Artistic Vision

Tane, a self-reliant digital organism

Tane is an immense, self-reliant and complex art installation created by the multidisciplinary artist collective WERC. Once installed, Tane lives without any further human interference and is able to outlive its creators.

The art installation Tane consists of hundreds of objects on poles that are easily recognizable by their unique hexagonal black solar panels. The creators of Tane see these objects as small creatures and use the name Tane for the entire art installation as well as for all individual creatures.

A transparent triangle is visible in the center of every Tane. At night these triangles light up. Every Tane lights up differently and in a constantly changing pattern. During the day, when the installation is charging in the sun, Tane makes a soft noise.

The Lumo family

Tane is the third work in a series of light and sound installations by the artist collective WERC. These installations are called ‘digital organisms’ and all belong to the Lumo family. Tane’s predecessors are Pixi and Lily. Pixi lives in the forest and Lily floats on the water. Tane’s first habitat will be a park in Tokyo.

These installations make a connection between processes in nature and technology. In nature, individual animals in large groups react rapidly to each other without central control. This phenomenon is visible in flocks of birds or schools of fish; this is called swarm intelligence. The whole is greater than the sum of the individual parts and the result is often beautiful.

All Lumos work according to a set of rules. These rules determine how they react to their environment and communicate with each other. The creators of WERC are the designers of these rules but the final conversation is conducted by the artwork itself. The Lumo artworks are therefore self-managing organisms, just like those flocks of birds.

With the Lumo family, the creators of WERC research to what extent the environment influences the behavior of every digital organism. All Lumo family members are able to adapt and learn from their environment. This means that every work of art becomes part of its habitat and develops location-specific properties. Lily reacts to the waves of the water, Pixi to temperature, humidity and visitors and Tane reacts to the energy of the sun.

Life Purpose

Tane is designed to survive on the energy of the sun. The life span of their species is still undetermined. Tane's life goal is to harvest as much energy as possible as a group in order to light up in the evening and show different, impressive light patterns. In order to be able to show such light patterns as a group, each Tane registers his personal energy level and communicates this with the rest of the group.

Behaviour

During the day when Tane is charging in the sun while resting, it makes a gentle noise. At sunset, Tane awakens and lights up. To what extent and in what form this happens is determined by natural circumstances. The amount of sunlight captured during the day influences Tane's light patterns seen in the evening. This way Tane responds to the daily changing weather conditions and the seasons. A regular and observant visitor can learn to 'read' Tane's behavior.

Natural phenomenon

Some evenings, Tane puts on a stunning light show that can be compared to natural phenomena such as the northern lights. Such a phenomenon only takes place when all the preconditions are correct. For Tane, this depends on the amount of energy each individual Tane has harvested during the day. When the group as a whole has enough energy, a stunning light pattern will be visible, which will continue until sunrise.

Unique solar panel

The makers of WERC have designed special solar panels for Tane. The panel is a hexagon with a triangle cut out. WERC wanted to stay away from the standard solar panel format as much as possible in the design and has stretched the boundaries of designing apanel. Extensive research into the form and function of a solar panel also played a major role in this process.

Generatively designed and 3D printed triangle

In the cut out triangle of each Tane is a generatively designed and 3D printed triangle. Due to this specially designed triangle, each Tane has a unique appearance that is based on the microscopic transparent algae triceratium diatom

This uniquely designed triangle acts as a kind of lens and, like the cell walls of a diatom, is completely transparent. Behind this lens is a triangular printed circuit board that has, among other things, fifteen LED lights. All LED lights get a diffused and reflected light through the lens in front of them.

Transparent housing

The technical hardware is visible on the back of the hexagonal solar panel. The transparent housing contains, among other things, a microprocessor, sensors, a battery and lights. You can think of these elements as the “organs” of each Tane.

Location specific design

Tane is currently installed in Tokyo’s Tachikawa Green Springs Park. The architects of this park have used the Japanese veranda (engawa) as inspiration, which is seen as the so-called edge of a house that connects the inside with the outside of a house. Engawa symbolizes the border of the metropolitan city of Tokyo that borders on nature and aims to bring people more into contact with nature.

The various Tane’s are placed in the sunniest places in the park so that they can recharge as much as possible. Tane lives in complete harmony with its environment in Green Springs Park.

Artist collective WERC

Flip the word WERC and you get CREW. A crew consists of a group of people who work closely together. WERC also forms a group like this with its makers from different disciplines. The interdisciplinary art collective WERC consists of Joachim Rümke, Olav Huizer and Jelle Valk and is based in Groningen. Their work is characterized by experimenting with new media and technology, in which new forms and challenges are always sought in changing formations and diverse disciplines. In WERC’s interactive installations and performances, their shared fascination for the connection between the digital and the physical world is always apparent. The humanization of technology and the interaction between people, nature and technology are the guiding principles in their work.

Visit Tane

The installation Tane can be viewed free of charge throughout the year in Green Springs park, Tachikawa, Tokyo.

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