

Ryoji Ikeda's '+/- [the infinite between 0 and 1]': An Interpretation

by Max Hodges

Ryoji Ikeda: +/- [the infinite between 0 and 1] is the first major retrospective of Ikeda's work, presented by the Museum of Contemporary Art Tokyo (MOT) and runs until June 21st 2009. The exhibition includes new commissions, large-scale audiovisual projections, sound, and Ikeda's abstract celluloid landscapes.

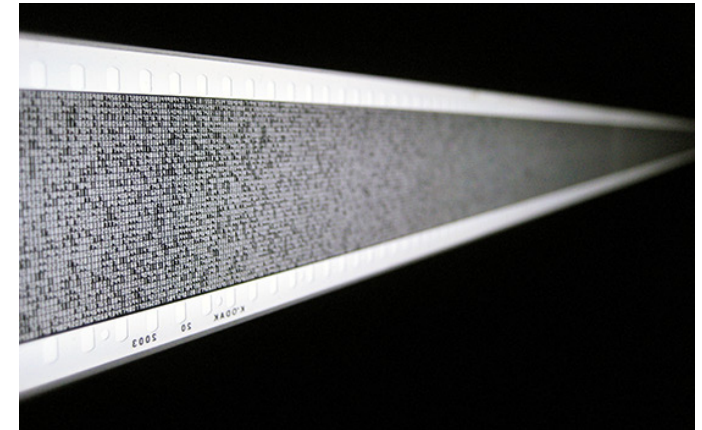
Ikeda's has quickly earned himself an international reputation as a leading electronic composer and sound artist. His work is hailed by critics as the most radical and innovative examples of contemporary electronic music, earning him a Golden Nica prize in the Digital Music category at Prix Ars Electronica in 2001—one of the most important yearly prizes in the field of electronic and interactive art, computer animation, digital culture and music.

Although best known for his sound installations, Ikeda has extended his activities and compositions into the visual arts, and these activities have caught the attention of MOT's chief curator Yuko Hasegawa. "Previously, we have held exhibitions of veteran and midcareer artists as solo shows," says Hasegawa, "but we really want to focus on the younger generation and represent them in solo shows."

Ikeda has been intensely active in sound art through concerts, installations and recordings since 1995. Described as an 'ultra-minimalist', Ikeda employs cutting-edge computer technology to develop a unique set of methods for sound engineering and composition. His works feature computed, mathematically pure 'microsonic' tones, frequencies and noise that sometimes exists at the edge of perception.

These intense, exhilarating sounds are integrated in audiovisual installations, projected at cinematic scale in his concerts, in which each pixel is precisely calculated by mathematical principle. The vast scale of the projection heightens and intensifies the viewer's perception and immersion in a world of pure objectivity. Acoustics and sublime imagery—derived from pure mathematics and from astronomy, genetics and other real-world data—are employed to create an experience of time that can be sped up, slowed down and frozen for analysis. Space too is like a field that can be traversed at high-speed, or sliced up for scrutiny.

Time and space, the vast universe of precision numeric data representation, and the limits of human perception are explored with precisely correlated



and synchronized audio and video rhythms that sound and image fuse and become indistinguishable—resulting in a synaesthesia-like experience.

Although usually described as an electronic composer, this retrospective demonstrates Ikeda's talent as a visual artist too with large-scale photographic work and a 35mm x 10m abstract celluloid landscape known as **data.film [n°1-a]**.

"My intention is always polarized by concepts of the 'beautiful and the sublime'", writes Ikeda, "To me, beauty is crystal, rationality, precision, simplicity, elegance, delicacy. The sublime is infinity, infinitesimal, immensity, indescribable, ineffable. The purest beauty is the world of mathematics."

Consider how these sentiments are expressed in a pair of Ikeda's artworks shown in his '**V≠L**' exhibition. The work was inspired by his dialogue with Harvard mathematician Benedict Gross and explores the idea that perhaps nothing in the universe is random. Consisting of two horizontal panels, one is etched with a prime number consisting of over 7.23 million digits; in counterpoint, the second panel presents a random number generated by computer algorithms, also consisting of over 7

million digits. From more than a few inches away, the panels appear as a random, concrete-like grey texture. But close-up they reveal a mind-boggling array of 0.8mm-high digits, daunting in their vastness and precision. For comparison, consider that the estimated number of atoms in the observable universe is a number only 80-digits long. Unlike the random sequence, this prime number is like a jewel, a mathematical diamond that can be contracted into the sum of two squares and expanded. Its endowed with special properties which make it vital to data security. But change a single digit and this whole, delicate, seven-million-two-hundred-thirty-five-thousand-seven-hundred-and-thirty-three unit long system of perfection becomes unstable and collapses.

Such expressions of point and counterpoint abound in +/- [the infinite between 0 and 1]. Other examples include the white-light of SXGA projectors within the perfect black room. The 10 screens itself a play on the nature of the number 10 as representing the both the on-and-off of binary logic. The notion of [+/-] polar-opposites are found in the contrast of signal vs. noise as individual instances of discrete data and moments in time are plucked from the vast oceans of endless random data. Light and sound is used to freeze certain moments in time like unique snowflakes, only to dissolve back into a sea of data on the next beat.

Review and description of Ikeda's work tends to stop short of interpretation. Indeed, with regard to the meaning of Ikeda's work, curator Hasegawa's says that Ikeda's art, "doesn't have any particular symbolic meaning; it is nonsignifying. He just wants to create a kind of matrix, or give the idea of the universe and infinity, for the visitor to simply enjoy. You can read whatever you like into the work."

But while Hasegawa seems to believe the exhibition amounts to little more than audiovisual eye-candy, this writer found many clear, masterfully crafted messages, and believes that taken collectively, Ikeda's work has the same power and potential as any work of great art to be the catalyst for profound personal transformation.

Spoiler alert: if you're planning to visit the exhibition, I suggest you experience it for yourself before reading further.

The flash of revelation happens once you make your way down to the basement where a second level of the exhibition has been constructed. Here a through-the-looking-glass counterpoint to the entire exhibition upstairs has been ingeniously constructed. This alternate exhibition is identical in size and layout, but whereas the former space was set in pitch black darkness, we now face a negative-image in the form of a pure

white room, Great care is taken to make it work. The expansive floor is covered in delicate white felt, and visitors don fabric slippers so as to not scuff the floor with their shoes. The felt doubles as an acoustic absorption material, helping to create an anechoic-chamber-like silence in the room. The entire room is lit from above by a grid of large panels which produce a soft, uniform and continuous light source.

Instead of 10 video projections, we find **'the irreducible [n_1-10]'**: 10 black, static panels composed of a large—but finite—set of numbers. These numbers of so tiny, they are barely visible to the naked eye. Whereas before we explored the unbound vastness of space, the limitless expanse of discrete moments of time, and the infinite range and precision of data representation with god-like objectivity, now we arrive at the polar opposite: the single, here-and-now subjective experience of the only one true universe. Here all the hypothetical possibilities collapse into a single instance of the world having a specific form and state. Our subjective perception of this particular place, the one-and-only world in which we inhabit, is enriched and is much more reified by its contrast with the inverse, counterfactual world of pure objectivity¹.

The experience is supplemented by **matrix [5ch version]**, a 5-chan-

nel audio installation composed of five Meyer Sound Laboratories SB-1 parabolic long-throw sound beams. Exploiting the directional behavior of a parabolic reflecting surface, the SB-1s provide the ability to propagate precisely focused sound waves while maintaining a narrow beamwidth.

Listeners who traverse, and disrupt, the soundscape created by these 5 speakers, encounter a highly-subjective hearing of the work. There is no objective position, only one vastly entangled system as the act of observation itself disrupts the sound waves and the acoustics are highly dependent on the position and direction of the listener's body, head and ears within the field. This further solidifies our conception of space as a uniquely subjective experience.

[1] The 'White Room' mise-en-scene in the movie "The Matrix" plays an analogous role. The stark white, horizonless background, and anachronistic setting reinforce the emptiness and artificiality of the Matrix. By contrast, the subsequent transition, made without physically leaving the 'white room', to a scene on the outskirts of New York City, reinstates the theme of simulation versus reality in the film.

One is also reminded of the "white room" scene in "2001: A Space Odyssey", in which Dave Bowman ages rapidly. Devoid of doors and windows, this room too plays counterpoint to the ordinary perception of space and time.