

STREEFKERK ENVIRONEMENT



STREEFKERK MATRIX



THE
LEVELS
DIVORCE



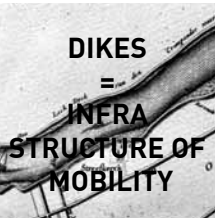
POETIC
DIMENSION

TECHNICAL
CONSTRAINTS



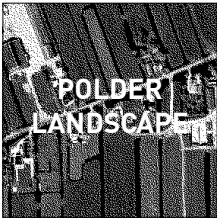
dikes
element

streefkerk
houses



DIKES
= INFRA
STRUCTURE OF
MOBILITY

GLOBAL
WATER RISE



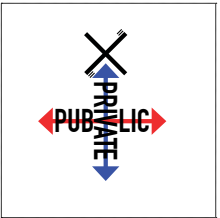
POLDER
LANDSCAPE

DON'T FIGHT
FORCES
USE THEM

Buckminster Fuller



FUTURE
PROOF

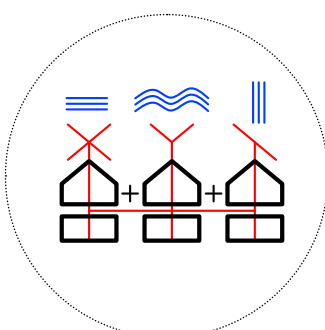
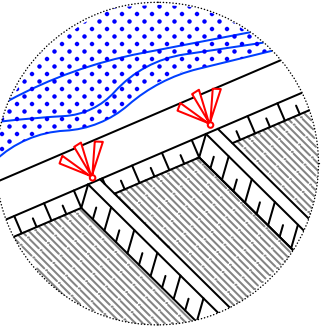
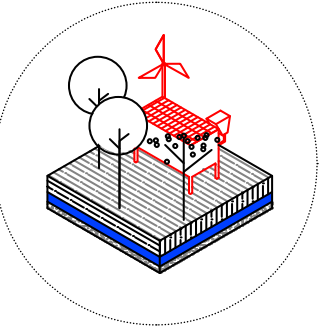
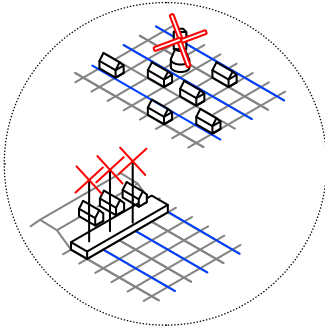
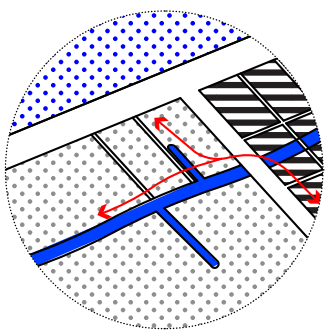
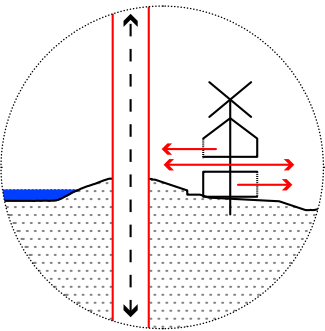
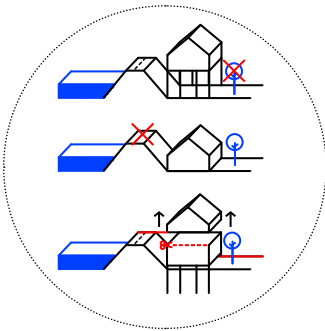
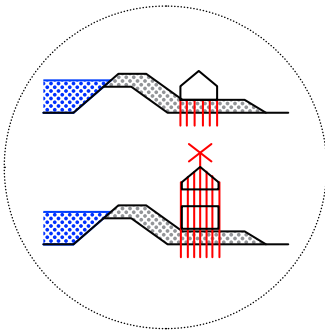


HUMAN
VS
NATURE



HUMAN
VS
NATURE

ISSUES



As a consequence of the protection plan of the Rijkswaterstaat and the Ministry of Infrastructure and Environment against the rising water levels the dikes in the city of Streefkerk will undergo a process of reinforcement. Today, because of this construction, 7 typical local houses have been demolished and left the land along the dike ready for redevelopment. The reappropriation of this site is in our opinion not only a matter of design, but it is closely related to a number of ecological, economic, architectural, urban, historical and social matters, which we aim to address in our design.

In this project we address some of those aspects through a development of a particular example – a case study of an individual home for the city of Streefkerk. Rather than zooming from a large scale to the level of the

detail, we stem the project from a typological proposal of a house, with which we aim to create a resonance on a larger, territorial scale.

One of the most important aspects that defines the new urban context created by the implementation of the protection plan is the height difference created by the construction of the new dike. The gap created between the street level, that becomes elevated with the dike, and the ground level of a private backyard, that remains on its original level, will now amount to nearly 7 meters. Naturally this difference will have a significant influence on the relationship between the housing units located along the dike and the city of Streefkerk.

This design proposal is therefore primarily based on a typological system that allows to link these levels

and enable creation of new possible relationships between them and their surroundings. At the same time we propose to modify the profile of the dike in order to create a topography of pathways that will link the polders and the canals with the street and open them to the pedestrian access.

The difficulty of the new situation for urban redevelopment along the water is based on the significant separation of two elements crucial for the local context. The dike is not only a piece of infrastructure that protects the city from flooding, it is also since its origin a ribbon of mobility. For many urbanized areas along the water it provides the main road infrastructure, which defines the urban development and enables a vital social and economical connection with the surroundings for the inhabitants. The houses are

directly connected to the dike in order to take part in an economic and social coexistence. Both the connection with the the street level and the ground level are necessary, also because the project site is located in a rural area, deeply bound with the earth through farming, breeding, gardening as well as the culture and economy these activities create.

The consequence of the rising of the dike may imply an artificial divorce between the urban quality of the city created by the connection to the street and the rural quality created by the connection with the agriculture. For that reason we decided to base our design on creating a renewed connection between these qualities that could enrich the design of the seven original houses and bring them back in a new form to the project site.

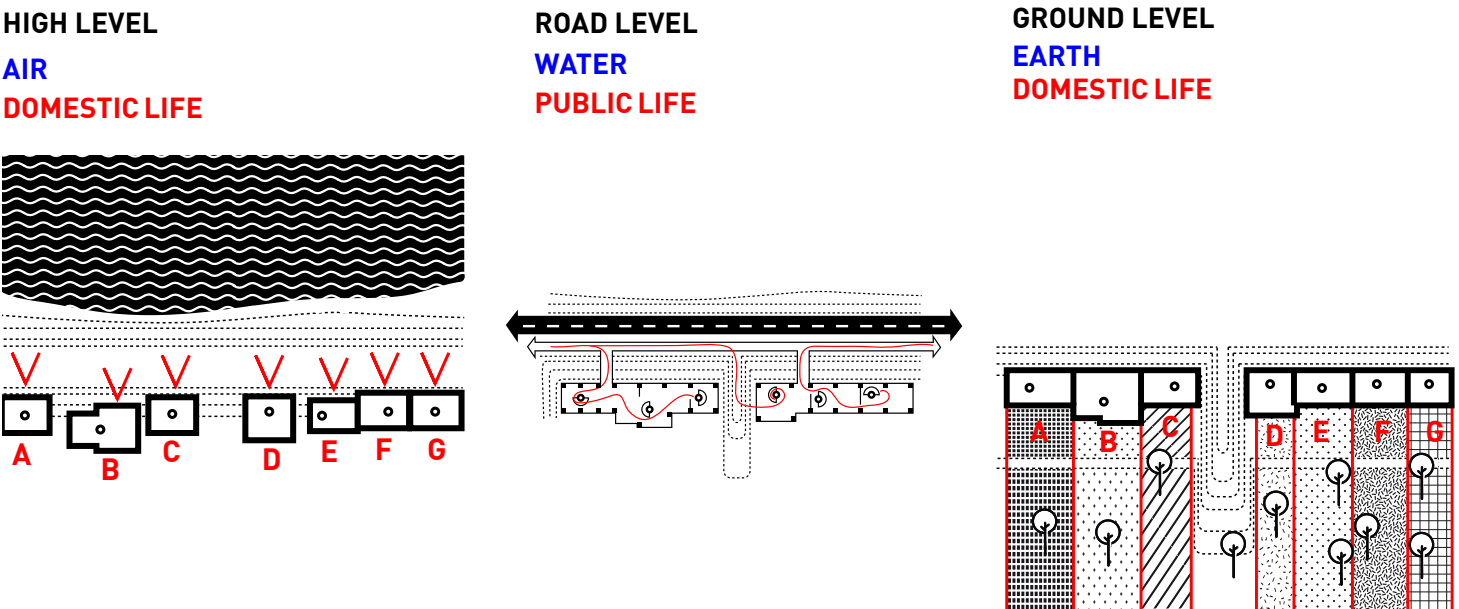
The typology we created provides them with a new shared space located in between the two original floors. While the second floor and the ground floor remain the traditional intimate and private spaces, the dike level becomes an open field of possibilities both for the inhabitants and for the development of the city.

This simple modification created by splitting the volume of the old houses into two pieces creates the new space between the air and the ground, between top and bottom and between the public and the domestic life. This newly created void is addressed at the residents of the dikes. It is flexible and open for appropriation and it doesn't impose anything. It can be separated, left open or combine both approaches. It is flexible, visible and innovative. It also adds more square meters to the houses and allows

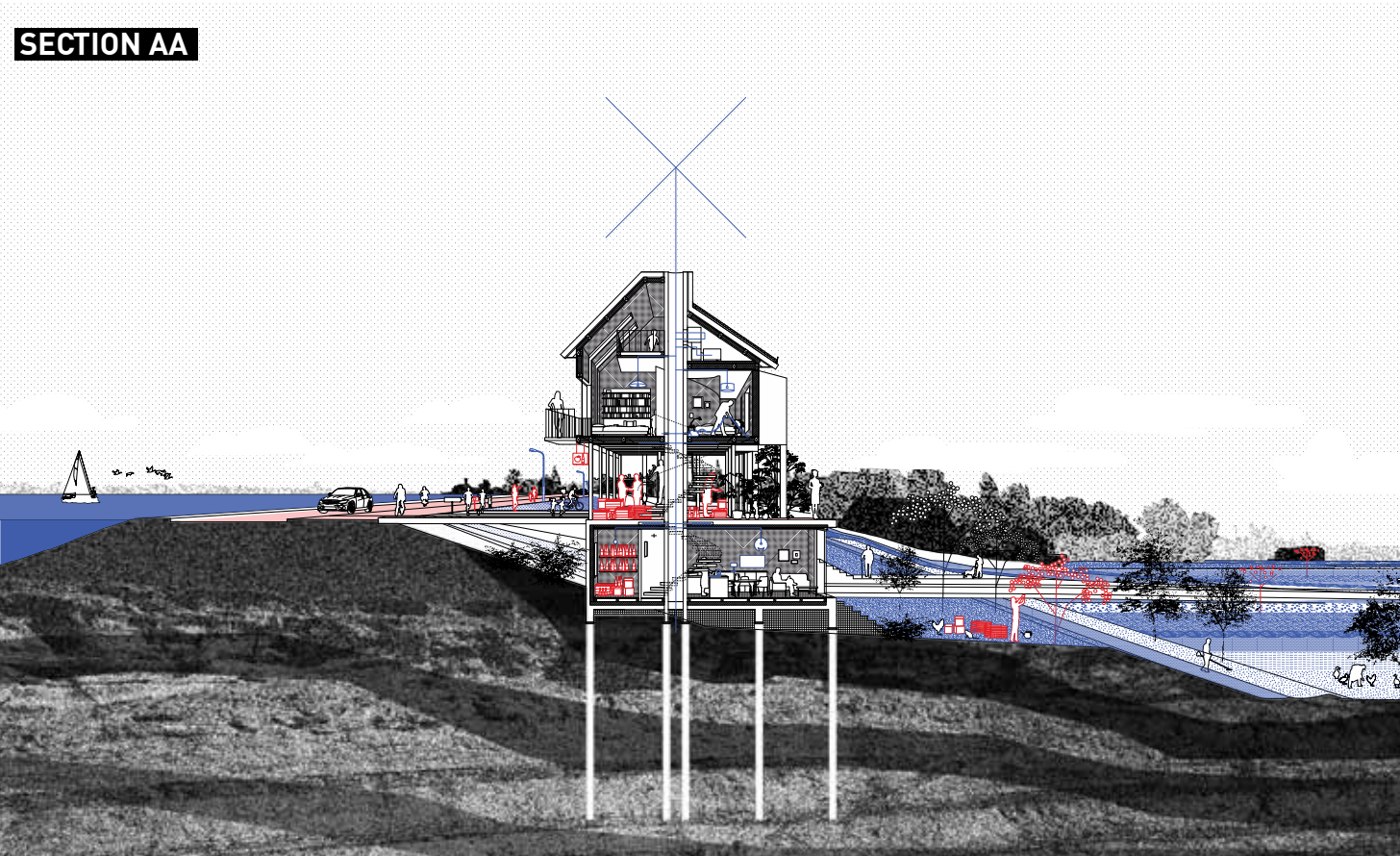
for more social interaction, service exchange and a in a certain sense increases the density.

The technical requirement of using the 'jacking' system implemented by the Delta Program implies that the foundations of the houses need to be extended up until the level of the road. In this is proposal we decided to use them as an advantage instead of a constraint. The rising the foundation pillars out of the ground turns them into a skeleton of the building and the primary structure for the new construction. This approach also allows to minimize the soil sealing and leave the maximum surface of fertile ground for better rain infiltration.

Another aspect of the new development is the longevity and the potential future evolution of the dike houses. The new profile of the dike has been designed for the next 50 years, provided that the predicted increase in water levels will be sporadic and won't have a continuous character. Keeping that in mind we realized that it is rather difficult to predict the real evolution of the protection plan and base our project on this uncertainty. Following that logic we decided to apply the rule: "don't fight forces, use them". We decided that the resilience of the design should lie in its resourcefulness. We therefore developed a scheme in which the new development becomes a possible catalyst for creating a networked urban condition in the future that is based on autonomy and sustainability.



SECTION AA

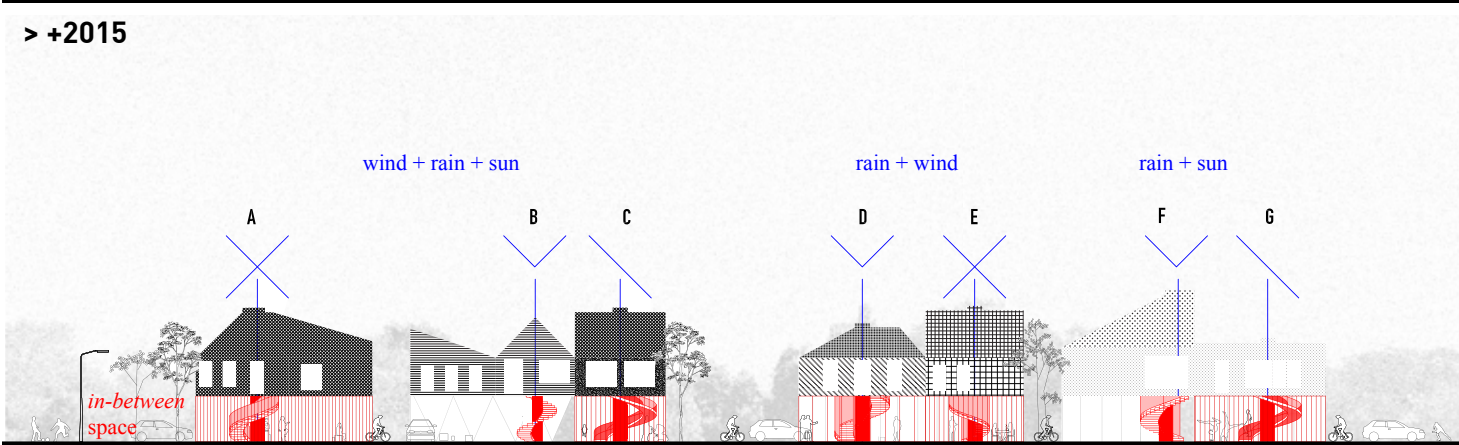


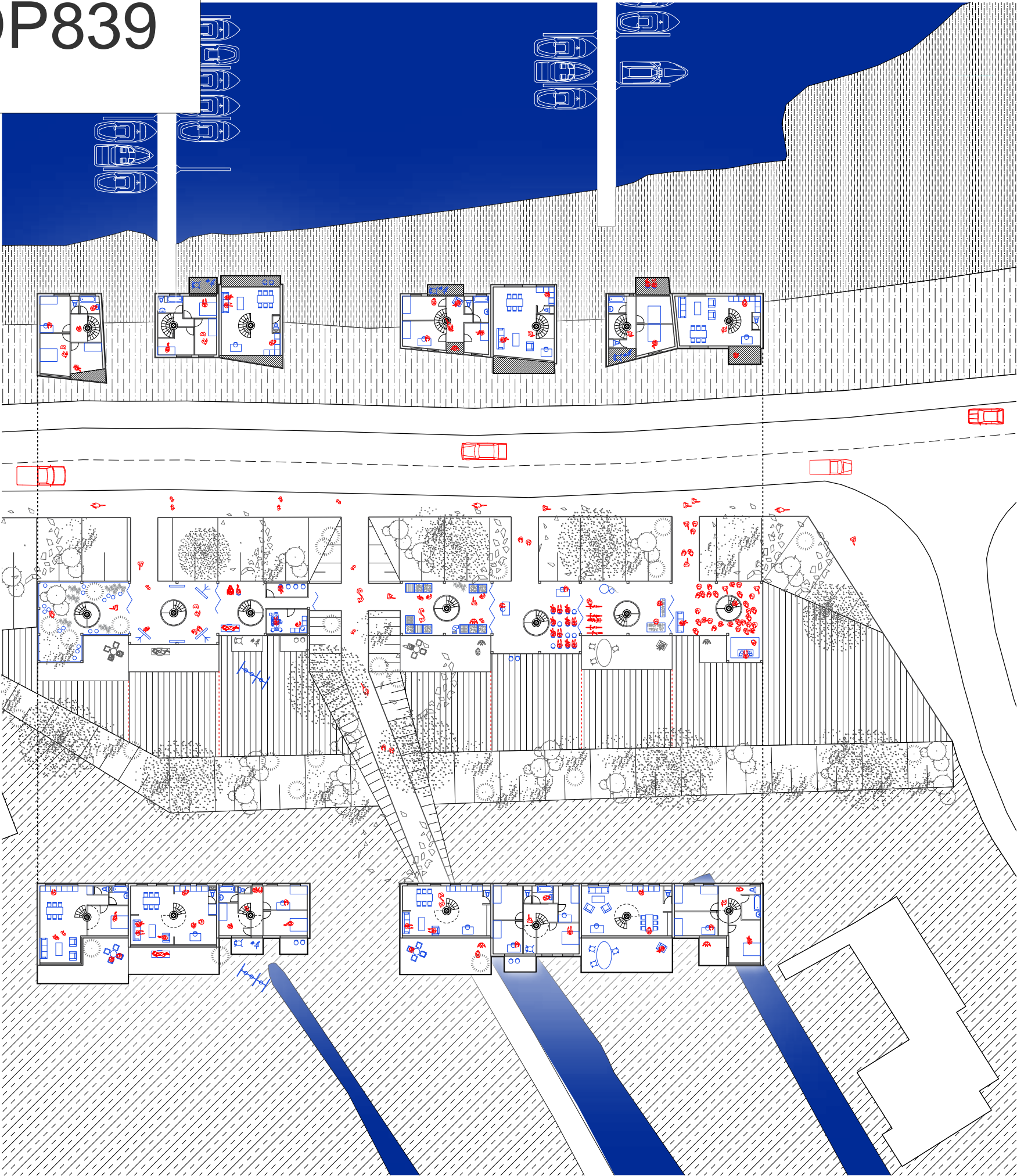
DORPSTRAAT

19XX-2014



> +2015



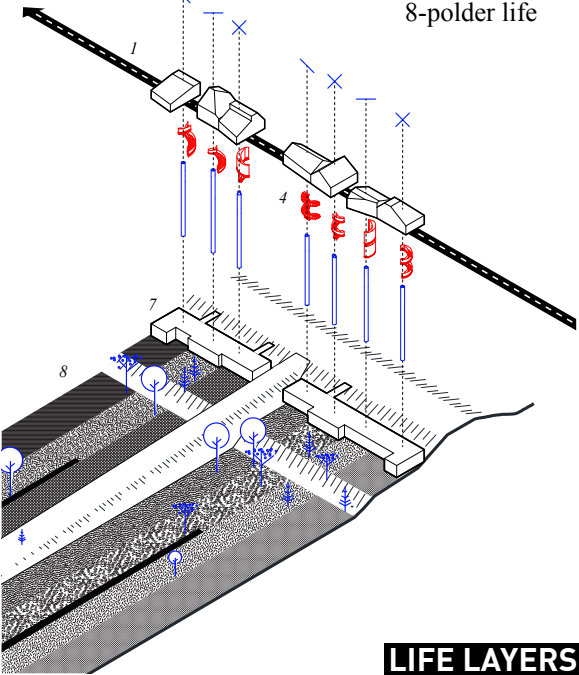


Instead of creating a series of individual independent houses the proposed development is rather designed as a network. It not only aims to enhance the connectivity between the individual buildings on a social and entrepreneurial level, but also as a group of energy prosumers. Each house is designed around a central axis that provides its structural and energy core. It is a spine of the building that runs from the floor to the ridge of the roof to capture natural power from the sun, wind and rainwater. The harvested energy is transformed into consumable electricity and grey water in a technical room located in the attic and distributed through the networked group.

The slab of the in-between space (which is also the ceiling of ground floor) is used to connect several houses and locally distribute the different types of harvested resources. Because each house specializes in one type of harvest they can achieve a complete sense of autonomy only thanks to their networked character.

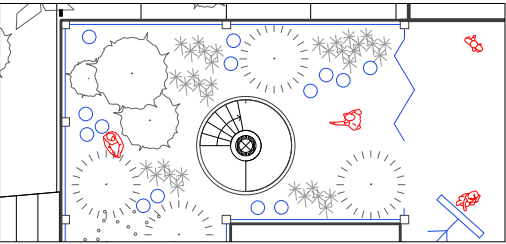
To sum up, we believe that the strength of this newly proposed urban landscape lies between the water and the earth. It uses their intrinsic beauty and aims to respect the presence of the omnipresent vast horizon and the close relationship with land cultivation.

- 1-mobility
- 2-energy captor
- 3-high level
- 4-in-between
- 5-energy axis
- 6-new dike
- 7-ground level
- 8-polder life

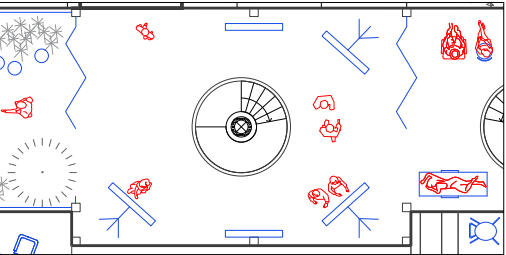


A FIELD OF POSSIBILITIES

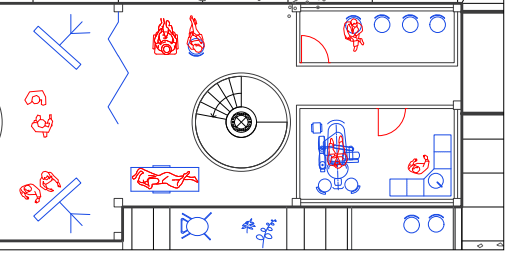
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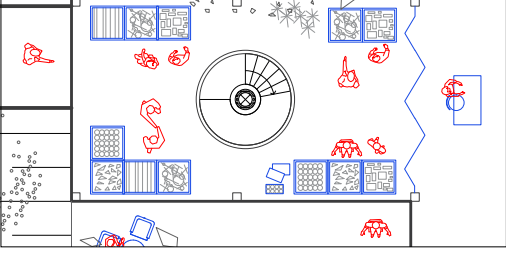
1- a green house



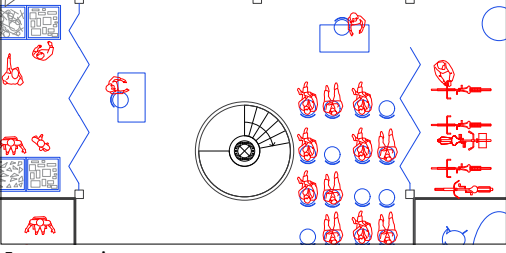
2- an exhibition space



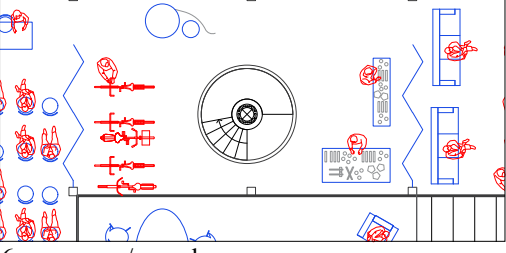
3- an office for liberal profession



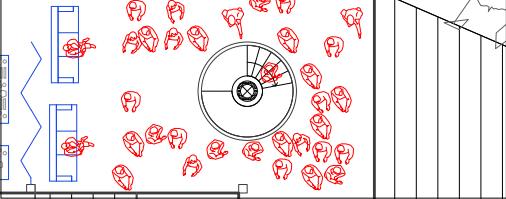
4- a shop of local products



5- a meeting space



6- a garage / workshop



7- an artist studio

The design of this case study house for the city of Streefkerk and its future urban multiplication contemplates and frames the existing landscape. It aims to accommodate various ways of living in synchronicity with the earth, the street, the water and the air. It is flexible enough to accommodate different desires and attitudes towards these different elements that can be reflected in the possible individual modifications of the typology.



the in-between space



something is happening



polder life



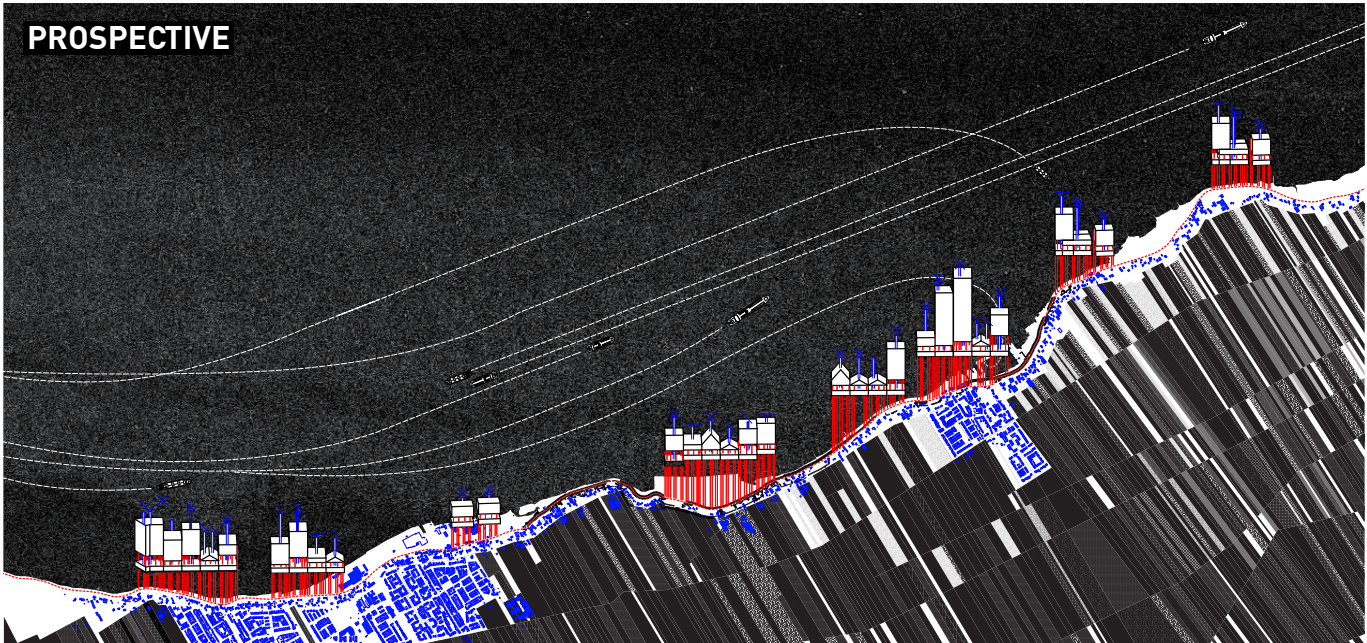
a new emergence



view on the Lek



from the ground



PROSPECTIVE