

Make the Ridge Green Again!

Haebangchon, Namsan, Seoul

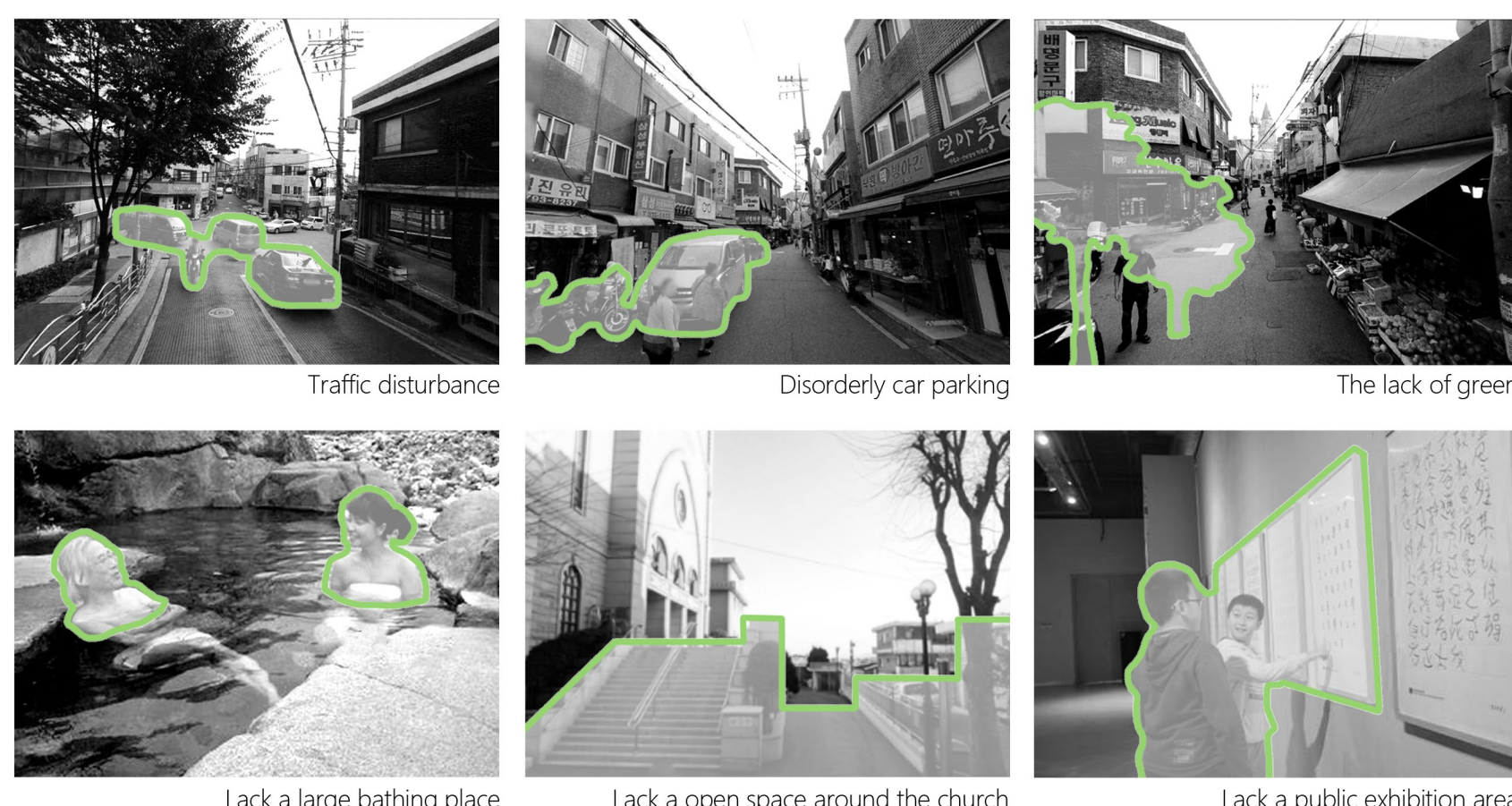
As an international metropolis, Seoul has the same problems as any other cities. Rapid urbanization has caused severe problems such as population expansion, traffic congestion, environmental degradation and water shortages. Human's encroachment on habitat has caused serious damage to biodiversity. Various creatures have accelerated their escape from human territory, but they have nowhere to go. Despite the Han River in Seoul, there is still a crisis of water scarcity.

The site is on the ridge of Namsan, which is located in the core area of Seoul. There was a large area of green land, but it is gradually disappearing due to people's occupation. In our opinion, an ideal post-human future is an era that people live in harmony with non-human lives and an ideal city will provide more space for animals. To fulfill this outlook, the first step is to restore the ridge, and then gradually spread the green to the city, eventually expand the non-human animals' territories and improve human living conditions at the same time.

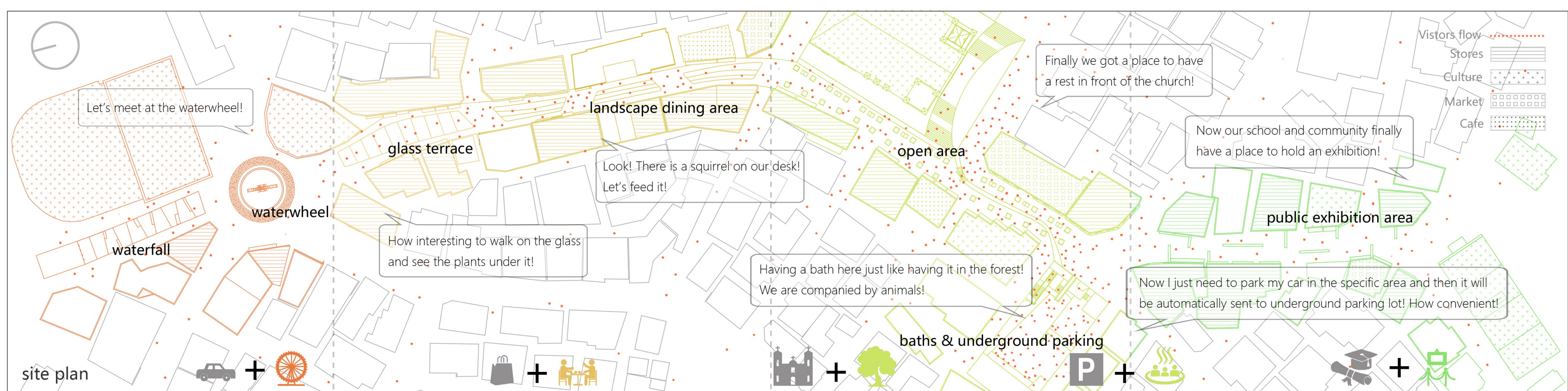
Water is the source of all things, the soul of nature. After the study of the comparison of the world's biodiversity and water resources distribution, we can easily draw a conclusion that biodiversity is positively related to the water resources. Thus, the fundamental access to achieve the ideal state lies in the storage and reuse of water. We make Sowolro 20-gil street into a piece of sponge with purification effect. The street will reserve water with the help of plants and soil. And it will purify water by means of biological science and technological devices, and then we can achieve the water circulation on the ridge.

We combine the four stages of water treatment with the street to form a landscape pedestrian street dominated by water purification. We set up a symbolic waterwheel at the intersection of five streets, which can not only make traffic more orderly but also fills the water with oxygen. Combining a part of dining functions with outdoor landscape creates a better leisure experience. The church will be surrounded by water, emphasizing the church's status and making the surroundings more open for people to stay. We designed an open-air baths in the previous parking lot near the church, and the new automatic parking garage is under the baths. These actions develop the unique bathing culture of South Korea and tackles the parking problems at the same time. At the end of the street we designed an open-air exhibition space to satisfy the community's require of cultural activities. Besides, the whole street is covered by many tubes with diverse functions. They can generate electricity using solar energy, provide hot water, culture eatable spirulina, further purify water and use it with the drip irrigation. The functional pipes will make the street look like the original green ridge in the distance.

CURRENT PROBLEMS

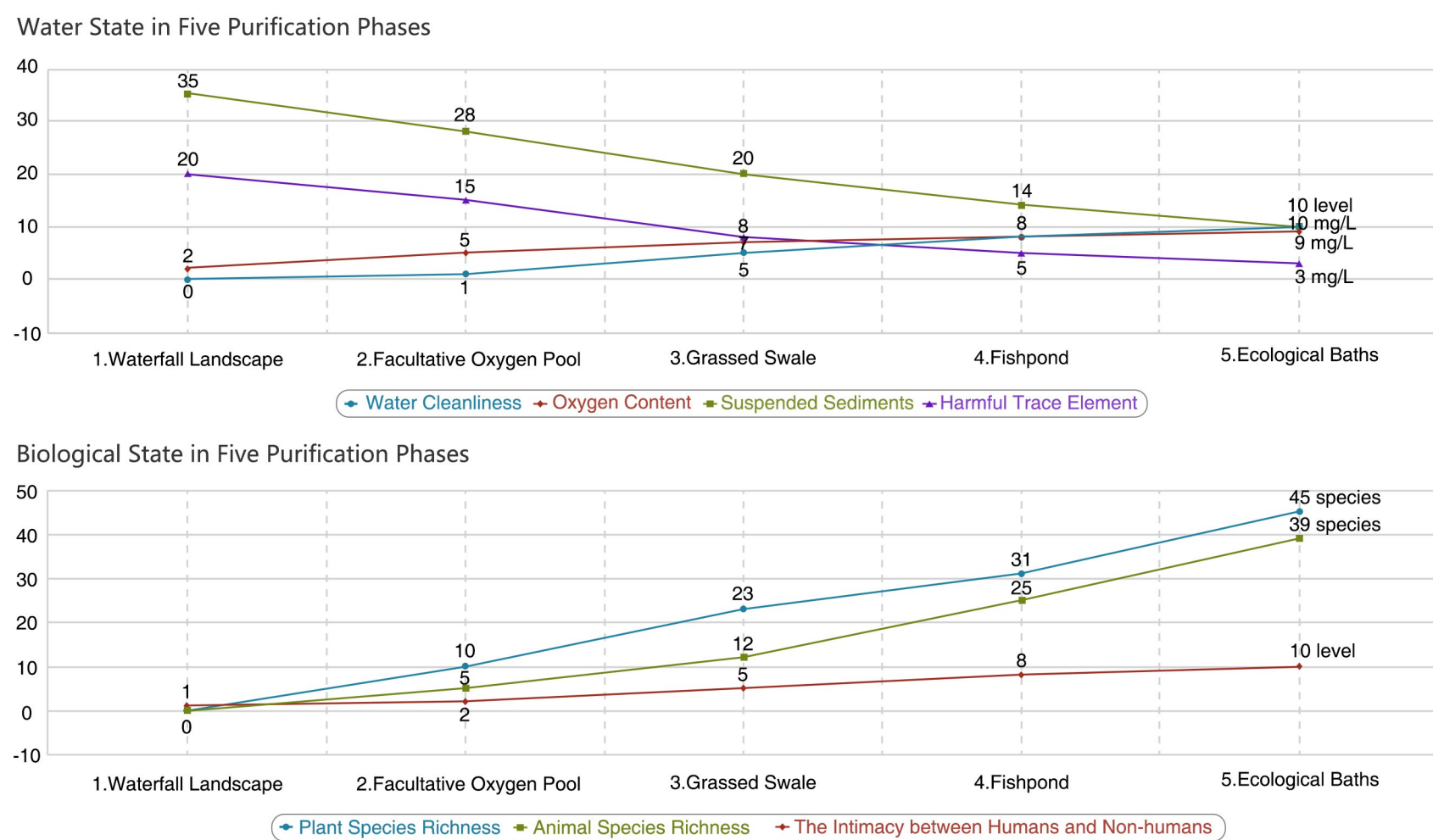


EVOLUTION PROCESS

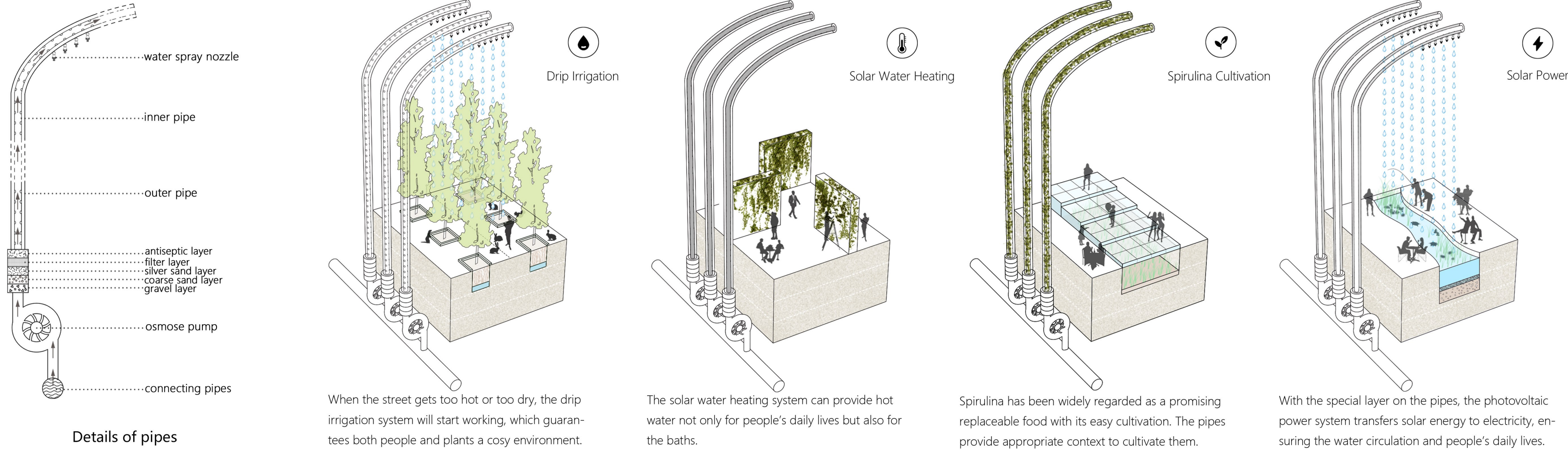
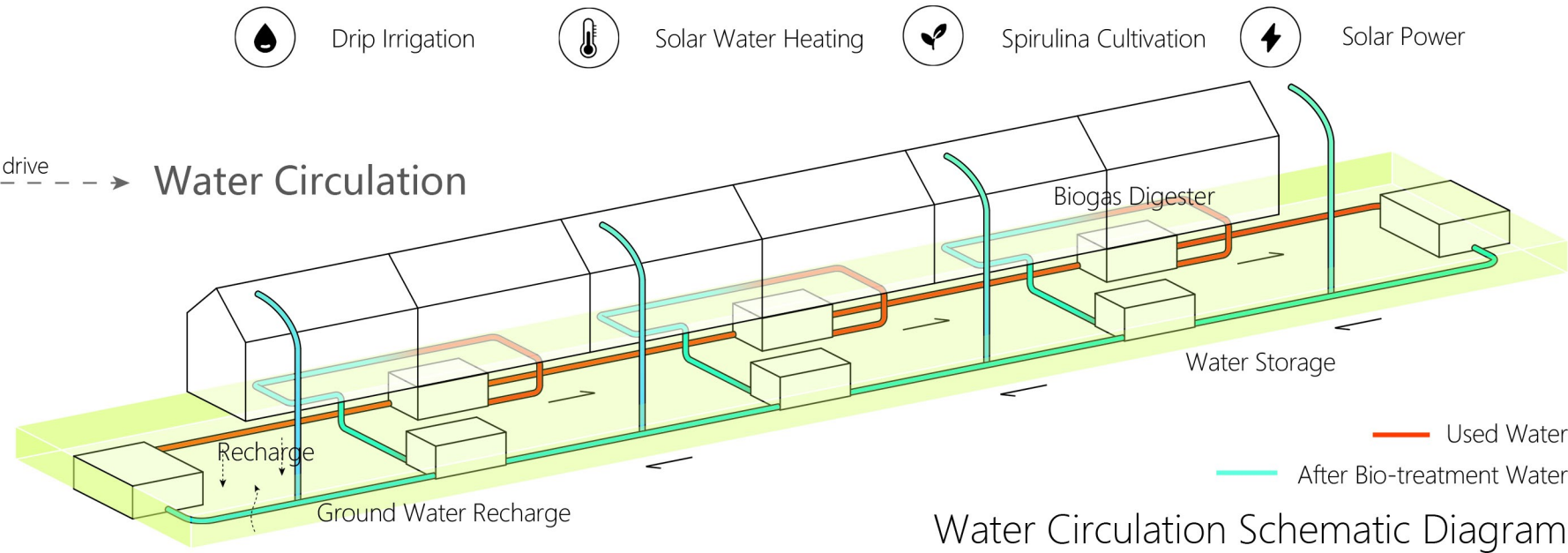
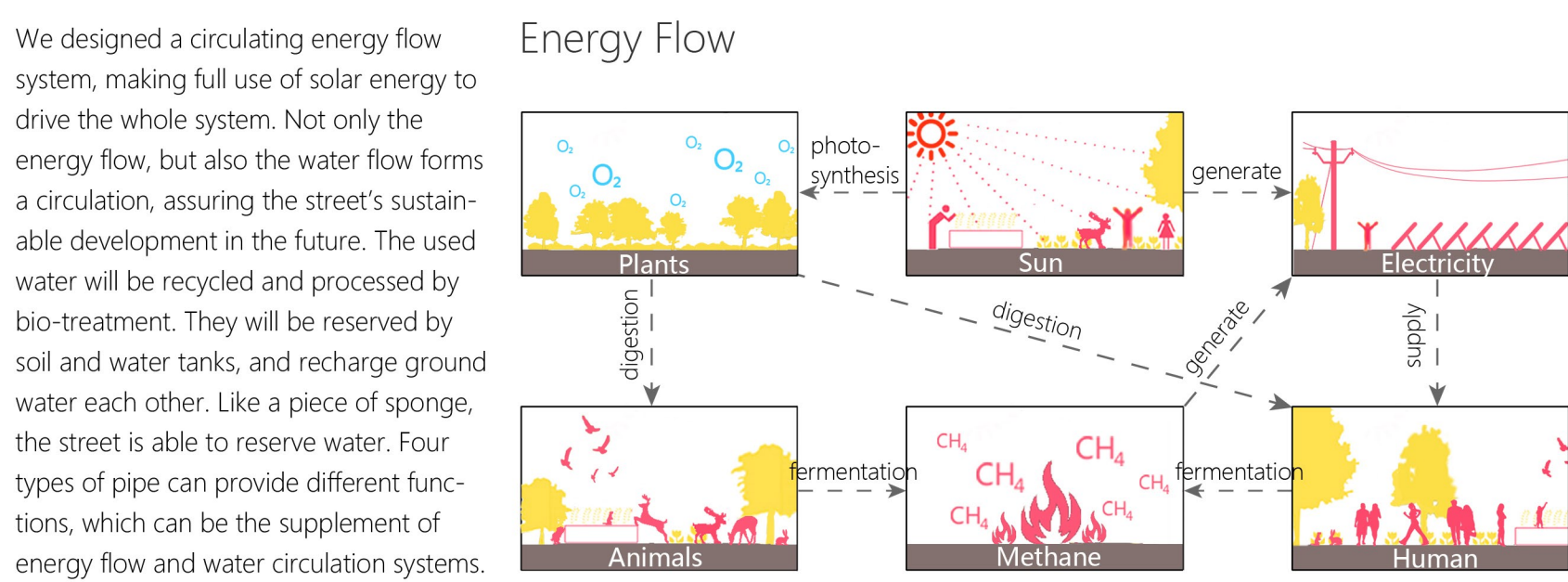


BIO-TREATMENT

The design is based on its original urban texture and different ecological landscapes are set up at several main nodes. From the north to the south, water treatment is divided into four phases. Phase 1: the oxygenation of the waterfall landscape. Phase 2: the microbial purification and ultraviolet sterilization of the oxygen pool. Phase 3: sedimentation and purification effect of grass swale. Phase 4: the purification effect of tree pools and fish ponds. Through these four phases of processing, suspended matter and harmful trace elements of sewage and rainwater are reducing, while oxygen content and cleanliness are rising. The water reaches a higher standard, which can be used for the ecological baths and resident life. At the same time, the biological species and richness are gradually increasing. Different levels and species are adapted to different habitats. And different habitats provide more active leisure and entertainment spaces for people while realize water conservation and water cycle. The intimacy between human and non-human animals reaches the highest level in the open-air baths. So the street can truly realize the harmonious coexistence of human and nature, and reflects the equality and symbiosis of post-human era.



WORKING PRINCIPLE



Anaerobic Sedimentation Tank
The domestic sewage is turned into reclaimed water after pretreatment, and pumped into the underground Anaerobic sedimentation tank which is located in the north end of the street for storage.

Waterfall Landscape
Oxygen exposed waterscape is designed at intersection of five streets and its southern part using the form of falling water and the waterwheel, which can make the water sufficiently aerated in shock and increase the oxygen content. It is full of dynamic and ornamental value.

Waterwheel
The waterwheel is symbolic, which can lead the traffic and provide the space for people to stay.

Facultative Oxygen Pool
The depth of the facultative oxygen pool is between 1.5 ~ 2 meters, which contains a variety of microorganisms, algae and ferns. Using the permeable glass to cover the facultative oxygen pool can keep the inside in a low oxygen concentration environment and receive the sunlight. Water is further purified by disinfection of microorganisms and ultraviolet rays. People can watch the whole process when walking on the glass steps.

Grassed Swale
Grassed Swale is the core part of the whole landscape. Planting a variety of aquatic herbs provides living spaces for some small reptiles and amphibians animal. In this system, water provides the necessary nutrients to maintain the normal growth of a biological community, which also purifies itself. People have closer contact with water.

Fishpond
The sinking pond by the church is designed as a fish pond which mainly cultivates ornamental fish and water plants. It plays the role of biological degradation, class filtration and ornamental fish biological monitoring. The streets is designed using permeable pavement and ecological tree pool, planting shrubs and trees. The trees can provide the space for the visitors to rest here with some scenes. The site provides a suitable living environment for some small mammals. Human beings have a more intimate contact with animals.

Ecological Baths
After a series of purification, the standard water goes into the recycling phase and can be used for domestic water and bath water. The design of ecological open-air baths reflects the Korean bath culture. Human and animals reach the highest level of intimacy.

4.Green Exhibition
The sinking pond by the church is designed as a fish pond which mainly cultivates ornamental fish and water plants. It plays the role of biological degradation, class filtration and ornamental fish biological monitoring. The streets is designed using permeable pavement and ecological tree pool, planting shrubs and trees. The trees can provide the space for the visitors to rest here with some scenes. The site provides a suitable living environment for some small mammals. Human beings have a more intimate contact with animals.

