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From the Japanese Traditional Way of Life to the Global Age of the Future



The History of the Ars Electronica Festival

The Ars Electronica Festival will celebrate its 30th anniversary next year. Of the many media art festivals that have come into being throughout the world from the '70s up till the present day, Ars Electronica must have the longest history and has greatly contributed to the development of Media Culture in the world. I would sincerely like to applaud this remarkable achievement. I myself have participated in this Festival so often since 1982 that I have been able to follow the development of media culture in the

world and the progress of the information society through such a unique window as this Festival, and for these reasons I very much appreciate its great, successful history.

Ars Electronica itself has also evolved during these 30 years by adding many unique projects and events. For example, an international contest started in 1997 for new categories of the media arts, the Prix Ars Electronica Award system that was created for the selected art works among those entries for those new types of the media arts, the opening of the Ars Electronica Center in 1996 and many symposia on state of the art themes with excellent scientists and artists.

In 2002 a new campus project was set up at the University of Art and Design in Linz, where one of the representative universities in the world from the field of art and media technology was invited to exhibit their work in this university campus building. This year Tokyo University in Japan has been selected for the Campus project, and many creative works by students and teaching staff at Tokyo University will be displayed.

In the long, approximately 140-year history of Tokyo University no art or music course was offered until the educational system was radically changed and "The Graduate School of Interdisciplinary Information Studies" was created in 2000. The new target is to actively integrate Science & Engineering studies and other fields of culture, politics and business studies, including media arts, at this university. Since this time there have been several artists and animation creators working together at the university. It was, of course, a great challenge for Tokyo University to keep pace with the information age of today and of the future.

According to Gerfried Stocker, director of Ars Electronica, Tokyo University was selected for the Campus Project because the theme of this year's Ars Electronica, "A New Cultural Economy", matches the basic concept of the new system at Tokyo University.

In addition to this, members of Tokyo University have been enthusiastic participants presenting their various new interface design and engineering inventions at the world-famous Computer Graphic Conference SIGGRAPH, which was first held in the USA in 1974 and has taken place ever since up till the present day. In particular recent students and faculty members at Tokyo University have been very ambitious in presenting their new types of media-oriented interface design at the Emerging Technology booth at SIGGRAPH.

For a similar reason students and faculty members have also successfully participated in the Prix Ars Electronica recently and received awards for their work. Ms. Tomoe Moriyama, Project Associate Professor at Tokyo University, will describe in detail the Campus project, which will be shown at the University of Art and Design in Linz this year, elsewhere in this catalogue.

The IAMAS (International Academy of Media Arts and Sciences, and Institute of Advanced Media Arts and Sciences) in Japan was also selected for the Campus Project at the Ars Electronica Festival 2004, and the students and faculty staffs' works also received several Prix Ars Electronica awards. Governor Taku Kajiwara of Gifu Prefecture was the driving force behind the opening of the IAMAS in the small city of Ogaki, Gifu Prefecture, at the beginning of '90s. His aim was to enhance the Gifu Prefecture and increase productivity by utilizing information technology for business and culture. The Softopia Japan Center was developed as an incubator for the software industry in 1996, then the VR Technocenter as a research center for information technology and then the IAMAS as the educational institution for nurturing the contents creators in this information age. As you may already know, the IAMAS has made great progress since its opening in 1996 and many of its talented students have already started working in the world.

Whereas the IAMAS started as the more art-oriented institution, the new Tokyo University Graduate project at Tokyo University started as the more science and technology-oriented institution. However if we compare both of the institutions, it is interesting to see that recently the same kind of motivation for the new type of media-oriented creation has been at work both at Tokyo University and at the IAMAS.

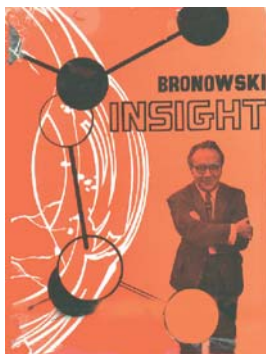
For these reasons, Gerfried Stocker asked me to write specially about the unique historical background of Japanese society where traditional culture has more or less survived until the present day, but evolved to integrate art and technology in today's Japanese society. So far the Japanese people seem to have been very positive about following Western culture and especially the newest science and technology developments in the Meiji era, particularly after WWII. So this observation about the Japanese people's traditional way of life, and the aesthetics and craftsmanship that still exist in the Japanese way of life, made such a strong impression on me that I decided to write about the historical aspect of the Japanese way of life for this catalogue.

From the tradition of craftsmanship and aesthetic sensibility

Yes, if we look back on our way of life throughout the history of Japan, we have indeed kept our unique sensibility in our daily life, the special aesthetic sense and craftsmanship based on the traditional way of life.

In his book *Insight* Jacob Bronowski mentions that cavemen hunters were the first people to combine art and science. They were surrounded by wild animals that might attack and kill them, so they created the arrowhead to kill the wild animals instead of being killed themselves. According to Jacob, such an arrowhead was the first invention of human beings and the origin of science. They also tried to work out the best way to throw such arrowheads in order to hit the animal's weak spot, so they made drawings of the beast on the walls of the cave. According to Jacob, such cave paintings therefore constitute the first art works made by human beings, and both science and art were combined to become unique survival tools (Jacob Bronowski, *Insight*, Macdonald, London, 1964).

I have quoted Jacob's insightful comment several times. But if we look back at the farmers, as in the case of Asia, especially in Japan, it was a rather different situation to that of the hunters in West-



The cover of *Insight*

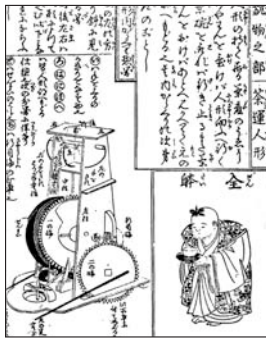
ern countries. They were surrounded by the harsh natural climate and poor vegetation, and in order to survive they needed to discover edible vegetables or to cultivate such plants. Utilizing the solar cycle based on their calendar or fishing according to the seasonal migration of the fish must have made them more sensitive towards such natural and seasonal conditions. They needed to develop a special sensibility for those seasonal changes and everyday happenings. Thus they developed a different type of sensibility towards nature. Their beliefs were more or less based on animism and a sort of polytheism, contrary to the monotheism found in Western culture. And during the long Edo period (1603–1867), in which there were luckily few wars or natural disasters, a unique aesthetic consciousness based on such natural phenomena was able to develop and produce the craftsmanship that made their way of life more fitting and economical. Prof. Stanley Cyril Smith, a well-known metallurgist at MIT, once mentioned that it was not necessity that was the mother of the development of new technology as the old saying goes, but rather the aesthetic curiosity of craftsmanship. He drew this conclusion after extensive research on the very old metal sculptures located in various museums around the world. His conclusion was further strengthened by the discovery of the Japanese sword guard case. The sword itself was made for the purpose of fighting the enemy, but during the long peaceful Edo period it became more of an ornamental tool and the sword smiths particularly tried to make the sword guard more of an aesthetic ornament.

In this traditional way of life in Japan there have also been many unique talents who invented humorous, playful mechanisms to surprise and delight the neighborhood. Artists and craftsmen were also good at making many toy-like mechanisms, mechanical moving dolls and clockworks. Gennai Hiraga (1729–1779) was a well-known pharmacologist, painter, essayist and also the inventor of the electrostatic generator. Hisashige Tanaka (1779–1881) was both the creator of many types of mechanical dolls and perpetual clocks etc. and later became the founder of the well-known electrical company Toshiba in the Meiji Era. He is another good example of such talents, and invented many unique Japanese-style clocks (Wadokei) and Mechanical Dolls (Karakuri dolls). Not only the higher classes, but most other people too, from farmers to town-dwellers, enjoyed a similar type of sensitivity raised within this natural situation, and a sense of sharing the sympathy among the neighborhood. Agricultural necessity meant that they had to work hard each day, whether they were sowing seeds, weeding or bringing in the harvest. So they enjoyed celebrating harvest time every year and for those occasions they created the unique festival car with many decorations and mechanical dolls on these floats. In a sense, many Japanese people could share a similar aesthetic sensibility and innovation in their social life. These photographs show some of the mechanical dolls that were invented by Japanese craftsmen. The elaborately drawn schematics of such a mechanical doll, called “Kikou-zui” still exist and can be found in *The Analytical Works of Automation*, published in 1796. The details of the mechanical doll that serves tea to guests are also recorded in this work. Shoji Tachikawa, Honorary Professor at Waseda University, and his students once tried to reconstruct the real moving tea serving doll based on this drawing and successfully created a beautiful mechanical doll on May 9th, 1966. The original



Wadokei (Perpetual Japanese Clock made by Hisashige Tanaka. From Wikipedia)

idea behind these mechanical toys was imported from Western countries and China to Japan. Most of the mechanical dolls made between the 16th and the 18th century have been destroyed and no longer exist, but dolls created in the 18th century and later are still around and can be found in many places in Japan.



The Kikou-zui (1769)



The reconstructed Tea Serving Doll



Inside the reconstructed Tea Serving Doll

from the "Museum of Fun Book",
written by Itsuo Sakane, 1977

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Besides inventing such mechanical dolls or moving festival cars, the Japanese people were also creative in discovering and using the special types of earth found in different districts and using them to produce unique ceramics specific to an area. They also invented Japanese lacquer by using the special lacquer trees. After Japan opened its door to the world at the end of the Edo period, many unique Japanese craftworks and paintings were exported to countries in the West, where they were well received by Western people. This took place just about one hundred years ago in Japan.

After the Meiji era, the Japanese education system was dramatically changed to get in line with the advanced Western educational system. Especially in the fields of science and engineering education Japan was strongly influenced by the advanced system of the developed Western countries after WWII. However, it would be surprising for Western people if they knew that many Japanese people today, even if they are students or professors at university or college, still have the same kind of sensibility towards nature and preserve the traditional sense of beauty within their everyday lives, even in the present day. Some of them are still looking for a good balance between the traditional relationship to the nature and craftsmanship. Perhaps you would be surprised to see many of the works made by the group from Tokyo University and displayed at the University of Art and Design in Linz this time, for they combine the sensibility from Japanese tradition with advanced scientific concepts.

I believe that if other Asian countries such as Korea or China etc. would increase their contact with Western culture as Japan has done, the Western traditional aesthetic sensitivity and its scientific awareness and approach will gradually fuse and it may become the leading trend in co-existence and collaboration for the global age in the future. For these reasons, I sincerely believe that the theme of this year's Ars Electronica Festival, "A New Cultural Economy", constitutes a big step towards cultural co-prosperity based on the collaboration between human aesthetics and science-technology, and I loudly applaud their achievements.