The Hackable City. Cahier #3 The Hackable City International

lessons from Athens, São Paulo and Shenzhen

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THE
HACKABLE
CITY

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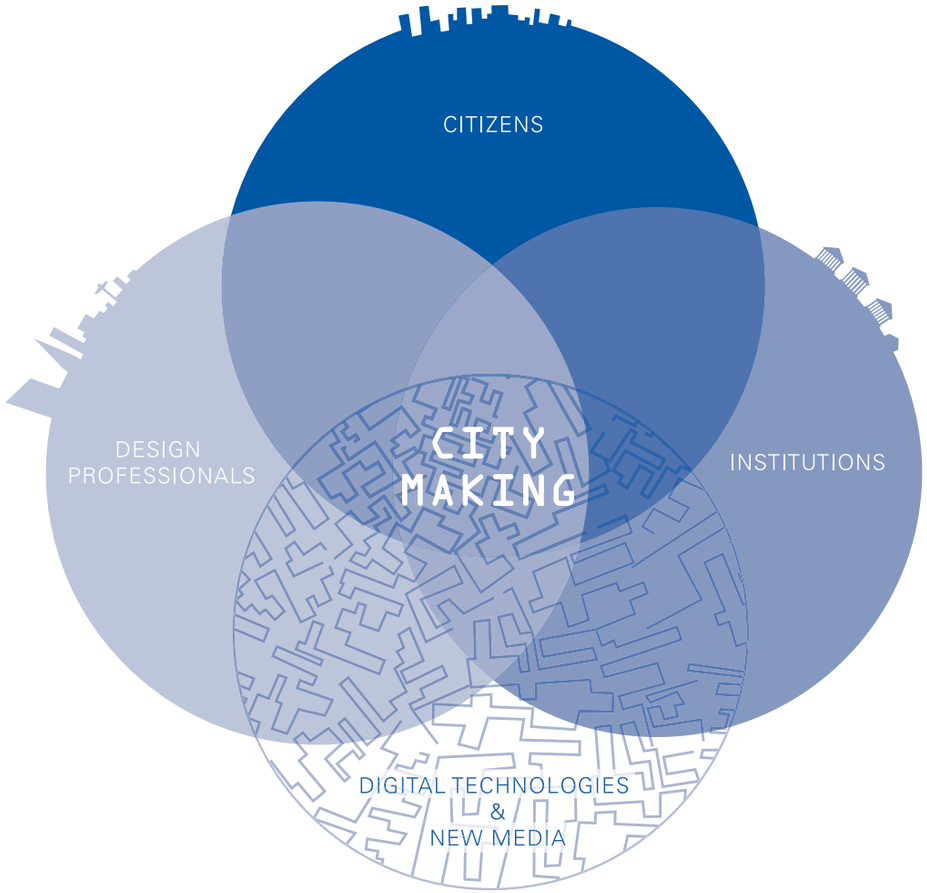
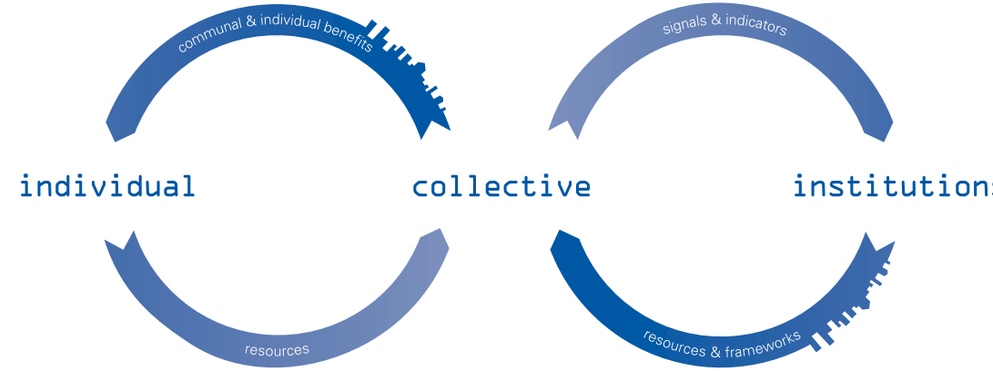
The Hackable City (normative definition):
In a hackable city, new media technologies are employed to open up urban institutions and infrastructures to systemic change, in the public interest. It combines top-down smart-city technologies with bottom-up 'smart citizen' initiatives.

The Hackable City (research project):
The goal of this research project is to explore the opportunities, as well as challenges, created by the rise of new media technologies for an open, democratic process of collaborative citymaking.
How can citizens, design professionals, local government institutions and others employ digital media platforms in collaborative processes of urban planning, management and social organization, to contribute to a livable and resilient city, with a strong social fabric?





Hackable citymaking revolves around the organization of individuals into collectives, often through or with the aid of digital media platforms. Individuals contribute resources, such as knowledge, time, information or money, and at the same time reap some form of reward, be it social, economic or political, on an individual or communal level.

These collectives are often (though not always) initiated and managed by professionals who have started to broaden their fields of work. They are no longer 'just' designers, but have taken up the role of community organizers, fundraisers, storytellers, project developers, etc.

Collectives are propelled by collective narratives and agendas and need a value or business model to be sustainable over time.

The collectives act within legal and democratic frameworks, often making use of resources or infrastructure provided by the city at large. Hackable citymaking makes this relationship between collectives and institutions interactive. How can the city's governing and administrative institutions learn from these collectives' initiatives, and when they contribute to public value, adjust their frameworks accordingly?

Introduction

Over the last few years, the Amsterdam neighborhood, Buiksloterham, has grown into an internationally recognized icon, exemplifying new modes of citymaking. Numerous international media outlets, including The New York Times reported on the former brownfield location that now positions itself as a living lab for the circular economy. Delegations from cities around the world have visited Buiksloterham to study the collaborative approaches toward urban development that have emerged there.

In our own research program, we explored these models of urban development as examples of 'hackable citymaking': collaborative urban development practices, in which new technologies are employed to open up urban institutions and infrastructures to systemic change, in the public interest. Our goal was to explore opportunities, as well as the challenges presented by the rise of new media technologies for open, democratic, collaborative citymaking processes. How can citizens, design professionals, local government institutions, and others employ digital media platforms for collaborative processes like urban planning, management, and social organization – to contribute to a livable and resilient city, with a strong social fabric?

This approach can also be placed in a broader, international context. All over the world, we recognize examples in which citizens, social entrepreneurs and professionals have started to organize themselves in local communities to achieve collective goals, and realize public values.

New media often plays a role in the organization of these collectives. The rise of these types of practices leads to the redefinition of existing roles and relationships between citizens, professionals and government. Professionals often play a key role as initiators, facilitators or curators of these collectives. In some cases, city officials and local governments have started to accommodate or even stimulate these collective practices, whereas in other examples, they have merely tolerated (or even hampered) them – questioning their democratic legitimacy.

Considering the attention Buiksloterham was receiving internationally, and the overlap with similar approaches emerging in other cities across the globe, it seemed appropriate to organize an exchange program; to compare experiences, and explore the international relevance of the hackable city-model. To what extent are international examples of collaborative citymaking practices similar to those we identified in Buiksloterham, and what can we learn from them? And on a more theoretical level, how can these examples further inform our own model?

To answer these questions, we organized three study trips to São Paulo (Brazil), Athens (Greece), and Shenzhen (China). In turn, representatives from these cities visited Buiksloterham, and the conclusions of our trips were presented during a debate staged at the International Architecture Biennale, Rotterdam, in the summer of 2016. This *Cahier #3 The Hackable City International: lessons from* Athens, São Paulo and Shenzhen reports our findings. The findings from our initial research in Buiksloterham are reported in the companion *Cahier #2 Design Probes for the Hackable City in Amsterdam Buiksloterham*. The hackable city-model underlying our research is described in detail in *Cahier #1 The Hackable City: a model for collaborative citymaking*.

Each of the three cities we visited has it's own dynamic character, and relevance to our research. Sao Pãolo exemplifies emerging citizen-and professional-driven citymaking practices. After decades of privatizing public space, a new generation of professionals has sprung up, bringing with them a renewed interest in the appropriation of public space. Several civic organizations are actively occupying public squares, or campaigning for more formal agreements to transform traffic thoroughfares into (temporary) public spaces for pedestrians and cyclists. In the Haddad-administration, they found a listening ear. One of the aldermen, an architect himself, investigated new city making paradigms, in which urban sites are developed in close cooperation with local populations.

Athens, in turn, is a European city that can be viewed as a laboratory for the future – for better or for worse. The financial crisis, and subsequent austerity measures, led to the government withdrawing from many public provisions. Civic collectives have taken over some of these functions. Meanwhile, architects have become especially interested in organizing collaborative citymaking practices. This approach is considered a paradigmatic break from the traditional, individualistic development of the city; a series of isolated lots containing mid-sized apartment buildings. As in São Paulo, there is noticeable interest from the government in facilitating civic and professional initiatives, especially via its *Synathina* platform. Yet at the same time, there are limited resources to subsidize or institutionalize these efforts.

In Shenzhen, rather than looking at individual projects and the hacker's ethic and practices, our goal was to explore the affordances of the city to be hacked. To what extent do the city's institutions and regulations, in combination with its specific geography, invite and/or enable citizens and entrepreneurs to shape urban life? In particular we were interested in complex processes of urbanism that emerged from interactions between actors, like merchants, developers, companies, building owners, migrants, and former farmers with land rights, in the Shenzhen area. We focused on two specific 'milieus of innovation' that arose under the historic conditions of Shenzhen's development. The first is the emergence of the electronic district, Huaqiangbei. The second is the urban village, Baishizhou. The development of both locations can be understood as acts of 'hacking' – individual actors appropriated these parts of the city, partly stimulated by policy, partly enabled by the lack of policy enforcement. As a result, two typologies emerged that appear at first chaotic, but have evolved into complex social and economic systems that are directly linked to Shenzhen's capacity to innovate.

In all three cities, we organized a program, with the help of local partners, consisting of a symposium, site visits to local projects and a workshop, during which our hackable city-model served as a point of departure. In each city, we looked at the various ways individual citizens organized themselves into communities around collective issues. How, and by whom, were these collective issues defined – and how were citizens engaged? How were these collectives managed, and according to which principles and 'dramaturgies'? The latter term refers to the local settings, and the orchestration of events by which collective action is organized in time and place. Which parties took on what roles in these processes? What was the business model, or underlying social entrepreneurship within the organization?

Finally, we examined the relationship between collectives and local governments. Did citymaking collectives make an effort to measure and communicate the public values they create to local governments, arguing their legitimacy or their qualification, to procure additional public support or institutionalization? To what extent was the city open to 'civic hacks'? Did governments inhibit, tolerate or encourage acts of collaborative citymaking? To what extent did these acts inform policy, and were the outcomes formalized or institutionalized? To summarize, how did these collaborative actions try to 'hack' existing local urban practices striving for (social) change – and to what extent was the city itself 'hackable' from an institutional point of view? In this cahier, the results of our enquiries will be discussed, starting with our journey to São Paulo, Brazil.

São Paulo

After decades of privatization, São Paulo has seen a 're-appreciation' of public space over the last ten years. Popular movements, often led or inspired by design professionals, have started occupying city squares and parks, claiming their 'rights to the city'.

Others have successfully campaigned to close-off main boulevards to motorized traffic. From the top-down, the city government has also taken an interest in opening up the design of public spaces.

Local Partner: Acupuntura Urbana
http://acupunturaurbana.com.br/
Acupuntura Urbana's mission is to transform public spaces in an active and participatory fashion, and strengthen relationships that encourage civil society to build a more human city. Acupuntura Urbana initiates local development projects in close cooperation with the community, as well as developing tools to monitor local changes. This ensures their interventions are not one-offs, but can be institutionalized in cooperation with local organizations, or through alliances with local governments.

Introduction
Hacking public space in São Paulo

When curator Guilherme Wisnik was thinking of a theme for the 2013 Architecture Biennale in São Paulo, he decided to make a bold move. His exhibition was not going to take place at the traditional location, the Ciccillo Matarazzo – a beautiful cathedral of high modernism in the city's lush Parque do Ibirapuera. Instead Wisnik wanted to use the whole of São Paulo as his exhibition grounds. Rather than displaying architectural highlights, sculpted by some of the best professionals in the field, his exhibition was going to showcase the act of 'citymaking', with a keen eye for the practices of Sao Paolo's residents, and their many formal, and informal organizations. The official slogan for the biennale resonated this shift in focus: 'City: Ways of Making, Ways of Using'.

The biennale marked a development that had been underway in Brazil for a few years. Increasingly, citizens had been taking to the streets to claim their 'rights to the city'. These actions burst onto the worldwide stage when massive public protests sprung up all over Brazil around the exuberant spending on new stadiums for the upcoming World Cup in 2014. But that was only part of the story. At the same time, in Brazil designers and other professionals had also started to take a renewed interest in incorporating citizens into their design processes. Examples could be seen in the rise in participatory projects in the favelas, and in the advent of initiatives set up by citizens and professionals alike, in the heart of São Paulo.

It was these initiatives that the biennale wanted to feature. For instance, visitors to the São Paulo Biennale were guided to the Minhocao, an elevated highway not far from downtown. Local citizens and designers had started a successful campaign to translate this car packed thoroughfare to a temporary park every Sunday – a São Paulo Highline if you will. And that was just one of the examples at the 2013 biennale in which citizens and professionals had worked together by 'hacking the city'.

Privatization and São Paulo as a 'Dual City'

What many of these projects had in common was a renewed interest in activating public space, until then, an unusual practice in Brazil. São Paulo – and with it many of Brazil's cities – had often been described as neglected places, where investment in public infrastructure had never amounted to much. Labels like 'privatization' and 'fortification' were often invoked to describe the city's urbanism, describing the emergence of gated communities, and exclusive shopping malls for the (upper) middle classes, and the rich. Developers played a central role in creating these private spaces.

As many have pointed out, over the years São Paulo had indeed become a stratified city, defined by separate spatial circuits and networks for its various social classes, even though these separate worlds are geographically right next to each other. Images of towering luxury apartments with swimming pool featured balconies in Morumbi sharing the frame with the corrugated roofed (and water deprived) favela's of Paraisópolis had become a worldwide emblem – and, by now, even a cliche – of the 'dual city' that São Paulo had become.

The government takes action

Yet, over the last years, and especially since the beginning of the administration of mayor Haddad in 2013, this approach of laissez-fair urbanism and privatization, has given way to attempts to revive the city and its public spaces. From the government side, a new masterplan was adapted that foresees improving the connection between public transport and housing, aiming for more density and mixed-use developments around transit nodes. The city has also started to develop public spaces, and now aims to revitalize the derelict downtown area. To enact this, it even has moved its own offices to a defunct bank building, and appointed Jan Gehl to revitalize the Vale do Anhangabaú, one of the city's central squares.

This approach reinforces and diversifies earlier attempts to revitalize parts of the city, by designing prestigious cultural sites like the Pinacoteca do Estado in the 1990s, the Museum of the Portuguese Language (2006), and the Praça das Artes (2013). What makes the current policy different is that it's no longer centered around 'starchitects' and their iconic interventions. This time around, the revitalization plans include (low income) housing and other amenities, like a network of biking lanes.

The Statute of the City. More rights for citizens

Also different this time around, is that the government opened up planning process for citizens, according to the relatively recently (2001) nationally minted Statute of the City. Under this law, cities are obliged to design masterplans in close collaboration with their citizens. In addition, this statute offers a range of other instruments for city governments to empower citizens, thus giving them a greater say in the process of citymaking, for instance through 'participatory budgeting'. Whereas critics have pointed out that many of the instruments in the statute have not yet been implemented, or are put to use by traditional stakeholders like private developers, in São Paulo citizens have been involved in various projects. This includes the new *Plano Diretor* that lays out the framework for the further development of the city, in the years to come.

Important in the light of our research project, the Haddad administration in São Paulo has also embarked on a journey to improve the 'hackability' of the city, granting citizens more rights, as well as tools to participate in the process of citymaking (even though some of its attempts are still in the realm of the symbolic). Apart from the procedures for public consultation in the new masterplan, it has (amongst others) set up a program that invites citizens to redevelop parking spaces into small public spaces ('parklets'), has experimented with online deliberation, and set up a lab (LabProdam) that experiments with opening up, and activating citizens to use urban data.

Citizens and professionals take the stage

Yet, it's not just the city government that has started to combine 'new ways of making and using', to stick with the 2013 biennale's motto. At the same time, citizens themselves, sometimes led by professionals, have started to hack the city. Social movements have taken over the public spaces of the Largo da Batata. Building on the protest movements of the 2013s, Minha Sampa has built a digital platform to mobilize citizens around various causes, contributing amongst others to the weekly closing off of São Paulo's most prestigious boulevard, the Paulista, from motorized traffic. Design collectives like Accupuntura Urbana have adopted local communities to revive their public spaces. And the top-down planning of 200kms of bicycle paths has been matched by various bottom-up organizations of bike activists, campaigning to improve São Paulo's bikeability.

To quote biennale-curator Wisnik, a few years after the 2013 exhibit that first foregrounded these developments, 'a large proportion of urban Brazilians seem to be waking from centuries of historical lethargy in which public matters were treated as private, personal favours.' He follows his observation with the hope that this indeed will also increase the quality of the further development of São Paulo. 'The expectation today is that the vibrancy of Brazil's new urban activism – intimately linked with occupying public spaces – will positively influence the way our cities are built." It is some of these bottom-up as well as top-down initiatives that have made São Paulo a more hackable city that we will turn to in the rest of this chapter.[1]

Minha Sampa

https://www.minhasampa.org.br/

'Together we can change the destiny of our city.' That's the motto of Minha Sampa, a non-profit organization that sprung up in Sao Paolo, in the last few years. This organization aims to mobilize citizens around political issues, mostly through its online platform. That this slogan is not just an empty promise, was proven by Minha Sampa's most well known campaign so far: opening up the city's prestigious Paulista boulevard to pedestrians and cyclists, on Sundays. After two years of campaigning, lobbying, informal occupations, and official test trials, the Paulista is now officially closed off to motorized traffic every Sunday.

What's interesting about Minha Sampa is that the organization doesn't just run its own campaigns, but has developed a number of tools that citizens can use to run their own campaigns. These tools vary in their gradation of engagement. The simplest tools require just a simple click on a social network button. The most engaging ones such as the Legislando platform allows people to collaboratively write bills, which requires more time and effort.

Franchizing the organization

Minha Sampa's organizational model can also be copied to other cities. Minha Sampa itself started as a spin-off from the Rio de Janeiro based initiative, Meu Rio (My Rio). Both organizations share the same software and design tools together. Both are also now part of a mother-organization called Nossas Cidades. Under this flag, the platform and its tools are franchised to other cities. Local citizens who are not affiliated with political parties can sign up as co-founders, and run a local version of the platform. So far, Recife, Ouro Preto and Porto Allegre have all signed up.

Local organizations pay a franchise fee to the mother organization, that will support the development of further tools and campaigns. They also provide training for local staff members. Local organizations are responsible for generating their own income through donations from members and/or sponsors. Contributions from the government are not allowed.

This franchise model, in which local chapters pool resources to develop communal tools that can be utilized in all the participating cities, is currently in its initial phase. Will this approach succeed as a sustainable business model to keep the organization afloat? And how should local chapters secure their own income? Will citizens, and funding organizations, be willing to contribute?

The forte of Minha Sampa is its mobilizing power; but how can this power be leveraged? As one of the founders stated: it's nice to do a single hack, but how do we get to the table where decisions are made. How can governments open up, and consider the issues expressed through the platform in their policy process? No definite answers have been found to these difficult questions. Yet, as a lobbying and activist platform Minha Sampa has had a number of successful campaigns so far.

De Guarda

Minha Sampa's mother organization Nossa Cidades offers activists the opportunity to subvert the logic of the surveillance society with De Guarda. A camera can be placed on a contested site, and watched from a distance by activists. The very moment that government officials, project developers, or others parties try to intervene, a large crowd is mobilized to protest against these actions. This tool was employed in Rio de Janeiro, leading up to the Olympics. A local school was in jeopardy of being closed down and demolished to make place for parking spaces near the Maracanã stadium. The community feared that demolition would start during the holiday period, so they designed a system in which 2000 citizens volunteered to alternate watching the camera's live feed, and send an SMS in case of any disturbances.
http://deguarda.nossascidades.org/

Pressure Cooker Platform

On this platform individuals can set up a campaign to send out emails to city officials to lobby for, or against, a particular policy measure. Issues are raised by individual citizens or organizations, and vary from requests to uphold a law that empowers street musicians, to demands for opening a park to the public, instead of developing it commercially.
http://paneladepressao.nossascidades.org/

Legislando

A wikistyle tool that enables citizens to draft their own bills. In São Paulo, citizens can submit propositions to the local government if they are underwritten by 5 percent of the voting population.

Hackability

Minha sampa aims to be a platform that allows everyday citizens to become part of the political process. It wants to hold those in power responsible, and provide tools for citizens to collaboratively draw up their own ideas for the city, and campaign around them. As such, it mainly operates at the collective level: it allows citizens to organize themselves as collectives, and pressure or lobby to the local government to make the particular changes they would like to see, in society.

Digital media play a central role in this strategy. The organization makes use of CRM-software, and data-analysis of its email campaigns, to target specific groups of citizens likely to become engaged in a particular campaign.

Largo da Batata

http://largodabatata.com.br/

When the Largo da Batata (Potato Square), located in the upcoming neighborhood Pinheiros near the CBD district Faria Lima, was reopened after a long period of reconstruction, a group of residents in the neighborhood felt disappointed. The square, formerly a market and busy meeting place at the crossroads of various public transport lines, had become a stone desert. There were no amenities, like street furniture, nor were there any trees that would provide some shade. In short, nothing that would invite residents to actually make use of the square as a public space. As such, a number of local residents proclaimed the new design complied with the city government's 'hygienist' policy, meant to sanitize the city, in line with its ambition to promote real estate development in this area.

In response, these citizens started to organize weekly meetings at the square. Each Friday night, they assembled there, enlivening the place with concerts, get-togethers and other activities. Collaboratively they constructed temporary furniture for the square, and planted trees to create a more agreeable environment. They further opened up their 'occupation' of the square by starting a movement called 'A batata precisa de Você', literally translated as 'The potato needs you'. Under this flag, citizens were encouraged to organize their own events at the square. Two years after the first rallies, the movement is still going strong with various activities being organized, ranging from groups of citizens experimenting with permaculture, to bike enthusiasts who teach others how to ride their bikes in time with musicians giving concerts. The group presents the site as an 'urban laboratory', where alternative forms of urban living are tried out.

Citizen's contested rights to the city

The movement A batata precisa de Você succeeded in forming a collective of individuals that both take care of the square, and program activities. A site they considered a 'non-place', has now been turned into a 'place'. The initiators legitimize their actions with frequent references to philosophers like LeFebvre, who proclaimed citizens' 'rights to the city'. According to this theorem, citizens have a right to use public spaces, and take ownership in them.

Their relationship with the local government on this is ambivalent. On the one hand, the government supports the initiative with funding. On the other hand, the government is not quite sure how to respond to the 'occupation' of the public square. Is the movement truly democratic, and representative of the local community at large – or is a parochial organization, a specific group of citizens that has turned a public space into their own territory, without larger democratic consent? Further, what about the street furniture the group has come up with? It doesn't comply with the official guidelines for street furniture that the city set out. City officials find it unaesthetic, and even unsafe. For government officials, it's clear that the movement created a hack that brought the square back to life, but they are not quite clear whether this hack still fits within their institutional frameworks.

Online Calendar & Social Media

One of the most important online tools for the movement is the open, collaborative and mobilizing affordance of social networks. On its homepage, the official website features a calendar in which anyone can add a public event they wish to host on the square. The Facebook group is used to mobilize citizens to attend these events, as well as to cover past events. Through pictures and video's, the attendees are made public through social media; this could provide opportunities for others to learn about these events, identify with the movement, and perhaps be inspired to attend or organize events themselves.

Manifesto & Manual

The movement published an elaborate Manifesto/Manual in which they explain their main principles, and align themselves with a broader international discourse on tactical urbanism, the maker movement and research through design and 'rights to the city'. This could help this movement gain recognition and legitimacy, both locally and internationally. The document can also be read as a manual that inspires others to start their own occupation movement, or even to just start constructing their own urban furniture – the pamphlet contains detailed instructions on how to transform used pallets into street furniture.

Hackability

The movement around Potato Square is a clear example of citizens organizing themselves to claim their 'right to the city'. In their presentations, they explicitly refer to literature on hacking and tactical urbanism, and the movement prides itself in its 'gambiarra' style of operating – a Brazilian expression that means 'bricolage', or 'making do with what's around'.

The movement attempts to change the environment with small temporary interventions, and has opened up programming the square by setting up a website with a calendar, in which anyone can announce an event. Through their Facebook platforms, and their own website, they have created tools for co-creation and deliberation, as well as knowledge-based communities. A critical factor in their approach, is ensuring the presence of a number of public characters to be present almost every Friday, at the square. Although there are no official leaders or spokespersons, there are a number of key figures that are well known and respected in the community, and who have strong connections to various networks, both local and international.

Largo da Batata

Acupuntura Urbana

http://acupunturaurbana.com.br/en

Acupuntura Urbana is a social project that – as one of its offerings – transforms public spaces through processes of co-design. One of their recent co-design projects took place on the Praça do Samba in Perus, a low-income district, in the northern part of São Paulo.

Perus was once the proud site of Brazil's first cement factory, that churned out the raw materials supporting modernist architecture, and the nation-building project associated with the (then) new capital, Brasilia. Today, the factory has closed after a multi-year strike – and with it went most of the spirit of optimism within the local community – perhaps best illustrated by the dilapidated state of the Praça do Samba. The square was mostly abandoned, the furniture broken down, and hardly anyone in the community felt any connection to the site.

This situation would be turned around via an open call, sent out by the São Paulo Government. In an attempt to re-energize public spaces, the government had initiated a program to install free WIFI at a number of squares, across its thirty-two boroughs. For the government, that wasn't just a technological affair. The government intended for the installation of wireless infrastructure to be developed jointly with a physical redesign of the squares, thus activating both social and communal space.

Talent show & collaborative redesign

Acupuntura Urbana positions itself as a neutral third party that stands between local communities and the government. They mobilize local residents to redesign public space, and help them express, and realize their wishes and visions – in close cooperation with local governments. Part of their strategy revolves around providing people with a sense of ability and pride towards their community, countering a 'this-will-never-work' spirit.

To accomplish this, one of the events in Perus was a talent show, in which residents were invited to demonstrate their personal talents. It resulted in a lively event, in which local bands performed, and a craft workshop was organized. During the actual redesign around 150 people showed up, and together they created new playgrounds, mosaics and wall drawings, and a place in the shade to make music, or just hang out to check email on the free WIFI network. In between events, a Facebook group and a Whatsapp group were used to keep the community involved. A year after the intervention, the square is still being actively used. The free WIFI draws people in, and the community-designed surroundings still provides a comfortable place to linger.

Fast, Fun, Free: 4 Step-Approach

Acupuntura Urbana was awarded the commission for Perus after submitting their four-step approach for public space activation, that builds on their strategy the '3 Fs'. Their interventions should be Fast, Fun and Free. Their approach starts with diagnostic workshops, site visits, events and interviews. What are the talents, and beauty, that already exist in the community? What dreams do residents have for the place that will be transformed? Next, Acupuntura Urbana builds a physical model of the existing place, and invites the community to a meeting where everyone pretends to be architects; to define the project in a collaborative way. In the third step, the local community is mobilized to enact the proposed plan, using their own resources, as well as those made available by the local government (or a private company). Rebuilding a space together with residents also creates a sense of ownership and commitment to the place, and also contributes to building social capital. After the square is redesigned, one or more follow-up events are held, during which strategies for the maintenance and programming of the place are discussed.

Hackablity:
The redesign of the Praça do Samba illustrates hackability on two levels.

1. On the one hand, the office Acupuntura Urbana acts as a 'catalyst' that energizes a collective around the issue of redesigning public space. They enable community marketplaces, where residents exchange skills and resources. Acupuntura Urbana also organizes events through which collective stories and agendas emerge that help people to identify with the project, and turn their latent wishes into action points.

2. This happens within a framework set by the government. The São Paulo Government paired their free WIFI program with a number of open calls that allowed organizations like Acupuntura Urabana to organize the local community as neutral intermediaries. Unfortunately, such open calls are still rare, and it's not always easy for offices like Acupuntura Urbana to assume their role as organizers of collectives.

Another point of discussion is the duration of involvement of 'catalyst organizations'. Whereas they are able to energize and mobilize communities around common issues, they cannot stay attached to the project forever. There is a risk that when the role of the catalyst is played out, the sense of ownership will drop out again. This means strategies are needed to set up long-term organizational models, including capacity building campaigns, that are necessary to keep communities involved.

City of São Paulo

http://www.saopauloglobal.sp.gov.br/eng-index.asp

When Fernando Haddad was elected mayor in 2013, the city government embarked upon a mission to open up local government to citizens. Under the flag São Paulo Aberta, a number of initiatives started, for instance, an online chat with the mayor, and live streaming debates between powerful city officials, and their representatives. One of the programs resulting from this policy direction was a lab within the Prodam data processing unit of the local government. This Lab Prodam was founded to start experimenting with opening up city data to citizens, and explore new ways to use digital tools to empower citizens.

Through these programs, the government aimed to make itself more accountable, as well as open itself up to input from citizens. According to its philosophy, it's not enough to just 'open up' data by making it available, it's also necessary to explore the development of tools that make this data understandable or actionable; as well as tools that actively engage citizens in wider public debates.

Agents of Open Government

What can governments learn from their citizens? To answer this question, São Paulo set up an ambitious program, in which it launched an open call to its 11 million citizens. Citizens were encouraged to develop training courses in the following areas: open and collaborative technology, transparency and open data, networked communication, mapping and collaborative management. The goal was to teach civil servants, as well as a wider audience of community activists, and the general population. In the fall of 2015, the first 24 courses began, chosen from around 200 applications.

LabProdam Bike counter

Although the capacity of the lab is limited, they have come up with a number of ideas. Amongst others, they developed a bike counter, a simple kit consisting of open source hardware: a cheap webcam, and image processing software developed by the lab that allows anyone to set up a bike counter. Biking is a widely discussed, and controversial topic in São Paulo – with the Haddad administration investing heavily in the construction of biking lanes. The counter was designed to contribute a factual basis to the discussion, as it enabled visualizing the actual usage of bike lanes. The Lab set up their own bike counter on one of the main biking thoroughfares, and made the data publicly available. Through Github (www.github.com/labprodam), it also published the software, so that citizens could set up their own counters in other places.

LabProdam issue mapping

The city of São Paulo has set up an extensive Citizen Assitance Serivce. Citizens can report issues and make requests in a broad variety of domains – from health to education, and from street repair to road safety issues. This can be done online, or via a special telephone number, and also via square meetings that are held in the 32 boroughs of the city. LabProdam developed tools that enable the geographic visualization of these reports, so that specific issues are visually concentrated that require policy attention. Examples are, road conditions that have been reported as unsafe, or outbreaks of diseases like Dengue fever. It's an attempt to analyze input generated by citizens into concrete indicators, that can be acted upon by the policy and executive branches.

Parklets

The legislation for 'parklets' in São Paulo is another attempt to give citizens more ownership over the design of their surroundings, and involve them in reclaiming public space. Inspired by the guerilla-urbanism of 'Parking Day', it provides citizens, and private parties, with the opportunity to redesign a parking space, as a public space. This will lead, the city hopes, to a wider availability of public spaces in the city, create new meeting spaces, promote the liveliness of the neighborhood, and contribute to the use of non-motorized transport. During the first two years of the legislation, the city received 158 requests, of which 89 were approved.

The parklets legislation derives from the city government determining a number of public values, and goals: the city wants to restrain the use of cars, and promote the use of public spaces – for both environmental and social reasons. It opened up this policy goal by inviting private parties, and individuals, to create attractive public spaces. The government set up a general framework for the eligibility of parking spaces, and the minimum and maximum requirements; as well as a procedure through which applicants can nominate a space. Once approved, the applicant must realize the parklet and guarantee that it will be open to all citizens for use. The applicant is also responsible for taking care of the parklet. To the parklet adoption, the government commissioned one parklet in each of the 32 boroughs.

Many parklets are currently situated in wealthier neighborhoods. Especially bars and restaurants find it a great way to construct an attractive public space in front of their business. How can regular citizens, including those in lower income neighborhoods, profit from the opportunity to turn parking spaces into public spaces?

Bike Anjo
http://bikeanjo.org/
Bike Anjo is a network of cyclists that was founded by a group of friends that wanted to promote biking as an alternative mode of transport. By 2016 the network consisted of 2900 volunteers, in 250 Brazilian cities. The network's main activity is teaching people to ride their bikes. Bike Anjo found one of the main obstacles to motivating people to start riding their bikes, is a lack of knowledge and experience. People may be interested in riding their bikes, but at the same time, are afraid of riding a bike in traffic, or would not know which routes are safe – or lack information about other practicalities, such as where to park. To overcome these hurdles, Bike Anjo organizes courses and workshops during which volunteers teach 'newbies' how to ride a bike. Complimentary to their approach, is the establishment of an on-line forum, where users exchange tips and ask questions. In conclusion, Bike Anjo combines a knowledge network, with capacity building activities, to promote biking. The network is organized non-hierarchically, and it's also possible for enthusiasts to start their own local chapters.

Aliança pela Água
http://aguasp.com.br/wp2/
The Aliança pela Água is a network of 60 civic and consumer organizations that aims to address the issue of water. According to the organization, local governments do not always take water shortages seriously, or they even deny their existence. One of the network's activities, is mapping this problem through citizen data reporting. They present this evidence to local governments to convince them action is needed. For this, they developed the app Tá Faltando Agua (Lacking Water), which allows citizens to report when their water supply has been cut off. Initial reactions to the app were positive, and it produced a number of promising results. However, the organization is currently thinking about how to further develop the app. After the novelty wears off, it's hard to keep citizens engaged in their reporting routines. The organization is also thinking about further developing the reporting interfaces, for instance by developing a dashboard that presents both official information on water supply by governments, as well as citizen reports.

Núcleo Digital
https://nucleodigital.cc/
Núcleo Digital is a network of planners, designers, programmers and communicators. Their mission is to bring people together for social and political innovation, through new civic and governmental technologies. They build various tools for the government of São Paulo that open up participatory processes, as well as a 'promise tracker' – a website that displays politicians' campaign promises, and the results achieved so far. The goal of these initiatives is to make governments more participatory, as well as transparent and accountable. By organizing civic workshops, and involvement in initiatives like pinghacker.com.br, Núcleo Digital also aims to contribute to capacity building in Brazilian society at large, with regard to digital skills.

Pracas.com.br
http://www.pracas.com.br
Pracas.com (literally: squares.com) is a start-up founded by former civil servant Marcelo Rebelo, that aims to offer a platform for communities to be involved in the redesign and upkeep of their squares. It offers various tools for local communities to organize themselves, set up communal activities, and discuss ideas. The platform can be used for co-creation processes in the redesign of squares, or for the upkeep and organization of day-to-day activities on them. The platform positions itself as an intermediary. It can mediate between local communities, and present their ideas to the local government, or put them in touch with professional designers. Or, the other way around, the platform can be used when local governments want to redesign public spaces, and include the local public in the process.

Conclusions São Paulo

Over the last few years, citymaking in São Paulo can be characterized by two developments. First, the Haddad administration made a number of attempts to open up its governance processes. In a variety of cases, frameworks were developed that would allow individual citizens, or collectives, to submit their initiatives. These varied from open calls for the revitalization of public spaces around the city's Open WIFI-program, to the opportunity to turn parking spaces into neighborhood pocket parks. The administration also took a number of steps to open up its data, both to become more transparent and accountable, as well as a means to empower citizens and organizations.

In a second development, we have seen citizens, citizen organizations, and design companies, become more active in the appropriation of public space. Citizens around Largo da Batata have 'occupied' and programmed their square, and activist platforms like Minha Sampa played a role in organizing all kinds of civic campaigns. Start-ups and design offices like Pracas, and Acupuntura Urbana, set up methodologies to organize collectives around the redesign and maintenance of public spaces. Organizations like Aliança pela Água, launched drives to collect citizen data for campaigns aimed at the government; and organizations like Núcleo Digital, and Minha Sampa, developed numerous digital tools, that can be used by citizens to organize themselves in all kinds of campaigns, to share knowledge or set up social marketplaces.

In a number of cases, there is a link between bottom-up organizing, and the top-down opening up of governance. For instance, when the government of São Paulo commissioned the co-design of public spaces. Yet, representatives of the organizations interviewed have also stated that these opportunities are relatively rare, and that so far, the hard part is coming up with sustainable business models that allow them to play an active role as 'catalysts', and 'design integrators.' Now that Haddad has been voted out of office in the fall of 2016, it remains to be seen whether the government will continue its program of opening up to civic society.

[1] This introduction has made use of the following sources:
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Athens


ΔΕΛΑΚΟΥΡΑΣ Ε.Π.Ε
ΕΝΤΕΥΚΤΗΡΙΟΝ
23
ΚΛΙΜΑΤΙΣΜΟΣ
ΨΥΞΗ
ΘΕΡΜΑΝΣΗ
ΜΕΤΑΦΟΡΕΣ
ΒΕΡΥΚΟΚΑΚΗ
Assos
INTERNET
CAFE
ΥΦΑΝΗ
ΡΑΠΤΙΚΗ
ΥΔΡΑΥΛΙΚΑ
ΚΑΛΟΡΙΦΕΡ
ΚΛΙΜΑΤΙΣΜΟΣ
Flower Girls
«The shop»

Modern day Athens has taken its shape through the efforts of private developers, rather than through the visions of urban planners. Although masterplans have been developed, it is mostly the legal code characteristic of the 'antiparochi system' that incentivized the development of individual mid-rise apartment buildings, built up in countless numbers, since the 1950's. This framework emerged as a response to the country's urgent need for housing, particularly after the destruction of the second World War, and the civil war that followed in the 1940's. Yet, according to its critics, the antiparochi system also led to an underdevelopment of public spaces, and a broader neglect for public values in urban development.

From the developments in contemporary, crisis-ridden Athens, a different perspective emerges. Numerous collaborative citymaking initiatives are attempting to counter the former individualist, urbanist impetus – and depart from the production of collective and public values. However, most of these initiatives are still searching for legal and financial frameworks to support themselves in the long run.

Local Partners: Laboratory of New Technologies in Communication, Education and the Mass Media (NTLab); Faculty of Communication and Media Studies, National and Kapodistrian University of Athens.

The Hybrid City
http://www.media.uoa.gr/hybridcity

In Athens, Iouliani Theona and Dimitris Charitos, from the Spatial Media Research Group (NTLab, University of Athens), hosted The Hackable City research theme. They have organized the Hybrid City conference, since 2011.

The Spatial Media Research Group is active in research and development, in the fields of interaction design, virtual environment design, mobile communication and locative media, intelligent environment design, interactive art, and visual design.

The Hybrid City is an international biennial event dedicated to exploring the emergent character of the city, and the potential transformative shift of the urban condition – as a result of ongoing developments in information and communication technologies (ICTs), and of their integration into the physical urban context.

Introduction
A city built on code

From the lookout point on the top of Mount Lycabettus, the patterns underlying modern Athens' urbanization immediately stand out. Apart from the historic triangle, and the area around the Acropolis hill, most of Athens reveals itself as a slightly curvy grid made up of long streets and boulevards. The lots between their intersections are consistently subdivided into more or less equally sized parcels, built up with an undulating mass of mid-rise (6-7 story) apartment buildings. Together, they form a rhythmic arrangement of similar, yet always slightly different structures; each with its own typology of balconies, entrances, window styles, roof gardens, and courtyards.

This composition without a composer is the result of Athens' antiparochi-system, legislated in the first half of the previous century, although it became full-blown when the population size of Athens more than doubled in the decades after the Second World War (particularly from the 60's till the 90's). In this system, urban or semi-rural land owners could hand over their detached houses and surrounding lands to a private developer, without paying any taxes or levies. These developers would demolish the old building, and erect an apartment building on the lot. In exchange for their land, former owners would receive one or more apartments inside the newly built *polykatoikies*, as the multi-apartment structures that arose on their land came to be known.

Legal code, not a masterplan builds the city

In Vittorio Aureli, Maria Giudici and Platon Issaias' analysis, this approach led to the emergence of a city that didn't follow a masterplan, but rather, was based on legal code. Masterplans had been developed in the past, and a Regulatory Plan of Athens has been legislated since 1985, and is currently being updated by the Ministry of Environment, Energy and Climate Change, to meet the challenges and conditions of the 21st century. Yet, it was the set of laws in this antiparochi system that determined the conditions for ownership and construction practices. Ultimately, it defined the rhythm and form of urban Athens – because it contained rule sets with regard to minimum and maximum parameters, including height, open space, and the incidence of light – to which all apartment buildings had to comply. This system led to the construction of 35,000 Polykatoikies between 1950 and 1980.[1] For the government, this system had its advantages. The increasing demand for housing was answered, without the need for a state welfare program. As a result, a large part of the population became private homeowners.[2]

In this sense, Athens can be understood as an example of a hackable city. The government set up a framework that allows individuals to fill it in, according to their own needs. Yet, from the viewing deck on top of Lycabettus, it's not difficult to spot some of the shortcomings of this hackable system: on only few occasions are the various tones of sand-colored building bricks broken up by stretches of green. While the antiparochi system promoted individual entrepreneurship, it lacked an overarching

public values component that would also ensure the construction of public spaces. In essence, it produced what Aureli and his co-authors have called an 'urban ethos of extreme individualism.'

Similarly, when the over crowded center of Athens was built-up further, investment in public infrastructures still did not catch on. As a result, from the 1970's onwards, central Athens started to lose population share. By 2011, the central areas hosted 17.4 percent of Athens' metropolitan region, down from 31 in 1971.[3] Suburban living became the aspirational ideal for much of the middle class, with offices and retail following suit. Newly constructed shopping malls started to dot the suburban landscape, leading to further privatization of the city. The critics of the system have not been kind. 'If modern Athens represents a radical form of "user generated urbanism", where the postwar generation shaped the city to its own desires', Kalagas and Kourkoula summarize, 'the result is a haphazard mode of overdevelopment that neglects notions of collective good.'[4]

Athens as a laboratory for collaborative urbanism?

Could it be that current day Athens is seeking to create nuance within this judgement? One could be tempted to think so, based on the many initiatives in the last half decade that label Athens as a laboratory, or test-site, where citizens, architects and designers are looking for new collaborative ways to shape their city. Examples abound: from attempts to revitalize empty office buildings as public spaces, to citizen collectives that organize food provision, shelter or medical aid. For its contribution to the Architecture Biennale in Venice (2016), the Greek Architects Association showcased numerous hopeful practices of collectivity and collaboration they saw emerging in Greece, adapting the anti-austerity protest hashtag #ThisIsACoup to #ThisIsACoop as their motto.[5] Around the same time, The Onassis Cultural Center hosted an exhibition on 'Adhocracy', featuring many local projects that intended to 'provoke serious discussion about the role of architecture and design as a possible catalyst for structural change in contemporary society.'[6] New York's New Museum and NEON, situated one of their IdeasCity Residency Programs in Athens, and Urban Think Tank and the ETH Zurich descended on the much-plagued Omonoia-district in Central Athens to coordinate the Reactivate Athens project. In ten months, experts and residents produced 101 ideas for flexible interventions that addressed problems varying from a shortage of social housing to the reactivation of public spaces, in the style of urban acupuncture.[7] Documenta artistic director Adam Szymczyk called Athens, in its struggle to reinvent itself, one of the most interesting cities in Europe at this moment.[8] 'Learning from Athens' even became the official motto of Europe's most prestigious art event. Could the contemporary crisis, and the struggle for economic and social survival usher in new approaches to citymaking that might even lead to a new model for urbanism at large?

Civic initiatives claiming an autonomous space

Not everyone appreciates all this interest. Pamphlets circulated online called for a resistance to 'the exotic view of Athens as a southern experiment in creative sustainability during times of crisis.'[9] Yet, understandable as that criticism is, the underlying patterns in these exhibitions, labs and research projects deserve a more in-depth look.

Many of them can be placed in the context of a re-emergence of civic initiatives. The first wave of these blossomed in Athens at the turn of the century, in the lead up to the 2004 Olympics. Civic groups started to address issues related to livability in the city, protesting the further privatization of public spaces for new developments carried out under the flag of the Olympics. These groups were often led by well-informed citizens, and their actions were often successful. As some critics have pointed out, the main focus of these initiatives was the conservation of quality of life, in the light of over-development, but most of them did not actively seek taking on new initiatives.[10]

Another wave of civic initiatives emerged in the aftermath of the financial crisis, in the form of solidarity networks. Alternative food networks that enable local farmers to sell their produce directly to citizens sprung up, as have social pharmacies, time banks, urban gardens, collective kitchens, and other forms of local collaboration between citizens.[11] These initiatives provide residents with services that used to be taken care of by the state, or otherwise aim to bring out mutual support, in times of hardship.[12] What is striking, is that many of these civic initiatives claim their own autonomous space, putting themselves in opposition to the state; or even try to carve out their own territories outside of the regular legal frameworks, claiming their 'right to the city'.[13]

Meanwhile, in the artistic scene, numerous project spaces, workshops and participatory art projects emerged, leading to a 'workshop culture' – in which artists embrace a 'Do-It-With-Others' approach. These artists make use of temporary spaces, and organize participatory events in which they can learn from each other, and also invite the public to take part in social and artistic, often performative activities.[14] These vary from workshops on creative coding, to workshops on CNC and Laser Cutting, and often include the use of digital technologies from the perspective of citizen empowerment.

The question whether or not all these initiatives comprise an urban lab for alternative practices of citymaking is a much-debated issue. While some are optimistic, others hold that these are 'ephemeral actions', provisional patches that temporarily alleviate the pain induced by the crisis; and that they will not be sustainable, or truly provide an alternative mode of social organization.[15]

Government opening up to civic initiatives

Until recently national and local governments have, at best, shown only a ceremonial interest in bottom-up initiatives; for instance when this was required by EU-funding schemes. Greek bureaucracy has traditionally been organized hierarchically, with a staunch tradition of legal formalism, leaving government officials little room for a more liberal interpretation of rules, let alone experiments. Local governments also have minimal maneuvering space to set their own agendas, and with austerity measures kicking in, not only do they face a decimated budget, but also increased scrutiny from above. A dialogue between civil society and the formal political sphere has never really matured.[16]

However, during our visit to Athens it became clear that a new interstitial space emerged for citymaking. The Municipality of Athens has taken interest in a number of initiatives to reach out to civil society. It launched the Synathina platform, where civic organizations and local governments can cooperate. It joined the international Resilient Cities-program, and began experimenting with open consultation procedures. For instance, after the market hall in Kipseli closed, the government bent to the local clamor to reinstate the site as a cultural center. The municipality launched an open call, in which cultural organizations and creative groups could send in proposals for managing the space.[17]

At the same time, another wave of citymaking practices emerged. These are not just oppositional in nature, but try to appropriate existing structures from a public values perspective – or come up with new modes of collective storytelling and agenda setting, that serve as interfaces between civil society and local governments. In the rest of this chapter, we will turn to a number of experiments from the second and third wave of civic initiatives. Could they lead to a new framework that opens up the process of citymaking, like once the antiparochi system did, yet at the same time, incorporate the production of collective and public values?


Green Park
TARTA
TARTA!
ROGER
ΑΓΟΡΑΖΟΝΤΑΙ
ΟΛΑ
ΤΑ ΑΥΤΟΚΙΝΗΤΑ
6986 087593
ΑΝΟΙΚΤΑ ΣΥΝΟΡΑ
Πανελλαδική
Κινητοποίηση

Green park

https://greenparkathens.wordpress.com/now/

On June 19th 2015, a group of artists, activists and citizens occupied the graffiti-ridden, derelict Green Park Café, in the Pedion tou Areos park, in central Athens. With this 'cultural occupation', the initiators aimed to turn the former night club into an autonomous cultural/art space, thus breaking up existing 'cultural and artistic monopolies, "creative cities", and their production lines of co-optation.'[18]

'There's not much room for independent artistic and political practice', a representative speaking on behalf of the collective explained to us during our visit. 'The little money there is, usually goes to heritage and ancient art. For the rest, the cultural scene is dominated by private institutions'. Since its occupation, various events have taken place here, from concerts and exhibitions, to a conference on Institutions, Politics and Performance.

Green Park was initiated by a collective, most members were previously involved in the Empros Theatre occupation, in downtown Athens. At some point, they decided to act at a different venue, and context. Therefore, this collective aimed to further pursue the agenda they first laid out at Empros. Empros is a community run theatre, staged in a former newspaper printing office. Similarly, they wanted to open up Green Park to the local community to organize cultural and political events. In its organizational model, the collective explores alternatives for capitalist, and neo-liberal modes of production. Instead, 'friendship' is an important central theme in their organization. There is no strategic long-term plan, instead Green Park is a stage for members of the community to 'do' and 'act out' events. On Sundays, open meetings are held in which proposals and programming are discussed. Because accessibility is an important issue, there are no entry fees or 'expensive drinks', and the budget comes from donations.

Hackability

Green Park can be placed in a longer tradition of Greek civil society initiatives that claim an autonomous space in urban society, with its own logic. It is literally an urban hack, as a derelict nightclub is physically hacked (squatted), and re-appropriated for cultural and political purposes. Friendship and ephemerality are two of its basic organizing principles. This makes the initiative an open and accessible one, by opening up a space for artistic and political activities, that take place outside 'the enclosures of formal political representation.' Yet, in the current system, that means the initiative is also fragile and precarious, in terms of its long-term sustainability.

Place Identity

'We have amazing planners and urban designers in Greece', said Place Identity's director Stephania Xydia, at our Hackable City Symposium in Athens. 'But our cities are ugly. How is that possible?' The answer to that question lies in the decision-making system and legal codes that provide the framework for Greek urban planning, according to Xydia. Athens' Antiparochi system never had much room for the development of urban visions beyond the individual building. In addition, political contrasts between the left and the right also did not help. Right wing politicians prefer to leave most development to the market, whereas left wingers have a tradition of setting up their own autonomous projects.

Place Identity was founded to empower Greece's civil society, and better connect it to the planning process. *Imagine the City* was one of the first projects that aimed to open up the planning process to citizens, and combine it with the expertise of planners, architects and academics, to develop visions for the city at large. In cities around the country, workshops and exhibitions were staged to discuss the future of Greek cities, inviting participants to start imagining alternatives for the current situation. In *Pedio Agora*, Place Identity took the leap – from broad imaginative alternative urban futures – to concretely designing for the challenges of a specific location. Place Identity organized a number of co-design sessions with local residents, shop owners, municipal officers and activists that produced six proposals for the revival of the Varvakeios market, in central Athens. Both projects resulted in a number of co-design tools that can be re-used in other situations. For *Pedio Agora*, they developed a four step-approach, in which the participants moved from analysis, to diagnosis, to vision, to proposal.

In *Syntagma 2.0*, Place Identity took on the legal framework for civic participation by running a number of workshops around the country to rewrite the constitution, in order to give civil society a larger role in contributing to the political process. Here, Place Identity made use of existing workshop formats like the 'world café' and 'open space' (two formats for participatory group discussions).

Hackability

Place Identity is an example of a professional organization that sets up a 'dramaturgy' (a local setting, and orchestration of events through which collective action is organized in time and place), where various stakeholders come together to collaborate in the urban planning process. It makes use of existing formats like the 'world café', but also develops new tools that could be used in other situations. Xydia stresses that their independent position as a mediator is important. They are not part of the local government, but act as a neutral player/organizer, that facilitates the co-creation process. This enables them to be critical, and ensures trust.

These interventions, and co-creation sessions, could be seen as 'hacks' – attempts to incorporate civil society's voice into the planning process. Although, Xydia explains, there is always the risk that a project like this will be 'hijacked' by the local government. In that case, local government will claim ownership of the collaborative process, and use it to demonstrate that they have a listening ear for citizens, but without any real commitment. Mostly however, Place Identity finds the public sector willing to cooperate, but also limited in their resources, and legal context, to institutionalize the 'hacks'. There's usually no budget or capacity to take over responsibility for temporary interventions, or to truly incorporate the outcomes of collaborative sessions. To truly enable hackable citymaking further institutional and legal change is necessary.

Traces of Commerce

Due to the economic crisis, around thirty percent of the Athens building reserve is empty. In addition, due to unclear, or very complicated ownership status and laws that do not allow for temporary use, it has proven difficult to regenerate this unexploited building stock. With *Traces of Commerce* the architects Haris Biskos, Martha Giannakopoulou and Clelia Thermou aspired to break that trend, and turn the increasing number of vacant storefronts into opportunities for urban regeneration. The project was realized in collaboration with the Municipality of Athens, and the Merchants' Fund.

They decided to focus on a particular urban typology, once popular, but now in decline in central Athens: the stoa, or the arcade. In particular, they adopted the Stoa Emporon, an alley between the once thriving shopping streets near Syntagma square. The three citymakers organized an open call, through which about a dozen new tenants were selected, under the theme 'old-new commerce' (first round), and 'new creative cells of exchange' (second round). These tenants were young professionals who needed a space for their creative activities, and services. Selected initiatives included a zine-publisher, a DIY music production company, a typography and silkscreen printer, a 3d printing studio, a carpentry and musical instrument making shop, and a silversmith workshop. In particular, they sought initiatives that were part of a making culture, rather than just commercial shops.

For a number of months, these enterprises were granted free access to one of the available spaces, in order to develop their business case, or test out new ideas and products. In exchange, they were required to organize two workshops each month that would introduce new skills, or knowledge, to local residents. As a result, Athenians participated in workshop activities like 3d printing, silkscreen printing, and zine making. Apart from the workshops, various other creative or social activities were organized. Neighborhood residents were invited to a large lunch table in the center of the arcade, or to attend open screenings, and presentations. Through these activities, for a period of about two years, the Stoa Emporon grew into a thriving cultural incubator, producing a temporary public space focused around maker culture, and learning activities.

Hackability

Traces of Commerce can be understood as an act of 'urban curating'. Independent professionals sensed an opportunity to create public value through the regeneration of empty storefronts. They facilitated a collective of start-ups and cultural entrepreneurs, to take up a shop in the arcade, and also took care of communicating and branding the project, in addition through social media campaigns. Looking for alternative forms of economic organization, Traces of Commerce wanted to stimulate maker culture, and creative innovation as a means of revitalizing the local community. In lieu of rent, enterprises gave back to the community by organizing workshops, and teaching local residents new maker-skills.

However, the lack of a traditional business model was also its drawback. Because there was no rent involved, the project curators had no means of earning an income for their own organization. Moreover, providing the spaces to selected tenants for free, could only be continued within the legal context of a project in collaboration with the Municipality, or the Merchants' Fund, and this was not possible for various reasons. After two successful years, no sustainable organizational model could be found, and the project closed down. The arcade itself fell back into a derelict state.

Akalyptos 2.0

The cityscape of central Athens is dominated by a single typology: the polykatoikia – the mid-rise multiple-apartment building. More than 35,000 of them were built, for the most part, in the three decades following the Second World War. Almost all of these were individually developed, and therefore each and every one looks slightly different from its neighbor. What they have in common, is a complex ownership structure, an indifference to their surroundings, a mostly private character, and very often, a somewhat neglected, walled off courtyard at the back of the building – that belongs to everyone, and no-one in particular.

Akalyptos (literally meaning 'the uncovered') 2.0 is a project that aims to turn these often dilapidated enclosures into a citywide network of semi-public pocket parks. Could this approach turn Athens' urbanist ethos of individual development around? Could it contribute to the creation of collective and public values, like an increase in green spaces – that provide not only urgently needed recreational space, but also contribute to a better urban climate by retaining rain water, cleaning the air and curtailing the heat-island effect of the city's concrete galore?

Ideas like this have been floating around since the 1970's, but have never been realized here. This time around, studio Micromega makes a new attempt. Their approach is different, they see themselves mainly as facilitators that enable local residents to draw up their own designs. Their process is based on co-designing. They use this method to reclaim the potential public space in 'urban pockets' (left-over urban spaces), developed by the international platform, Urbego.

Micromega aims to bring together around 200-300 residents inhabiting a number of polykatoikies, with adjacent courtyards. With these residents, Micromega organizes a number of workshops to come up with ideas that merge individual courtyards into a collective pocket park. These workshops not only design the functionality of the space, but also the management and ownership of the site. Once the architects leave, the residents should be able to take over collectively organizing site.

During our visit, the project was in the preparatory phase. Via a social media campaign, the Micromega architects were seeking a number of adjacent polykatoikies that would be interested in taking part in a pilot study. According to law, if sixty-six percent of owners agree, the walls between the courtyards can be dismantled, but complex ownership structures make it hard to work out legal relationships between residents. On a mental level, residents also need to be enticed to collective spaces, which goes against the dominant individualistic urbanist grain of Athens.

Hackability
Akalyptos 2.0 is another example of 'urban curating', in which architects take the lead to organize a local public around the production of collective and public values. Central to this approach is the role of the 'urban curator' (in this case the Micromega architects), as facilitator and integrator. The architects first act as 'evangelists' who rally a local public around a communal goal. Second, the designers operate as integrators: while local residents contribute ideas, the architects use their design expertise to turn these ideas into an integrated design. Third, the urban curators also interface between the collective, and public institutions, seeking out or lobbying for legal or financial frameworks that make it possible to execute the proposed plans. Here, Akalyptos 2.0 is as a pilot project that showcases that this approach is possible. Its weak point is its business model, and the scalability of the project. Without a proper business model, it is hard to create multiple examples, and it is not yet clear to what extent residents would also be willing to remunerate architects for their facilitating services, or to what extend the public values created for the city at large (like heat reduction) can be monetized. Additionally, Micromega needs more assistance with the social aspects of community making, in order to create more communal consensus amongst the inhabitants of the building block.

Synathina

Synathina is an on- and offline platform for civil society initiatives organized by the City's Vice Mayoral Office for Civil Society and Innovation, headed by Amalia Zepou. The platform has two goals. First, it aims to provide civic initiatives with tools to mobilize citizens for their activities. On the website, initiatives can register themselves, announce their activities, and ask for volunteers or other contributions from citizens and sponsors. Second, the platform also functions as an intermediary between civil society and the local government. The platform serves as a 'thermometer', measuring the issues civic society is concerned with, while at the same time, phasing out outdated regulations in need of change. For instance, through the platform, city officials discovered that founding a newspaper for the homeless ran into legal difficulties, because homeless people couldn't obtain a specific permit for street vending needed for the distribution of the newspaper.

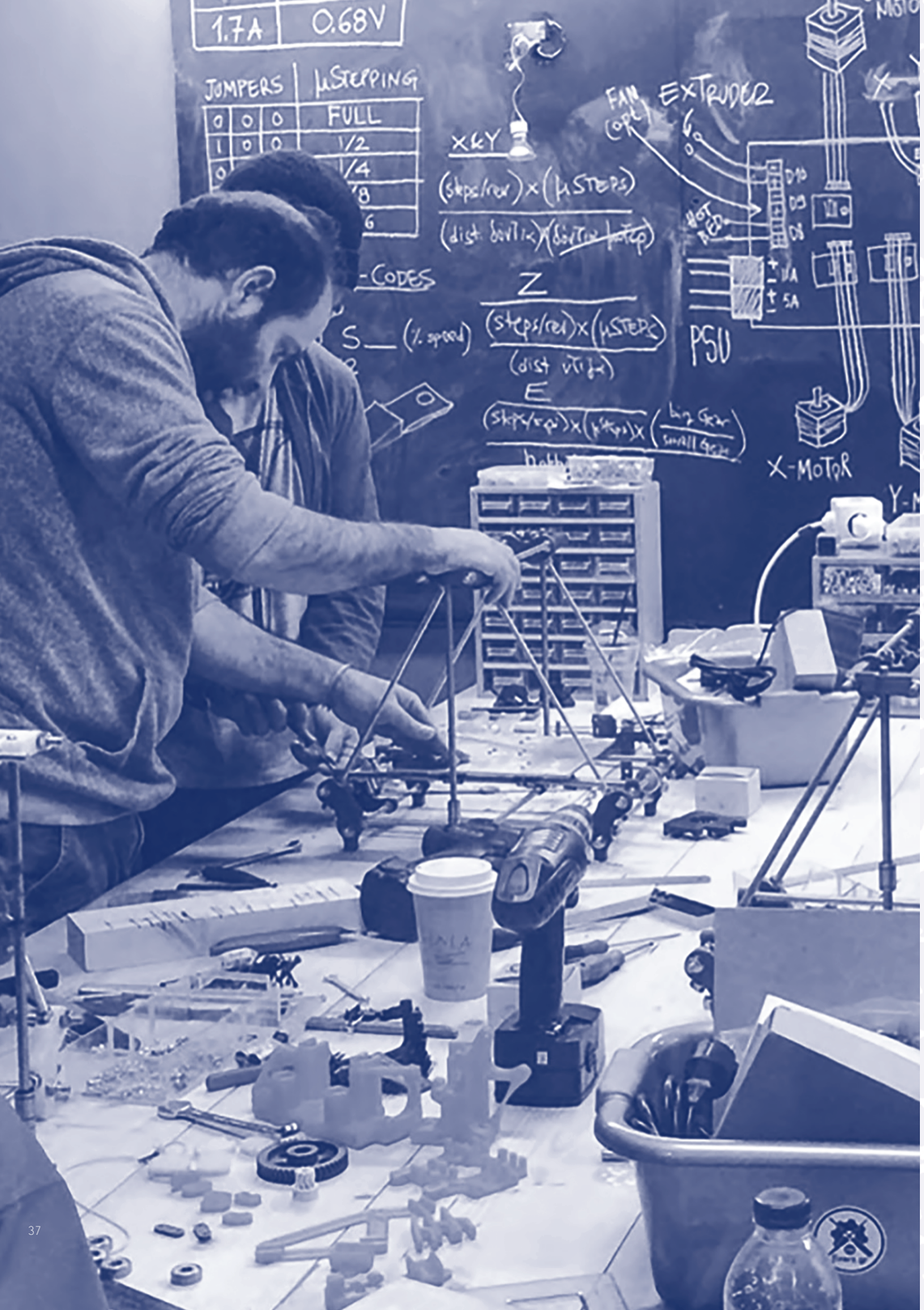
City officials follow activities on the website, and step in to connect organizers with the right people inside the administration, that can help with permit applications, or check if city resources can be made available. Furthermore, the city uses the platform to match civic organizations, and their activities, to its own goals. Synathina manager Haris Biskos explains, 'We have a significant reduction in the capacity of the city's government, and at the same time, see a very large number of autonomous civil society groups emerging, with citizens collaborating to come up with solutions to newly emerging problems in the city.'[19]

The platform was also used in a new approach to urban planning around the regeneration of the Kipseli Market. The open call for proposals for the future of the market hall was distributed on the platform, and led to various discussions, and on- and offline cooperation between actors.

Apart from the online platform, Synathina also hosts a kiosk in central Athens that provides information about the platform, and is a meeting space for various initiatives.

Synathina is now further developing a system for prioritizing activities it wants to stimulate – a point system that rates activities according to criteria like locality, transferability of methods used, and their relevancy to broader urban policies. The highest rated projects will receive further support and scrutiny. 'Lessons learned' will be made explicit, and incorporated into a toolkit.

Hackability
As a platform, Synathina empowers civic organizations by organizing collectives around issues they deem important. It also functions as a knowledge platform where civic initiatives learn from each other. At the same time, it also functions as an interface between civil society and the city, as city officials use the platform to learn more about initiatives, and priorities. In addition, initiatives that match particular city policies are spotted and supported, thus extending public support, as well ensuring policies actually take root in urban society.



Refill Athens
refillathens.wordpress.com
Refill Athens is part of the European Urbact program that connects cities in Europe around particular themes to learn from each other. Refill Athens and its partner cities develop methods and strategies for the temporary use of vacant buildings. The Urbact method relies on mutual assistance between cities (transnational exchange), and is action-oriented (each city commits to elaborate and adopt a Local Action Plan). Participating cities receive guidance from the URBACT Secretariat and from thematic experts. This has led the working group to explore tools such as a local tax policy that encourages the temporary use of public spaces, or collaborative mapping practices that make empty spaces visible for actors that temporarily need a space for their activities.[20] In Athens, so far, the program's most prominent result is the re-activation of an empty kiosk near the Varvakeios market for the Synathina-program. Through this program, the kiosk can be used by community groups for their activities.

The Dome Project
http://thedomeproject.net/
The Dome Project is an initiative of Plays2place productions, a media company based in Athens. It aims to map solidarity initiatives, not just in Greece, but in the whole of Europe, and the Middle East. It is an issue and knowledge network that aims to bring the solidarity, as a base for social organization, into the public debate. At the same time, practitioners learn from each other. Each year, a specific focus is chosen. In 2016, the theme was refugees. Apart from their website that maps various projects, once a year an event is organized consisting of a conference, master classes, and various cultural activities and performances. Special attention is paid to experiential storytelling. During the Dome Event in 2016, an experiential documentary was staged in the vacant Bageion Hotel, Athens' Omonia district. This dramaturgy was organized to submerge participants in the experience of refugees. Refugees took part in the storytelling project in various rooms of a deserted hotel. It is an example of what the initiators call 'applied anthropology': the outcomes of anthropological research – in this case, on solidarity initiatives about refugees – are not turned into an academic research paper, but into a social or cultural intervention, that either empowers participants, or creates awareness for a particular issue.

Resilient Athens
Resilient Athens, led by Eleni Myrivili, is part of Rockefeller's 100 resilient cities program, a network of 100 cities that explore and exchange concrete policy measures, to make cities more resilient around a number of themes. For Athens, making the city greener, and making government more accountable and answerable to civil society, are two of the top priorities. The set-up for this program bears elements of hackable citymaking. Numerous co-creation workshops, in which citizens, government officials, and other stakeholders participate, are organized to set the agenda for the program. Next, this agenda is turned into an action framework around a number of goals, and again various stakeholders are invited to take part in working out solutions. For instance, in a planned 'Polykatoikiathon', a hack-a-thon for designers, architects, urban planners, academics and other professionals to rethink Athens' archetypical urban form, the Polykatoikia (multiple apartment building). Other priorities include an open data platform, the further development of the Synathina platform, as well as increased co-operation between universities and local government. Altogether the four pillars of the program are: an open city with a focus on data driven policy making and accountability, a green city that can withstand climate change, a proactive city that will create a trustworthy and safe environment for its people, a vibrant city that stimulates creativity and entrepreneurship.[21]

Through this program, Myrivilli hopes to shift the relationship between citizens and government – by making the city administration more responsive to the needs of civil society. At the same time, the city increasingly takes on the role of facilitator, stimulating civil society, and other stakeholders, to initiate activities around a number of themes that make Athens more resilient.

Conclusions Athens

In the last decade, Athens has seen a large number of hackable city initiatives. They vary from autonomous cultural occupations, to an emerging 'Do It With Others' workshop culture in the art scene. Self-appointed urban curators connect issues like vacancy, to a local maker culture. Government initiatives like Synathina, and Resillient Athens, aim to open up governmental procedures to input from citizens. Some of these initiatives can be placed in the 'autarkic' tradition, meaning that for ideological reasons, they do not wish to be connected to or collaborate with local governments, or even institutions in general. Others are more actively seeking new connections between civil society and local government.

Yet a number of challenges remain. First of all, many projects heavily rely on personal dedication from the initiators. They see their projects as test cases, or prototypes, through which they want to prove that alternative ways of organizing social, economic and cultural activities are possible. Yet stimulating as they may be, many of them still lack a viable business model. Alternatively, an 'exit-strategy' through external institutionalization is also hard to achieve, as governments have limited resources for taking on new public tasks. Most projects rely on funding from European or private cultural foundations, and when the money runs out, so does the project. Although it has been claimed that alternative economic systems may have emerged, there is not much evidence to support that claim.[22] If Athens indeed is a hackable city, it is both vibrant, and geared to the creation of collective values – and also brittle and precarious. What is mostly needed, are new models in which public value creation can be monetized, so that urban curators are remunerated for their efforts.

Numerous interviewees called Greek government 'stiff and bureaucratic', yet openings have appeared. Individual government officials are willing to experiment. However, current austerity measures do not allow for much investment in public resources, and there is a risk that most bureaucrats will follow a business as usual approach. Moreover, the legal context does little to allow for such experiments. There is definitely a need to make it more flexible, and less bureaucratic, in order to allow for the initiatives discussed here.

At the same time, a focus on 'participation' or 'collaboration' could also lead to off-loading or 'reponsibilization' of public tasks to the citizenry. On the upside, experiments like Synathina, and Resilient Athens, may pave the way for more innovative interfaces between state and civil society. As one government official interviewed during our trip stated: 'I feel like I am the hacker inside the institutions, trying to bring about change from within.'

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STAY TUNED FOR UPGRADE
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L308A
咏藜园
L408A
同湘会
L411B

Shenzhen

At the epicenter of China's modern economic liberalization, Shenzhen's incredible rise, in the span of a single generation, is a story well told. Less well known, is that in its short existence, the city underwent three wholesale reincarnations. From rural backwater, to wild frontier, to factory-of-the-world, to commercial capital – about each decade a new (economic) model forcibly displaces the old – simultaneously layering upon, and pushing the limits of the laissez faire urban framework underpinning the city.

Now, on the cusp of its fourth transformation, the contest over the city's future is coming into sharp relief. The (now 30-year) old model of rapid urbanization is pitted against the spatial organization of innovation, found in the new economic, tech-based start-ups; embraced by the government as the example of moving forward. These clashing paradigms are not new. Shenzhen's entire development is defined by a layered continuation of competing, paradoxical paradigms. Each time a shift occurred in perspective, or priority, new gray areas emerged for exploitation.

This chapter explores Shenzhen's 'hackability,' by first outlining the history of the city's urban development as a series of consecutive 'hacks.' This is followed by an exploration of two districts resulting from that evolution, and currently under transformation: the wholesale electronics market district, in Huaqiangbei, and the 'urban village' Baishizhou.

Local Partners:Future+
http://www.futureplus.net.cn/
Future + is an institute for innovative education, teaching practice and research in the fields of Urbanism, landscape and public art, based in Shenzhen. Through their activities , they aim to improve the ability to effectively solve problems, to help create future leaders of innovative thinking.

Shanzhai City
http://www.shanzhaicity.com/
Shanzhai City is a social enterprise promoting community self-agency through technology development, community building, and value co-creation - that synergizes, and integrates into sustainable markets. They are a young social development solutions startup, located in Hong Kong, Shenzhen, and San Francisco

Introduction
'Shenzhen is the ultimate hack'

David Li, founder of China's first Hackerspace, is several minutes into a detailed monologue on the checkered history of Huaqiangbei (the former warehouse district turned electronics hub that recently has been 'discovered' as the newest tech-Mecca and darling of Silicon Valley disrupters), when he interrupts himself to exclaim: *'you know, Shenzhen itself is the ultimate hack – a capitalist experiment in a communist country!'*

At the heart of Li's declaration lays the impetus for exploring Shenzhen through the lens of The Hackable City. Unlike the other subject cities in this tome, the emergence of adaptive spaces might not have been about localized exceptions, but a systemic inevitability. If true, therein lies also the possibility for reproduction: not by figuring out how to hack a system, but by building a system to be hacked. In Shenzhen, on the surface there is an apparent clash of paradigms between the CIAM-based principles of government planning offices and design institutes, versus the de-facto vibrant economic geography of innovation that emerged at sites like Huaqiangbei; where independent actors re-appropriated the city's spaces, and its legal architecture, en masse. Yet, Shenzhen's history is more a story about the latent 'hackability' of the city, and its underlying governmental structures (legal system and infrastructure) – rather than an account of individual hacking practices. Could the framework of this hackable city help us to understand the emergence of these complex assemblages of urban planning, spatial appropriation, social networks, and economic relations?

In order to process the two Hackable City case studies exploring Shenzhen, it is necessary to first unpack Li's assertion. The factors that led to Shenzhen's rise, and the legal underpinnings therewith, are inextricable from the unexpected collateral consequences that now draw our attention.

Zero-Day

Legend has it that shortly before taking the reins of power in China at the end of the 1970s, Deng Xiaoping discovered a most unusual aberration in the sub-tropic realm of South China's Pearl River Delta, a farming collective thoroughly out-producing government planning estimates. Upon further investigation, it was revealed that this village had informally adopted a cooperative structure. The spoils of the harvest, above and beyond what was mandated by the central government, was split among the farmers as shared 'profit.' Critically, rather than declare the secret co-op a bug to be eliminated, Deng embraced this first hack of the socialist system. In 1980, three decades after Mao Zedong's red revolution consolidated authority in Beijing and isolated China from the global scene, the third Plenum of the 11th Party Congress approved a proposal by Mao's successor to formalize the Cantonese apostasy, but restricted it to a sparsely populated corner of the province. In this way, urban historian Thomas Campanella relays, 'Deng Xiaoping opened China's door to the world, but not the front door, with red carpet and concierge; it was really the nation's back door that he left unlatched'[1].

He continues: 'Much the way a promising but potentially deadly new source of energy might be first tested safely distant from the laboratory and its staff,' so was the Special Economic Zone demarcated by Deng's pen. The newly commissioned city of Shenzhen was safely quarantined from the rest of China proper.

The Runaway City

Shenzhen's incendiary urbanization, thus catalyzed, might well have occurred in secret; so far as it progressed before the rest of the world realized what was happening in the swamps of Canton. In a nation that dates its history in millennia, there exists little framework to evaluate how a mega-metropolis appeared out of nothing in the span of a few decades, much less formally plan the route of its exploding particles. In a flash of light and fury, the fields and farms on the Pearl River Delta were transformed into a sprawling, economic powerhouse, pumping over a trillion yuan a year into the global economy.

In the midst of this great transformation, the farmers and fishermen of yesterday's generation have been, quite literally, surrounded by a populace of many millions. Laborers, traders, designers, entrepreneurs – dreamers all, were drawn from the farthest reaches of China, to chase the future in Shenzhen.[2] As urbanists, we are compelled to ask how all of this happened. The simplest answer, may well be, that it was allowed to. Again, Campanella:

> The aim of urban planning at Shenzhen was as simple as it was visionary: to create a 'perfect environment for investment.' … Planning Shenzhen was more a game of catch-up than course setting. The planning process simply could not keep pace with the maelstrom of development; state-of-the-art plans, reflecting the input of the most skilled planning professionals in the country, were obsolete within months… making the act of planning in Shenzhen analogous to sweeping leaves in a hurricane.[3]

As compelling as the image of the professional planner in a cyclone seems, perhaps more appropriate is the shock of the dog who caught the car bumper. Unbeknownst to the new ride along, the vehicle's route was pre-determined by decisions made long before – and the unintended consequences they begat.

Gray Cats[4]

Since the revolution, land in China had been administered by central planning in Beijing. Individuals in urban areas were allocated apartments, state-owned corporations were allocated land for factories, collective farms were allocated land to farm and plots for village houses. China's constitution explicitly forbade the commercialization of land – it could not be bought, sold, or leased.

Thus, Shenzhen's pioneers found themselves in a quandary, having a charter to build a new city, no funds with which to do so, and a system that prohibited them from raising capital through the sale of the one valuable thing they had in spades – developable land. The only viable path forward was hacking the property law itself, by inventing a semantic workaround. In 1979, city leaders began charging 'land-use fees' to prospective Hong Kong developers.[5] For eight years, Beijing turned a blind eye as the southern city exploited legal ambiguities to self-finance its development.

In December 1987, the Shenzhen government upped the ante, inviting 'a member of the Political Bureau of the Central Committee of the Chinese Communist Party, a deputy head of the State Bureau of Land Administration, seventeen mayors from the country, twenty-eight Hong Kong entrepreneurs and economists, and more than sixty journalists'[6] to attend the first public property auction in post-Mao China, selling the rights to develop a parcel of land for residential development. Four more audacious transactions followed, demonstrating unequivocally, the value of land – and forcing the national government's hand towards codification of the (legally dubious) improvisation. Within the cordoned off Special Economic Zone, these initial moves represented an experimental new approach to land tenure, that bridged the paradox between maintaining government ownership, while also allowing market incentives to drive development. Newly legal private companies could purchase usage rights (essentially a long-term land lease of forty, fifty, or seventy years, depending on zoning),

develop the land, and profit from it. These usage rights could be bought and sold creating a synthetic marketplace for real estate, while the land never left the government's ownership.

The following year, the constitution was amended to permit the commercialization of land use rights, and the experimental land tenure system was adopted nationwide. In a single stroke, the Communist government initiated, essentially from thin air, perhaps the greatest moment of private wealth generation in history.[7] In practice, if not fully by law, city-dwellers effectively 'owned' their apartments, and could therefore sell them and buy new ones. Companies now 'owned' their facilities, and sometimes the vast amounts of urban land beneath them. Likewise, the government, which controlled most rural and agricultural land outside of the cities, created demand for this formerly free resource. By selling development rights, it could raise capital for infrastructure investments, expanding cities and creating more viable sites for development.

Danwei to Developer

In the early years of reform, the urban Danwei (workers' collectives organized around joint production and housing facilities, modeled after the Soviet work block) managed by state-owned organizations evolved into quasi-private company complexes. Protected and encouraged by the government, these corporations originally continued manufacturing activities inside urban centers. In the Special Economic Zone of Shenzhen, which started without an existing fabric, the first wave of development in the 1980's (and thus the original core) consisted almost entirely of industrial facilities.

As property values rose in major cities like Shanghai, Beijing, Shenzhen, and Guangzhou, government planners sought to move their cities up the value chain. Factories were expelled from the former Danwei sites to the periphery, where newly built highways and rail-lines connected them to a growing economic network. The former textile companies, and part manufacturers, found themselves with valuable urban land, on which they were no longer allowed to continue their core businesses. In the spirit of the times, many rebranded themselves as development companies. OCT华侨城, one of China's most prolific developers today, began life as the KONKA group, the first electronics company established after economic liberalization.[8] Large swaths of Shenzhen were once peppered with its factories, on land it received almost for free from the government, in order to spark industrial development. Now, those properties boast huge residential complexes, luxury shopping centers, hotels, and even amusement parks. Or, as in the case of Huaqiangbei, a massive electronics wholesale market.

Farmer to Landlord

However, the farmers in the hinterlands were left out of this initial spurt of wealth creation due to the long-lasting ramifications of Mao's 1958 legal division of 'rural' vs. 'urban' lands. According to these principles, these collectives-cum-cooperatives 'owned' their homes (and a limited portion of the immediate farm lands surrounding the villages), but theirs was a joint-ownership – much like a modern co-op, where all members must decide together on any financial transactions. In practice, this meant that unlike their urban brethren, rural citizens were not legally able to sell their homes, effectively locking them out of the burgeoning real estate market.[9] At the same time, the value of undeveloped land drew the cities ever closer, as local governments snapped up the surrounding farmland, and put it to auction. Throughout Guangdong province, and especially in Shenzhen, agricultural lands were swallowed up, and villages engulfed, depriving the now-former farmers of their livelihoods.

Unable to farm, and unable to sell, these villagers began to build. As the cities around them grew, and with them the demand for affordable apartments to house hundreds of thousands of migrant workers, the village homes grew too. First to two stories, then four, six, and ten – as tall as they could climb, without the need for elevators, and without drawing the ire of the government. By 2014, with Shenzhen's population racing past the ten million mark, its two hundred plus urban villages had absorbed many times that total. Baishizhou alone is estimated to house over 150,000 residents on less than quarter of a square mile.

Shenzhen as a hackable city

Our study program developed with Tat Lam, of Shanzhai City, sought to highlight these cracks, scheduling a series of visits, workshops, and symposia to the areas, and the people, leveraging such openings. Rather than cataloguing individual projects and their hacker's praxis (as with São Paulo

and Athens), in Shenzhen the intent was to understand how these gray zones created affordances for the city at large to be hacked. In particular, our interest lay in the emergence of the 'milieus of innovation,' geographic constellations that due to their spatial and social organization contribute to a city's capacity to innovate. Our workshop in Shenzhen was a brief attempt to reverse engineer two sites that arose under Shenzhen's historic development. The first, is the emergent electronic district, Huaqiangbei. The second, is the urban village Baishizhou. Both places can be understood as acts of 'hacking,' individual actors appropriated these parts of the city, partly stimulated by policy, partly enabled by the lack of policy enforcement. As a result, two typologies emerged that seem chaotic at first, but have evolved into complex social and economic systems, that are linked to Shenzhen's capacity to innovate. Both are also under threat. With rising property values and no more new land to develop, both government and private interests have taken actions towards redeveloping these zones into a post-industrial urban typology of single-functioned structures, like high-end shopping malls and apartment buildings.

Accidental Frameworks

To what extent are the opportunities exemplified by Baishizhou, and Huaqiangbei, a natural result of gaps (or contradictions) in planning, institutions, or regulations? Conversely, are the patterns we see due to a more complex organic urbanism bubbling up from interactions between individual actors – migrants-cum-merchants, farmers-cum-landlords, and industrialists-cum-developers – that would have emerged regardless? This is a trick question of sorts, as the two are intertwined. The contradictions inherent in Deng's grand experiment, particularly those relating to land use and privatization, created the independent agents, which in turn, were compelled to push through the gaps in planning.

In both our case study areas, flexible spatial organizations wrought entirely of different concerns and aims, have created opportunities for innovation. In the urban village Baishizhou (among others), unregulated extrusions of obsolete village house plots fostered a 3-dimensional informal economy. In Huaqiangbei, a hundred defunct industrial buildings with wide-open floor plans, left behind in the city center when manufacturing was expelled to the periphery, were re-appropriated as an entrepreneurial electronic nexus.

As multiple layers of government, from President Xi on down to local administrators, embraced, and promoted a transformation in economic emphasis – from 'made-in-China' to 'designed-in-China' – another new paradigm was added to the existing stack. This one was based on open source technologies, and digital platforms and rapid-prototyping tools, in an attempt to leverage Shenzhen's historical manufacturing might against the innovation models emerging across the Pacific. Silicon Valley, of course, had already taken proper notice. In 2011 (following a model prototyped by the Shanghai-based CHINA-AXLR8R in 2009), a San Francisco-linked initiative called HAXLR8R established the first hardware-focused tech-incubator in Shenzhen.[10] They decided to locate it in the heart of Huaqiangbei. It was the obvious choice.


新奇特电子产品展示
新奇特电子产品展示
新奇特电子产品展示
16GB 内存卡 U盘 39.
32GB 内存卡 U盘 49.
64GB 内存卡 U盘 69.
128GB 内存卡 U盘 89.
手机配件 移动电源
基础“三分钟”学会弹钢琴
完全自学、无师自通
诺思钢琴

Case study 1. Huaqiangbei

In the original district plan for the Shenzhen Special Economic Zone, Yantian (the furthest east) was to be a logistics port, Luohu, the commercial center (commensurate with direct border crossings to Hong Kong), with neighboring Futian, and further west, Nanshan concentrated with industry. Huaqiang, in Futian just west of the administrative border with Luohu, was one of Shenzhen's first factory clusters, established in the early 1980's.

By the mid 1990's, as Luohu's downtown grew into its intended CBD role, and central Futian began a coordinated transformation into a governmental and civic center, locating industrial operations directly between these two poles no longer appeared desirable. Factories were expelled westward, to the (then) periphery. Cavernous structures with open floor plans that had been built to produce and store bits of electronics now turned to sell them, wholesale. As the area's reputation grew, semi-formalized electronics malls appeared in the northern sections[11] alongside the warehouses. Each of these housed hundreds upon hundreds of tiny, specialized stalls, selling a full spectrum of electronics, from miniscule transistors to cut-rate consumer products. Level upon level (up to five or six stories), each floor grew by one degree of sector categorization from its nearly identical counterpart above and below, until the full realm of possible components was exhausted. In most cases, belying the apparent cacophony of independent actors, these small stalls (each no more than two or three square meters) and their accompanying merchant, were the front-end for extensive supply chains from factories located further inland.

In what David Li calls the 'Golden Age of Huaqiangbei,' from roughly 2004 to 2011, these diminutive stalls proved incredibly lucrative. To acquire the rights to one, one could be expected to pay upwards of $100,000 USD to the existing tenant, for the privilege of transferring the lease. This was because, as Li stresses, Huaqiangbei was not a retail market, but a wholesale one, where through each stall millions of dollars of contracts might continually pass. Shenzhen, at the time, was producing more than 90% of the world's electronics, and their components. A disproportionate chunk of that was routed through the carbon paper pads of Huaqiangbei's 300,000 front-men.[12] Li estimates it was, in its heyday, a 'hundred billion RMB industry.'

Shanzhai Begats Maker Culture

During this period, Huaqiangbei gained fame, and profit, as a hub for so-called *Shanzhai* products. 'Shanzhai,' which originates in a derogatory Chinese phrase approximating 'mountain bandits,' first referred to knock-off or counterfeit items produced parallel to legitimate originals – most extensively, mobile phones. The concept expanded to include activities of modification and innovation, using the tools and resources generally available in Shenzhen (and around Huaqiangbei specifically), to improve upon the source product. In another word: hacking.

Through prototyping, and relentless iterative design improvements, shanzhai 'makers' added functionality to the originals (like capacity for multiple sim-cards, or phablet-like formats), and drastically undercut the price. They customized electronic consumer products for developing world markets outside of China, beating the established companies there. The resources these original entrepreneurs had at their disposal: access to extensive supply networks providing any manufactured part or component imaginable, as well as equally extensive distribution networks for getting products into the hands of consumers, were exceedingly enviable to a new generation of hardware-focused techies abroad. Thus, the (Western) maker-world adopted Shenzhen, colonizing it with fab-lab workspaces, 3-d printshops, and incubators. The government too took note, and began sponsoring and subsidizing hand picked showcase companies. Whereas the original shanzhai occupied the periphery of areas like Huaqiangbei, part of an extended ecosystem that included a myriad quick food stands, packaging outfits, and logistic services – these new start-ups created (literally) stacked economies, taking over the floors directly above wholesale markets. They were supremely situated for a time, with immediate access to specialized parts below, and the ability to plug into a different set of tech-oriented financial networks, from their desks above.

In April 2014, Shenzhen hosted its first featured 'Maker Faire,' showcasing work from over 200 maker offices. It was the seventh city in the world to host the event, and the first in China. During a public lecture at the fair, Terry Cheng, a former CEO at the manufacturing giant Foxconn, noted the current migration of traditional manufacturing from Shenzhen to other cities across China. He went on to stress the need for the city to reinvent itself, and identified the 'Maker Movement' as one clear direction in which Shenzhen had already begun to do this.

Uncertain Futures

There is an inherent risk, however, in this attempt to formalize the informal. The rise of Shanzhai exploited the gray between explicit policy and implicit goals, between macro-level zoning and micro-level land use. If all reverts to white and black, fitting neatly into the government's next five-year economic plan, will any space remain for actual innovation?

After its initial catalytic role, expatrification is taking its toll. With the ostensible support of the government, tech-mercenaries are parachuting in to Huaqiangbei equipped with better funding, and more explicit ties to Silicon Valley. Large swathes of iconic stalls have disappeared, replaced in-situ by more respectable 'makerspaces,' expansive galleries featuring 3-d printed portfolio pieces, and the occasional third floor coffee shop. In effect, these ever-growing entities are cannibalizing the market space, the disappearance of which will accelerate as it loses critical mass – thereby undermining the whole structure on which the maker movement in Huaqiangbei is predicated.

As Li puts it, the state-owned enterprise turned property developer that controls most of the Huaqiangbei area, the Huaqiang Group, is desperately trying to understand, 'what they did by accident twenty years ago that turned out to be so successful'. If they can, they will export it to other cities. In the meantime, pressures from real estate valuations, and economic changes, are already undermining the original lightning bolt in HQB. The Group is exploring multiple options for 'upgrading' and up-scaling the still-gritty remnants of old Huaqiangbei. There are partially implemented plans to transform the area into a 'jewelry district,' despite it having no connection to the concept.

Above the displaced shops and stalls, a similar story of late-stage gentrification plays out. As the rents rise in formerly affordable studio spaces, an exodus of homegrown shanzhai-makers, and start-ups, move to cheaper parts of the city. But in this, a reminder of the intrinsic resiliency of adaptive emergent economies: they tend to reform, in the next available, exploitable space. 'If the maker goes anywhere in the Shenzhen landscape,' Li predicts, 'it will be to the urban village.'

Case Study 2.
Baishizhou Urban Village

The 'cheng zhong cun' (城中村), literally 'villages within the city,' display a spatial fabric in stark contrast to the surrounding metropolis, having developed at a fundamentally different scale from greater Shenzhen, and according to a different set of rules. Likewise, the human fabric of Urban Village is markedly different, a remnant of close-knit rural life preserved inside the larger city. These two fabrics are arguably intertwined, the dense, subdivided blocks allowing the village community to survive over decades of external change.

The mish-mash within the fabric of the Urban Village may be antithetical to contemporary city-planning – with its clearly delineated two-dimensional zoning – but it is absolutely key to the vibrancy of the community. The panoply of offerings along the market street in Baishizhou do not merely serve the residents, but draws a regular stream of visitors from adjacent communities, and tourists from afar, into their alleyways. Likewise, the layering of residential and light-industrial spaces, above and around these commercial strips, creates multifunctional urban anchors that are simultaneously self-sufficient and act as key nodes within the surrounding city.[13]

Five Villages

Shenzhen's urban villages are notorious for their bewildering network of narrow, canyon-like alleys that crisscross the densely packed tenements. The sheer size of Baishizhou facilitates an extended, disorienting wander through arrays of 'kissing buildings.' From beneath the laundry and power lines strung between them, before popping up into the void of the central market square, with its dozen or so low-slung concrete commune buildings, remnants of the Mao-era collectivized farming that once defined this area. Articulating a sheer wall at each edge of the de-facto plaza, a continuous mat of eight and ten story buildings march outward from the inscribed square, in all directions. From this vantage point within the boolean, the physical history of the 'village' tells its own story. Each farmer's nominal plot demonstrably extruded as a single building, its migrant-rented rooms creating a new livelihood in place of the usurped and obsolete.

In contrast, our tour with Mary Ann O'Donnel, anthropologist, activist, and Shenzhen historian for nearly two decades, starts at a trendy new coffee shop. Opened just one year ago, it represents both the anti-static nature of the urban village, and at the same time, an unheard of encroachment of gentrification. For most of her time in Shenzhen, O'Donnel has spoken out against the threat of large-scale destruction of urban villages to pave the way (quite literally) for generic, blank slate development. She is a sort of bohemian Jane Jacobs, attempting to dissuade the behemoth state owned developer, Moses. Urban renewal plans to raze nearly half a million square meters of area built across the 'Five Shahe Villages' that compose Baishizhou.[14] were approved in 2014. When the post-bubble downturn crippled real estate development, those plans, and the village, were put in limbo. The irony of having temporarily won the battle for Baishizhou, only to lose the war to gentrification, is not lost on her. With the perspective of decades of change, O'Donnel takes this cultural shift in stride, recognizing the latest phase change as a potential for survival. This urban village's endless capacity for reinvention, and unceasing evolution, is in the core of its DNA. In the parlance of our exploration, it is a crowd-sourced, continual hack of Shenzhen's economic and property laws: swarm-intelligence writ large.

The (Necessary) Bug in the System

The quirks in property law and ownership outlined in the introductory section directly spawned the urban village phenomenon exemplified by Baishizhou; the scholarship on this point is rather straightforward. The more interesting question is why a seemingly omnipotent central government, that seldom expressed qualms in rewriting rulebooks (or history books, for that matter), hasn't quashed the bug. Whereas taking back farmland the government already owned was relatively easy, scholars have pointed to the apparent difficulty in snapping back titles to the farmers' actual homes:

…The villages were still sitting on land officially designated as 'rural.' While the government could easily condemn the farmland that once sustained such communities, the villages themselves – with all their houses, shops, markets, schools, and other improvements – were much more costly to condemn, as villagers had to be compensated fairly for all improvements.[15]

In practice, and post-urbanization, the scenario is far more complex than Campanella describes above. Today, a well-connected developer must simultaneously negotiate with both the village cooperative, and municipal officials, in the hopes of creating a tripartite agreement whereby the villagers relinquish their land to the government for a nominal payment. The government, in turn, auctions the land to the developer, who must then compensate the villagers for the full, negotiated value of their homes (usually via a number of new apartments in the subsequent development project). It is even more complicated and fraught then it sounds. Mired in this process, prime sites in the CBDs in Luohu, and Futian, have somehow managed to stave off urban renewal for over a decade. All the while, outside of the Pearl River Delta, 'fair value' negotiations over resettlement compensation have done little to slow extensive claiming, razing, and redeveloping. The government in Shenzhen has extravagantly tied its own hands behind its back, in a way its compatriot cities certainly have not.

By 2000 there were some 240 so-called urban villages in Shenzhen, encompassing more than sixteen square miles of the city, and accommodating a population of more than two million people. Village urbanization not only enriched the population, but has also been a major source of affordable housing for the migrant labor force. Any effort to get rid of these villages will also have to make up for the loss in low-cost housing. The ambiguous legality of urban village tenements (where you can rent a room but never have a formal lease agreement) create an incredible market distortion – and apartments are discounted accordingly, rented for a fraction of expected market value. In a booming city with skyrocketing real estate prices, this has been the only relief valve, de-facto affordable housing for countless workers, within clusters of countless apartments.

Shenzhen's leaders relied on urban villages to secretly power the economy for more than three decades. First, to temporarily house armies of factory and construction workers to construct an industrial megalopolis from scratch; and later, to house a second wave of migrants to staff, service, and clean the newly built restaurants, hotels, and luxury apartments. Today, as the city is once more reinventing itself, this time as a tech hub, the urban villages are again called upon to support another revolution, Baishizhou in particular. As Eli McKinnon pointed out in the Foreign Policy journal, a few months after our event:

In Baishizhou, a room big enough for a married couple can be rented for roughly $200 to $300 per month. A basic space in a mid-range apartment complex just outside the village might cost three times that. Small-business owners, along with industrial workers, are key constituents in Baishizhou's population. But the area is also increasingly home to the young professionals driving a government effort to transform Shenzhen from the world's factory into a hub for technology, innovation, and design, helping it live up to its nickname: 'China's Silicon Valley."[16]

Baishizhou's relative cheapness allows for the type of risk-taking the government is at pains to encourage for its current crop of young graduates. Whether apprenticing at a design vanguard, working for a start-up, or starting their own company, their entrepreneurial decisions could be stifled by the sheer expense of market rents.

McKinnon interviewed a young architect who saw the threat to Baishizhou in dire terms:

'If Shenzhen loses its affordable housing, the whole chain will break. The industrial sector will hollow out, and for most of our startups, our design companies, and our tech companies, the cost of labor will go up, because almost all of their young workers live in the urban villages."[17]

A more nostalgic take is given here by one of the tech-entrepreneurs Shenzhen's officially sanctioned incubators are meant to entice, who recounts how often he bonds with other founders over their 'Baishizhou origin stories':

'If you ask any boss or a guy in a high-up place now, they'll tell you they got their start here, that it was the first place they lived in Shenzhen. They paid 500 yuan [$77] to stay for a month, and the rest was for living expenses. It was a start, and without that, they'd have nothing now."[18]

The coffee shops and (incredibly) craft beer joints popping up across Baishizhou might be better framed as the bellwether of its seminal, if not publicly acknowledged, place in the new economy: a meta-incubator for Shenzhen's myriad startup clusters. As it was, as it remains, the inevitable launching pad for hungry new arrivals.

Conclusions Shenzhen

Hidden in the slowing national GDP annual growth numbers, and in the wake of the deflating property bubble, economists recognize an increasingly stark bifurcation between China at large, which is slipping into recession, and a handful of its biggest cities, which are stabilizing its economic growth. Hundreds of municipalities are falling into worrisome debt, while thousands of zombie companies are evidence of the staggering difficulty of China's attempted evolution away from an economy based on naked urbanization. Somehow, against this backdrop, Shenzhen is booming.

The city's ethos continues to be defined by experimentation and innovation, by imaginaries setting new courses, and entrepreneurs exploiting the subsequent emergence of opportunity. The capacity to reinvent itself, and the ability to pivot quickly, are traits normally ascribed to nimble Silicon Valley start-ups, not cities of fifteen million. Yet, this 'disposable city' facilitates the rise and fall, the appropriation and re-appropriation of whole districts, like seasons. Clusters of informal economies emerge, dissipate and migrate.

The focus of the Hackable City workshops was to explore two 'milieus of innovation' that arose under the historic conditions of Shenzhen's development. The seemingly chaotic (and seemingly unrelated) typologies are, in fact, representative of complex interlinked social and economic systems, and Shenzhen's greater capacity to innovate. But if the districts of Huaqiangbei and Baishizhou represent an act of 'hacking,' where individual actors have appropriated parts of the city, exploiting the ambiguous zones between explicit and implicit policy – Shenzhen itself (as David Li intoned) should be understood as the essential, primordial hack.

End of the Grand Experiment?

The great Western myth of China's state-sponsored capitalism portrays a highly coordinated system, quickly implementing edicts passed down from above, on the ground. In reality, the top and bottom levels, the national and the local, are continually misaligned. This is not to say that there aren't areas where black overlays black, and white overlays white. In these broader areas of clarity, the state has successfully picked national (and global) winners to create immense economic development,[19] often at the expense of true innovation. It is instead in the blurry gray zones, where national policies and local realities do not neatly stack up, that real innovation occurred, as actors there were compelled to improvise.

Of course, there are well documented threats to these interstitial models, including the all too typical crush of development pressure. One half dozen of urban villages in, and near the city center, have been razed in the past half-decade alone. Baishizhou, and seventeen others, are (literally) next on the list, sitting on land too valuable to be ignored. Huaqiangbei, has already been gutted. What is left limps along zombie-like, with only superficial reminders of its former primacy, and vibrancy. But to chalk these inevitabilities up to 'economics,' is to miss an important point.

A fundamental tension exists between how China wants to be seen (modern, capable, powerful), and the success of its messiest experiments. The informality of Huaqiangbei, and Baishizhou, and the picturesque chaos they create, so loved by anthropologists, artists, and architects, is at odds with the image officials want to project: a shining, technologically savvy, global center of innovation. This is why money-losing makerspaces displace shanzhai marketplaces, not economics. Formalization of the informal follows in due time, whether or not the translation is made successfully. From Deng's first dabblings in liberation, developments within the gray zones have always been envisioned as a bridge, not as a destination. Now that China has arrived as a global power, and pushes to be regarded as such, national officials may decide the grand experiment has run its course.

This, undoubtedly, would be a mistake. An existential question is at play in regard to the phenomenon of Shenzhen: is it a one-off, a winning lottery ticket the country should cash, and move on – or are there systemic underpinnings that can be built upon, and (potentially) replicated elsewhere? Conceding, the answer is likely some measure of both. We argue that Shenzhen's unique success, and the source of its implicit flexibility, is in the peculiar manner it feeds on the lag between political and physical realities. In a counter-form process of creative destruction (where destruction instead precedes creativity), top-down policy changes negate the viability of an existing status quo in a particular district. This casts the physical spaces into a period of limbo, where they are no longer allocated for their prior use, and not yet suitable for their next one. The uncertainty of this period lowers the cost of the space, while also preventing the establishment of long-term, deep-rooted enterprises. Nimble ventures exploit this volatility, sprouting up in the gap, and creating (short-lived) ecosystems that react to the immediate on-the-ground realities, without the burden of institutional memories, or heritage. During this transient moment, paradoxically, the burgeoning informal clusters have both the physical space to exist, and the political space to operate. The duality of this (exploitable) space, and the cycle of availability, ensure that so long as the city at large resists calcification and persists in change, opportunities will continue to arise to hack it – as if by design.

[1] Thomas J. Campanella, *The Concrete Dragon: China's Urban Revolution and What It Means for the World* (New York, NY : Princeton Architectural Press, 2008), p. 28.
[2] Section adapted from the author's 2014 Medium post on Baishizhou: Travis Bunt, 'The Urban Village Conundrum: Shenzhen and the Impotence of Historic Preservation in a 34 Year Old City', *Medium.com*, 30 October 2014 <https://medium.com/@travisjared/the-urban-village-conundrum-shenzhen-and-the-impotence-of-historic-preservation-61170303bfef>.
[3] Campanella, p. 43.
[4] Deng had famously declared that "it doesn't matter whether a cat is white or black, as long as it catches mice."
[5] Shitong Qiao, 'Planting Houses in Shenzhen: A Real Estate Market without Legal Titles', *Canadian Journal of Law and Society / Revue Canadienne Droit et Société*, 29.2 (2014), 253–72 (p. 258) <http://dx.doi.org/10.1017/cls.2013.58>.
[6] Qiao, ibid.
[7] This point has been made explicitly by economist Patrick Chovanec, among others
[8] http://www.chinaoct.com
[9] A caveat here: as Qiao and others have documented, there does now exist a robust black market for real estate in Shenzhen, with its own parallel system for leasing and selling such properties, wholly independent from the legal market.
[10] https://hax.co/about/
[11] "Bei" means "North" in Mandarin
[12] According to Li, most of the vendors in Huaqiangbei hail from Chaoshang, a "village of 2 million people," and are connected through familial and tribal ties. These trust networks undergird the wholesale market, ensuring common inventory and common risk - and consistent pricing across the myriad booths.
[13] Parts of the preceding section adapted from the author's 2014 Medium post on Baishizhou: "The Urban Village Conundrum: Shenzhen and the Impotence of Historic Preservation in a 34 Year Old City"
[14] Mary Ann O'Donnell, 'Baishizhou Officially Slated for Renewal', *Shenzhen Noted*, 4 March 2014 <https://shenzhennoted.com/2014/03/04/baishizhou-officially-slated-for-renewal/>.
[15] Campanella, p. 41.
[16] Eli Mckinnon, 'The Twilight of Shenzhen's Great Urban Village', *Foreign Policy*, 16 September 2016 <http://foreignpolicy.com/2016/09/16/china-demolition-economy-the-twilight-of-shenzhens-great-urban-village-baishizhou/>.
[17] Mckinnon.
[18] Mckinnon.
[19] The efficiency of these efforts versus that which a market economy would produce is highly debated, of course.

Conclusions

Athens, São Paulo and Shenzhen are three very different cities, spread out over three continents. They are part of three different political systems, each with their own civic traditions, each facing their own challenges. Yet, we found that the hackable city model helped both us, as well as local participants, to grasp a number of developments in collaborative citymaking. In turn, insights from these three diverging cities further informed our own hackable city model.

In both Athens and São Paulo, we witnessed an emergence of civic initiatives, in the last decade. Their dynamics can be explored using our hackable city model. Most examples revolve around individual citizens organizing into collectives around communal issues, with a strong role for professionals, as initiators and managers. At this collective level, numerous new formats have emerged for collaborative acts of agenda building, storytelling or sharing resources. Professionals assume varying roles here. They rally communities to collective action, and broadcast their views to local governments – as we have seen in the case of Minha Sampa, in São Paulo. They act as integrators, harvesting ideas during co-creation sessions, and translating them into design – like the architects setting up the Akalyptos 2.0 program, in Athens; or the office Acupuntura Urbana, in Brazil. They program spaces and select participants, as in the Traces of Commerce, and Refill-Athens programs. Others, built new digital, and physical infrastructures for citizens to share their voices in the public debate. Examples here, are Greece's Place Identity, or the online tools built by Minha Sampa, or Nucleo Digital, in Brazil.

In short, we could summarize these professionals' roles as 'curators,' or even 'dramaturgs.' Curators, because they reveal a particular, pressing issue (e.g. empty office space, lack of public space), frame it within a particular narrative, and construct a program around the issue, that citizens (or other parties) are invited to join. Similarly, they can be thought of as dramaturges, because the central aspect of their work is creating stories, visualizations, settings, arenas and events that reveal the main issues, and facilitate collaboration. Sometimes, this is achieved by literally transforming an issue into a narrative experience, as in Athens' Dome-project. Other times, it is about designing an arena, and (often playful) rules of engagement for co-creation, as in the events organized by Place Identity.

These collective actions can take two directions. The first is an autonomous one, in which collectives create their own spaces, aiming to bypass traditional institutions. In these cases, the collectives set up their own domains, often as alternatives to dominant economic, or spatial regimes. The movement around Largo da Batata, in São Paulo, or the Green Park cultural occupation, in Athens, are both examples of this. These organizations are based on their own value sets, and often operate, more or less, in isolation from society at large; or more precisely: they aim to offer a radical alternative. Often, they legitimize their operations by linking themselves to international theoretical discourses around the rights to the city, or the organization of the commons – and sometimes view themselves as laboratories for a future that is built on alternative economic, and social paradigms.

Most collectives we visited follow a second route by aiming to influence the existing political, social and economic system, rather than providing a fully-fledged counter version. They propose variations on existing paradigms, and campaign and lobby in order to have their proposed 'hacks' incorporated into regular institutions. These collectives are often labeled bottom-up, but we found that this term does not fully do justice to how they work. Rather than simple 'bottom-up' tactical constellations that confront the top-down structures of government, these collectives can be understood as providing a middle ground. They organize citizens around collective issues and resources, by arguing that these are in the public interest. Then, they bring these interests to the attention of various kinds of urban institutions that could offer financial support, and other resources, or provide new legal frameworks for the realization of these goals.

In our hackable city model, the second direction is represented by the interactions on the right side of the diagram – between collective and institutional levels. Participants stated that this road can only be travelled in countries where there is a basic trust in institutions. It presupposes a good working democratic system, where the government is willing to partner with civil society. In other cases, the autonomous route, where collectives prefer to operate 'under the radar,' would be a more likely trajectory.

This brings us to the relationship between collectives and governments, and the 'hackbility' of the city, as a system. In both Athens, and São Paulo, we saw attempts by the local governments to open up their structure. In Athens, the Synathina-platform opened-up to help civic initiatives organize, and find congruence between local government policies, and the goals of civil society actors. In São Paulo, the Haddad-administration used open calls to involve professionally led collectives in the redesign of urban space. At the same time, this structured means of interaction between civic collectives, and governments, could be further improved. Apart from a number of experiments, still, governments lack the right tools and procedures, to structurally embrace the dynamics of a hackable city.

With collectives, we have seen that they often run into difficulties on the operational side. They rely on the 'hacker-attitude' of the initiators, but in most cases have yet to find a way to organize themselves according to social entrepreneurialism or civic economy principles. One issue that came back, time and again, was the need to find new financial models for parties that produce or contribute to public values. What if a collective could contribute to CO2 reduction, or reduce heat islands in the city, like Akalpytos 2.0 could if their plan was fully implemented? How could these contributions to public values be recognized, financed, and remunerated? Right now, initiators are dependent on subsidies from governments and/or private funds. What other models are possible? This is an important research question that still remains wide open. In our final meeting at the International Architecture Biennale in Rotterdam, we discussed mechanisms for financing public goods, like 'social bonds.' In this scenario, a government would attach a monetary reward for the (proven) creation of public values. This could be an interesting direction, yet as examples in other sections have shown, it runs the risk of inviting financial entrepreneurs that are not concerned with the underlying collectives, or public values; and only focused on optimizing private gains, within the rules set by the government.

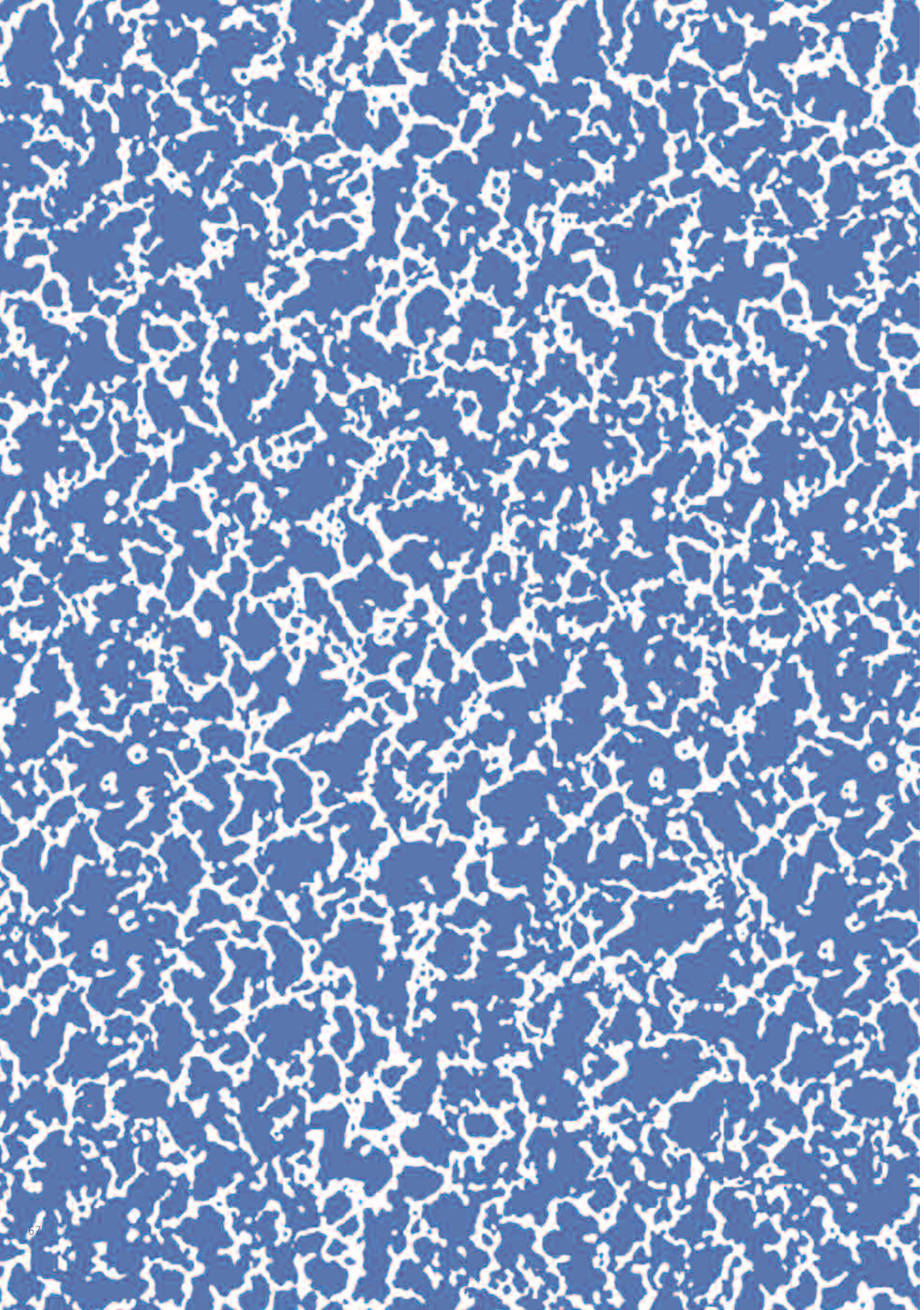
Our research in Shenzhen resulted in some additional conclusions, that resonated with our findings in the other two cities. In Shenzhen, we explored the city as a hackable system, rather than zooming in on the practices of individual actors. What we saw there, was that a lack of regulations, or enforcement of them, opened up space for citymaking to various actors – among others, former farmer collectives, electronic merchants, and tech entrepreneurs. Their systemic hacks revealed two particular areas of innovation that play(ed) a central role in the city's ecosystem of innovation. Yet, both are under threat. One reason, is that their chaotic (or: complex) spatial and social organization does not fit with the official government's image of the future city – that calls for luxury shopping malls, and shiny Silicon Valley-style hi-tech campuses – rather than for a messy 'garage culture.' In addition, there is strong economic pressure to redevelop sites.

During our Shenzhen workshop, some local experts made the case to find more convincing ways for sites like Baishizhou, as well Huaqiangbei, to communicate, and argue for, their contributions to goals set by the city government. For instance, turning the city into an innovation hub. How could they make such a case?

Storytelling, and framing an urban village as a ‘creative industries’ zone, is one strategy, although not unproblematic. Could, in addition, their advocates prove the value these districts create by means of collecting, and visualizing data? Could they prove that in the long run, the dynamics of these places create more value than turning the site into yet another luxury shopping mall? Could they use such an approach to argue for alternative values in city development, rather than just economic profit? And in turn, would these arguments be convincing enough to counter potential profits from real estate, and other interests?

The same discussion also surfaced in Athens, and São Paulo. Hackable city initiatives looking for recognition could benefit from framing themselves via a public values perspective. Yet, such framing in itself may not be enough. They would also need to find a particular way of finding proof, through quantitative or qualitative metrics, or storytelling, to underwrite their claims. Therein lies another challenge for the hackable city model. How can projects that create often intangible public values, make their results tangible, in a convincing way? Again, here lies a role for both ‘dramaturges’ at the collective level, as well as, perhaps, for data scientists. And of course, again, this line of reasoning would presuppose an ideal local government that would be open to these claims, and would prioritize them above, for instance, the interests of developers, or other influential parties.

Finally, what we learned during our site visits, is that our hackable city model helped local actors to better understand their position, and roles in the citymaking process. During our closing debate, at the International Architecture Biennale, in Rotterdam, participants noted that the model itself could be understood recursively. On a meta-level, the label ‘hackable citymaking,’ itself, could be understood as a collective flag that helped individual actors see themselves as part of a larger, world-wide collective – rather than as isolated activists, trying to change some hyper-local issue. In all three cities, our visits brought together a number of local actors involved in citymaking, in workshops and events, that they found energizing. A hackable city, they concluded, needs more of these forums, where local citymakers can learn from each other, and cooperate. In addition, they noted that the constituent elements of our hackable city model should not be considered as homogenous categories. Even within the most bureaucratic governments exist civil servants with a hacker’s mentality, trying to open up their organizations from the inside out. In this sense, we propose understanding the hackable city model itself as ‘hackable’: open to improvement, by anyone, for the benefit of the public.



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Colophon

The Hackable City is a research project that explores the potential for new modes of collaborative citymaking in a network society. The team's primary case study is Buiksloterham, a brownfield regeneration project in Amsterdam North.

The first contours for this project were laid out by One Architecture and The Mobile City during the Metropool NL workshop organized by the Deltametropool Society in 2012, resulting in the publication Eindhoven, Hackable World City.

This was followed by an 'embedded researcher' project executed by Cristina Ampatzidou, hosted at the University of Amsterdam and One Architecture and funded by the Creative Industries Research Centre Amsterdam, with contributions from Utrecht University.

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In 2016 with Delva Landscape Architects, Studioninedots and Stadslab Buiksloterham the entry Hackable Cityplot and a series of events was developed for the International Architecture Biennale Rotterdam.

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University of Amsterdam
Utrecht University

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One Architecture
Stadslab Buiksloterham
The Ministry of the Interior and Kingdom Relations
Pakhuis de Zwijger

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