ELECTOPIA

The 9th Virtual Design World Cup

INTRODUCTION

Entertainment   Perseverance
ELECTOPIA
Society 5.0
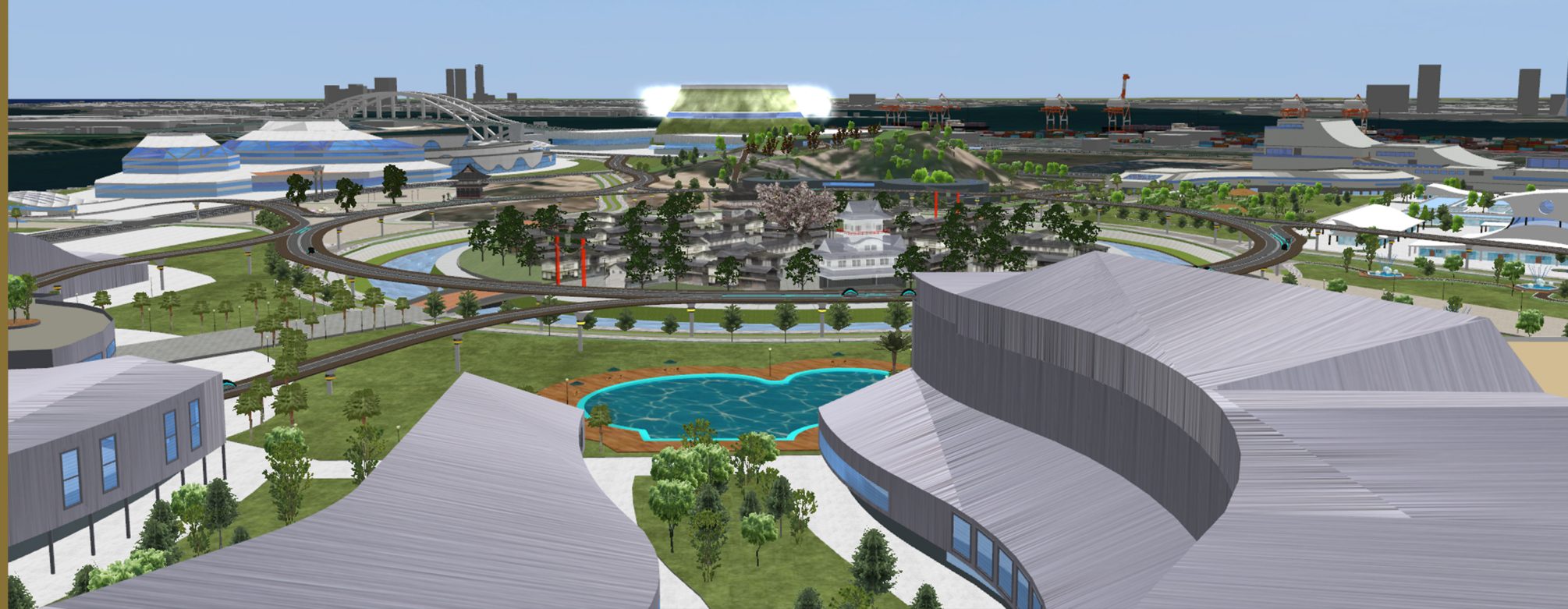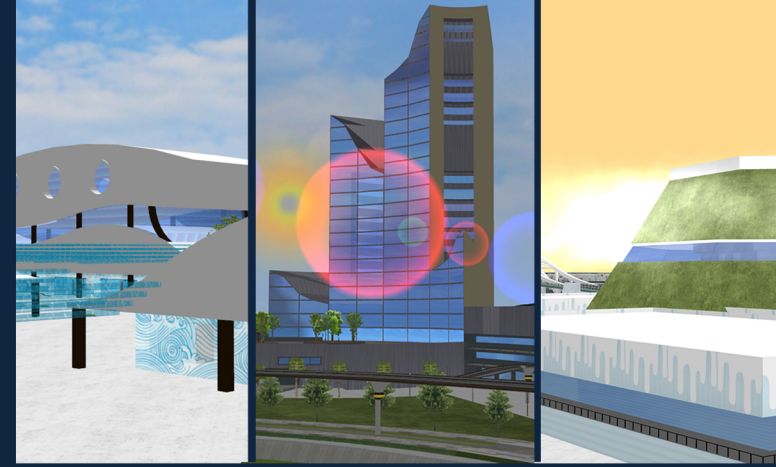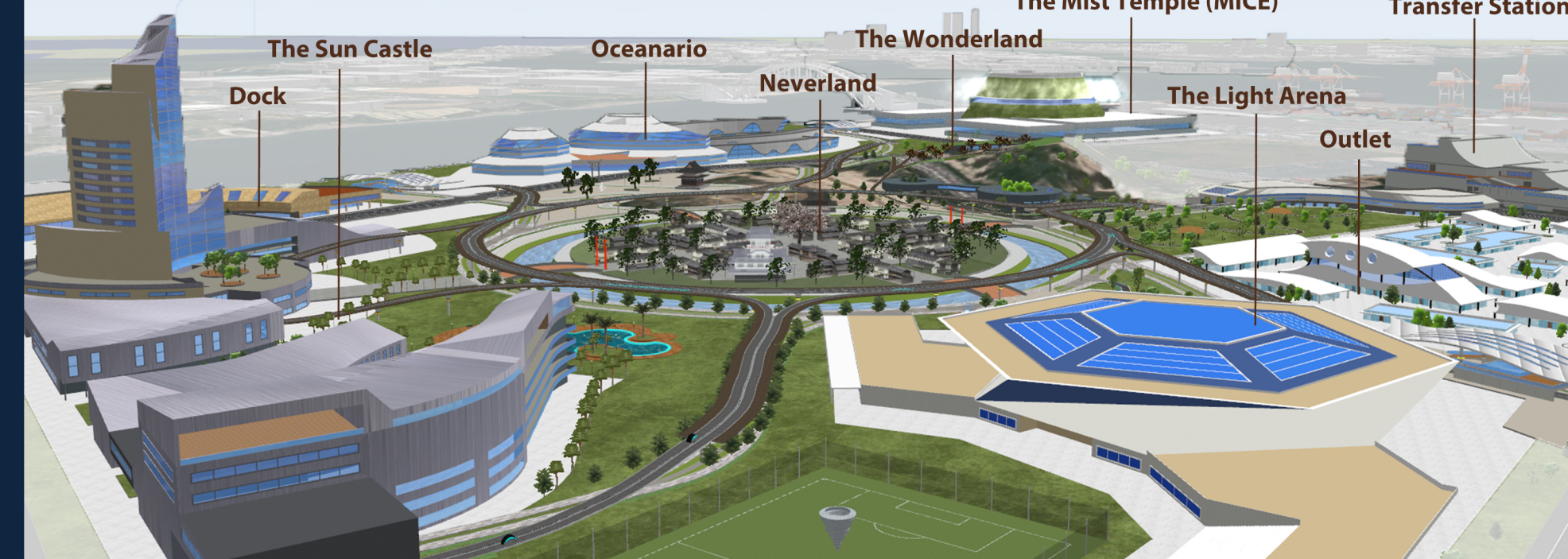
Electopia is a place to immerse people in their dreams. This program uses the concept of Social 5.0, apply AI, IoT and identification of human behavior technology to improve the convenience of life, to achieve a high quality and accurate service society. At the same time, this program applies CG (computer graphics) and MR (mixed reality) to create a unique urban experience, slimming the difference between real and virtual experience, and satisfy the strong desire of human beings to experience the unknown world.
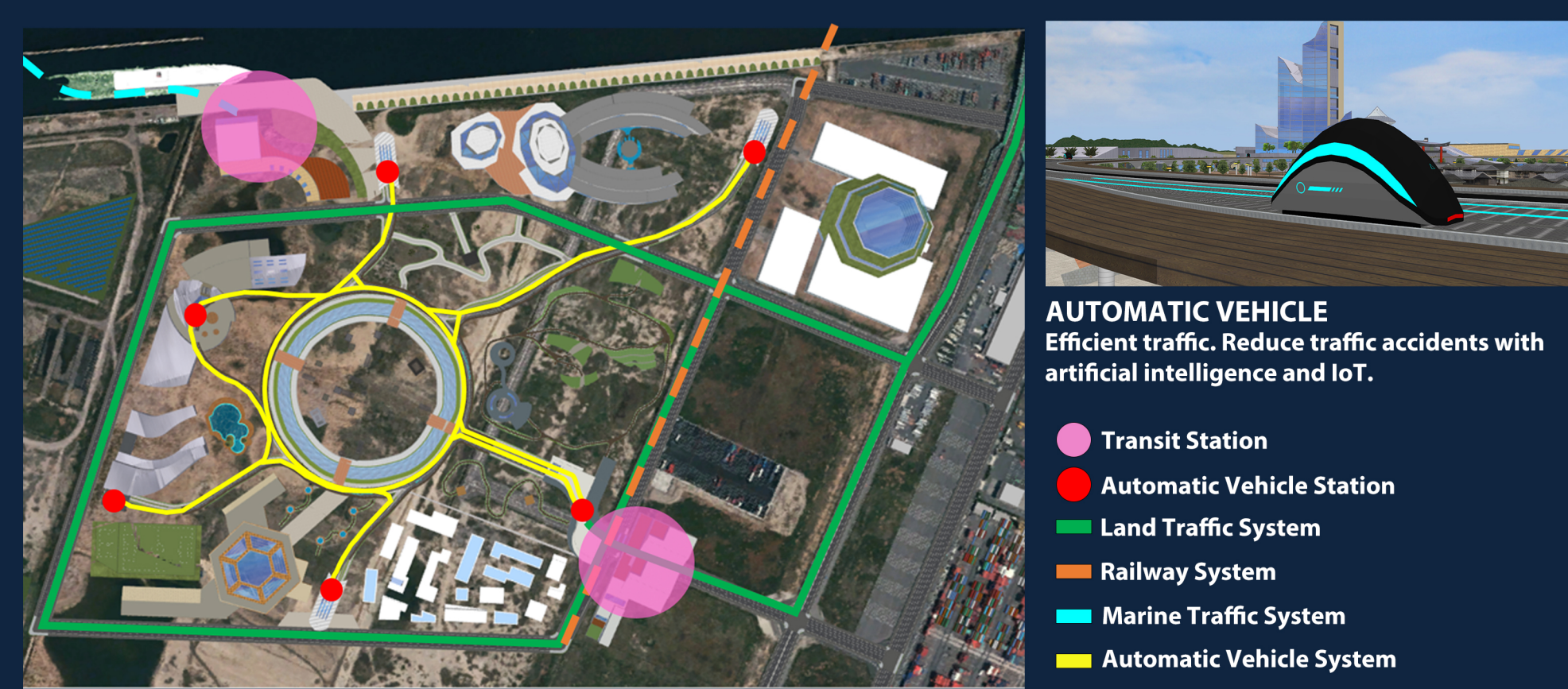
DESIGN CONCEPT

Back in time, Ukiyo-e was not just a way that ancient Japanese people recorded their daily life, but also became a kind of travel guidebook. A guidebook that could take people to anywhere, no matter it's the reality or a fantasy world. We wanted to borrow these elements, the mountains, waves, and sun that appear on Ukiyo-e, to be our design concept. With these concepts, we can create a world that's full of fantasy, turning those wonderful imaginations into reality and making the tourists become the protagonist of every scene. Please join us, and experience this fascinating future entertaining city.

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RESORT PLANNING

The Mist Temple (MICE)
The Sun Castle   Oceanario   The Wonderland   Transfer Station
Dock   Neverland   The Light Arena
Outlet

TRAFFIC PLANNING

AUTOMATIC VEHICLE
Efficient traffic. Reduce traffic accidents with artificial intelligence and IoT.

- Transit Station
- Automatic Vehicle Station
- Land Traffic System
- Railway System
- Marine Traffic System
- Automatic Vehicle System

ENTERTAINMENT

- THE SUN CASTLE - BEAT OF THE SUN

Sitting on the west side of Yumeshima, the idea of this five-star hotel. Sun Castle, is also inspired by Ukiyo-e. It's designed by the imagery of sun, which symbolizes the nationality that spots the sunrise every single day, and shows the endless vitality of Japan.

The surface of Sun Castle is equipped with the lighting effect which will change the projection mapping in order to coordinate the activities in NEVERLAND, to show the endless energy.
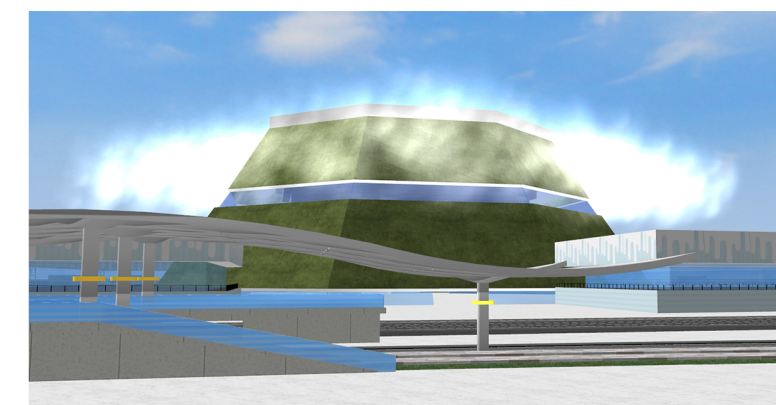
- THE MIST TEMPLE (MICE) - MYSTERIOUS VEIL

Conforming to the MICE definition of large conference center, the Mist Temple is inspired by Mount Fuji of the Ukiyo-e. Equipped with a conference hall which can accommodate 6000 people at the meantime.

Through the technology of MR projection, we can shorten the distance of time and space. Even if somebody can't make in time to the conference, he or she can still use the holography to participate every crucial meeting instead of missing them.
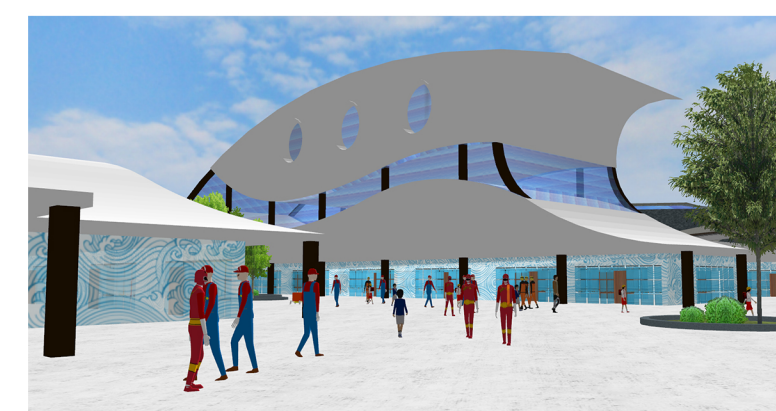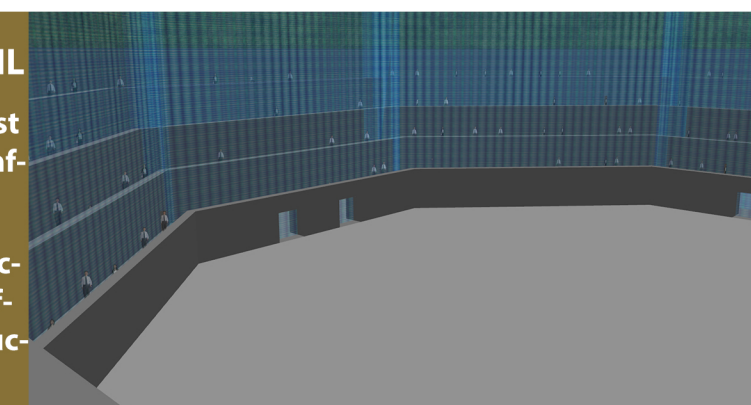
- OUTLET - RHYTHM OF WATER

As the crossing point of the Expo site and the Electorpia, the OUTLET was inspired by the wave element of Ukiyo-e. We use this element to create a water streaming imagery which represents the meaning of leading the crowds to flock into this wonderful future entertaining city.

While shopping in OUTLET, the tourists can collect some treasures which are made by AR projection, these treasures include some discount from the shop or surprising gifts, which stimulate the tourist to explore every part of Electorpia.
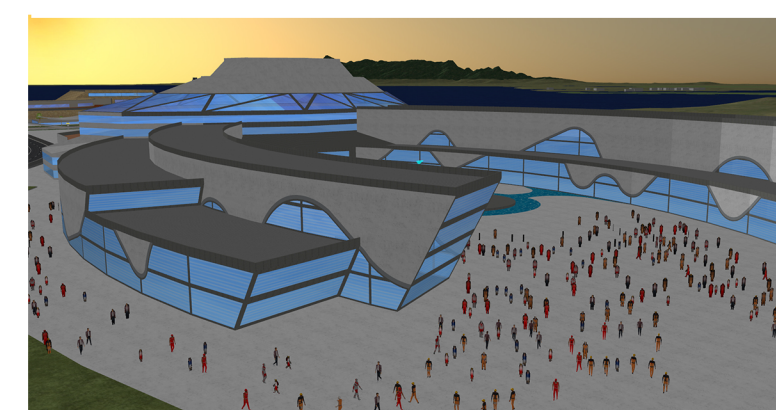
- OCEANARIO -

Oceanario is an entertaining and learning place which connects the aquarium, the ocean farm and the water park. The appearance of these buildings give the imagery of straddling the emerald green mountains and the blue sea, breeding the nationality with abundant ocean resources. With the help of the MR projection technology, we introduced the ocean animals into Oceanario where the tourists can dive into the deep sea, swim with them and act with these magical creatures that we seldom meet.
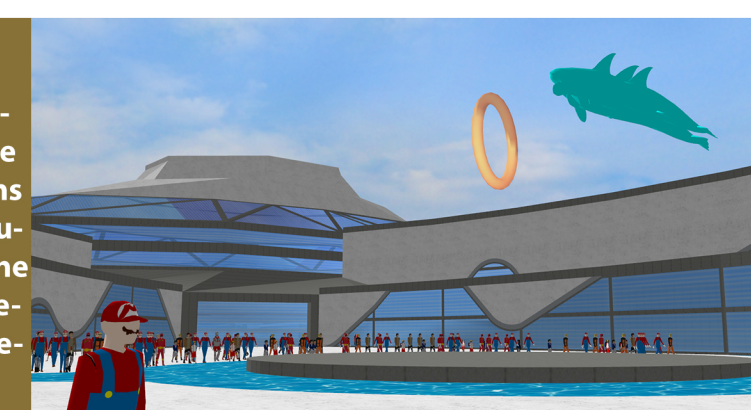
- THE LIGHT ARENA -

The Light Arena combines the future technology and sports, providing multiple activities to the tourists. The appearance is designed as the imagery of water reflecting the shining sun light.

With the help of MR technology, we can imitate or create any kinds of sports field, even some new activities, such as Robot Battle.
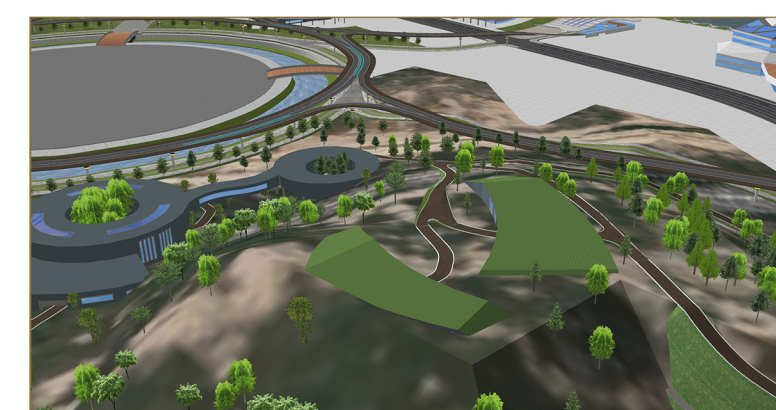
- THE WONDERLAND -

Walking in the natural environment between fantasy and reality, the WONDERLAND gives tourists the chances to bumping into the legendary creatures while participating in the anniversary festival.

Walking through the WONDERLAND, overlooking the NEVERLAND, and experiencing the virtual shock that MR brings. Feeling the excitement of the festival and seeing through the wonder of millenarian cultures.
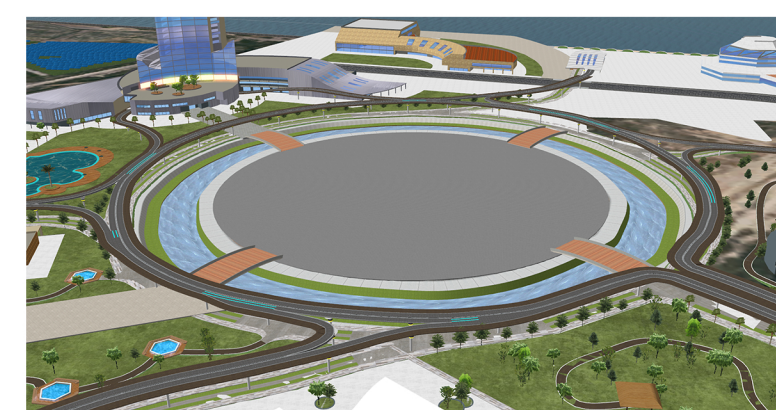
- NEVERLAND -

Located in front of the Sun Castle, NEVERLAND is the main point of Electorpia. NEVERLAND is not just a MR playground but also a multifunctional space. Many activities are held in here, such as MR parade, concert or competition.

Video games no longer being limited on the screen. In NEVERLAND, all the games become ergonomically adventures. In a dream world that MR build, you can travel in different times and spaces, creating your own memory in this dreamlike city.
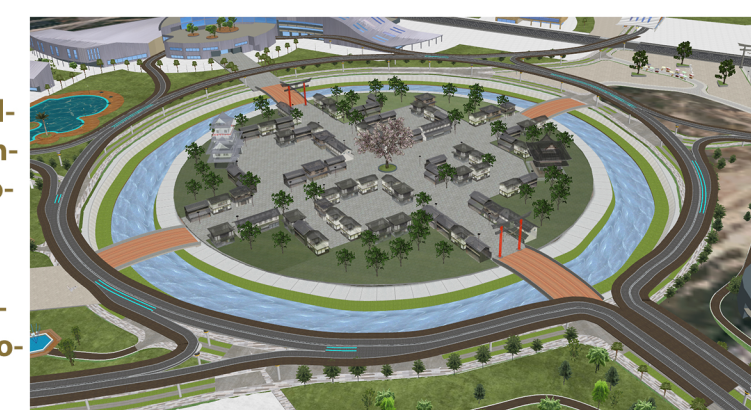
FANTASY MACHINE

Smart Service

In order to practice the goal of Society 5.0, every tourist who comes to ELECTOPIA will be equipped with an AI robot. When it comes to problems, these robots can provide the tourists the informations that they need and help the foreign guests communicate without limits. What's more, through the combination of CG and MR projection technology, these AI robots can be designed as personalized style, giving the tourists a better experience in ELECTOPIA.

MR Monitor Device

To present these fascinating effects, every person in ELECTOPIA will be equipped with a MR monitor. It's a device that is wore on temples and change every person's brainwave for them to receive the objects that were made by MR, such as the appearance of each person's character.

YUMESHIMA ENVRIONMENTAL ISSUES

EMBARKMENT

Yumeshima is an artificial island. The seawater infusion is a crucial issue that we should face up to. Therefore, building the embankments to strengthen the area pruning to seawater infusion is able to reduce the impact immediately.
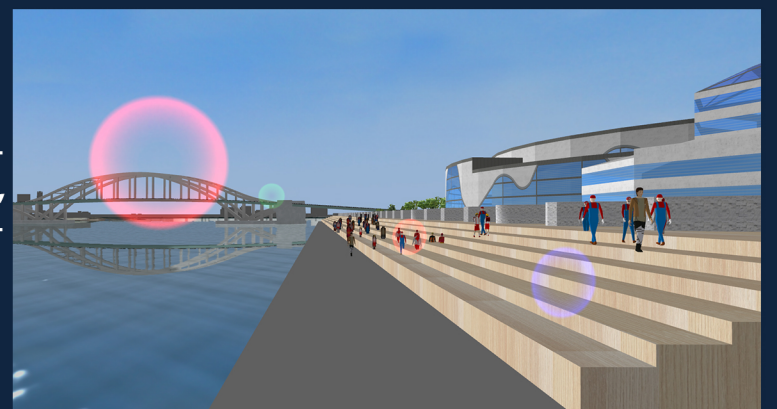
MOAT

At the peripheral NEVERLAND is surrounded by the moat being seen as a detention basin in the Yumeshima owing to the Universal Exposition held in rainy season. Additionally, the moat provide leisure space for IR and create the uniqueness of the NEVERLAND.

ELEVATED SUNSHADE

To solve the problem that Osaka has the most sunshine amount in Japan, the elevated highroad not only provides a sunroof for the pavement underneath but also makes the solar panel attaching on the road not easily be shaded.
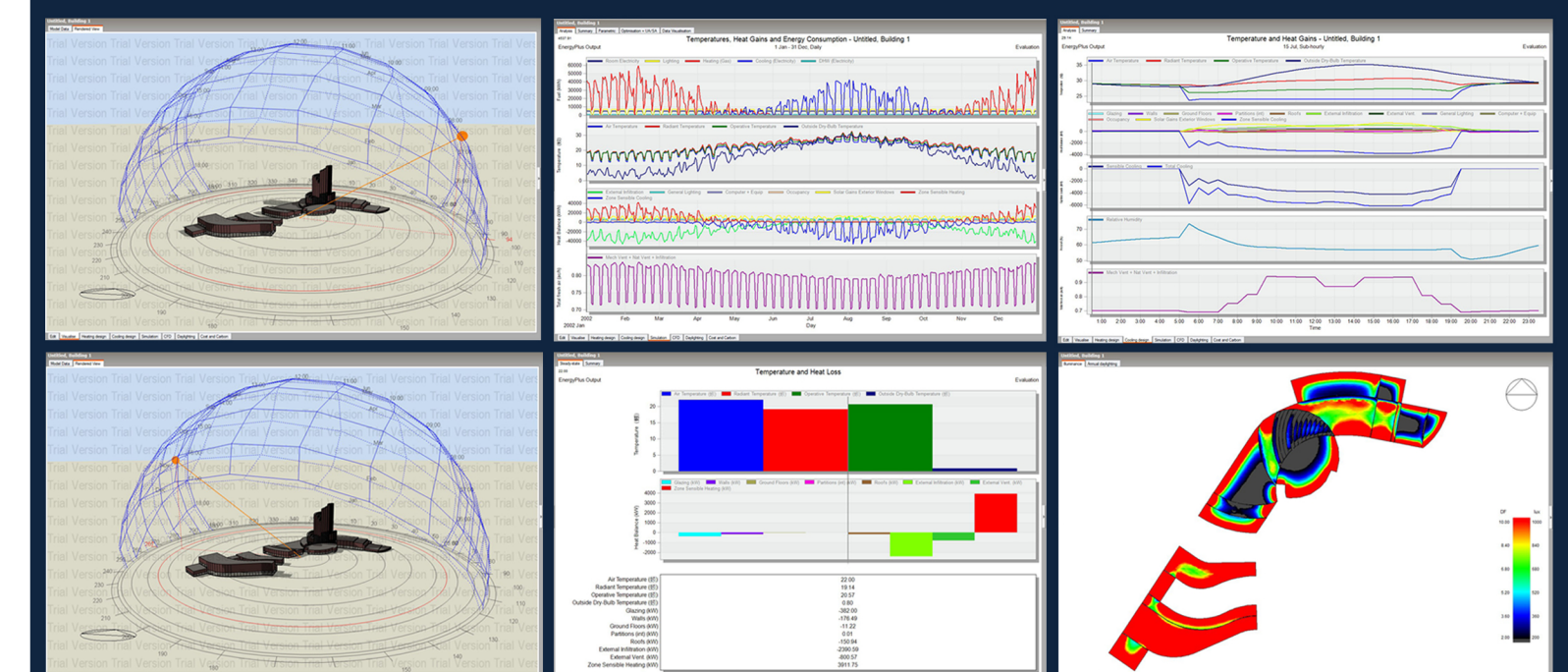
DISASTER PREVENTION

A compete emergency evacuation is necessary due to there are several conference halls that able to content 6000 people at the same time. Through Exodus, we analyze the most efficient evacuation way. There are many escape ports set in each conference hall, when the emergency comes, the audience can evacuate from these ports to the security layer at second floor.

- Export
- Stairs
- Conference Hall
- Security Layer
- Ground Floor
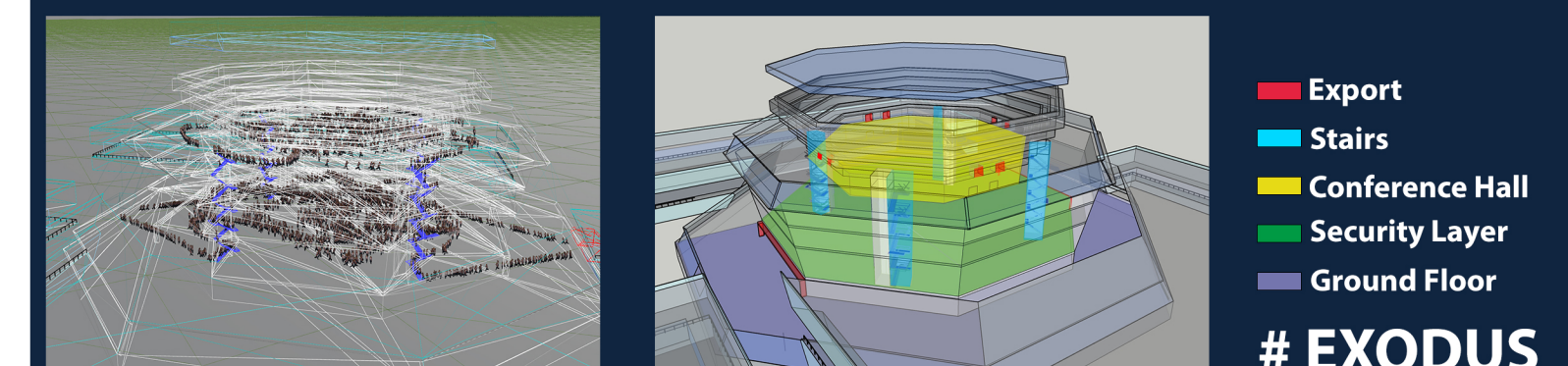
EXODUS

ECO ANALYSIS

Through the CFD calculation of Designbuilder, we are able to analyze the distribution of temperature from inner and external building. Additionally, we imitate the natural ventilation of our buildings and the use of natural light, in order to make our design become more rationalize.

DESIGN BUILDER