



In Support of Great Works of Art

Japanese art restorer works with Vaisala humidity measurements to preserve the greatest paintings in the world.

For paintings to last through posterity, one must pay careful attention to not only the restoration of the works of art, but to the environment in which they are preserved. For a painting to be handed down to future

generations, just restoring it isn't enough; extra measures need to be taken to ensure that the art is maintained in good condition.

"I propose preservation environments to ensure that the work of art remains at the temperature most appropriate for preserving it," says Ms. Kikuko Iwai, one of only a small number of painting restorers in Japan. A pioneer in her field, she has worked as a freelancer for around thirty years with art museums, private collectors, galleries, and artists in Japan and all over the world.

She has worked on paintings from such greats as Rembrandt, Gogh, Picasso, Monet, and Matisse. Her experience also covers a broad

range of Japanese artists, including Yasuo Kazuki, Tsuguharu Fujita, and Kiyoshi Yamashita, as well as ukiyoe artists such as Hiroshige, Sharaku, and Hokusai. In addition to this, she is known for her work at Chiba University, restoring a highly rare and visibly deteriorated Disney animation cel.

Practice not Unlike Medicine

According to Ms. Iwai, painting restorer is comparable to a family doctor. They get rid of dust and dirt that accumulate while works of art are on display, and perform maintenance on the works when they get damaged or begin to show signs

of aging. In this sense, much like a doctor bonds with their patient, a restorer forms a bond with the works of art they work with. When they notice something wrong, it is like figuring out the appropriate treatment of a sick patient.

“What’s most important is observation. Much like the medical industry keeps finely detailed medical charts for each patient, we draft up condition reports and check the condition of works of art at regular intervals. This is the foundation of our work. Such reports are a serious responsibility, since they are the only restoration record that future restorers will be able to learn from,” Ms. Iwai describes.

“For restorations, I am entrusted with a piece of art for a period of time ranging from six months to a year. I start by recording its condition, then I run tests on things like the materials it’s made from. I only perform the actual work after fully ascertaining what kind of treatment is needed.”

Take Invisible Role and Read the Mind of the Artist

Ms. Iwai first dealt with painting restoration work in 1974. She was introduced to the field by her father, who had a construction job at an art museum. At the time, she was still a college student who had her sights set on being a painter, but painting restoration work piqued her interest to the point that it became a lifelong occupation. She studied restoration techniques in Japan, and spent time studying in London art museums.

While she certainly acquired techniques in London, the ideas that she picked up turned out to be a bigger asset even.

“I learned very much about valuing originality. Even for the same artist, treatment methods naturally differ for each one of their works,” she says.

Experience can be valuable in terms of making cut-and-dry

decisions, but humility is as vitally important. If one overestimates their own craft, they can easily ruin a work of art.

“The first things I consider are how I can make use of the artist’s mind to bring the work closer to its original state, and how I can keep that state alive. I believe that a restorer must take an invisible role; if the restoration stands out too much, it will cause the work to lose its own originality.”

Carefully Selected Tools Protect Works’ Originality

A wide variety of tools are used for different restoration processes, ranging from high tech equipment such as magnifying glasses, microscopes, hygrometers, and illuminometers to medical scalpels, carpentry equipment, writing brushes, rubber erasers, and even chemicals.

Retouches are done by dissolving pigments with materials like synthetic resins.

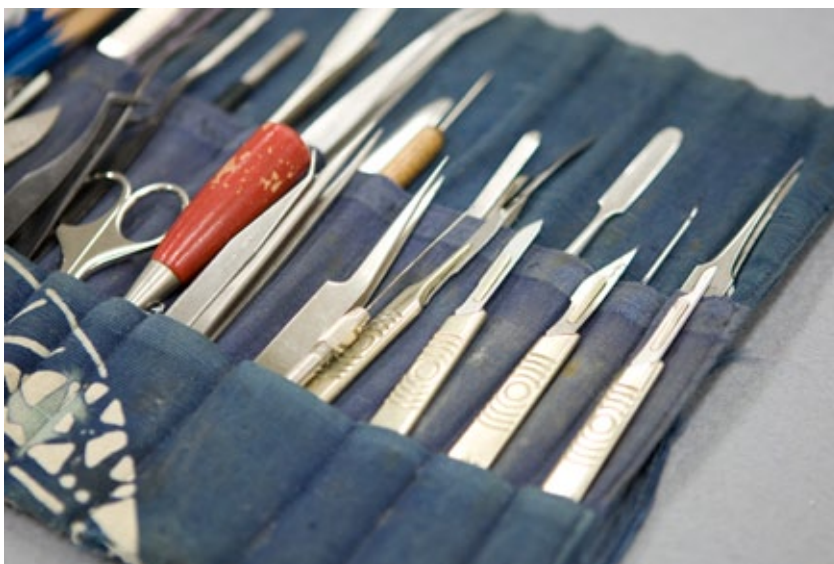
“Restorations have associated styles, and the science behind them is rapidly advancing. But one should always choose materials that won’t harm the original and can be safely removed for future retouches,” Ms. Iwai says.

This is why retouches of oil paintings do not use oil-based paints. They use materials such as adhesives and peelers that have been extensively tested for safety. But just because something is safe doesn’t mean it won’t damage the texture of the work of art. Making the right decision is vitally important.

Among her numerous tools, Ms. Iwai has used the Vaisala HUMICAP® Hand-Held Humidity and Temperature Meter HM34 a lot in the past twenty years.

“A conservation scientist at a national art museum in the United Kingdom recommended it to me, and I’ve used it ever since. It takes measurements in only a few seconds, and the digital display makes it easy to read. Most importantly of all, it’s highly accurate,” Ms. Iwai says.

For preservation, it is very important to check the humidity levels in display rooms. On occasions such as when a work of art is borrowed from overseas, there are very minutely detailed contract conditions, such as specifications to keep the work in an environment with a humidity level of 50% +/-5 and a temperature of 20°C +/-2. However, the equipment, methods, locations of measurement devices, and the number of devices all vary from one art museum to another.



“I only work on the paintings for a brief time, but I believe that brief time’s work has a lasting influence.”

“I travel to these places all the time to perform checks. I set a Vaisala transmitter’s measured value as the standard value, and when it is off even a little bit from the specified acceptance range, I give strict advice to curators and those in charge of art museum facilities to fit it all back within the standard.”

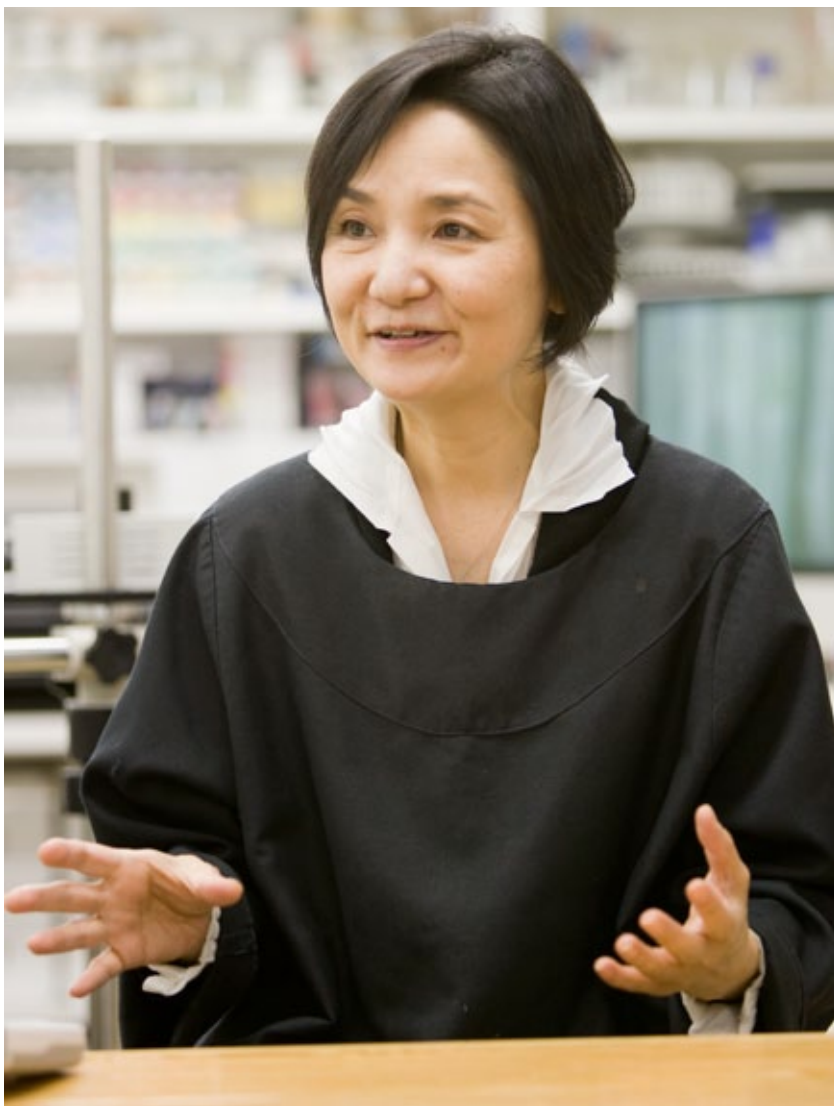
Humidity Adjustments Critical

Recently, Ms. Iwai worked on a Picasso painting from over 80 years ago. The colors were peeling visibly, and the canvas had sagged to the point that it was touching the wooden frame. Preserving the piece required a process in which the canvas would be removed from the frame and replaced on a new panel designed for the purpose of preservation. The process involves applying steam from behind, measuring the humidity level, and gauging just the right timing to slowly stretch the canvas out with the utmost of caution.

Needless to say, this is extremely intense and delicate work where one small mistake can damage a world-famous piece of art for good. What helps here are humidity measurements.

“Slight alterations to humidity levels will cause a canvas to greatly change. Humidity adjustments are the most important thing for paintings,” Ms. Iwai says.

“Elevated humidity will cause a canvas to soften up. By stretching it to the point of surface evenness in this state, then drying it, we can eliminate sagging without any loss of integrity in the painting. A difference



of only 1-2 percent in the humidity level can be critical for a work of art, which means that a measurement device must be extremely accurate. Otherwise, it’s unusable.”

Restoration + Preservation = Protection

Ms. Iwai places strong emphasis on preservation alongside restoration of works of art. In addition to restoration work, she has worked a lot as a designated courier, i.e. a person in charge of the safekeeping of the works of art that are borrowed from Japanese art museums to overseas exhibitions.

Travelling with the artwork has raised an interest in her on what could be done to ensure no harm is done to the paintings by moving them from one environment to another. If the humidity level inside a shipping crate in an airplane, for example, could be measured and recorded, would it then be possible to apply new protective measures based on this information?

Protective measures. That is what it all comes down to.

“Art restorers hone one’s own sensitivity and sense of beauty. The most important thing of all is consideration for the work of art. We must never ruin what the artist wished to portray.”