
Figures 12 and 13. Tour guide Manabu-san in the bamboo grove near Shirahige Daijin. Tour folder.
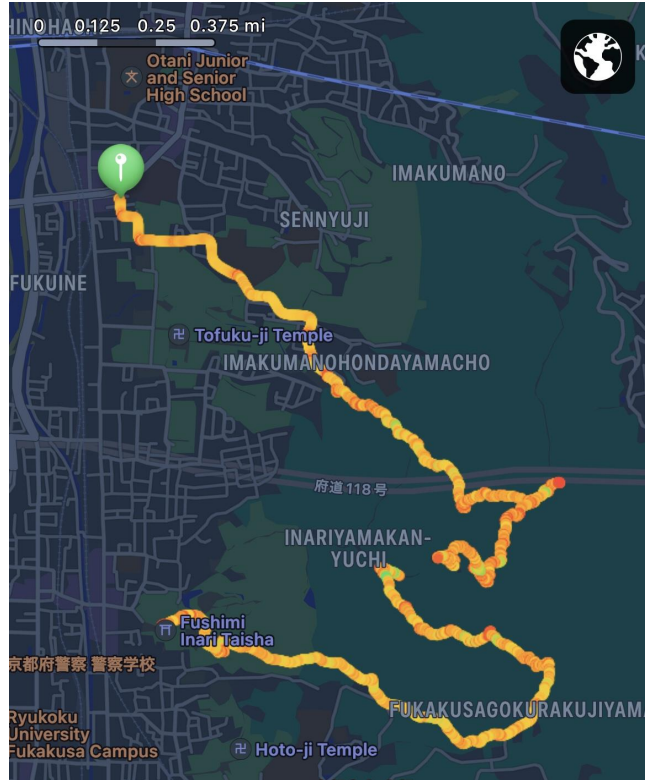
Figure 14. Trail taken in hiking tour.

4.3 The Hitaki-Sai Fire Festival

On November 8th, we attended the Hitaki-Sai Fire Festival on Mount Inari. The main Fushimi Inari shrine was bustling with activity. There were thousands of people there. The proceedings began with a solemn prayer in the main shrine hall. The priests moved slowly and deliberately, setting the tone for the rest of the day. After the prayer, the crowd trickled to a large clearing further up the mountain where priests were busy organizing large cedar pyres, each measuring about 3 meters wide and 3 meters across. After blessing each pyre with food, water, and a Sakaki leaf, they solemnly lit them ablaze.

Figure 15. Prayer sticks were sent to Fushimi Inari from across Japan. Each contains a wish and the name of a person or people who sent it. The wishes are said to come true if the stick burns.

Thick silver smoke filled the clearing to the point where people coughed or started tearing up even through their masks, and our clothes smelt of cedar for the rest of the day. The smoke subsided in about 5 minutes. Then the priests began burning stacks of prayer sticks, which continued for several hours, shown in Figure 15. The whole time, a small group of singers led a Shinto chant accompanied by flutes and drums. Occasionally, dancers in kimonos entered the clearing for a short performance (Figure 16). The spectacle wanted to draw the kami Inari back to the mountain after blessing the fall harvest in the fields.

Figure 16. The dancers wore red and white kimonos and carried golden bells (left). The smoke from the pyres reduced visibility to a few feet for several minutes (right).

The ceremony resumed around sunset. We returned to a viewing platform near the main shrine hall. From there, the crowd watched a slow ornate dance called *kagura* that lasted several hours, shown in Figure 17. We were fortunate to witness a total lunar eclipse during the dance. It was the first such event visible from Japan in 442 years.

This experience gave us a better understanding of how Shinto festivals run, how people perform Shinto worship on a large scale, and how it differs from worship at a Shinto shrine on a smaller scale and in a less formal manner.
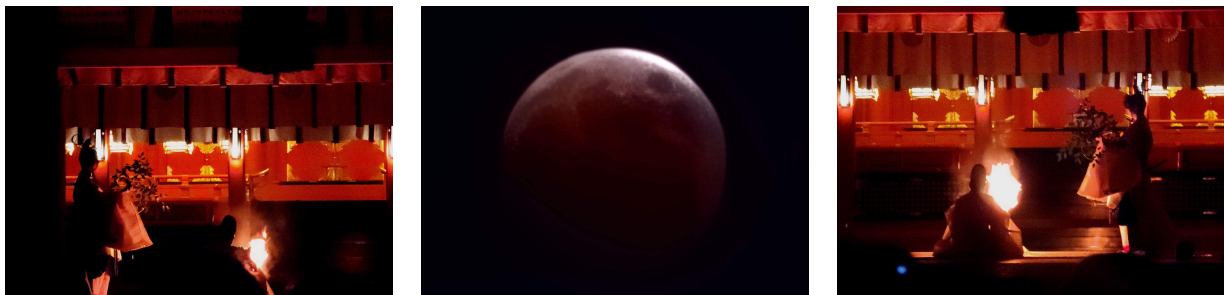
Figure 17. Throughout the kagura dance. A priest sat praying in the seiza position with his knees folded beneath him while a kimono-clad woman walked past carrying Sakaki leaves (left and right). The moon turned red during the lunar eclipse (middle).

4.4 Further Research at Government Offices and Libraries

Consulting with our sponsor, we determined that the Legal Affairs Bureau, also known as Homu Kyoku, would likely have more information about who owned the house and why they left. According to Nishida-san, the owner was the former caretaker of the shrine, so we wanted to learn more about him and why he left. Therefore, we visited the Legal Affairs office on November 1st. They promptly provided the land and house ownership records back to 1965, along with a map of the shrine and surrounding neighborhood.

Figure 18. The land bureau had detailed surveyor maps of the entire Kyoto prefecture. This page depicts the shrine with a torii. The caption closest translates to "Shirahige Daijin."

From our research, we learned that six people owned the house until 1978. Then, all ownership was transferred to one man - Takashi Iwano-san. Equipped with his name and last-known address, the team visited the Kyoto City Tax Office to discover if there was any record of his current whereabouts or a way to contact him. However, the tax office was much more elusive than the Legal Affairs Bureau. They refused to provide any information about Iwano-san without his written consent. They provided a form we could mail to his current home to obtain consent; however, they would not provide the address.

Looking at the forms we had collected, a helpful tax office clerk jotted down the names of several additional forms we could request at the Land Bureau. We went back there the next week to obtain the *tatemono zumen*, floor plan, the *heisatochi-daicho*, land ownership records back to 1900, and the *kyotochi-daicho*, or house ownership records back to 1900. Unfortunately, the forms were not digitized and written in an old style of Japanese. We brought them to Seika University to get help translating them; however, the students could not read them. We still need to determine specifics of these documents.

To unearth the history behind Shinto shrines and Shirahige Daijin, we turned to the Kyoto Prefectural Library to continue our research. There was a limited selection available on the overall history of Shintoism with English translations. After talking to the librarians, we got our hands on more books adjacent to our particular area of study. These covered topics such as Japanese festivals, nature, and indigenous cultures in Japan. We also reviewed older historical

books on the origins of Shintoism from the library's archives. Though helpful, these books were still too general to provide us with the information we were looking for.

We then turned to Professor Andrea De Antoni from Kyoto University, who was referred to us by our sponsor Mssr. Benoit Jaquet. Professor De Antoni was able to offer information about the relationship between space and place in sacred areas from an anthropologist's point of view. At this point, the team had learned a lot about Shintoism and the cultural anthropology of sacred spaces. However, we were seeking material specific to Shirahige Daijin. Professor De Antoni recommended that we go back to the Kyoto Prefectural Library and look through historical maps of Kyoto to trace the shrine's existence throughout many decades. On this second trip to the library, we found the geographical location of Shirahige Daijin in a book containing old maps of Kyoto dating back to 1978. A librarian referred us to the digital archives containing even older digital maps of Kyoto. These maps, provided by Ritsumeikan University, confirmed the existence of Shirahige Daijin as far back as 1922. Images of the digital maps from 1922 to 1951 are shown below in Figure 19. According to these maps, the shrine predates the rest of the neighborhood and the neighboring shrine, Gosha Daimyojin.

Extensive research into publicly available government records and historical archives allowed our team to establish an approximate timeline behind the history of the abandoned house on the site as well as the existence of the shrine.

Figure 19. Ritsumeikan University provided digital historical maps of Kyoto for the years 1922 (top left), 1929 (top right), 1935 (bottom left), and 1951 (bottom right). The red box indicates Shirahige Daijin.

4.5 Further Visits to the Shrine

We spent several days at Shirahige Daijin, creating a catalog of the numerous shrines in that space. By recording each shrine's current state and condition, we gained a better-focused understanding of each small section of the area. From this, we were also able to visualize patterns and commonalities between all of the shrines. For example, some translations of the

stones were very similar, indicating that most of the gods worshiped there corresponded to various elements in nature and dragons.

One day while cataloging at Shirahige Daijin, we met a local neighbor who approached us at the shrine. Okamura-san is an elderly Buddhist woman who lives in the neighborhood. Talking to her near the shrine, we learned that the previous owner of the abandoned house had been hospitalized and passed away. She then was eager to give us a tour of the Shinto shrine next door, Gosha Daimyojin, and Buddhist temples around the area. Although Okamura-san is Buddhist and did not know much about the Shinto religion and traditions compared to Buddhist practices, she helped us understand more about the area neighboring Shirahige Daijin.

Okamura-san also expressed concern about us investigating the shrine. She wanted us to get permission from the previous owner, the government, or any other higher power in charge of the shrine. To help, she made phone calls to several local organizations including the Higashiyama Ward Office and the Kyoto-fu Shrine Office. She spoke briefly with Nakamori-san, the man in charge of Kyoto shrines. From him , the only person who could give us permission was the house owner, Takashi Iwano-san.

4.6 Visiting Jinja Honcho

This setback prompted us to visit Jinja Honcho in Tokyo. Jinja Honcho is the head organization of many Shinto shrines in Japan, and almost all shrines are registered there. We had the opportunity to speak with Katsuji Iwahashi, Deputy Director of the Secretarial Department, who informed us that Shirahige Daijin was not registered with Jinja Honcho as an organization. We learned that when the church separated from the state in Japan, shrine owners could register their shrines with Jinja Honcho, register with another organization, or declare themselves independent. Therefore, he hypothesized that Shirahige Daijin was declared an independent shrine. He also analyzed the legal documents obtained from the Legal Affairs Bureau and Tax Office. He informed us that Shirahige Daijin is on private property and considered a private shrine based on legal terms and not open to the public like most shrines are. Furthermore, he concluded that locals do not worship at the site, instead it hosts several outside worshiping groups called *ko*.

This theory helped us better understand why the shrine was abandoned in the first place and why it has been challenging to revitalize it. The previous owner moved out of the area several decades ago, so no one was left to care for Shirahige Daijin. With the shrine on private property, neighbors and other patrons may still have worshiped there but did not feel comfortable helping maintain the property that is not theirs. This tension is why the space may be so unkempt and abandoned by the neighboring community.

4.7 Documenting Shirahige Daijin

To estimate the size of the area, we first used our phones to collect GPS coordinates on the site. Then, we collected about 20 data points on the site and inserted these points into Google Earth Pro. Figure 20 represents the map's area calculated using built-in measurement tools on Google Earth Pro. Without considering the abandoned house, whose area was 132 m^2, we calculated the area to be about 312 m^2. Thus, the site has a total area of 444 m^2. The area has a size of 500 m^2 in the blueprints obtained from the Legal Affairs Bureau, but we did not include the empty area next to the shrine because we did not know it was a part of the site.

Figure 20. The shrine area, in yellow above, is fully covered by trees in satellite images.

We decided to measure the area with more specifics. Therefore, we used a 50-meter-long measuring tape to measure every side of the area with details. We sketched these measurements and then imported them into AutoCAD for a more professional sketch. To understand the sections of the 2D drawing, we color-coded the areas. Figure 21 depicts a 1:1 scale 2D map created in AutoCAD. This is a map we generated using handmade measurements of the shrine site. The red color depicts areas occupied by multiple shrines. The yellow indicates stairways. The gray indicates walkways. The purple indicates the abandoned house on the site of the shrine. The dark blue depicts the river that flows through the shrine. The light blue represents bridges on the site. Finally, the green spaces indicate trees and plants.
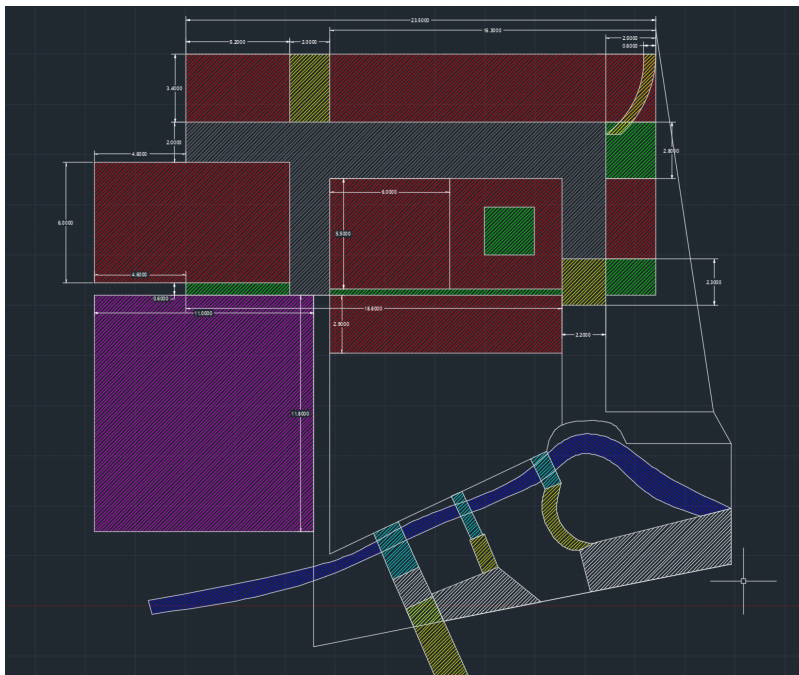
Figure 21. AutoCAD map.

In addition, we use the PolyCam app to 3D scan the area. The initial scans of the area took approximately 1 hour and 30 minutes. There was too much data at the end of the scan that we could not process in detail. The 3D scan could show a general overview of the area, structures, vegetation, elevation, and even the structure of the artificial cave. Also, this scan could create blueprints of the area, which we used for the interactive map. We decided to do

shorter scans to capture more details on the structures on site. With the details included, 25-minute scans with multiple rounds in the area produced the best results. We divided the area into three sections and scanned each one separately. Each 3D scan contains detailed information about the area, and these 3D scans are embedded in an interactive map, allowing users to explore the area freely.
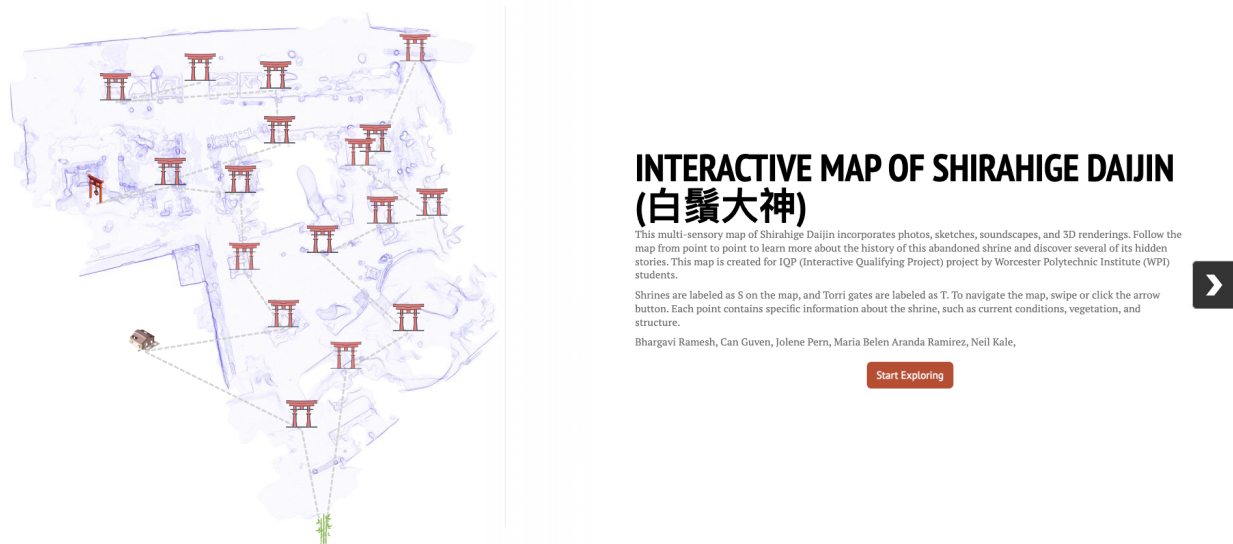
Figure 22. Interactive map of Shirahige Daijin.

Through this process of documentation, we learned more about the spatial qualities of Shirahige Daijin and its surroundings. We initially planned on documenting a mere fraction of the space specifically labeled "Shirahige Daijin", but found that the lower area called Fushikura Taisha and the stream running next to the shrine area were all important to its sacredness and connected through Shintoism. We were also able to represent Shirahige Daijin with multiple perspectives through our documentation. Our interactive map compiles all the perspectives to provide people who are not able to see the shrine in person, a holistic view and sensory experience.
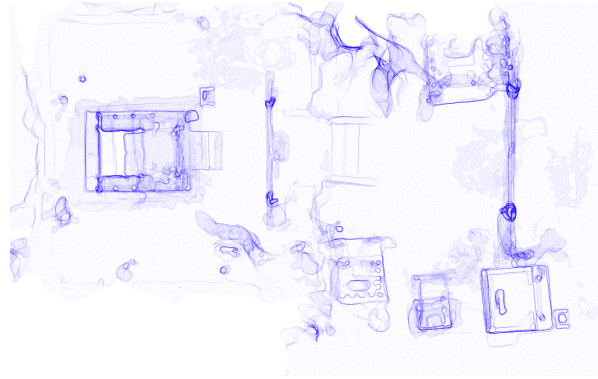
Figure 23 and 24. 3D scan of Shirahige Daijin. Blueprint of Shirahige Daijin.

5.0 Recommendations and Conclusion

To start exploring options for shrine revitalization, steps can be taken to implement a systematic process. Firstly, any shrine's revitalization needs to cooperate directly with the local neighborhood. The chonnaikai are an essential part of reintroducing a space into the community. Reaching out to the local chonnaikai or the neighborhood association is a valuable tool in gauging the community's interest in revitalizing and maintaining abandoned shrines. For Shirahige Daijin, speaking with local neighbors revealed the lack of local interest in maintaining it, due to the private ownership of the shrine historically. However, we have discovered that a neighborhood organization is in charge of maintaining its respective religious spaces for Buddhist temples and other religious places in the area. For abandoned shrines in general, gathering local support is a crucial step in revitalization. Once support and interest in shrine revitalization are present, community clean-up days can be arranged to begin the initial steps for bringing new life to the shrine. Community clean-up days will rally neighbors and volunteers to restore local traces of the Shinto religion. At the surrounding shrines of Shirahige Daijin, we observed many locals taking part in cleaning up smaller shrines and the streets and areas surrounding them. That said, community clean-up days can be beneficial for shrine revitalization, but a more permanent solution is needed for long-term shrine sustainability.

In the case of Shirahige Daijin and its respective chonnaikai, the Minami Town Constituency, the relationship is practically nonexistent. We recommend that the chonnaikai modifies some of its practices. As it exists today, the Minami Town Constituency neglects a few of its key responsibilities. These may be hard due to the current size of the community and the apprehension of the residents, but the town used to host recreational activities, cleaning projects, fundraising events, etc. The neighborhood itself is not to blame. It is increasingly difficult to look after a neighborhood with a rising number of abandoned houses. Managing a chonnaikai is bureaucratic and hard to manage for a population that grows older. For example, contacting Mr. Nakamori was nearly impossible, even for Okamura-san, an active community member. We recommend that the chonnaikai eventually seek funding for clean-up and shrine maintenance through government and local collection.

Shirahige Daijin, though in less than optimal condition, has all the necessary infrastructure to become once again a place of worship in its neighborhood. The shrine has several incense and candle holders that can be used as long as a few are repaired. Even in the

candle holders' current state, some people already leave candles from Gosha Daimyojin in the holders in Shirahige Daijin. No matter how small, there is still a demand for worship at the site that can be further explored by the chonnaikai.

During our visits to local shrines around Shirahige Daijin, we noticed that they provide candles and incense for worship in exchange for donations. Shirahige Daijin already has multiple candle holders around the shrine site. We recommend that neighbors or volunteer caretakers can put out candles and incense with a coin box and generate some income from the worshipers. This might not generate a significant income for the shrine, but it can cover basic necessities, and worshipers can access candles on-site.

All shrines are either registered under a larger shrine organization or as an independent shrine. While most shrines are registered with the largest shrine organization Jinja Honcho, Shirahige Daijin is an independent shrine. Without a larger organization overseeing it, an independent shrine like Shirahige Daijin can easily be abandoned and left with no one to maintain it. Many other groups are interested in shrines, ranging from neo-Shinto sects to businesses looking for a tax write-off. When the shrine is abandoned, it is vulnerable to these influences.

Ultimately, the responsibility for protecting Shinto shrines falls primarily on caretakers and worshipers; however, without broader support from the local community, the shrine may fall to abandonment and deterioration. This happened to Shirahige Daijin. Furthermore, not all shrines are public property. Privately-owned shrines are much more difficult to research, especially without the collaboration of the owner. They may have rich and storied pasts, but since there are few public records, the predominant way to research these shrines is through interviews and oral history.

As of now, Shirahige Daijin cannot be further studied without permission from owners of the abandoned house and the land it stands on. However, it serves as a case study for the phenomenon of shrine abandonment. Especially as an independent shrine not registered under a larger shrine organization like Jinja Honcho, Shirahige Daijin is a perfect example of how a shrine can be abandoned due to a lack of caretakers and the surrounding community. After speaking to multiple experts and completing literature reviews over time, we believe this is similar to how many other shrines can become abandoned and no longer cared for.

Future researchers can use Shirahige Daijin as a case study to better understand why shrines are being abandoned. Furthermore, similar research sites can look at the data collected during this research as a case study. We created 2D maps, 3D scans, and an interactive map to document the area. We created 3D scans with the PolyCam app on an iPad Pro equipped with a LIDAR sensor. If the 3D-scanned area has a lot of vegetation, we recommend using a professional LIDAR camera since leaves can create a problem during the 3D scan. However, professional LIDAR cameras may be prohibitively expensive for small-scale projects. We still recommend using the PolyCam app to generate 2D blueprints of the area. Even if 3D scans are not detailed, PolyCam can produce attractive blueprints with measurements of the sites included.

We have compiled all the documentation into an interactive map. For this map, we had two options: ArcGIS StoryMaps and Knightlab's StoryMap. Both ArcGIS and Knightlab offer similar map makers. However, Knightlab is free and open-source, whereas ArcGIS is a costly but professional map maker. Despite having access to ArcGIS via WPI's online servers, we wanted to create an interactive map that everyone could use as a case study for future research. It is worth noting that Knightlab's user interface is not as simple to use as ArcGIS's. We produced an engaging interactive map using Knightlab StoryMaps that is now accessible on a free website offered by Knightlab.

6.0 Bibliography

Badone, E., & Roseman, S. (Eds.). (2004). The Kyoto Tax Strike: Buddhism, Shinto, and

Tourism in Japan. In *Intersecting Journeys: The Anthropology of Pilgrimage and*

Tourism (1st ed., pp. 125–139). University of Illinois Press.

https://ebookcentral.proquest.com/lib/wpi/detail.action?docID=3413940

BBC. (2014). *Religions—Shinto*. https://www.bbc.co.uk/religion/religions/shinto/

Besch, C., Duffy, S., Klaiman, B., & Lepage, C. (2022). *Mapping for the Future of Gojo*

Rakuen.

Borisov, M., Radulović, V., Ilić, Z., Petrović, V. M., & Rakićević, N. (2022). An Automated

Process of Creating 3D City Model for Monitoring Urban Infrastructures. *Journal of*

Geographical Research, *5*(2). https://doi.org/10.30564/jgr.v5i2.4093

Borobudur Temple Compounds—UNESCO World Heritage Centre. (n.d.). Retrieved October

12, 2022, from https://whc.unesco.org/en/list/592

Burt, G. (n.d.). *Using the National Historic Preservation Act of 1966 (U.S. National Park*

Service). Retrieved September 26, 2022, from

https://www.nps.gov/articles/using-the-national-historic-preservation-act-of-1966.htm

Claire Parker. (2022, June 3). *Japan records its largest natural population decline as births*

fall. Washington Post.

https://www.washingtonpost.com/world/2022/06/03/japan-low-births-population-declin

e-2021/

Constructing and Contesting the Shrine: Tourist Performances at Seimei Shrine, Kyoto.

(2021). 19. https://doi.org/10.3390/rel12010019

Ćorović, A., & Obralić, A. (2021). Restoration of the cultural heritage sites in Bosnia and

　　Herzegovina as the basis for intercultural dialogue and development of tourism.

　　Turizam, *25*(3), 121–133. https://doi.org/10.5937/turizam25-30494

Cultural heritage: 7 successes of UNESCO's preservation work | UNESCO. (2022, 16).

　　https://www.unesco.org/en/cultural-heritage-7-successes-unescos-preservation-work?T

　　SPD_101_R0=080713870fab20003ef57b729b7c109ddacdabc228e73d5b4af2c0fe0b6dc

　　0ebab93d8ede4c844e30803fffc8b1430009e9b50de51836db310f13c7cfb92729494eb8e

　　ecf76a06be8a9ceab997ac2966afb38b79b10dec866900e132db735a3b

Cultural Preservation and Promotion. (n.d.).

　　https://www.mofa.go.jp/policy/oda/white/2013/html/honbun/b2/s2_2_2_05.html

Cultural Property (Japan). (2022). In *Wikipedia*.

　　https://en.wikipedia.org/w/index.php?title=Cultural_Property_(Japan)&oldid=1106212

　　987

de Antoni, A. (2022, November 15). *Interview with an Anthropologist* [Personal

　　communication].

Emily Rodriguez. (2018). *Yayoi Culture*. https://www.britannica.com/topic/Yayoi-culture

FAQ | Fushimi Inari Taisha. (n.d.). Retrieved September 27, 2022, from

　　http://inari.jp/en/faq/

Fushimi Inari Shrine. (n.d.). Retrieved September 27, 2022, from

　　https://www.japan-guide.com/e/e3915.html

History | Fushimi Inari Taisha. (n.d.). Retrieved October 12, 2022, from

　　http://inari.jp/en/history/

Holtom, D. C. (1946). New Status of Shinto. *Far Eastern Survey*, *15*(2), 17–20.

   https://doi.org/10.2307/3021509

How accurate is GPS technology? (2016). *GPS Insight Help Center*.

   https://help.gpsinsight.com/deep-dive/how-accurate-is-gps-technology/

Inariyama | Fushimi Inari Taisha. (n.d.). Retrieved September 27, 2022, from

   http://inari.jp/en/map/spot_01/

Ito, K., Uchiyama, Y., Kurokami, N., Sugano, K., & Nakanishi, Y. (2011). Soil Acidification

   and Decline of Trees in Forests Within the Precincts of Shrines in Kyoto (Japan). *Water,*

   Air, & Soil Pollution, *214*(1–4), 197–204. https://doi.org/10.1007/s11270-010-0416-y

Japan Tourism Statistics | JNTO Japan Online Media Center (JOMC). (n.d.). Retrieved

   September 27, 2022, from https://business.jnto.go.jp/japan_tourism_statistics/

John Asano. (2017, February 20). *A Brief History of Fushimi Inari*. Culture Trip.

   https://theculturetrip.com/japan/articles/a-brief-history-of-fushimi-inari-taisha-kyotos-m

   ost-important-shrine/

John W. Traphagan. (2018). Empty Houses, Abandoned Graves: Negative Population

   Growth and New Ideas in Neo-rural Japan. *The Brown Journal of World Affairs*, *24*(2),

   161–174.

K J, C., & V M, A. (2022). Investigation on Accuracy of Ultrasonic and LiDAR for

   Complex Structure Area Measurement. *2022 6th International Conference on Trends in*

   Electronics and Informatics (ICOEI), 134–139.

   https://doi.org/10.1109/ICOEI53556.2022.9777233

Keiji Yano & Naomi Kawasumi. (2018, July 23). *Digitally Archiving the Space of Kyoto*

Across Place and Time. Ritsumeikan University Research Report.

https://www.ritsumei.ac.jp/research/radiant/eng/kyoto/story9.html/

Kevin Ratay. (n.d.). *The Shinto Religion: History and Effects in Japanese Society*. Retrieved

September 26, 2022, from https://academic.mu.edu/meissnerd/shinto.html

Kim, J.-H., Kim, G.-E., & Yoo, S.-H. (n.d.). A Valuation of the Restoration of

Hwangnyongsa Temple in South Korea. *01/31/2018*. https://doi.org/10.3390

Kimota. (n.d.). *A Foreigner's Guide To Visiting Shrines In Japan – Visit Nagasaki*. Retrieved

October 12, 2022, from

https://visit-nagasaki.com/a-foreigners-guide-to-visiting-shrines-in-japan/

Kyoto: Preserving the thousand shrines. (2016). 26–31.

Lee, Y.-S., Sakuno, S., Prebensen, N., & Kimura, K. (2018). Tracing Shintoism in Japanese

nature-based domestic tourism experiences. *Cogent Social Sciences*, *4*(1), 1446671.

https://doi.org/10.1080/23311886.2018.1446671

Littleton, C. S. (2002). *Understanding Shinto: Origins, beliefs, practices, festivals, spirits,*

sacred places. Duncan Baird Publishers.

Manabu. (2022, October 27). *Fushimi Inari Hidden Hiking Tour in Kyoto—Magical Trip*

[Personal communication].

McKee, H. (1970). *Recording historic buildings*. U.S. National Park Service.

McKinnon-Dunning, J. (Director). (2020, May 4). *VR Historical Visualisation: Inari*

Shrine—Walkthrough. YouTube. https://www.youtube.com/watch?v=LW0GzGTiZ5E

Miura, K. (2005). Conservation of a 'living heritage site' A contradiction in terms? A case

    study of Angkor World Heritage Site. *Conservation and Management of Archaeological*

    Sites, *7*(1), 3–18. https://doi.org/10.1179/135050305793137602

Naofusa Hirai. (2000, August 25). *Shintoism*. Encyclopedia Britannica.

    https://www.britannica.com/topic/Shinto

National Historic Preservation Act—Historic Preservation (U.S. National Park Service).

    (n.d.). Retrieved September 26, 2022, from

    https://www.nps.gov/subjects/historicpreservation/national-historic-preservation-act.ht

    m

Nelson, J. (1996). Freedom of Expression: The Very Modern Practice of Visiting a Shinto

    Shrine. *Japanese Journal of Religious Studies*, *23(1/2)*, 117–153.

Niwaka Corporation. (n.d.). *Hitaki-Sai Fire Festival*. Retrieved November 29, 2022, from

    https://www.discoverkyoto.com/event-calendar/november/ohitaki-sai-fire-festival-fushi

    mi-inari-shrine/

Omura, H. (2004). Trees, Forests and Religion in Japan. *Mountain Research and*

    Development, *24*(2), 179–182.

    https://doi.org/10.1659/0276-4741(2004)024[0179:TFARIJ]2.0.CO;2

Rujivacharakul, V., Donna Kasprowicz, & Michele Delattre. (2000). *Architecture and*

    Sacred Spaces in Shinto. Berkeley ORIAS.

    https://orias.berkeley.edu/resources-teachers/architecture-and-sacred-spaces-shinto

Russell, E. (2019, September 30). *9 things to know about Google's maps data: Beyond the*

    Map.

https://cloud.google.com/blog/products/maps-platform/9-things-know-about-googles-maps-data-beyond-map

Sanro-Den of Sukunahikona Shrine | World Monuments Fund. (n.d.). Retrieved October 12, 2022, from https://www.wmf.org/project/sanro-den-sukunahikona-shrine

Shankman, S. (2013, June 15). *Tourists in Japan spend more on shopping than food and entertainment combined*. Skift. https://skift.com/2013/06/15/tourists-in-japan-spend-more-on-shopping-than-food-and-entertainment-combined/

Shinto Shrines: A Guide to the Sacred Sites of Japan's Ancient Religion. (n.d.).

Shōzō Yamaguchi. (1949). *We Japanese*. Fujiya Hotel.

Silverman, H., & Ruggles, D. F. (Eds.). (2007). *Cultural heritage and human rights*. Springer.

Smyers, K. (1997). Inari Pilgrimage: Following One's Path on the Mountain. *Japanese Journal of Religious Studies*, *24 (3/4)*, 427–452.

Success Stories. (n.d.). UNESCO World Heritage Centre. Retrieved October 12, 2022, from https://whc.unesco.org/en/107/

Sugiura, Y., & Gillespie, J. K. . (2004). *A bilingual handbook on Japanese culture = Nihon bunka o Eigo de shōkaisuru jiten*. Natsumesha.

Takao Nishimuta. (2007, March 28). *Kannushi*. Encyclopedia of Shinto. https://www2.kokugakuin.ac.jp/e-shinto/?entryID=1285

Tanaka, K., & Iwasawa, M. (2010). Aging in Rural Japan—Limitations in the Current Social Care Policy. *Journal of Aging & Social Policy*, *22*(4), 394–406. https://doi.org/10.1080/08959420.2010.507651

Teeuwen, M., Breen, J., Inoue, N., Itō, S., Endō, J., & Mori, M. (2003). *Shinto, a short history*. RoutledgeCurzon. https://research.auctr.edu/c.php?g=197226&p=1297413

(:Unav). (2014). *Shinto and Its Impacts on the Japanese View of Nature and Culture*. https://doi.org/10.7916/D82F7M8T

UNESCO. (n.d.). *Itsukushima Shinto Shrine*. UNESCO World Heritage Convention. Retrieved September 26, 2022, from https://whc.unesco.org/en/list/776/

UNESCO. (2021, August). *World Heritage in Danger*. https://whc.unesco.org/en/158/

UNESCO World Heritage Center. (2021). *Operational Guidelines for the Implementation of the World Heritage Convention*. UNESCO. https://whc.unesco.org/en/guidelines/

Weitz, L., Giner, N., & Crawford, A. (n.d.). *Extract 3D buildings from lidar data | Learn ArcGIS*. Retrieved September 26, 2022, from https://learn.arcgis.com/en/projects/extract-3d-buildings-from-lidar-data/#start-working-with-lidar-data

What is ArcGIS Online. (n.d.). https://doc.arcgis.com/en/arcgis-online/get-started/what-is-agol.htm

What is Lidar data?—ArcGIS Pro | Documentation. (n.d.). Retrieved September 26, 2022, from https://pro.arcgis.com/en/pro-app/latest/help/data/las-dataset/what-is-lidar-.htm

What Is The NHPA? National Historic Preservation Act. (2019). Society for American Archaeology.

What you need to know about Japan's temples and shrines. (2022, September 26). Stripes Okinawa. https://okinawa.stripes.com/community-news/what-you-need-know-about-japans-temples-and-shrines#:~:text=People%20may%20be%20surprised%20to%20hear%20that%2

0Japan,sanctuaries%2C%20however%2C%20the%20equation%20is%20not%20so%20

simple.

Yamaguchi Satoshi = 英和対訳, カラービジュアル版, 神道案内 / 山口智著. & 山口智,

1952- author. (2016). *English-Japanese, a visual guide to Shinto* (Shohan). 戎光祥出

版.

Yang, M., Engelhardt, R., Dauge, V., & Vuthy, K. (1994). *Zoning and environmental

management plan for Angkor*.

ZEMP in Angkor | Erda Ltd. (n.d.). Retrieved September 26, 2022, from

https://erda.hu/en/zemp-angkor

旅杁. (2022). *Fushikura-Daijin Shrine*.

https://www.google.com/maps/place/Fushikura-Daijin+Shrine/@34.9749317,135.7796

139,3a,75y,90t/data=!3m8!1e2!3m6!1sAF1QipMRj-8qlJtan3o7fcQ1oZEPCVzAeVdQ

RAgs59ul!2e10!3e12!6shttps:%2F%2Flh5.googleusercontent.com%2Fp%2FAF1QipM

Rj-8qlJtan3o7fcQ1oZEPCVzAeVdQRAgs59ul%3Dw203-h270-k-no!7i3024!8i4032!4

m5!3m4!1s0x0:0x154c0e808b1905b9!8m2!3d34.9749137!4d135.7795281

(N.d.).

7.0 Appendices

Appendix A: Statement of Informed Consent

We are a group of students from Worcester Polytechnic Institute (WPI) in Massachusetts, United States. We are conducting a survey of shrine caretakers to learn more about shrine abandonment and the status of shrines surrounding Fushimi Inari in Kyoto, and we would appreciate your participation. We strongly believe this kind of research will ultimately enhance the restoration of these shrines and the long-term success and sustainability of small shrines in Kyoto.

Your participation in this [survey/interview] is completely voluntary and you may skip any questions or withdraw at any time. Please remember that your answers will remain confidential. No names or identifying information will appear on the questionnaires or in any of the project reports or publications. This is a collaborative research project between Dr. Benoit Jacquet of École Française d'Extrême-Orient and WPI, and your participation is greatly appreciated. If interested, a copy of our results can be provided at the conclusion of the study.

This [survey/interview] should take no more than [5 minutes/30 minutes]. You are free to ask any questions before the [survey/interview] begins. If you have any further questions, contact us at gr-KyotoA22-Shrine@wpi.edu.

I have read the above description of this research study. I have been informed of the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I have been assured that a member of the research team will also answer any future questions I may have. I voluntarily agree to take part in this study. I understand I will receive a copy of this consent form.

For more information about this research or about the rights of research participants, or in case of research-related injury, contact: the IRB Chair (Professor Kent Rissmiller, Tel. 508-831-5019, Email: kjr@wpi.edu) and the Human Protection Administrator (Gabriel Johnson, Tel. 508-831-4989, Email: gjohnson@wpi.edu.

Appendix B: Project Objectives, Methods, and Deliverables Chart

        This chart summarizes our project purpose and three main objectives. It also details our primary methods of investigation and the resulting deliverables.

PURPOSE

Create digital documentation of Shirahije Daijin shrine along with historical context for its revitalization

OBJECTIVES

Asses current situation of the site. Understand events that lead to its state today

Identify, and catalog structures to create an interactive map for the space to act as a resource

Develop potential ideas for revitalization that are relevant to Japan's culture today while maintaining sacrality

METHODS

Site visits | Neighbor interviews | Photographs | CAD | Sketches | Sound scaping | Visiting other heritage sites | Expert interviews | Archival research

DELIVERABLES

Stakeholder map | Timeline | Interactive Map + Catalog | 3D Scan | Recommendations and possible future uses

Appendix C: Interview Questions for Neighbors at Abandoned Shrine

       To obtain a better picture of the history and the current state of the shrine, we interviewed neighbors in the area surrounding Shirahige Daijin. We found out information regarding who takes care of the shrine, what the shrine means to locals and visitors, and how the shrine became abandoned. We established a solid background of the space through the first hand accounts of people who have experienced daily life near Shirahige Daijin and determine if there is a need to revitalize this shrine. We asked a mix of binary questions and open ended questions. We integrated this data into our project to deduct what factors contributed to abandonment.

Questions

1. When was this shrine founded? Who funded its original creation? What was its original purpose? Who used to worship here? What happened to the original funders and worshipers? What efforts were made to revitalize this shrine? What effect did they have?

2. Do you know when the house on the property was abandoned? What happened to the owner?

3. What makes this shrine unique from the others on Mount Inari? What makes this shrine holy? Is it a waterfall, river, tree, rock, etc or did a historical event happen here? Who visits this shrine these days? What do they pray for? Who do they pray to?

4. Can this shrine withstand more tourists? What about more pilgrims / respectful tourists? How has tourism affected this shrine? How did the decrease in foot traffic during COVID benefit and/or detriment this shrine?

5. Do you think revitalizing the shrine will create a nuisance to the neighborhood?

Appendix D: Interview Questions for Tour Guide

        To gain a deeper understanding of the Mount Inari area, Shinto religion and Shinto shrines, we took a guided tour of the mountain and interviewed the tour guide, Manabu-san. With this data, we were able to establish a baseline of information about Shintoism on Mount Inari. Additionally, we were able to experience Mount Inari through the eyes of a local tour guide and learn and experience the Shinto way of life first hand. We asked a mix of binary questions and open ended questions. With this data, we were better informed about the cultural aspects of shrines and how people interact with the shrine.

1. What makes a space sacred? What counts as a shrine? Why are the shrines we see hidden/abandoned? How many shrines are in this area?
2. How are caretakers assigned to the shrine? Do most caretakers live on the shrine grounds? How are shrine priests selected/get that position?
3. How do shrines earn money? What is the maintenance protocol for shrines? Is there a budget for the shrines for maintenance purposes? What happens if the shrine is damaged, is anyone responsible for the repairs?
4. Are there any shrines connected with Fushimi Inari that are not located nearby?
5. Do you know how many people visit Fushimi Inari Taisha or Mount Inari each day?
6. What are these shrines allocated/praying to?
7. What have you learned about shintoism specifically, and through that? How do you learn about the history of Japan? What have you learned about the relationship between Shintoism and buddhism?

Questions asked after initial interview:

After our tour and further investigation of Shirahige Daijin, we found some symbols and statues of which we did not know the meanings of. We chose to reach out to our tour guide Manabu-san to see if he knew the religious or cultural meanings behind these.

1. Are there any significant meanings to the following symbols? (Figure 25 & 26)
2. At one of the shrines, there is a buddhist statue. (Figure 27) We think he is Fudo Myoo, also known as Acala. Do you happen to know if this is correct and/or what this statue represents?
3. Some of the shrines have multiple stones clustered together, whereas some appear to just be one stone. Is there a significance to having more stones clustered together?
4. Do the indigenous people of Japan play a role in Shinto shrines and religion?

Figure 25 and 26. Symbols found at Shirahige Daijin.

Figure 27. Statue found at Shirahige Daijin.

Appendix E: Interview Questions for Anthropologist

To gain a more nuanced perspective on people's relationship with religious spaces and shrines, we interviewed an anthropologist. This interview gave us information regarding how people view religion and their connection to religious places physically and spiritually. The definition between space and place was also cleared up. With this data, we learned how people interact with religious spaces and the distinction between space and place. During this interview we asked a mix of binary and open ended questions. We will utilize this data to establish how the differences between space and place develop people's relationships to shrines.

1. Could you tell us a little about any previous projects you have related to abandoned places and abandoned shrines? Have you studied material related to abandoned Shinto Shrines? What other aspects of shrines and Shinto religion have you studied?

2. Do you have any experience with dating shrines or determining the age of shrines?

3. How would you describe people's relationship to religious places and/or abandoned places in an anthropological sense?

4. Can you tell us any information relating to kami and spirits of Shintoism? Have you studied anything about Yokai and the public perception of Yokai?

5. Shinto religion mainly deals with ideas of keeping evil away by praying to the kami. Can places and spaces be "haunted" in Shinto religion?

6. How would you describe the difference between space and place in terms of religion and people's relationship to religion? In terms of spirituality and spirits? Is there a difference? What factors can affect this difference/similarity?

Appendix F: Interview Questions for Jinja Honcho

We traveled to Tokyo to visit the headquarters of Jinja Honcho, the head organization of many Shinto shrines in Japan. We hoped that Shirahige Daijin would be registered with Jinja Honcho, and gather any information that the organization had on the shrine. This interview gave us crucial information regarding our project, as we learned that Shirahige Daijin was not associated with Jinja Honcho and was instead registered as an independent shrine. This interview also gave us more information about how shrines operate either independently or under a large organization.

1. Do you have any records on Shirahige Daijin, or other shrines nearby? What kinds of records does Jinja Honcho keep about shrines? What information is required to look up a shrine in your database?

2. Is Shirahige Daijin registered with Jinja Honcho? How many shrines are unregistered, and what percentage of total shrines?

3. What do the land records say about the previous owners of the house? Is there any way to determine whether they are alive anymore?

4. Who is likely still worshiping at the shrine? Is it a proper Shinto shrine anymore? If not, what makes it different?

5. Do you have any predictions about what happened to our shrine? Have you heard any similar stories of shrine abandonment?

6. Does Jinja Honcho maintain any abandoned or out-of-use shrines? What does Jinja Honcho do to protect and restore these shrines? Are these shrines easily findable, and would students be able to study them in future years?

Appendix G: Letters to Neighbors of Shirahige Daijin

Dear neighbor,

We are a group of five students from America (Worcester Polytechnic Institute). We are looking to clean up Shirahige Daijin and learn more about its history. We do not wish to disturb the neighborhood. We would love for you to tell us what you know about the shrine or answer some questions. We will be at the shrine at noon the following week, going around and talking. Attached is an email and phone number if you have any questions or want to set up a time to talk. Thank you!

Best,

Maria, Bhargavi, Can, Neil, and Jolene

Tel: 070 4400 1116

Email: gr-kyotoa22-shrine@wpi.edu

Address: Yadoya Hiraiwa. 314番地 Hayaocho, Shimogyo Ward, Kyoto, 600-8114

隣人さんへ。

私たちはアメリカ（ウスター工科大学）の学生5人のグループで、白髪大明神をきれいにし、その歴史について学びたいと思っています。近隣の迷惑にならないようにしたいと思っているので、この神社について知っていることを教えてほしい、または質問に答えてほしいと思っております。翌週の昼に神社で、回りながら話をする予定ですが、その時にお会いすることは出来ますか。何か質問や話す時間がある場合は、メールと電話番号を添付しています。ありがとうございました。

Maria, Bhargavi, Can, Neil, and Jolene

電話番号: +1 (781) 426-5369

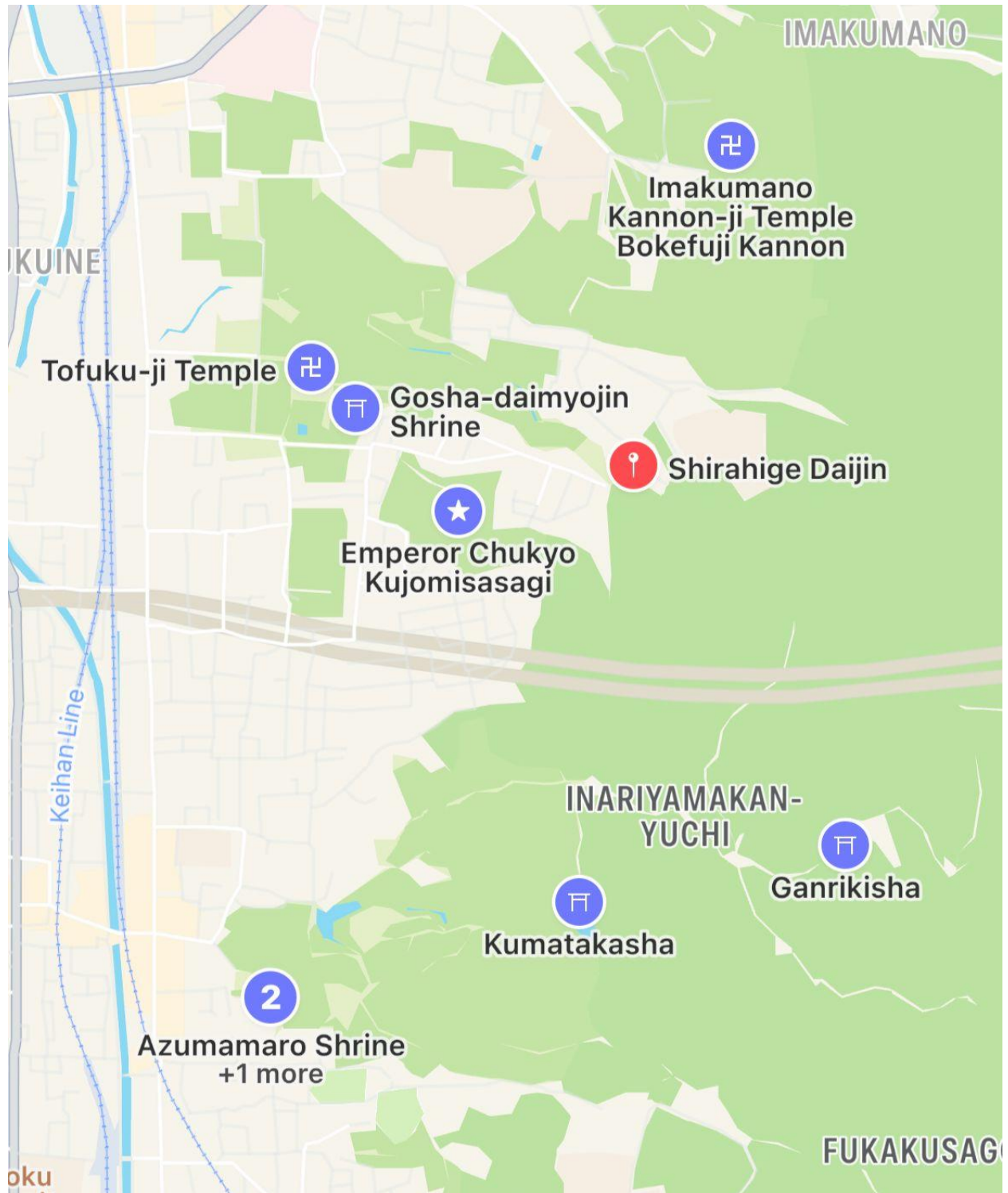電子メールgr-kyotoA22-Shrine@wpi.edu

住所:やどや平岩店。600-8114 京都市下京区早尾町314番地

Appendix H: Digital Map of Surrounding Shrines, Temples, and Other Attractions

        To gain a more holistic view of how tourists interact with the surrounding area of the shrine, we created a digital map with pinpoints marking other various cultural heritage sites we visited when doing research. There are pinpoints, each representing a different location - the swastika representing buddhism, the torii representing shrines, the star representing famous land marks. This map has editing capabilities so that we can continuously add more pinpoints that we wish to investigate and analyze.

Link:

Shrines and Temples

[https://guides.apple.com/?ug=ChNTaHJpbmVzIGFuZCBUZW1wbGVzEm0aRTI1LCBJbWFrd W1hbm9taW5hW5hbWlkYW5pY2hvLCBIaWdhc2hpeWFtYSwgS3lvdG8sIEt5b3RvLCBKYXhhbi A2MDUtMDk3OSISCaXARMHHfEFAETtsn5jy%2BGBAKhBTaGlyYWhpZ2UgRGFpamluE g0Irk0QsZCHwq2s1%2BogEg4Irk0QgvOQyOeR5t%2F4ARIOCK5NEPOAluvXu8TbjwESDQi uTRC%2BqPz62%2Bv%2FmRYSDgiuTRDgnKKSn%2Fn%2Fl6EBEg0Irk0Q07aNu%2B%2B Fn8wwEg0Irk0Q3cHy6JWStPciEg4Irk0Q7MDh%2FLX008DVAQ%3D%3D](https://guides.apple.com/?ug=ChNTaHJpbmVzIGFuZCBUZW1wbGVzEm0aRTI1LCBJbWFrdW1hbm9taW5hW5hbWlkYW5pY2hvLCBIaWdhc2hpeWFtYSwgS3lvdG8sIEt5b3RvLCBKYXhhbiA2MDUtMDk3OSISCaXARMHHfEFAETtsn5jy)

IMAKUMANO

Imakumano
Kannon-ji Temple
Bokefuji Kannon

Tofuku-ji Temple

Gosha-daimyojin
Shrine

Shirahige Daijin

Emperor Chukyo
Kujomisasagi

INARIYAMAKAN-
YUCHI

Ganrikisha

Kumatakasha

Azumamaro Shrine
+1 more

FUKAKUSAG

Appendix I: Image of Abandoned Shrine

       This image was taken by our team of Shirahige Daijin in October of 2022. This is the main shrine on the premises that we studied. We also looked at and documented the surrounding shrine at the site which has been documented in more detail in our interactive map.
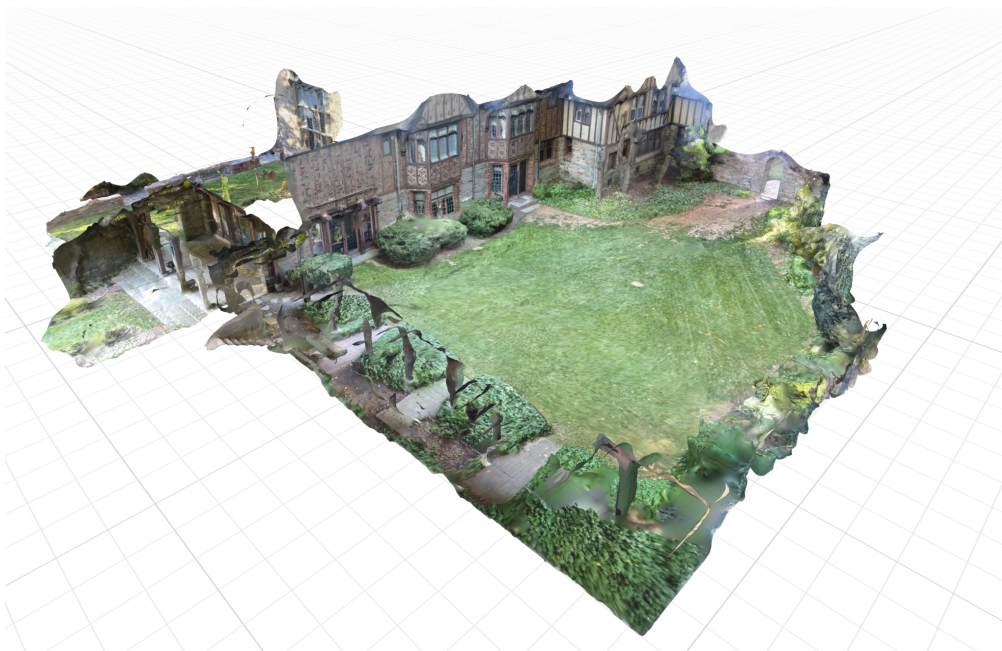
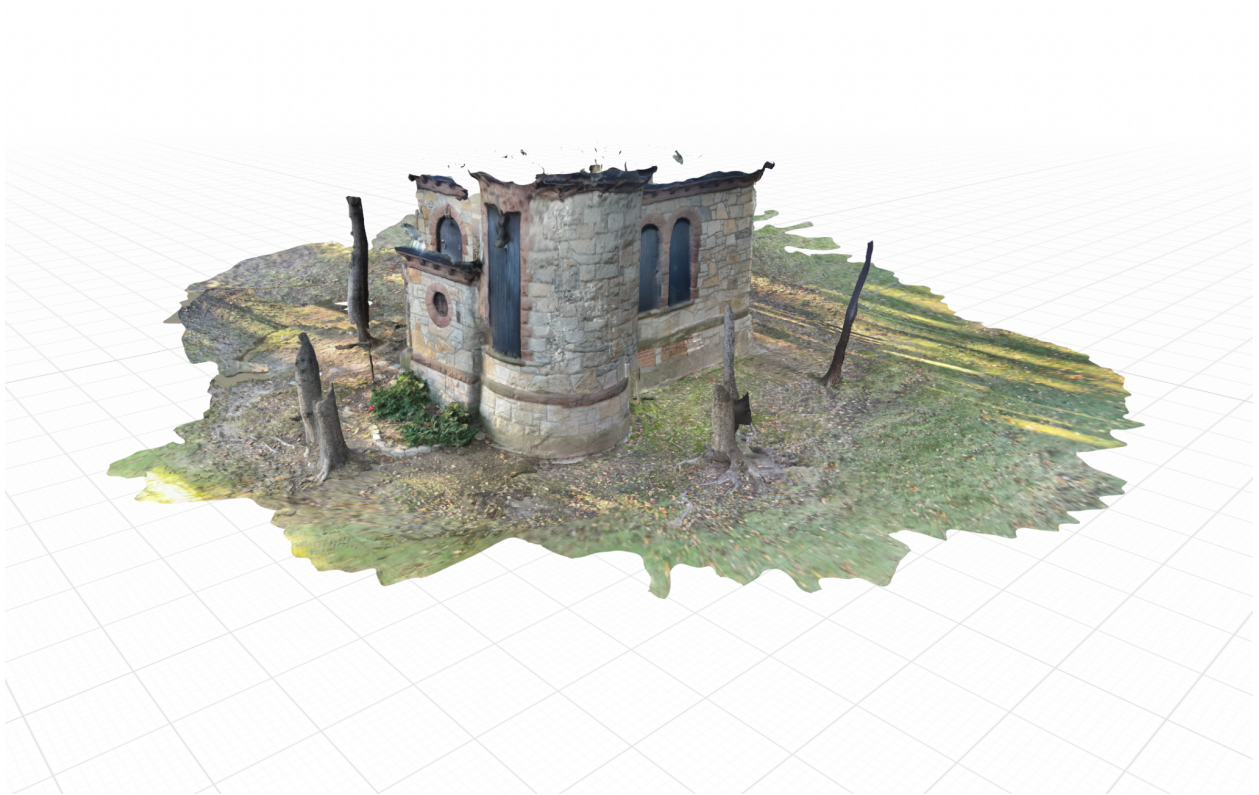**Appendix J: Example 3D Scans Using PolyCam App**

Outside of Salisbury Labs, WPI

Link: https://www.youtube.com/watch?v=jFthBG1nI24

Outside of Higgins House, WPI

Link: https://www.youtube.com/watch?v=C0ceUWZyAoQ

Link: https://www.youtube.com/watch?v=E0-3SAuewfw

Appendix K: 3D Scans of Shirahige Daijin

Complete 3D scan of the Shrine Site, Kyoto Japan

Link: https://youtu.be/IS4PqidORmo
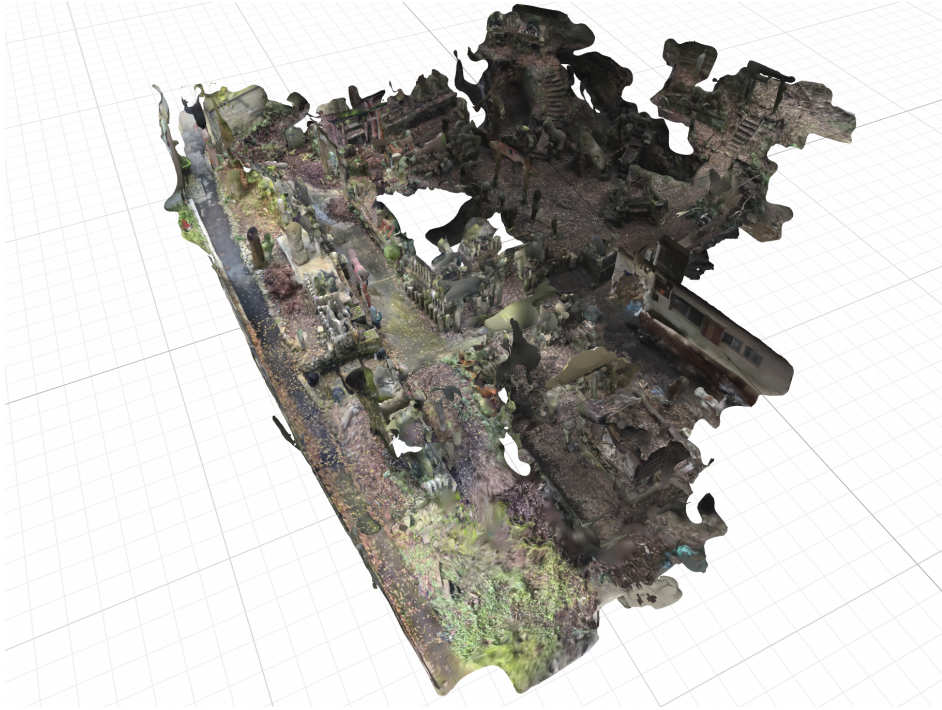
3D scan of Shirahige Daijin, Kyoto Japan

Link: https://youtu.be/HYILdKSHC6U
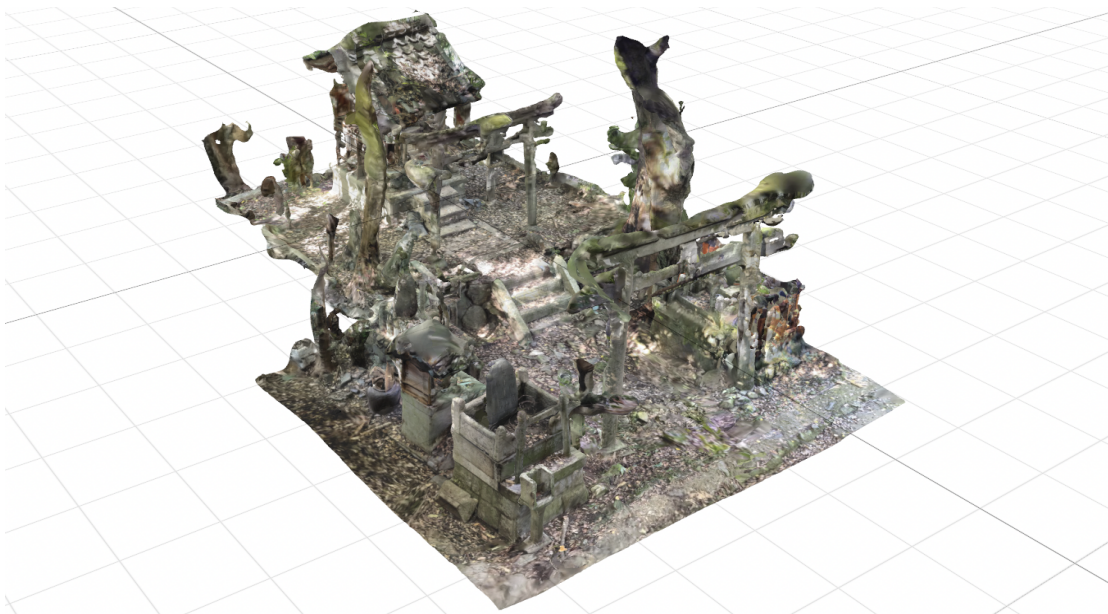
Appendix L: Soundscape of the Shrine Site

Chirping of the birds:

https://drive.google.com/file/d/1QtcJFwuXGrimdpRjjdOq9ZcGN8pHdYLA/view?usp=sharing

Water flowing through the river and down a waterfall:

https://drive.google.com/file/d/1DTdh-job-3FFVs4mFht87vk2pvZQjsC8/view?usp=sharing

Walkthrough of the shrine site:

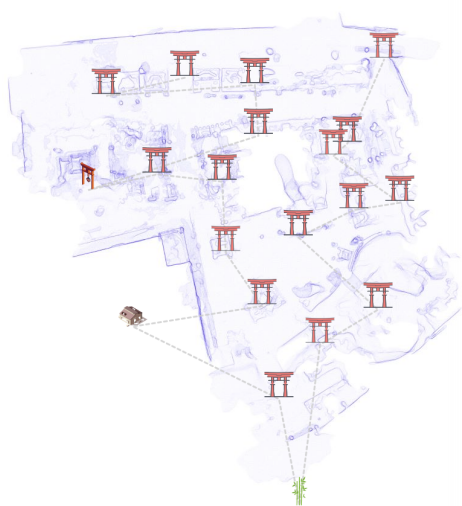https://drive.google.com/file/d/1PXdB9P2tVUy369CylwGXYmR-RbwHF7bg/view?usp=sharing

Waterfall training at Gosha Daimyojin:

https://drive.google.com/file/d/1HoaT2DgSjrJpxq14SV4Iq_XA1DQJqYLF/view?usp=sharing

Appendix M: Interactive Map

Interactive map is created on Knightlab StoryMap maker which is a free and open-source software.

Overview of Interactive Map

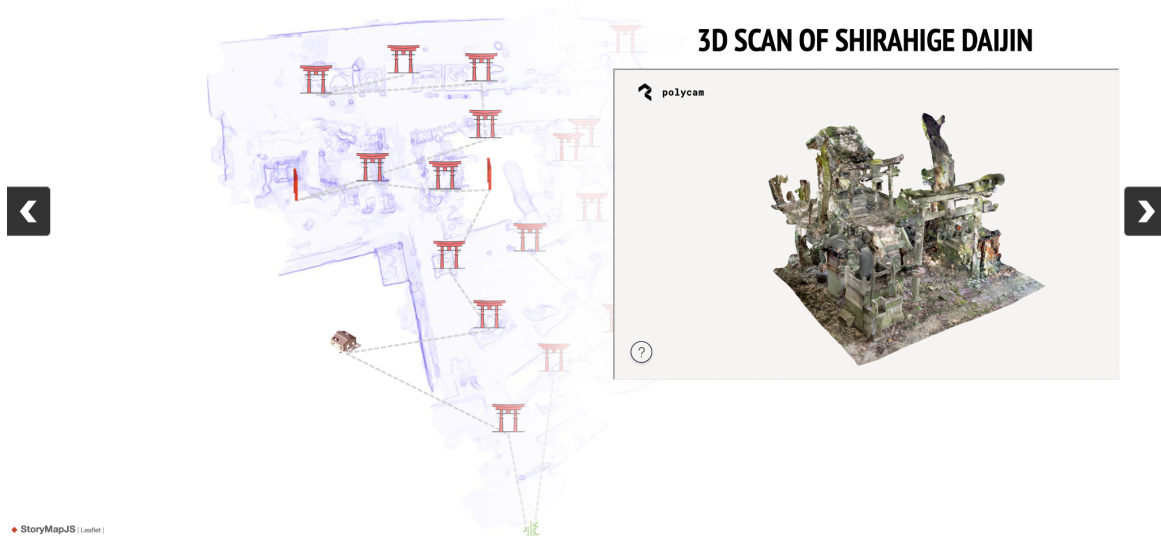**INTERACTIVE MAP OF SHIRAHIGE DAIJIN (白鬚大神)**

This multi-sensory map of Shirahige Daijin incorporates photos, sketches, soundscapes, and 3D renderings. Follow the map from point to point to learn more about the history of this abandoned shrine and discover several of its hidden stories. This map is created for IQP (Interactive Qualifying Project) project by Worcester Polytechnic Institute (WPI) students.

Shrines are labeled as S on the map, and Torri gates are labeled as T. To navigate the map, swipe or click the arrow button. Each point contains specific information about the shrine, such as current conditions, vegetation, and structure.

Bhargavi Ramesh, Can Guven, Jolene Pern, Maria Belen Aranda Ramirez, Neil Kale,

Start Exploring

Embedded 3D scan on Interactive Map

3D SCAN OF SHIRAHIGE DAIJIN

*Link:*https://uploads.knightlab.com/storymapjs/207b05f2e6c5271b2729975856b1325f/shrine-3-1/index.html

Appendix N: Tourism and Cultural Heritage in Japan

Tourism in Japan today has evolved from what it once was. COVID-19 has changed how people travel and has affected the number of visitors to cultural heritage sites. In 2019, a census indicated that the country would average over two and a half million visitor arrivals every month in comparison to this year, when the highest quantity of visitor arrivals in a month was 170,000 tourists. This year's lowest amount has been 17,000, which was unheard of two years ago. Not only has the magnitude of tourists been impacted, but also the demographics. As seen in the chart below, in 2019, over 80% of the tourist influx consisted of visitors from East and Southeast Asian countries. This number falls to 60% in 2022, and Western visitors almost doubled in percentage (Japan Online Media Center, 2022).
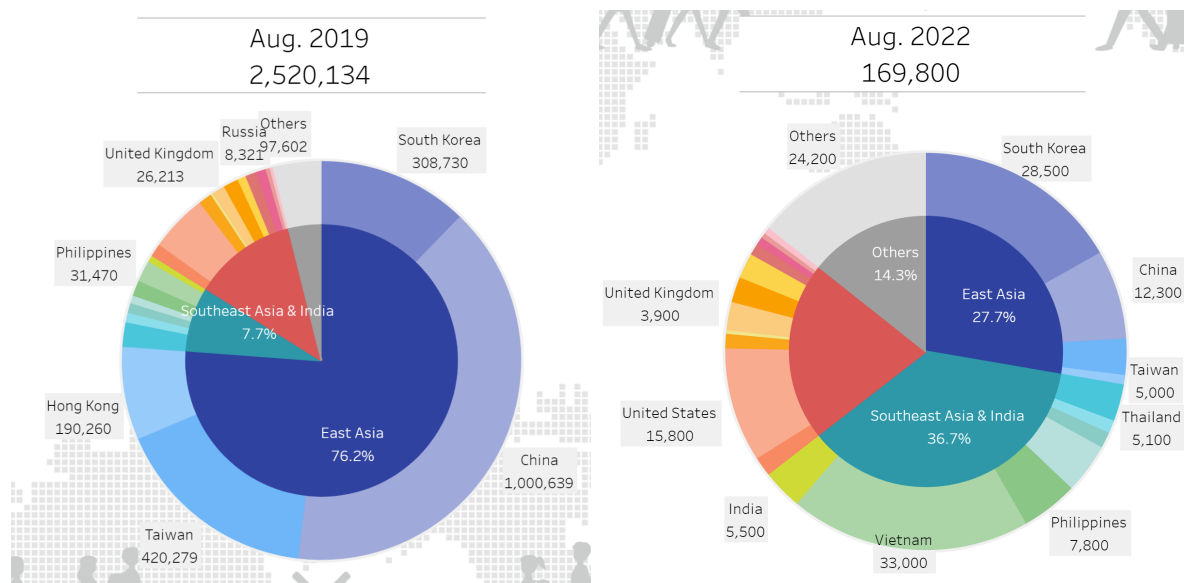
Figures 28 and 29: Tourism in Japan 2019 vs. 2022 (Japan Online Media Center, 2022).

Regarding traveling expenses, tourists in Japan spend a significant amount of money when shopping during their entire trip. It averages $493, notably higher than the other categories they spend on: food ($317) and amusement ($129). Visitors mainly shop for omiyage[4]. On average, they spend $90 each when touring souvenir shops (Shankman, 2013). This is a significant source of revenue for some cultural heritage sites. While there is no entrance fee for
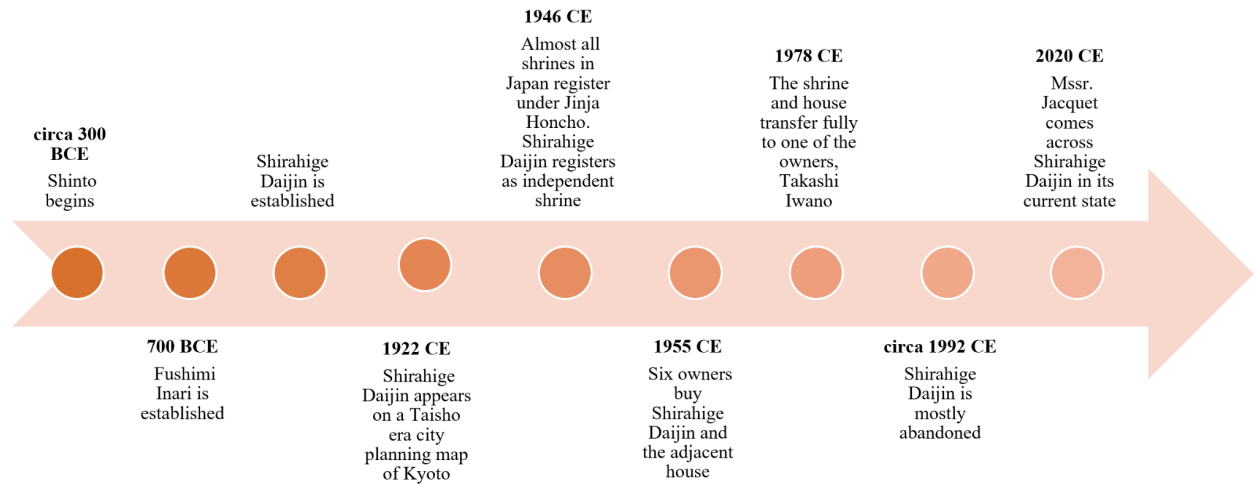
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[4] Souvenirs

most religious sites in Japan, many profit off selling souvenirs and religious tokens as a way of maintenance (Kimota, 2022).

Kyoto is Japan's cultural capital and one of the most popular tourist destinations in Japan. Kyoto residents still preserve their cultural heritage by attending festivals at the shrines, participating in tea ceremonies, wearing traditional kimonos, and learning about their culture from childhood (Cultural Preservation and Promotion, n.d.). Traditional crafts and art, as well as the presence of numerous shrines and structures in Kyoto, are important aspects of Japanese culture. Locals keep the tradition alive by studying art and crafts from a young age. Kyoto is considered as one of the best destinations for craft in the world.

Appendix O: Timeline of Events

This timeline summarizes the known history of Shirahige Daijin. It also contains some general history of Shintoism.

circa 300 BCE

Shinto begins

700 BCE

Fushimi Inari is established

Shirahige Daijin is established

1922 CE

Shirahige Daijin appears on a Taisho era city planning map of Kyoto

1946 CE

Almost all shrines in Japan register under Jinja Honcho. Shirahige Daijin registers as independent shrine

1955 CE

Six owners buy Shirahige Daijin and the adjacent house

1978 CE

The shrine and house transfer fully to one of the owners, Takashi Iwano

circa 1992 CE

Shirahige Daijin is mostly abandoned

2020 CE

Mssr. Jacquet comes across Shirahige Daijin in its current state

Appendix P: Stakeholder Matrix

       This matrix represents the stakeholders involved in the project and their level of power and interest. As can be seen below, there is a trend of high power combined with lower interest and vice versa, which proves difficult.

Iwano

POWER

Keep Satisfied	Actively Engage
Government	Jinja
Neighbors	Honcho
Fushimi Inari	Ko
Monitor	Keep Informed
Mr. Nakamori	Benoit Jacquet
	Students & Researchers
Tourists	

low   INTEREST   high