PORTFOLIO

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CLIFF ELEVATOR
TRADITIONAL BRACKET STRUCTURE ORDERING SYSTEM
The use of brackets structure for material transformation in the field of architecture design becomes a viable reinforced concrete structure. These structures and their membrane structure enable possibility some of the non-building materials can possibly be combined with the brackets structure. An interesting combination can be imagined of the bracket structural layout.

Structure / Materiality

Bearing, geometric, and aesthetic advantage in overcoming the shortcomings of the wood materials. Expansion of the bracket's structure, as well as the range of morphological applications in the field of wood in architecture, for appropriate, structural, and the material combining can achieve different scales, context, functions.
View Platform

The vertically-orientated building can stand the building not integrated into the city, and the existing infrastructure is not affected. The building is designed with a vertical orientation to follow the slope of the site, allowing it to integrate seamlessly with the landscape. The main entrance is located at the bottom of the building, providing a clear boundary between the indoor and outdoor spaces.

Land Bearing Base

The bearing base is designed to support the weight of the building and to ensure stability. The base is made of concrete and is integrated into the landscape, creating a seamless transition between the building and the surrounding environment.

View Platform

The View Platform is an important feature of the building, allowing visitors to enjoy panoramic views of the surrounding landscape. The platform is designed with a series of cantilevered sections, providing a sense of floating above the ground. The platform is accessible via a series of stairs and ramps, ensuring that all visitors can enjoy the views.

Glass Cub

The Glass Cub is a striking feature of the building, with its transparent walls providing a stunning view of the landscape. The cube is located at the top of the building, allowing visitors to enjoy the best views of the surroundings. The cube is designed with a series of rotating panels, allowing it to adjust to the changing light and weather conditions.

Lobby

The Lobby is the central hub of the building, serving as a gathering place for visitors. The lobby is designed with a series of open spaces, allowing natural light to flood the interior. The lobby is also equipped with a series of interactive displays, providing information about the building and the surrounding landscape.

The Central Channel

The Central Channel is a series of interconnected spaces, serving as a focal point for the building. The channel is designed with a series of water features, providing a calming and relaxing environment. The channel is also equipped with a series of seating areas, allowing visitors to relax and enjoy the views.

Landscape

The Landscape is an integral part of the building, with a series of gardens and outdoor spaces. The landscape is designed with a series of curved paths and seating areas, providing a sense of movement and connection to the natural environment. The landscape is also equipped with a series of interactive displays, providing information about the building and the surrounding landscape.
The central channel connects the whole structure together, playing the role of reinforcement of the building structure. It is like a huge viewing cableway, taking visitors into the other side of the cliff area. In the entire ride, visitors can enjoy the beautiful view through the glass wall. Moreover, the inside space is interspersed with open platforms which will give tourists more fun.

From a psychological point of view, the huge-scale reinforced concrete structural frame could have brought some sense of oppression. But the spatial variation of transparent glass wall and grassland platforms are able to compensate it. The contrast between the huge scale frame and small-scale grass-platform. The alternation of open space and small space. The alternation of the view of natural and landscape architecture. The contrast between the people moving in the channel and sitting in the platforms. All of these will make the channel space full of fun.
CATENARY
CONTROLL THE INTERSECTION OF CATENARY LINES

ACADEMIC/ MASSACHUSETTS INSTITUTE OF TECHNOLOGY

INDEPENDENT
TUTOR / CRISTINA PARRERO ALONSO
Catenary is considered to be the perfect geometry that combines physical principles and aesthetic values, thus has interested many artists to experiment on it. The way that artificial elements (lines) are embedded in the midpoints of natural shapes (curves) allows for the conversation between nature and design process. When the catenary curves array, they can produce topological surfaces.
Variable Volume

The topological surfaces produced by the catenary curves can be read and perceived as very different shapes if they're observed from different spots on the staircase. Since the "surfaces" are made out of lines, they're permeable when overlapped, which also produces changing visual effects and spatial experiences.
SHORT PORT
A WORKING WATER FRONT

ACADEMIC/ MASSACHUSETTS INSTITUTE OF TECHNOLOGY
THE INTERSECTION OF PUBLIC AND INDUSTRIAL SPACE
NEWPORT, MASSACHUSETTS / 2014

INDEPENDENT
TUTOR / ANDREW M SCOTT
New Belfast Scheme takes inspiration from the transformation of Staten Island in New York. The waterfront is a patchwork of reclaimed land and industrial buildings, which have been transformed into a vibrant mixed-use development.

The project utilises the opportunity to re-purpose the existing infrastructure of the new waterfront by integrating it into the structure of the new building. This approach not only maximises the existing assets but also enhances the lifecycle of the new development.
INDUSTRIAL / PUBLIC

Short Port, New Sydney: an opportunity to transform a derelict waterfront into a public space. Industrial ports have left a legacy of pollution and blight on the city. Waterfronts without marine industry become abstract spaces for public life, development and tourism. Short Port proposes the two programs coexisting.

Short Port's design offers the opportunity for low carbon import of cargo and disaster relief supplies. The existing bulk storage facility optimises a large, existing public space on the foreshore. The civic function of the building is to provide a new public space for residents and visitors. The space will serve as a retail area and be host to a variety of activities, including retail shops, cafes, and public events.

Furthermore, Short Port's design will be integral to the transformation of the site, providing new public spaces and opportunities for public engagement. The site will be designed to accommodate a range of activities, including a large-scale architectural frame with retail and residential uses.
INTERSECTION

By lifting up the public space and intersecting with industrial space on the ground, the pier will be able to maintain the full function as an industrial pier (a short sea shipping port and a fishing port) while allowing visitors to fully experience the characteristics of the pier in the city.

At the same time, the working people actually become part of the public, which creates a new urban experience giving the city a new life. The building becomes a new image of the city and continuously brings energy into this old fishing town.
LIGHTNESS
LIGHT STRATEGY AND INTERACTIVITY

ACADEMIC: MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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TUTOR / CRISTINA PARREÑO ALONSO
Urban Interactions

With a deeper development of the system, the aggregation of the pop-up shops and the collaboration of the owners will be able to create much larger activities that can possibly happen within the park. Imagining in the future, a fantastic movable fashion show will be operated by many clothing stores owners assembling their cars together. People will be watching the fashion show in the beautiful nature while lying on the grass. A moving Farmart will be formed every once a week by all the local farmers. People will have a picnic on them and buy their food from the moving Farmart while enjoying the fantastic nature of the park. A moving concert, created by a few musicians, will bring their music to the people who are enjoying their fresh food from the Farmart.

Dynamic social spaces

Self-driving cars

of both.

Establish a plan to include neighborhood identity in the unique cultural, historical, and scenic elements, and education centers.

Elevate the role of the city in the local, national, and global public life and support the range of influence of the project to the scale of the city and beyond.

Self-driving cars will allow residents to bring together the talents and energies of the city across class, professions, and age.

The city of Quito has formed a municipality, a large business district, and a sprawling urban planner. A four-lane highway and road system connect the city’s centers, the airport, and the port. The city is a vibrant hub for commerce and tourism, with a diverse population and rich cultural heritage. The key success factors for this project are the strong connection between the city’s main points, the urban fabric, and the existing metro. The project is expected to start operation in 2017.

The project aims to transform the city into a smart, connected, and efficient urban environment. The project will focus on developing a shared mobility system, including self-driving cars, public transportation, and pedestrian infrastructure. The project will also include the development of a dynamic social space, which will allow residents to interact with each other and the city in new ways.

Chang Liu | SELF-DRIVING PARK / SENSEable CITY LAB, MIT
The crucial concern of this project is connectivity. The problem can be identified as designing a system design, which aggregate and amplify the natural and historical environment by connecting people either through a physical or digital way. In a way, the potential concern of connectivity forced me to look at the self-driving system not as a self-driving car, but as a self-driving space, where people can be connected with each other. In this project, the self-driving system not only solves the problem of connectivity and accessibility as discussed above, more importantly, the movement of individual unit adds a new dimension to the city. In an age where dynamic environment is created by a new moving modular system, people are tightly connected in the new movement created by the movement of cars and the different configuration of the cars. The different assembly of the cars forms different types of spaces for different activities and human interactions. As the cars are continuously moving and changing, seamless connections are literally popping up at different locations within the site. Consequently, there are two types of cars in terms of programs: taxi and pop-up shops, working together as one.
Future Development

Coffee Shop

Business Meeting

Farmart / Flea Market

Leisure Center

Concert / Show

Fashion Show / Market

In the future, the development of the self-driving system is not limited within the site also. It would be very interesting to see how the self-driving car, as moving spaces, can be extend into the existing urban fabric, making use of the obsolete infrastructure, at the same time, developing a new type of dynamic urban social infrastructure. It will also be exciting to see how this self-driving system, with its flexibility, will produce useful data from its operation within the city, at the same time, sense the changing data of urban information to inspire the new spaces of urbanism in the new digital era.