

INTERNATIONAL NEW TOWN INSTITUTE

New Town Labs

Research-by-design workshops
in four New Towns

August 2019

INTRODUCTION

This report reflects the results of four New Town Labs that took place in four New Towns around the world in 2017 and 2018: Alamar (Cuba), Shenzhen (China), Curitiba (Brazil), Tatu City (Kenya). The Labs focused on the combined themes of food, water issues and participation. The participants in the workshop used urban design (urban planning, landscape, architecture) as a tool to create an integrated strategic plan for the particular challenges which can then be implemented by the cities. The need for these New Town Labs was formulated by the respective New Towns during the International New Town Day in June 2016 in Almere. The cities share the same problem tasks in the three aforementioned themes; therefore, they can share knowledge and experience and learn from each other.

The New Town Labs are characterized by an emphasis on the research phase that takes place prior to the Lab and a participatory design process that focuses on integrating the socio-economic and cultural issues in the assignment.

Three out of the four New Town Labs had to deal with unexpected force majeure, which meant that in one case only a part of the Lab could take place. In the case of the New Town Lab in Alamar in Cuba, that first part was successful, but the workshop with the experts from the Netherlands could not take place due to Hurricane Irma making landfall in Cuba exactly the week the Lab was supposed to take place in September 2017. This caused the flights of the participants who were about to leave to be cancelled.

The New Town Lab in Tatu City (Nairobi, Kenya) was postponed by one year due to political unrest around the 2017 elections, but was eventually able to take place in September 2018. The New Town Lab in Guangming (the New Town which is part of Shenzhen) had to be postponed by a landslide and its political consequences but was still organized in September 2017.

The following report on the New Town Labs gives insight in the question, key issues, participants, process and results of the Labs.

1. NEW TOWN LAB ALAMAR, CUBA

2-16 September 2018

Introduction

Alamar is a satellite city 10 kilometres to the east of Havana, built in the 1970s by communist Micro Brigades consisting of future residents. Presently, there are approximately 100,000 people living in identical concrete flats. The flats are spacious for Cuban standards, yet Alamar is not a popular place to live. That has to do with the monotony of cityscape and identical flats, but also with the sparse amenities and (lack of) design of public space. After the fall of the Soviet Union, when the subsidies to Cuba stopped, the cinema, swimming pool, community centers and other places of entertainment were closed. And they still are. But there are also positive developments: the dire economic situation in the 1990s has resulted in a thriving local economy in the form of organopónicos's: urban agriculture on the scale of plantations. Alamar can provide 95% of its fresh vegetables. Next to that, the combination of boredom and unemployment and the reception of radio stations in Miami have caused the emergence of a thriving Cuban hip-hop culture, whose source is Alamar.

Issues

Alamar relates in a special way to the capital Havana. In the empty zones between the blocks, a major agricultural program started after the collapse of the USSR. At the same time the US embargo continued, so the Cubans had to start growing their own food. Out of this necessity an extensive and unique agricultural program was launched with the New Town Alamar as the center of it. It has created a unique mix of apartment blocks and "organopónicos's" that can form an inspiration for cities which are struggling with the same problems. However, this system is under pressure as the US embargo is expected to be lifted. Foreign parties wanting to export large food stocks at very low cost will be detrimental to local agriculture. Moreover, the plantations are run by (elderly) volunteers and are unpopular with the youth. This is a threat to their survival. INTI is working with its partners to demonstrate the added value of the local system and to show that it is more than just agriculture; that organopónicos also have a social and health value.

The Lab

The task of the Lab was to use urban design (urban planning, landscape, architecture) as a tool to make an integral strategic plan for the transition challenges of Alamar that can then be implemented by the city.

The New Town Lab in Alamar was a crucial step in a series of activities from INTI in Cuba. After an analysis of the New Town (leading to a publication: www.newtowninstitute.org/spip.php?article1197) and two excursions and

workshops with students of CUJAE and TU Delft in 2016, the following step was a plan for a research-by-design workshop with professional experts in the week of 11-15 September 2017. A student workshop was planned prior and in parallel with the New Town Lab.

In combination with the Lab, public activities would be taking place such as building a clay oven in the organoponico, making murals in the park, a concert by local DJs and a public 'Healthy Food' lunch. Together with organoponico Vivero, the aim was to create awareness about the importance of healthy eating, making it more attractive and popular and changing the residents' perspective. As planned, the INTI team, students and the Dutch chef travelled to Cuba in the week prior to the New Town Lab.

After the construction of the clay oven in the organoponico in a combined effort of organoponico-workers, the Dutch chef and the students, everything came to a halt from September 9 onwards because of Hurricane Irma. Irma (8-10 September 2017) had a devastating effect in the Caribbean and also on the planned activities. All flights were cancelled and the Dutch participants in the Lab could not travel. In Cuba all systems of transport and electricity were dead. Fortunately, the oven remained unharmed. We turned the need into a virtue and, at the end, organized a mini-festival in the form of an intimate lunch-dance for around 50 people, mainly from the organoponico, but also with all stakeholders of the project, such as the University, the Dutch ambassador and representatives of the embassy and the cultural organization AHS, who had been our local 'fixers'. This event was successful and unforgettable.

Important for this New Town Lab is the participation process with the local population. We have been working for a number of years on building a lasting relationship with the organisations in and residents of Alamar. The activities that have taken place -despite the force majeure- have actually strengthened this lasting relationship. They have ensured that not only the local partners such as the government and University and the Dutch embassy, but also many residents of Alamar have become involved in the urban development process of their New Town.



www.newtowninstitute.org/spip.php?article1218

Participants interdisciplinary team

INTI cooperated with Cuban and Dutch partners:

AHS (<http://www.ahs.cu/>), organopónico Vivero, Polytechnic University José Antonio Echeverría (CUJAE) Department of Architecture, Municipality of Alamar, Oficina del Historiador, OXFAM, Netherlands Embassy in Cuba, TU Delft Department of Urbanism (EMU, Design as Politics), Department of Architecture (Complex Projects), Derk-Jan Wooldrik (chef).

The team of Dutch designers was selected through an open call :

- Martin Probst (MLA+) – urban designer
- Caterina Vetrugno (.Fabric) – urban designer
- Helena Casanova (Casanova+Hernandez architects) – architect
- Martin Knuijt (OKRA) – landscape architect
- Michelle Provoost (INTI/Crimson) –architectural historian

The Cuban participants:

- Aylena Alberta Aguila (urban designer/architect Havana)
- Jerome Fauré (recyclingproject Oxfam)
- Prof. Jorge Pena Diaz (CUJAE)
- Humberto Ramirez (technical director Alamar)
- Residents Alamar
- Isis Maria Salcines (Int. Relations, organopónico Vivero)
- Orlando Inclan (architect, Oficina del Historiador)
- Erduy Varela Cruz (cultural organisation Asociacion Hermanos Saiz)

2. NEW TOWN LAB GUANGMING, SHENZHEN, CHINA

25-29 September 2017

Introduction

INTI has compiled a Dutch consultant team with several experts working in the fields of water, landscape, public space, energy, architecture, urban design, economics and strategic planning in order to give advice on comprehensive New Town planning to the municipality of Guangming New Town. How the Dutch consultant team operates, has proven to be a successful and effective method. Due to the expertise of its members, the team is able to apply an integrated design approach and to consider all levels of the urban planning process including social issues. It works closely with employees of the Guangming New Town Center, the Guangming New Town Urban Planning Bureau, and develops and shares its advice with developers and other important stakeholders. Last but not least, Dutch experts are familiar with working under pressure to collaboratively review and stimulate out of the box thinking in order to come up with a solid and practical advice in just a few days. It has become part of the so-called Dutch approach. INTI and the Guangming New Town Center want to continue the involvement of the Dutch Consultant Team in order to advise municipal authorities on large-scale urban development projects in an early enough stage and steer these developments more effectively.

Questions, issues

The main question during the New Town Lab was: How to achieve green commuting in Guangming?

In the past several years, both government and companies have invested heavily in the improvement of the traffic conditions and accessibility of Guangming New Town in general and of key areas in particular. However, it is clear that the overall network of different (and sometimes independent) mobility systems is still not fully connected. Besides, a well-designed slow traffic network to meet short travel needs (1 to 4 kilometers) between subway or bus station and home, leisure, school and other facilities or for the final steps of delivery is still urgently needed. Guangming New Town has been positioned as a green city ever since 2007. The Guangming New Town Center is therefore looking for new ways to implement an overall green traffic system that is imbedded into an improved, well-connected green environment within the planning area of 64 km².

All efforts to improve the current mobility system should be user-oriented thus taking user needs and local interests as a starting point in order to create a 'green' sense of belonging.

The Lab

The result of the Lab was a proposal to implement a safer and better-connected bike system including a 10km long bicycle expressway. Also an improvement of the current bus system with Bus Rapid Transit and on-demand minibuses was suggested. Lastly, designing better and more connections between the bike, bus, metro and car systems should improve the overall connectivity and bring more choices of transportation to the people in Guangming New Town. Ultimately, this strategy should change the general dependency on the car. The results were presented by answering the following questions:



■ How to break the car dependency cycle?

It is clear that the overall network of different mobility systems like busses and metro is still not optimally connected. In addition, the current bus system is not covering the whole area and is not very reliable. Furthermore, a well-designed slow traffic network to meet short travel needs is still urgently needed. Biking is currently not attractive in Guangming New Town. The existing bike system is disrupted by crossings and dead ends, and bicycle tracks lack shade and rain protection and are often blocked by parked cars.



■ What can be learned from the Dutch?

Innovation in the transportation system is needed to break the car dependency cycle. It is important to create more freedom of choice in the mode of transportation to the people living and working in Guangming New Town. Government leadership is key in bringing these changes, because only that will ultimately lead to behavioral change.

A combination of problems led to major changes in the Netherlands in the 1970s. Cities could not cope with the growth of traffic and experienced a very high number of casualties that led to national protests. Moreover, the country faced the global oil crisis in 1973. The Dutch prime minister called on the Dutch to change their habits, but still keep the same quality of life. In 1975, the national and local ambition to change the overall system led to results: cities started to experiment with extensive and safe networks of bicycle paths separated from other traffic, making the Netherlands into one of the most bicycle friendly countries in the world.

■ What do we consider a multi-layered bike system?

It is clear from many other cities worldwide that the overall car speed diminishes severely when density increases, while bike speed is generally

not affected. Bike tracks, in that case, should no longer follow the roads, but should be decoupled from the road matrix and have their own separate networks.

A multi-layered bike system consists of bike expressways (arteries), roadside bike paths (capillaries) and traffic-calmed streets (veins). A bike expressway is a fast and long distance connection. It is continuous, without obstacles, for bikes only and comfortable because of easy curves and ramps. Roadside bike paths are safe, separated bike lanes along the larger roads for medium distance trips. Traffic-calmed or slow streets are accessible for cars, but bikes and pedestrians have priority and parking is limited. It means parking is solved somewhere else.

■ How to improve the current bus system?

We proposed improving the current bus system with a Bus Rapid Transit loop and an on-demand minibus service to cover the area more extensively and have a more reliable system.

■ What could be a showcase for Guangming?

Designing better and more connections between the bike, bus, metro and car systems should improve the overall connectivity. A multi-functional long distance bus station should be connected to the high-speed railway station, metro, BRT, and bike expressway by means of a multi-modal transport hub that is roofed over and offers short walking distances

■ How to achieve green commuting in Guangming?

We proposed a bike expressway of 10 kilometers length to connect the new Sun Yat Sen University with the Guangming Center and high-speed railway station. It can be an icon for green commuting, partly raised and roofed over with solar panels, and partly on the ground with underground passages and embedded in greening with trees for shadow.

The results of the New Town Lab were shown on an international platform through the exhibition “Checklist or Reality Check? Research by Design in Guangming New Town” at 2017 Shenzhen Biennale of Urbanism/ Architecture that took place from December 2017 until February 2018.

Participants interdisciplinary team

All Dutch experts built upon their knowledge for years of Guangming New Town, which makes their advice more efficient. Starting from their own discipline, working in an interdisciplinary way:

- Steven Fleming, Urban planner and founder Cycle-space
- Frank Talsma, Landscape architect, H+N+S Landscape Architects
- Tiffany Tsui, Strategic planner, former strategic project director region China, Royal Haskoning DHV
- Leo Versteijlen, Project developer and founder SITE urban development
- Linda Vlassenrood, Program director Shenzhen, INTI
- Roland Winkler, Managing director, architecture office MLA+ Shanghai

3. NEW TOWN LAB CURITIBA, BRAZIL

4-8 December 2017

Introduction

INTI was in Curitiba, Brazil, in December, 2017 for a New Town Lab that developed a future scenario for the city's southern informal settlement Caximba.

Curitiba is a middle-sized city located in the south of Brazil; it is known as a textbook example of urban planning a.o. due to its high-quality public transport system with buses and dedicated bus lanes, its extensive green spaces and its waste management system. But aside from all the good planning initiatives, Curitiba is like many cities in the Global South facing the problems of rapid urbanization, such as an increasing development of informal settlements.

Key issues

The Caximba informal settlement lies in the Barigui Basin at the crossing of the Barigui and Iguazu rivers that form the green borders of Curitiba. Because Caximba is located in the flood zone of the two rivers and in a protected national park, its inhabitants have to be relocated. Addressing the risk of flooding and controlling urbanization along the borders of the Environmental Protection Area of Barigui are key concerns for the city, as well as improving the area's social security, mobility and public space. The restructuring of Caximba is one of the priorities of Curitiba and IPPUC, the planning department of Curitiba, asked INTI to work with them on these challenges.

The Lab

After a mutual exchange of information and presentations of the Dutch and Brazilian participants, the site was visited to understand the location, its context and its challenges and to meet the inhabitants. It became clear that a new strategy is needed for the Tatuquara-area, specifically for Caximba, an informal area in the south area of Curitiba, defined by:



- Irregular settlement: 3000 inhabitants, 1408 buildings, small shops
- In the flooding zone of the Barigui river
- Urban poor, lower income classes
- Social unrest, high number of crime

One of the first observations of the INTI-team was that the question to solve the problems of Caximba represented the need for Curitiba to reinvent itself. Starting points were: the urban extension reaches its green borders; an extending group of lower income inhabitants follows

economic possibilities; the urban structure needs to be integrated with the green structure (like a finger-plan), there should be a focus on the locations where the infrastructure and green borders meet (“red spots”).

Together with the IPPUC team, a strategy was researched and formulated for the renewal of Caximba as part of the reinvention of Curitiba on the larger scale of the city. The strategy was based on three focus points: the existing green structures (including the water-management), affordable housing through affordable urbanism and participation as a tool within the urban planning process.

On the last day of the Lab, the strategy ‘Nova Caximba, green urban framework’ was presented in a semi-public setting. The proposed strategy was well received; the Brazilian counterparts were embracing the results. After the presentation, a discussion started on the possibilities of implementing the plan. Of course, implementation needs further research and design work, but the Nova Caximba-strategy connects well with existing IPPUC plans. The president of IPPUC emphasized the importance of the Lab for beginning the process of developing this sensitive area.

More about the planning workshop (via [IPPUC's website](http://ippuc.org.br/mostrarPagina.php?pagina=508&idioma=1&titulo), in Portuguese: ippuc.org.br/mostrarPagina.php?pagina=508&idioma=1&titulo).

Nova Caximba, Rethinking Curitiba

In the ‘Nova Caximba’ strategy the existing green structures are the starting points, using the flood zones for water-management, adding bike and slow traffic paths where these areas meet the city, thereby creating a border for urban expansion while making the green areas more accessible, but also integrating them in the urban structure. Between these natural borders a robust urban grid, based on the planning model of ‘sites & services’, incorporates evenly the existing informal settlement. The mixed-use plots contain affordable housing, collective spaces and areas for agriculture. Community involvement is supported by urban agriculture, self-construction programs for housing, and by three multifunctional community centers at the intersection of transportation routes and natural areas. These include libraries, healthcare, sports facilities and administrative centers, as well as local markets.



Marco Vermeulen (landscape architect, participant of the New Town Lab):

“Curitiba has gained fame as a sustainable alternative to the uncontrolled urbanization cities such as Sao Paulo and Rio de Janeiro. In particular, the transport-oriented design of the city and the advanced bus system received a lot of international attention. In the meantime, the system of radial bus

lines is undergoing overwhelming use and new structures are being added that better accommodate the growth of the city. This process is led by IPPUC, the planning authority of the city, with a tight hand. Due to the strong focus on the infrastructure, other qualities and potentials of the city seem to disappear into the background. For example, Curitiba has been traversed by small rivers that feed the Iguacu River on the southern side of the city. Most of these city rivers are currently hardly visible in the city. Nevertheless, in our opinion this is the key for an important next step in the urban development of Curitiba. It is precisely this green-blue network that anchors Curitiba into its environment and can give the city unique qualities. Qualities that are complementary to those of the urbanized, dynamic radials. Here no cars, buses and high-rise buildings, but a lot of green with pedestrians and children playing. And cycle paths that will bring the city dwellers undisturbed to the national park of the Iguacu River during the weekend, which will also receive an impulse. The green-blue network would also be able to buffer the surplus rainwater that falls in the streets of Curitiba and drain it slowly to the Iguacu river. The combination of the radial urbanization characteristic of Curitiba and the new 'city rivers' offer the city a super strong spatial hull that gives direction to the urbanization projects of the following decades. That certainly applies to the southern part of the city that will be developed in the coming years. Extra interesting are the locations where both systems intersect, especially on the outskirts of the city. These are green locations that are easily accessible by public transport, the car and the bicycle. Here, for example, more urban amenities could also be developed, such as sports culture and education. The new and organically developed district Nova Caximba can become an example of a Curitiba in which the landscape and urban qualities have been well balanced.”

Participants interdisciplinary team

INTI put together an interdisciplinary team of Dutch experts that worked together with the experts of IPPUC. The INTI team consisted of:

- Marco Vermeulen (Studio Marco Vermeulen), landscape architecture, energy transition
- Martin Sobota (Cityförster), urban design and architecture
- Rodrigo Bandini dos Santos (Mecanoo), architecture
- Simone Rots (Crimson Architectural Historians, INTI), research
- Jorn Konijn (INTI), Project leader
- Additional input was given by different experts from other departments and stakeholders like the inhabitants and COHAB (the Social Housing Company of Curitiba). Also the Mayor of Curitiba, who addresses the improvement of Caximba as a priority, participated.

4. NEW TOWN LAB TATU CITY, NAIROBI

10-15 September 2018

Introduction

The New Town Lab of Tatu City was organized by INTI on request of Rendeavour, a developer that -next to Tatu City- is developing several other New Towns in different countries on the African continent. Tatu City is a 5,000-acre, mixed-use development with homes, schools, offices, a shopping district, medical clinics, nature areas, a sport & entertainment complex and a large manufacturing area for more than 150,000 residents and tens of thousands of day visitors and workers.

Key challenges

The main question during the New Town Lab was: How can we create a connected network of green and blue spaces that acts as a sustainable and resilient backbone for Tatu City?

Such a network should include inclusive, safe, attractive public spaces for people who work and live in Tatu City and in its surroundings where numerous villages are located. It should incorporate the water network and create a synergy of ecology and identity; it should bring together the different functions, water management, ecology and leisure in order to create a sustainable town in which public functions and people interact. It should become a beautiful and strong part of Tatu City's identity. How can this network be designed and what strategies can be conceived for implementation?

The network of green public spaces should include a.o. Kijani park, Tatu Waters, Industrial area, Tatu Heights, City Centre, and include the extension area Mchana.

The first phase of the project was a social-economic/spatial/ecological/cultural research by KUWA of which the results were input for the New Town Lab. The research consists of an empirical mapping of the existing formal and informal activities within and in the surroundings of the location of Tatu City and Mchana. The goal was to achieve insights in the spatial impact of life and work in the area, the habits and activities and the expectations and fears of the inhabitants. The results of the research defined, next to the latest version of the masterplan, the content of the New Town Lab.

The Lab

The Lab started with a day of mutual introductions and exchange of information between the Dutch and Kenyan participants. After the results of the empirical research of KUWA were presented, a field tour brought the participants to the site and the surroundings of Tatu City. Especially the meetings within the settlements brought insight in the context of Tatu City. The experts of Tatu City delivered more specific presentations on housing, the industrial zone and the landscaping.



The next two days the team developed the strategy of “The City in Between”, a strategy that delivers a framework plan instead of a masterplan.

“You talk projects, but you try to sell a city”

“A collection of projects and products does not yet make a city. It needs more!”

These were some of the statements by which the Tatu City approach was described by the New Town Lab-team and the argumentation on which “the City in Between” was based.

The “City in Between” framework is:

- The blue and green framework that connects and combines all projects and program clusters (industrial, residential, infrastructure) that are planned and developed within the borders of Tatu City.
- Can be planned, programmed and connected to the master plans of the different area developments
- Forms the connection with the surroundings of Tatu City. On the locations where “The City in Between” literally meets the borders of Tatu City, gateways form (and can be programmed as) the connecting hubs. They can be both physical and social connections between Tatu City and its surroundings.

The City in Between“ aims to become a framework plan and a strategy that will function as the backbone of Tatu City and also as the narrative of the City.

“The City in Between” was presented to an audience of stakeholders, ranging from representatives of the neighbouring settlements to the international urban planning and design offices that design the centre of Tatu City. It was recognized by the representatives of Rendeavour and Tatu City that the team provided eye-openers: especially the fact that a series of projects doesn’t make a city. The team’s strategy shows the need for a

link that connects all projects and provides space for an inclusive city, not only for its residents but also for the surrounding communities.

The framework plan can be the backbone of Tatu City, but it needs an extra round of analysis and a reality-check to make it into a final framework that can be used in planning, programming and developing Tatu City.

Participants interdisciplinary team

The Lab brought together Dutch experts on urban planning, water management, circular economy and spatial design, with Kenyan professionals and residents to work together on developing these topics in realistic strategies that can be implemented in Tatu City:

- Markus Appenzeller (MLA+, urban design)
- Michiel van Driessche (Felixx, landscape architecture)
- Rachel Keeton (TU Delft, research urbanism)
- Remco Rolvink (Dasuda, architecture, urban design)
- Jaakko van 't Spijker (jaakkovantspijker, architecture, urban design)
- Simone Rots (Managing Director INTI/Program manager Nairobi INTI)
- Zahra Kassam (KUWA), Michelle Wanjiru (KUWA)

Tatu City:

- Nick Langford, Country Head
- Chris Ochieng, Senior Development Manager
- Dean Shillaw, Head of Commercial Sales
- Elizabeth Mungai, Urban Infrastructure Manager
- Moses Kimani, Head of Development Control
- Beatrice Njeri, Head of Residential Sales
- Anthony Njoroge, Project Manager
- Gibson Muchiri, Community Lead
- Shazeen Rahemtulla, Marketing Manager)
- Project assistants: Christine Nganga, Kinja Kariuki

