# LIQUID CITIES, a City Designed by Citizens 

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#### Abstract

'The city of Sofronia is composed of two half cities. One is a large roller coaster with steep bumps, a whirligig with fanning chains, a Ferris wheel with rotating containers, a cylinder with steep wall riders with their heads down, a circus tent with a bunch of trapezes in the ridge. The other half of the city is made of stone and marble and cement, with a bank building, workshops, residential houses, the slaughterhouse, the school and everything else. One half of the city is huge, the other is improvised and when the time of the stay is up, it is taken apart, dismantled and taken to be transferred to the wasteland of another half city'


__Invincible cities, Italo Calvino

Rezone wants to make the concept of the city more liquid.. A city where things can change, a flexible city that adapts to the desires of its inhabitants. A city designed by professionals, but also by its citizens. A city where roles are fluid and change. Where the designer becomes the builder, where the builder becomes the adviser, where the citizen becomes the designer. A constant flux and change of roles and structures.

Rezone creates open designs, methods and strategies where the influence of the end user is big. With new technologies, it is possible to create personalized designs and methods for everybody. For rezone, experimentation is an important aspect of the working flow.

Rolf van Boxmeer has a background in architecture and Tessa Peters has a background in the arts. The crossover of art and architecture brings new insights and is an activist methods and designs that can change the status quo in different urban fields.

In this short essay we will discuss four different projects on different levels of scale and use:

- Little babylon: interactive pavilion. People can influence the behaviour of the pavilion.
- Minitopia: a village build by its residents.
- Opensource housing, wikihouse: housing by everyone, for everyone.
- Redesire: an urban management game that gives people means to participate in urban developments at an early stage.


## LITTLE BABYLON

Rezone, together with ONL architects, Air Design Studio and interactive designers from Lust, has developed an interactive and mobile pavilion named Little Babylon. The pavilion Little Babylon is an inflatable 'data-parasite'. It can be placed at random locations and festivals to collect data about the city it is located in. Little Babylon communicates this data with the audience in an interactive way as a dynamic, audio-visual show. It communicates and mixes the digital city with the physical city. It adds a digital emotional and social layer to a current urban condition. The pavilion 'mines' the internet for specific topics and translates this data in movement, visuals and sound, which together show the sentiment and temperament of the specific city.

On a smaller scale Little Babylon also interacts with the audience that is present when they use their social media with e.g. specific hash tags. This unique experience communicates a blend of digital data and physical and dynamic architecture in an entire new fashion. It portrays, as a big three-dimensional data-visualisation, the moment-to-moment emotions of the citizens in real time.

The pavilion is a mobile and temporal architectural object that can be transported in a big bag to its destination and inflated in diverse urban conditions. It is equipped with three computer controlled (low-pressure) ventilators, 20000 RGB LEDS, audio, Raspberry Pi's and a networked connection. It mines the internet for relevant local searchterms, hashtags and RSS feeds. This data is translated into a dynamic spatial, visual and audial compositions. It knows emotional temperaments: the compositions represent the four Greek classical temperaments for the visiting city: sanguine, phlegmatic, choleric and melancholic temperament.


We live in a time that is dealing with the fact that next to a big physical urban condition and heritage we also live in and with a digital world. Little Babylon plays with what it means to deal with this digital world inside our current physical world and adds a new layer to the existing city. Since it is a highly actual topic nowadays, also in relation to the (re)use of the existing city, Rezone believes it is important to present and develop new architectural cross-over projects, like Little Babylon, to show new digital potentials and uses for current urban physical conditions.

## The Four Temperaments:

As already mentioned, Little Babylon mines the internet for relevant local searchterms, hashtags and RSS feeds. This data is translated by an algorithm into four emotional temperaments: sanguine, phlegmatic, choleric and melancholic temperament. The four temperaments are expressed by Little Babylon through a composition of visuals, sound and movement. These are emblematic for the status of the visiting city. The temperaments are derived from the four fundamental personalities of ancient Greek philosophy.

## Sanguine

The sanguine temperament is traditionally associated with air. Cities with this temperament tend to be
lively, sociable, carefree, open, and pleasure-seeking. They may be warm-hearted and optimistic. The city is imaginative and artistic, and is often open to many ideas. They can be flighty and changeable; thus, sanguine personalities may struggle with following tasks all the way through and be chronically late or forgetful. [16]

## Choleric

The choleric temperament is traditionally associated with fire. A city with this temperament tends to be focused on itself and extroverted. It may be excitable, impulsive, and restless, with reserves of aggression, energy or passion, and try to instil that on other cities. The city tends to be focused on getting a job done efficiently. It can be ambitious, strong-willed and like to be in charge. A city with firm leadership and firm planning.

## Melancholic

The melancholic temperament is traditionally associated with the element of earth. A city with this temperament may appear serious, introverted, cautious or even suspicious. It can become preoccupied with the tragedy and cruelty in the city and is susceptible to depression. It may be focused and conscientious and be less social.

## Phlegmatic

The phlegmatic temperament is traditionally associated with water. Cities with this temperament may be inward and private, thoughtful, reasonable, calm, patient, caring, and tolerant. They tend to have a rich inner life, seek a quiet, peaceful atmosphere, and be content with themselves. Cities of this temperament may appear somewhat ponderous or clumsy.


## MINITOPIA

Minitopia is a self-initiated project by Rezone. What started as an exposition of new sorts of flexible housing types, has grown into a full community of 30 experimental houses. More than sixty people live here in a new kind of 'light' community, where we have created a context involving a lot of room for self-building and creativity of the residents themselves. Rezone created an urban format that deals with less regulations, social and financial issues of smaller, affordable and flexible living.

The Minitopia site is located on the former waste disposal of 's-Hertogenbosch, Netherlands. This was once the place where the inhabitants of 's-Hertogenbosch could bring their waste. The waste
disposal service has now left the site and the empty site has been a waste area for several years now. It may not be developed in the next 5 to 10 years. Undeveloped land offers both good and great opportunities to develop housing in an affordable and light manner for 5, 10 or 15 years. Rezone started the Minitopia Foundation for this purpose. This foundation programs, directs, manages and exploits the site where a new collective of social housing is created with building systems, ready-made houses and self-builders. In addition, the foundation takes care of the financial management and is a contract partner to residents and the municipality. Rezone used an open and organic approach to this project, in which residents were given a great deal of freedom to build their own homes within a few spatial and urban development restrictions. In order to keep costs low we constantly try to use alternative and lighter ways of building, and to reuse existing materials.

## OPEN-SOURCE HOUSING

De Wiek is a digitally produced house. Rezone has designed a small house built on the requirements of the prospective tenant, and based on the so-called Wikihouse system. Wikihouse is a globally available open source building system, which is created by Alastair Parvin and further developed online by the users of the system. With this building system, files can be downloaded, which then can be milled by the designer himself with a laser cutter or cnc cutter and assembled without large equipment or contractor. By designing houses through this system, we as Rezone can integrate design and production. Because design and construction come closer together, the result can be better controlled. It is also possible to go to a less traditional format where a different design is possible and the whole remains affordable.



## REDESIRE

Redesire is a digital interactive multiplayer game we developed with We are Muesli, a game design studio from Italy and Heijmans Vastgoed, a builder and developer from the Netherlands. It is developed with the intention to help various urban stakeholders understand and engage with each other's desires, wishes and expectations in fictional or actual area (re)development processes. The game always starts with a small fun game, to break the ice with the group. During the game, players sit around a table and use individual tablet computers in a series of turns in order to tease out and evaluate different ideas for the redevelopment of an urban site. Players are awarded with scores based on their performance both individually and as members of a stakeholder group. Their desires are evaluated and scored by other stakeholders. The main idea of the game is based on playing with words and concepts. Prior to the game, a list of keywords (desires and issues) is compiled by stakeholders. After that, during a series of opening rounds, each player alternates by choosing a single concept from the keywords. Players assess their concepts based on three criteria: beauty, usefulness, and feasibility. Other players assess this concept, too. After each round, players check whether the score of the concept 'owners' matches the scores given by other players. During their round, the players have the opportunity to change
other players' opinions by writing compelling haiku and via discussion. The closer you get to the assessments of the other players, the higher your personal score is. The moderator who supervises the game, can start the conversation around the concept after each round. The game is played at the table with individual players or groups who each play a stakeholder's role. At the end of the game, besides players' individual scores, a map of desires is developed which shows players' evaluation of different concepts. In addition, there is an analysis of the game behaviour of each player. The main goal behind playing the game is to put various stakeholders, professional and non-professional, at one table in a safe way and that they can communicate in a common language.



## Rezone

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