

EXHIBITION

Time revisited

Joanne Baker

Tatsuo Miyajima, artist and vice-president of Tohoku University of Art & Design in Yamagata, Japan, uses installations of electronic counters to explore time, life and death. This month a solo exhibition celebrating 25 years of his work, entitled *Art in You*, opens at Art Tower Mito in Ibaraki, Japan. It includes the artist's first large-scale piece since he represented Japan in the 1999 Venice Biennale.

Miyajima is known for composing his works from myriad digital light-emitting diode (LED) counters. Each one displays the number sequence 1 to 9 on a continuous loop, followed by a pause for zero. The counters are arranged in groups, either fixed or in motion. In past shows they have been sent whizzing around the gallery floor on robotic platforms, set drifting relative to one another in arcs on a wall or floated in a pool of water. The LEDs glow in various colours and the devices count at different speeds. Sometimes the changing numbers are simply projected through gallery spaces so that a viewer can watch them pass fleetingly across their body or try to catch them as if they were falling leaves.

Not displaying zero is a deliberate act. "Zero represents death," says Miyajima, explaining that it originally meant both 'emptiness' and 'infinity' in fifth-century India and that the latter definition was lost as the idea travelled to Europe. For him, the number cycles represent life and death, which in Buddhist thought are a continuous cycle rather than discrete events. He likens the counters to human experience: individuality is echoed in their speeds and colours, and their illumination is symbolic of life.

Part of the beauty of Miyajima's

kinetic sculptures is in their choreography. Crowds of jostling counters create changing patterns of light. Miyajima's works ask the viewer to watch and reflect on the passing of time; their complexity nods to the mathematics of chaos, relativity, atomic physics, cosmological structure and ecology. He has exhibited worldwide, including at the Royal Observatory in Greenwich, London, and his works are held by galleries such as Chicago's Museum of Contemporary Art and the Art Gallery of New South Wales, Australia.

Some compositions are inspired by the environment. A set of new photographs that appear in this show came out of a series of workshops the artist held in Hiroshima and an island he visited in his youth. Miyajima also organized 'Artists Summits' on climate change in Kyoto in 2005 and 2007. He feels strongly that artists should use their creative skills for crystallizing and communicating ideas to serve the public. "Imagination is the power to think about others and to understand others' pain. It is essential to secure the world."

Art in You features HOTO (pictured), a 6-metre tower of 3,827 multicoloured digital LEDs. The name is derived from a Buddhist story of a jewelled giant tower that symbolizes the wonder of life. "I want to tell children that it is a miracle simply to be born," says Miyajima, who conceived the idea to express hope after the terrorist attacks of 11 September 2001. ■

Joanne Baker is *Nature's* Books & Arts editor.

***Art in You* runs from 16 February until 11 May at Art Tower Mito, Ibaraki, Japan (<http://artinyou.jp>).**



COURTESY OF ART TOWER MITO/SHIRAIISHI/CONTEMPORARY ART & LISSON GALLERY

the astrophysical and cosmological sources of gravitational waves, and what we can hope to learn about them.

The book is accessible to students who have taken a course in general relativity; it takes off from standard graduate-level textbooks, deriving the main results. In some places, though, the language is imprecise or lacks clarity;

in others, too much space is devoted to the details of very specific applications. Also, an unfortunate number of minor grammatical errors and typos are scattered through the text. Hopefully, this will not distract readers from the large body of excellent and useful material that Maggiore has assembled on an important new frontier of astronomy and of fundamen-

tal physics. I look forward to *Volume 2*, and even more so to the dawn of gravitational-wave astronomy. ■

Neil Turok is professor of mathematical physics in the Department of Mathematics and Theoretical Physics, University of Cambridge, Cambridge CB3 0WA, UK. He is the co-author of *Endless Universe: Beyond the Big Bang*.