

Quartz Collection House  
(Registered Tangible Cultural Property)



## Quartz Collection House (Registered Tangible Cultural Property)



The Quartz Collection House was built in 1927 as a specimen room to house quartz crystals which were donated to the Yamanashi Normal School in 1920 by a pharmaceutical trader named Yasuyoshi Momose. Mr. Momose was involved in the collection and appraisal of minerals, and the quartz crystals he donated were extremely valuable both academically and as crafts. The Collection House is a one-story building with a total area of 40m<sup>2</sup>, and was made of reinforced concrete, which was rare at that time. The building was designed in the image of a quartz crystal, with hexagonal pillars that represent the ideal crystal shape of quartz, and on the front of the building are rough crystals and decoration inspired by Mizugamori\*, an area of Yamanashi which was a production center for quartz. During World War II, the area was struck by air raids and all of the school buildings were burned down, but teachers and students covered the Quartz Collection House with bamboo and protective walls, and camouflaged it with straw and cow dung so that the quartz crystals would not be requisitioned by the GHQ after the war. At the risk of their lives, they saved this historic building.

In 1949, the University of Yamanashi was established, merging three schools including the old Yamanashi Normal School. In 2018, to honor Dr. Satoshi Omura, the 2015 Nobel Prize Winner in Physiology or Medicine who graduated from this university, the Satoshi Omura Museum was built, and the Quartz Collection House was relocated next to the museum, where it stands to this day.

●Mizugamori is located on the border of Kofu City and Yamanashi City in an area formerly called Makioka Town. The area is comprised of mountains, hills and plateaus in the southwestern part of the Chichibu Mountains.

## Yasuyoshi Momose and the Quartz Collection House

Originally Yasuyoshi Momose just collected quartz crystals as a hobby, focusing his energies on his pharmaceutical career. However, after succeeding in enhancing the beauty of the quartz using aqua regia (a liquid mixture of hydrochloric acid and nitric acid), he became an enthusiast. After that, following the advice of Dr. Tadatsune Kochibe, a prominent geologist, he began to collect quartz not only for decorative purposes but also as academic reference material, and he collected many crystals with high academic value.

Distinguishing excellent quartz crystals is a very difficult task, and so Mr. Momose adhered to the policy of keeping the crystals that many people wanted or that experts had their eyes on close to him. Mr. Momose categorized his collection into four groups: 1) quartz crystals that are perfect, with no artificial addition; 2) great crystals; 3) crystals which fully demonstrate the characteristics of a certain quartz production area; and 4) crystals which amateurs would find interesting. Desiring that the crystals in groups 1 to 3 remain in Yamanashi Prefecture not as personal treasures but as objects that can be used widely for academic purposes, and in order to keep the entire collection together, he donated it to the Yamanashi Normal School in 1920 (Taisho 9).



# History of the Quartz Collection House



August 17, 2020  
Tangible Cultural Property Registration

Registered as a Tangible Cultural Property

Aug.2020



June, 2018  
Relocation of Quartz Collection House

Just before the opening of the Satoshi Omura Museum in July of 2018, the Quartz Collection House was relocated adjacent to the museum

Jun.2018



April, 2005  
Quartz Crystal Exhibition Room

After a plan to relocate crystal exhibits was promoted in 2004, an exhibition room was opened on the second floor of the storehouse in April 2005

Apr.2005



September 2000 Exterior renovation

In September of 2000 exterior construction was done, leading to the redesign of the exterior facing Y Building.

Sep.2000



1975 Quartz Collection House retained its opening image

Jun.1975

From 1927, the quartz crystal design building had been standing at the north entrance (currently the main gate) of the Kofu campus, reminiscent of times gone by with its pale majesty.

April 1965  
Quartz Crystal Exhibition Room view

Apr.1965

Quartz crystals in the exhibition room are from the time of donation, including large crystals.



1934

1934 Quartz Crystal Donation Monument

A stone monument was erected to commemorate the donation of quartz crystals by Yasuyoshi Momose.



1920

1920 Donation of Quartz Crystals

The crystals were originally donated to Yamanashi Normal School, which became part of the University of Yamanashi.

# Items in the Quartz Collection House Collection

## Rough stones

Rough stones of quartz in the collection include quartz clusters and Japanese twin crystals from the Takemori, Otome, Mt. Hachiman, Mukoyama, Kawahake and Suisho (Crystal) Pass mines. Amethyst production is minimal, although the Kurobera and Otome mines and the areas around Suisho (Crystal) Pass and Mt. Ogawa are recognized slightly for amethyst production. Most of the parallel intergrown matsutake mushroom-shaped quartz (scepter quartz) was mined at the Kurobera mine, Matsuki Ridge, and Kobushin mine, while topaz, apatite and scheelite are typically products of the Kurobera, Otome and Mt. Hachiman mines.



### Giant quartz

This is one of the few large quartz crystals in the world with perfectly shaped hexahedral crystal faces. The finding was published by Dr. Tetsugoro Wakimizu in The Journal of the Geological Society of Japan in 1918. According to this publication, the crystal length is 97 cm, the maximum width diameter is 30 cm, the circumference is 80 cm, the maximum width of the column surface is 18 cm, the weight is 77.5 kg, the crystal is translucent, and the column surface is polished.



### Suisho (Crystal) Pass quartz clusters

Long columnar quartz clusters mined in 1934.



### Sagenitic quartz

Characteristic of Mt. Odaka, in Miyamoto Village of Nakakoma County (presently part of Kofu City), this large and beautiful crystal (sagenitic quartz) contains epidote. During the formation of the crystal, epidote and other minerals came to be included in the crystal.



### Japanese twin quartz

This large Japanese twin quartz is comprised of quartz of the highest quality.

# Crafts

Many crafts were produced using quartz. There is one quartz crystal ball from the end of the Edo period. Items from the Meiji period include daily necessities such as vases, inkstones, combs, hair accessories and handles for canes, and rabbit and Mt. Fuji figurines. From the Taisho period are necklaces, obidome, prayer beads and seals. From the early Showa Period, practical items such as combs, eyeglasses, seals, prisms, and a rounded bar for X-rays can be seen along with carved Mt. Fuji and rabbit figurines and a five-story pagoda with back carving.



### Quartz Ball

It is very rare to find works made using quartz in the Edo period that still exist. This ball shows the high level of processing technology at that time.

[\\*On display at the Yamanashi Jewelry Museum](#)



### Quartz Comb

Although it was made in the Meiji era, extremely advanced technology was used to create this Japanese comb. The width is 8.0 cm and the length is 3.0 cm, and each tooth of the comb is finely finished and beautifully polished.

[\\*On display at the Yamanashi Jewelry Museum](#)



### Quartz Vase

Crafted in 1873

Processed by the master craftsman Toshizo Shioiri. On the inscription plate it is written that one bale of emery sand for use in processing cost several hundred gold, over a million yen at the present-day rate.

[\\*On display at the Yamanashi Jewelry Museum](#)



### Quartz inkstone

Crafted in 1873

Made by the master craftsman Toshizo Shioiri using a single piece of quartz from the Takemori Mine, this inkstone is a transparent, high-quality product which contains tourmaline in part.



### Five-story pagoda figurine with back carving

Crafted in the early Showa period, this five-story pagoda was made by making notches in the edge of the quartz crystal, taking advantage of the triangular shape of the rough crystal used. The carving creates a threefold optical illusion, maximizing the effect of light on the pagoda.

[\\*On display at the Yamanashi Jewelry Museum](#)



### Quartz Rooster and Hen Pair Figurines

A product of the early Showa period, the rooster has a width of 5.2 cm and a height of 6.2 cm, while the matching hen has a width of 6.0 cm and a height of 4.0 cm.

Made of rose quartz, the pair show detailed carving and careful finishing.

[\\*On display at the Yamanashi Jewelry Museum](#)



### Quartz Mother-and-child pen name seal

Crafted in the early Taisho (1912-1926) era  
Features: Large square seal with polished hemisphere head



### Quartz Glasses

Crafted in the early Showa (1926-1989) era

These round polished lenses, with a diameter of 4.2 cm, show high-level processing technology.

# Yamanashi Prefecture and Quartz

Igneous rock, formed by magma that cooled and solidified, is widely distributed in the geology of Yamanashi Prefecture. Among the many varieties of igneous rock, in the area from the Kofu Basin to Kawakami Village in Nagano Prefecture much granite can be found. Granite is classified as plutonic rock, rock formed when magma slowly cooled and solidified. In particular, giant granite known as pegmatite is scattered in high altitude areas, centering around Mt. Kinpu.

Most of the quartz is found in pegmatite and in hydrothermal veins that occur in granite. Large, high-quality crystals can be found in pegmatite, because it was the last part of the magma that cooled and solidified deep underground over a long period of time. Geodes, pockets of air lined with crystal, are also formed near the boundaries between granite formations or near points of contact around the granite, because granite is a heat source for hydrothermal veins, and as the granite slowly cools, remaining gas becomes air pockets as the surrounding liquid begins to crystallize.

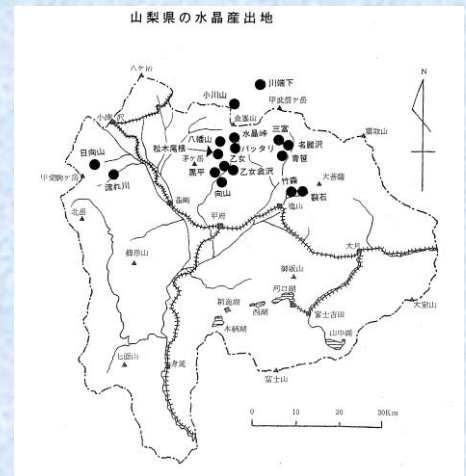
## Quartz Mines

Yamanashi Prefecture is surrounded by mountains. To the north is the Chichibu Tama Kai National Park, with a wide distribution of Kofu granite known as Mikage stone around Mt. Kinpu, the highest peak. This granite is known to produce beautiful, high-quality quartz with large-sized crystals, which is rare in this country.

For years, quartz deposits have been actively developed in Yamanashi Prefecture, and many crystals have been mined. Alongside this, the polishing and jewelry industries have developed around Kofu City, laying the foundation of local industry. Even today, crystals and crystal crafts are specialty products at tourist destinations in the area.

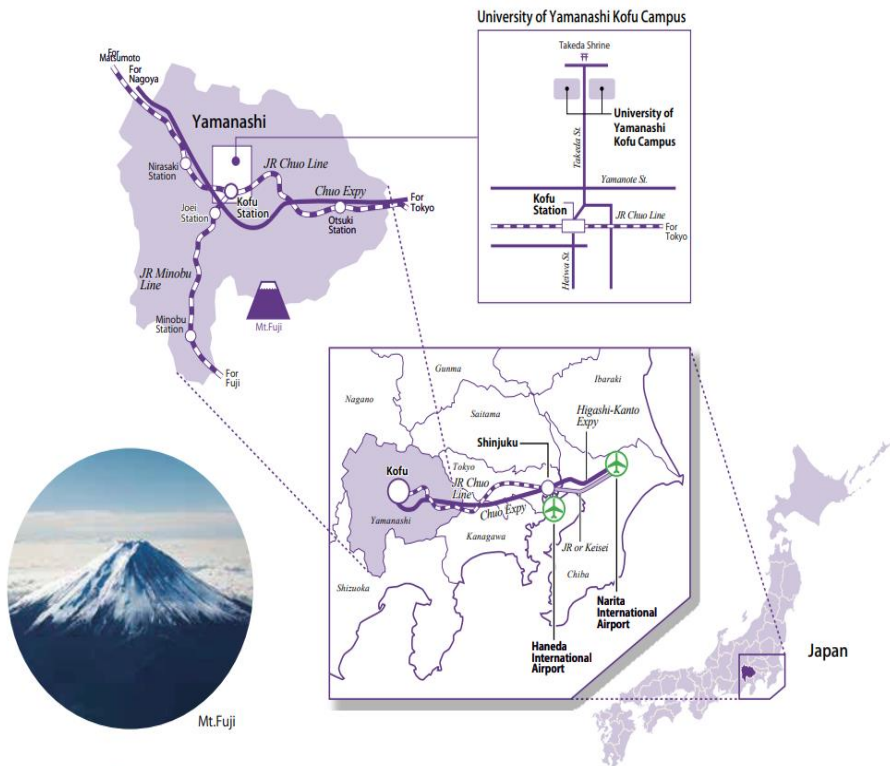
On the other hand, as industrial use of quartz products has increased, research and development of artificial quartz has also been carried out, centered at the University of Yamanashi. Equipped with some of the world's most advanced technology, industrialization of this local industry has advanced dramatically.

The Quartz Collection House is packed with the history of these precious crystals, preserved with care for generations.



## Past quartz crystal producing areas and how regional crystal characteristics were described

Quartz Mine	Location	Description of crystal formation shape, etc.
Otome	Mitake Town, Kofu City	Columnar, flat plate, double-headed parallel twin crystal, Japanese twin crystal
Kawahake	Minamisaku County, Nagano Prefecture	Columnar, columnar parallel twin crystal, Japanese twin scepter (matsutake mushroom) quartz, sickle-shaped quartz
Mt. Hachiman	Sutama Town, Hokuto City	Large columnar single crystal, flat Japanese twin crystal
Takemori	Enzan, Koshu City	Columnar single crystal, minute group crystal
Suisho (Crystal) Pass	Kurobera Town, Kofu City	Columnar single crystal, pyramid single Japanese twin crystal
Mukoyama	Kurobera Town, Kofu City	Columnar single crystal
Kurobera	Kurobera Town, Kofu City	short and columnar



#### Museum Information

Hours : 10 a.m.–4 p.m.

Closed : Tuesdays

Summer holidays (when the University is closed)

New Year's holidays

※The Museum may close on a temporary basis. See the official website for information.

Address: 4-4-37 Takeda, Kofu City, Yamanashi Prefecture, Japan

The Quartz Collection House is located next to the Satoshi Omura Museum

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