SITE ANALYSIS

LOCATION : CENTRAL AREA OF SPINELLI PARK **MANNHEIM CITY, GERMANY**

The given site boundary is located in Spinelli Park within the Green Corridor. This place has an interesting history. After World War II, it consisted of green areas until the early 1990s, and as East and West Germany were reunified, this area was used as a site for military facilities by the US military. And again in 2011, when the US troops withdrew from the area, the city is trying to restore the lost green space. A large urban population was concentrated around this site, resulting in a relative lack of public green space of the city center and recreational space. Spinelli Park also will have function to control surrounding cities' micro-climate. Regarding this competition project, the proposed project area is located in the center of Spinelli Park, so-called "Climate Park". This new local recreation area for Mannheim is climatologically important fresh area for the surrounding city climate. Also, this park offers new space for bio-diversity and people's relaxation and recreation activities. Moreover, the city and the citizens admire creatively sustainable urban life by holding garden shows and several urban green experimentation ongoingly.





CO - PROSPERITY

Trees have naturally formed a familiar relationship throughout human history. Huge trees cast their lush leaves, and dozens of people could live there. Instead of sheltering from strong winds and blizzards and blocking strong sunlight, the trees provided a suitable home for humans. The tree also served as a safe house in the event of attacks by wild beasts. Humans who can easily climb trees have the opportunity to climb up and down trees to avoid wild beasts and to hunt birds and animals that breed on trees. Human also co-existed and did co-prosperity by helping trees reproduce and protecting damaged trees. In modern times, the importance of trees is directly related to the survival of mankind. Dangerous climate change is taking place all over the world as various pollution and carbon dioxide emissions caused by the development of industrial civilization are rapidly increasing. The number of trees in the world are rapidly declining due to indiscriminate logging at a time when the carbon dioxide they absorb and the oxygen they release are valuable. Also among the densely lined buildings of big cities, the number of trees are shrinking more and more. Modern people miss the effect of the shade of a green tree, where we were emotionally comforted.









In this proposed design, there was a study on how to

protect endangered species tree while still exposing

them to nature and human. That's why we designed

a transparent glass wall around the endangered spe-

cies tree. This solution give opportunities to protect

the tree by humans' maintenance and protection and

still harmonize with nature. The protective wall's de-

sign is inspired by the roots and trunks of trees. In

addition, all structures are made of wood materials

where possible in pursuit of more eco-friendly design.

GINGKO AS ENDANGERED SPECIES 200 MILLION YEA

EXTINCTION IN THE WILD



As an endangered species in Europe, ginkgo was selected. The Ginkgo biloba is one of the oldest living tree species in the world. It's the sole survivor of an ancient group of trees that date back to before dinosaurs creatures that lived between 245 and 66 million years ago. It's so ancient, the species is known as a 'living fossil'. However, the tree disappeared 2.5 million years ago in Europe and 7 million years ago in North America. After that, the ginkgo tree survived only in China, Korea and Japan. After a long time in Europe, a small number of ginkgo trees were artificially imported and planted from Asia. Ginkgo biloba is unique in its reproduction process. Ordinary fruits make sweet and fragrant flesh and seeds inside, whereas ginkgo biloba, on the other hand, made delicious seeds inside the bitter and stinky flesh. Moreover, it's made with a skin-allergenic substance that animals don't like. Therefore, humans are the only ones who eat ginkgo fruit and spread the seeds. As a result, It is no longer found in uninhabited places. Besides its biological peculiarities, Ginkgo has been a source of inspiration for artists and the general public. For example, in his poem 'Ginkgo Biloba', Goethe praised the ginkgo leaf with a split in the middle as a symbol of harmonious union between East and West, and furthermore, as a symbol of lively and peaceful integration of all opposing values and aspects. Also, thanks to the beautifully bright yellow color, the beautiful appearance attract viewers from a distance.











Ancient people often deified and worshiped trees, and modern people find comfort around trees, both mentally and physically. Stressed people in modern times recover sometimes through meditation around a tree or recover their physical energy through physical training around trees. Based on these common activities, a 'healing floor space' was created through connection with the protective wall. Therefore, visitors are able to observe the divine tree and meditate in the surroundings.





SOLAR ENERGY STORAGE

The protective wall that protects the ginkgo tree and the associated floor as a healing space can store solar energy with the assistance of advanced science and technology. All walls and floor panels are made of transparent solar PV glass. During the daytime, solar energy is all the time converted into electrical energy and stored in the underground plant room. It will produce about 1349.04 MWh of electrical energy per year.



PV GLASS WALL AND FLOOR







