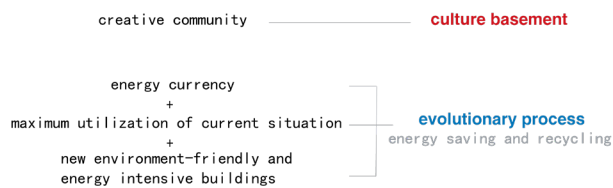


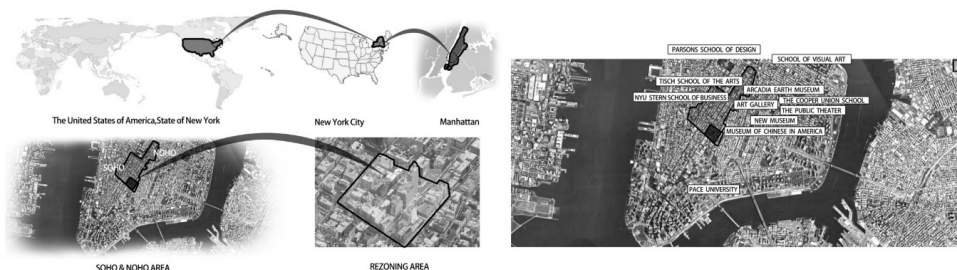
Re-TRoBL : Rebuilding the Rights of Balanced Life

Tongji University : Fan Qian, Wei Zhengyang, Yang Ruoyu

FUTURE CREATIVE COMMUNITY



Location and Resources



Pictures are from:

[1]<https://image.baidu.com/> [2]Google Earth

Ideal state and Current reason

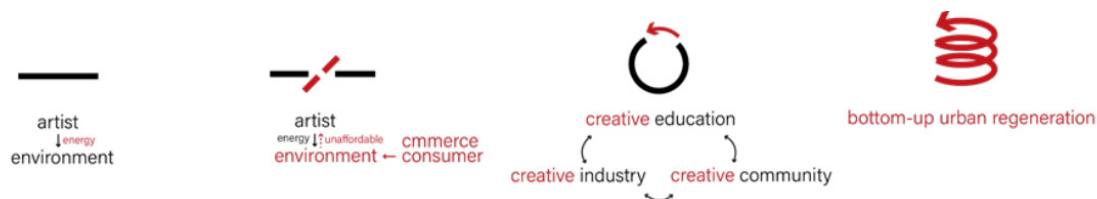


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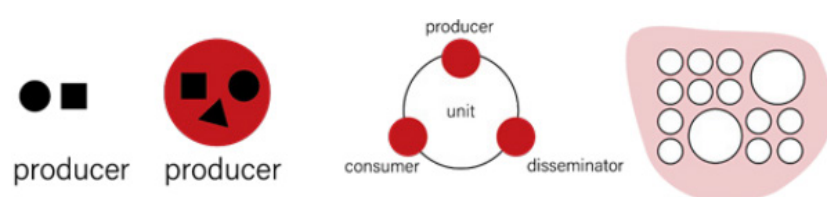
[1]<https://unsplash.com/> [2]Google Earth

Problem Discovery

The simple thread-like development of the art industry has poor adaptability and elastic. In the process of development over time, no corresponding countermeasures have been taken to deal with the "gentrification", which makes the art industry choose the simplest and direct way in the face of the crisis, that is, leaving, breaking the symbiotic relationship between the original positive group and the environment and the positive growth of the art industry.



Design Strategy



Through actively adapting space operation to create a space suitable for the growth of creative industry community, so as to realize the introduction of mixed industry units.

Through the establishment of symbiosis and "co construction" mechanism, create an environment suitable for the development of creative industry community, and form the relationship within the unit and between units.

OUR THEME: Energy saving and circular creative block evolution

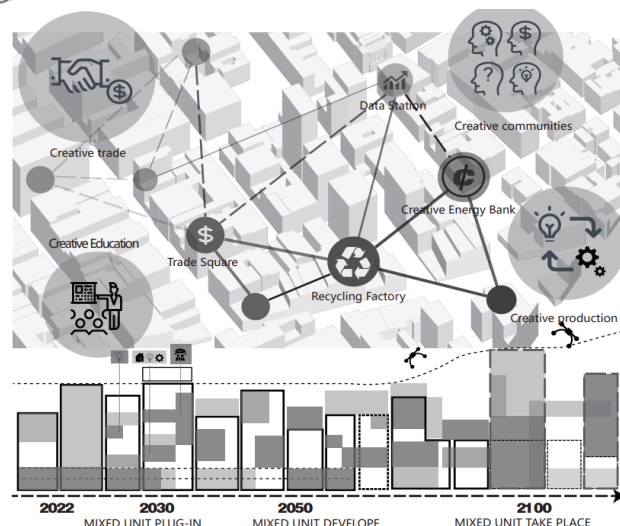
Energy saving and recycling evolution

The process of swallowing the original buildings is mainly based on stock renewal. The new buildings produced after swallowing are energy-efficient. Community construction and operation (construction of affordable housing and community activities) are based on energy changing mechanism (energy bank). At the same time, from the perspective of people-oriented, live with light, dignity and cultural operation inheritance.

The planned location is located in Manhattan, New York City, New York. There are five blocks in the planning area. There are many art colleges, museums, art galleries and concert halls around the planning area. So we can say this planning area has rich resources of creative industries.

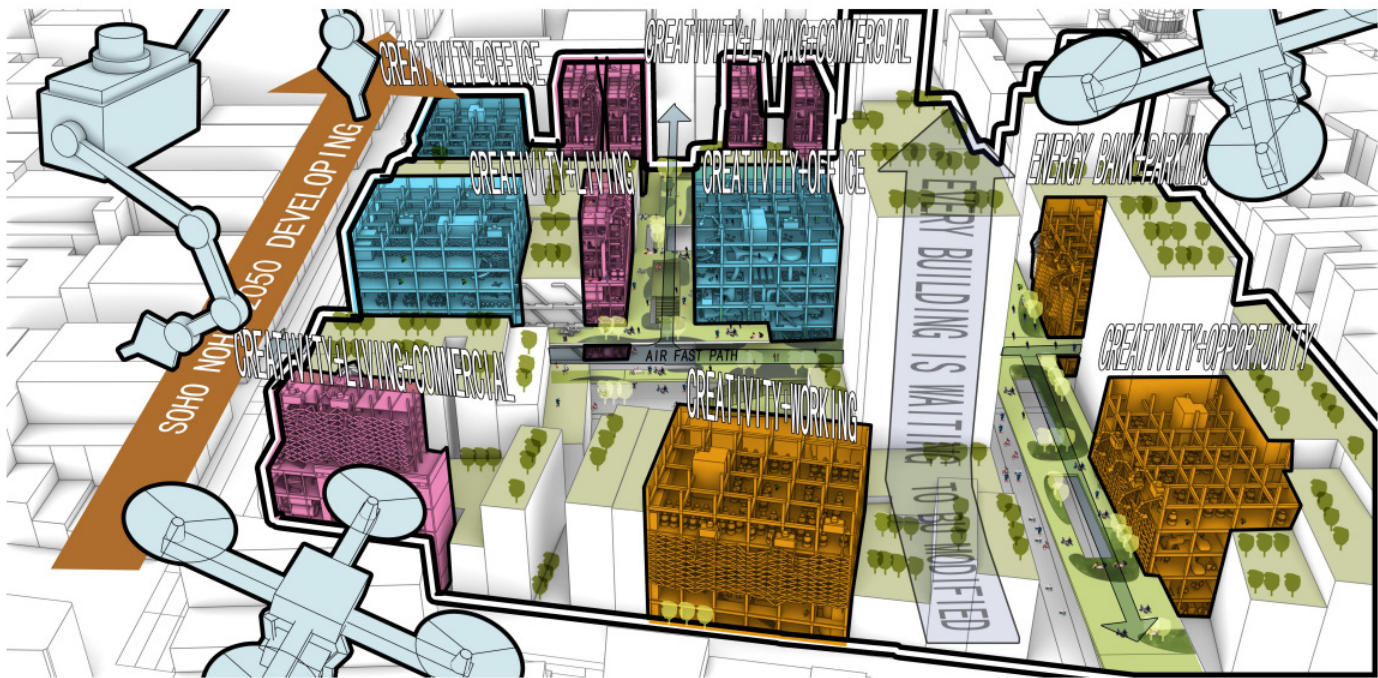
This area can have sufficient housing for people working here, and the regional art and creative industry is booming. The area can be mixed with various functions. In addition, the region can continue to maintain its original history and culture.

At present, the reason for the poor development is that gentrification leads to the loss of diversity, and the situation that money dominates art. Besides, it is because the old planning concept has led to outdated planning, and finally led to the imbalance of development. Finally, the industries in this area are too independent and small and lack of mutually beneficial relations.



Our design

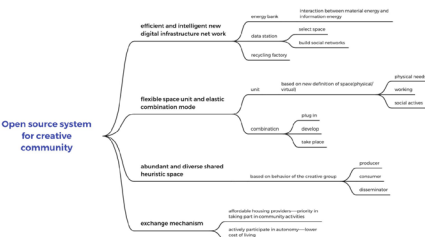
Aerial view of the zone imagination around 2050



2030s



2050s



2100s

Material perspective

According to the existing biological cement technology, it can be speculated that the urban buildings will be composed of such materials in the future which is similar to traditional cement. The new material

is composed of rigid aggregate, organic bonding glue and two types of spores. Spores are composed of protective shell, coding control layer and bioactive bacteria inside. Under the control of coding, red spores can move to the crack to produce aggregate for repair, while blue spores can produce organic films with structural strength.

Evolution process

2030s Uses new materials and 3D printing technology to vertically separate the original building

2050s With the time passing, the old building structure is gradually damaged and the structure formed by new materials is gradually replaced. The streets become three-dimensional and the connection between buildings is closer

2100s The invalid structure of the old building is completely removed, and the new structure forms a

higher, lower and more intensive form. At the same time, the organic membrane structure gives the building a new facade. The three-dimensional street space gradually appears the shared enlightening space.

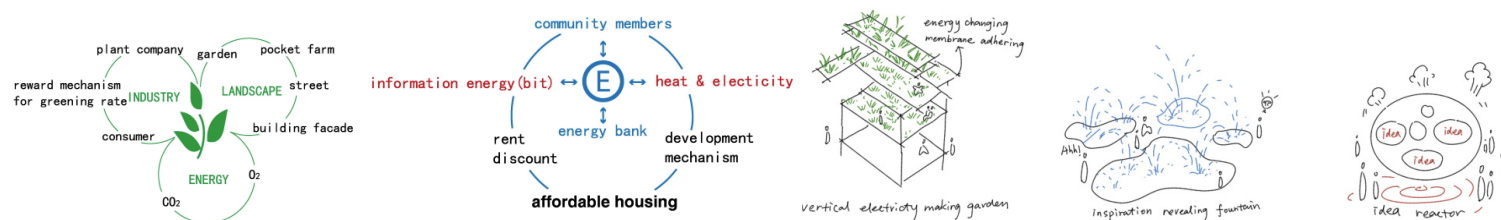
Evolution process

In the future 80 years, the texture of the block will not change greatly, but the public space inside the plot will be developed and form a system. People's activity space outside the building will become enlightening and three-dimensional. The logistics system will gradually change from time limited centralized processing to three-dimensional distribution.



Ecosystem

The participation of plants in the block will also become diversified. Energy bank Taking energy as a kind of currency, by connecting material energy and information energy, we can realize the value of creativity as information and balance the importance of unifying material and information. At the same time, as a currency, it will also participate in the construction and leasing policy of affordable housing



Collective residence

The maintenance membrane structure is mainly composed of three parts, which provide structural support, plant growth matrix and outer membrane that can convert ultraviolet light into electric energy. The gap between the enclosure membrane structure and the cube frame, even under the high-density organization mode, the sunlight can still reach most households through the gap.

