Open source urban planning for augmented citizens

Open source urban planning has to be understood not as focusing on physical aspects of cities, but as approaching their transformation by understanding the behaviours and the social processes of the citizens and exploring alternatives to reconciliate them with physical realities designed in response to former social structures and ways of life.

Belinda Tato **José Luis Vallejo**

"The direct benefits of incorporating citizens into the creative process include potentially better results, facilitated development, wider intervention acceptance and the creation of a sense of community"

Belinda Tato and José Luis Vallejo are founding partners of **ecosistema urbano**, founded in 2000. ecosistema urbano is an innovative agency focused on understanding the city as a complex phenomenon, from a unique vantage point taking into account architecture, urban planning, engineering and sociology. The agency has also created a communication platform that leverages new communication technologies to develop social networks and manage online channels focused on the subject of creative urban sustainability. **ecosistema urbano** has received many international awards. (www.ecosistemaurbano.org).

Architecture students who studied in Spain in the 1990s were taught by the top active professionals of that time. They envisaged and built infrastructure and basic facilities such as hospitals, libraries, sports centres, cultural centres, auditoriums etc. The architectural production of that period is a dictionary of sound architecture from which one can draw the discipline's keys to successful planning, designing and building from a wealth of superb examples. We studied and breathed architecture, our references were always architectural in nature and our lives were circumscribed to circles of architects.

Soon thereafter, greater contact with a society that was undergoing transformation at breakneck pace put an end to the monolithic consensus surrounding the discipline and its limits started getting blurrier. Today, we cannot fathom talking about cities without the input of other professionals, such as engineers, sociologists, economists, geographers etc., sharing views and work tools in a collective conversation that uses cities – living, mutant, uncomprehensive and inherently complex organisms – as their game board.

Real-time connectivity, ubiquity and unlimited access to huge flows of information and knowledge have all changed the rules of the game. Information is infinitely more accessible than ever before, but it also mutates more rapidly, becoming obsolete almost instantly.

Currently, the office is our home; computers are the work tool *par excellence*; and mobile phones are external prostheses of our brains or the gateway to our most public profile. The boundaries between our public and private lives are dissolving. Citizens are shifting away from being consumers towards becoming *prosumers*, producing ideas, knowledge, information and content. The bound-

aries between our personal and professional lives are starting to blend together and this rapid evolution is taking us to imagine and experience spaces and cities in a whole new different way. We have become receivers and emitters of a continuous flow of information that we need to redirect, administrate, assimilate or simply discard.

But, apart from their digital lives, humans are still social beings on an undying quest for interaction with other people to exchange information, knowledge or direct sensory experiences. "The Cloud" provide appropriate conditions for part of this exchange, but the physical reality remains the irreplaceable stage where most of our lives unfold.

Parallel to this on-going revolution, city planning continues to be a languid, bureaucratic procedure that is completely detached from the dynamic pace of our social processes. The amendment of regulatory and legislative frameworks is such a slow process that finalised reforms are generally out of synch with initial demands. New rules, which are systematically born obsolete, generally require further amendment, creating a never-ending loop of processing and public management procedures.

Slow and tortuous official urban planning processes focusing on the design and physical transformation of our environment (infrastructure, buildings, materials, geometry etc.) have ended up creating a dominant discipline that simplifies urban reality, ignoring its social aspects and creating isolated situations instead of processes, relationships, storylines, links and interactions among all of its composing elements. The increasing complexity of urban environments exponentially multiplies the number of synergies and the likelihood of contact between all elements, thus generating healthier and more creative urban environments.

"Internet boosted the social identity and people collective interests, turning them into a strong influential power within the urban world"

Emerging public spaces

At present, the Internet is undoubtedly the "place" where collective creation and self-organisation models are being carried out with the greatest success. Internet boosted the social identity and people collective interests, turning them into a strong influential power within the urban world.

In contrast, an ever-growing excess of rules and restrictions to control and direct urban spaces have made their use progressively less spontaneous and creative. The Internet allows and encourages interaction among people, whereas the design of many physical spaces negates it.

The Internet seems to provide an alternative, non-traditional space for social relations. This can be seen either as a problem, if viewed as encouraging the gradual "emptying" of public spaces, or much to the contrary, it can be envisaged as an extraordinary opportunity to strengthen local social relations by creating the necessary conditions to activate and invigorate traditional public spaces.

According to Juan Freire, the [physical] urban public space crisis is also due to the lack of open designs that are truly able to capture the interest[1] of citizens. He has successfully introduced into the debate concepts such as "hybrid spaces", referring both to opportunities created by physical/digital hybridisation in public spaces, as well as to "augmented" urban experiences created by superimposing virtual information over existing physical information. "Augmented reality" is defined in Wikipedia as a direct or indirect view of a physical, real-world environment whose elements are combined with virtual elements to create a mixed reality in real time.

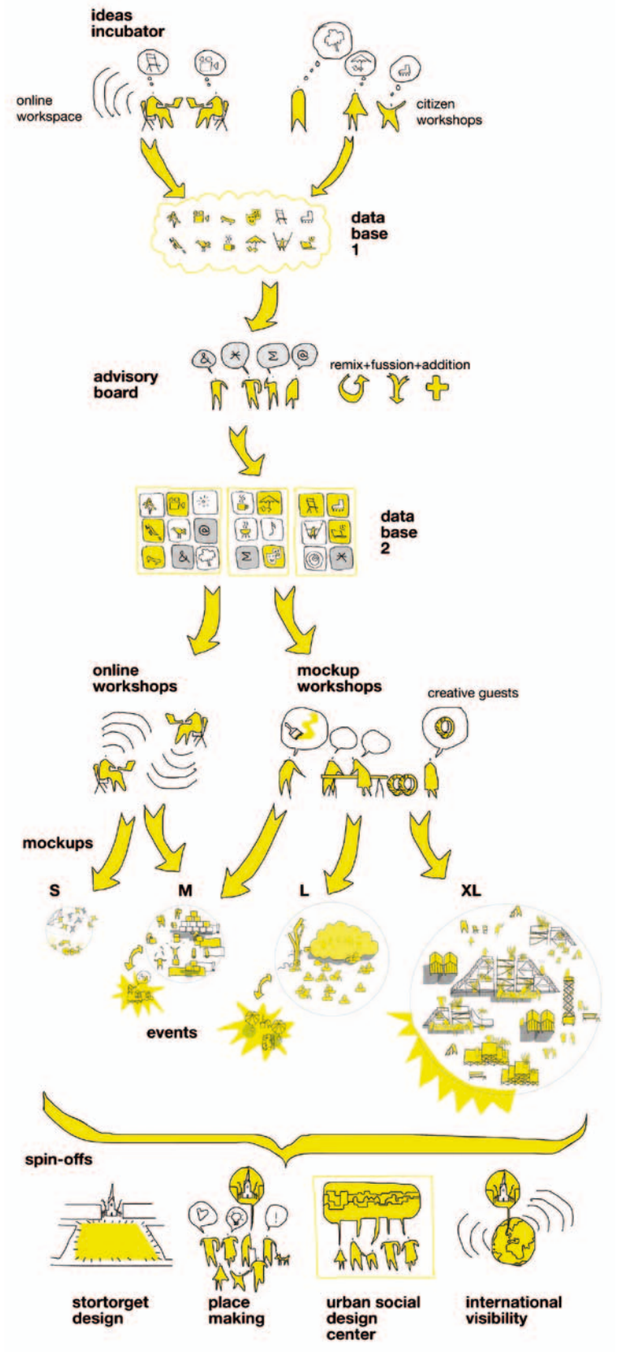
1 "Sentient City: Juan Freire – Espacios Públicos Híbridos". *Ecosistema Urbano* [blog]. 2009. [Consultation: October 13, 2012]. Available at: http://ecosistemaurbano.org/castellano/sentient-city-juan-freire-espacios-publicos-hibridos/

Experimenting platforms

Elinor Ostrom, Economics Nobel Prize winner in 2009, has devoted years to studying self-organisational economic models to prove that common (i.e. resources that are owned in common or shared among communities) can be effectively managed by independent groups of people, without the participation of hierarchical government agencies. Her work demonstrates how humans interact to maintain existing common resource production levels in the long term. Compared to the traditional view of economists who believe that maintaining such resources is only possible through government intervention or individual private interests, Ostrom asserts that commons users develop sophisticated decision-making mechanisms and rules to handle conflicts of interest, with results that are not only positive, but usually better than those attained under traditional economic models.

In the urban scenario, contemporary initiatives incorporating citizens as active agents have shifted away from the conventional paradigm of citizens as finished product *customers-spectators-receivers,* to turn them into *citizens-agents-producers* within open processes, thereby creating augmented spaces that may be modified according to user needs (understanding the city and its public spaces as sensitive areas under permanent transformation, capable of adapting over time to address different demands, and defining spaces as support platforms for interaction and experimentation). Vast experience in networking and co-working can be used as a point of reference to design new models for the collective creation of public spaces and cities. The direct benefits of incorporating citizens into the creative process include potentially better results, facilitated development, wider intervention acceptance and the creation of a sense of community.

“This project proposes an alternative solution to the outlined programme in competition’s terms and conditions, defining a participatory design process for the new square”



▲ ecosistema urbano, *OneThousandSquare*, 2011

Open source urban planning for augmented citizens

“Open source urban planning” is understood as that which, rather than focusing on the physical aspects of cities, approaches their transformation by understanding the behaviours and social processes of their people, exploring alternatives for our reconciliation with physical realities designed in response to former social structures and ways of life. It includes isolated or collective initiatives capable of generating immediate transformations; spontaneous mutations or metamorphoses that are unpredictable or difficult to quantify; actions that are either purposely intended to produce specific changes or that may have unforeseeable outcomes, based on operations planned with a certain degree of freedom.

As alternatives to traditional urban space transformation models, below is a selection of experiences that propose uses, processes or results that disrupt normal hierarchical dynamics and open up infinitely more creative and stimulating dimensions.

Participation

OneThousandSquare (onethousandsquare.org) is the winning project in an artistic intervention competition organised by the City of Hamar (Norway) in Stortorget Square, the city’s main public space. This project proposes an alternative solution to the outlined programme in competition’s terms and conditions, defining a participatory design process for the new square. The artistic intervention’s budget was initially allocated to a process lasting several months, which included an intense programme of events, workshops and the construction of 1:1 scale prototypes of ideas brainstormed during creative sessions.

OneThousandSquare drives collective reflection on public spaces by strengthening social relations, based on the assumption that beyond their physical definition, to build public spaces is to build communities around them.

OneThousandSquare is a project open to local interaction (citizens of Hamar) that also promotes global participation (other citizens via the Internet).

In 2005, the German city of Magdeburg implemented the “*City on Trial*” strategy, aiming to resume efforts to recover an urban centre located within a post-industrial district with high rates of unemployment, population abandonment, empty buildings and abandoned lots. This experiment started out by reinforcing social ties and creating new ones before any physical changes were made to urban reality. The *Open Air Library* project was an initiative that began with the implementation of a participatory process to design a “social sculpture” that would later evolve into an open air public reading space.

More than 30,000 books donated by citizens were collected at successive theme festivals and events and 1:1 scale prototypes of the most popular designs were built using empty beer cartons. The place soon became popularly known as the *Bookmark*, until the *Open Air Library* project was inaugurated in 2009, embodying the aspirations of citizens. The public square, along with all other spaces in this city, now operate as open reading hall.

Activism

Whether through action or omission, every citizen initiative has political significance. In the words of geographer and social theorist David Harvey, we need to get accustomed to continuous, consensus-building conflict in order to generate healthy urban environments[2]. Therefore, activist initiatives that create the proper climate for debate by activating citizens should be viewed as positive.

Mike Styczynski, a student at the Harvard Graduate School of Design (GSD), created *Actual Air* – a hybrid measuring instrument/database/social network project. Detecting high asthma incidence in one of Boston's towns, he set out to make an in-depth analysis of this phenomenon, including its causes and consequences. He selected a commonplace item to this city – a bicycle – to view, record and report on the town's alarmingly high pollution levels. *Actual Air is* a sensing device that can easily be attached to any bicycle wheel to monitor air quality. A LED pilot light changes colour depending on the level of pollution. Real-time data collected is sent to a Web-based database, mapping urban pollution levels and yielding a clear picture of a problem that had so far been ignored. Such data, now accessible, is an instrument at the service of the community that should help stir up discussion.

▲ Mike Styczynski, *Actual Air*, 2010

In Mexico City – one of the most polluted cities in the world –, the group *Make your city collective* designed and painted its own so-called *guerrilla* bike lane. This initiative was triggered by the passivity of city government, which had promised to build 300 kilometres of bike lanes by the end of 2012, showing only a minimal percentage of completion in 2011. The official statement explained that non-compliance by the government was due to insufficient funds. In a single night, however, an active group of 80 people on a tight budget of merely 1,000 dollars, completed 5 kilometres of the *Wikicarril*, so termed because of its open and participatory nature.

2 Harvey D. *Urbanismo y desigualdad social*. Madrid: Siglo veintiuno de España Editores, 1977.

Harvey D., *Paris, Capital of Modernity*. New York: Routledge, 2003.

▲ Tabacalera, Madrid, 2010

Self-organisation

The former Tobacco Factory of Madrid (Tabacalera) in the Madrilenian district of Lavapiés has been designated to become the future National Visual Arts Centre. Although further efforts for its development are currently at a standstill due to the economic crisis, the Ministry of Culture authorised the use of part of the building to establish a self-managed social centre during this "waiting" period. In less than a year, since it opened to the public in June 2010, Tabacalera (latabacalera.net) has become a cultural benchmark, not only for the surrounding neighbourhoods, but for the entire city of Madrid. The creative philosophy of Tabacalera provides for the establishment of work and information spaces that, rather than being lent out to individuals (studios, exhibits etc.), are granted to art practices and disciplines as a whole (workshops, clinics). Tabacalera's work, time and space distribution structure aims to provide a common ground where the most advanced art practices can share work and discussion spaces with political and social practices in Lavapiés and the rest of Madrid. Tabacalera is betting on a collaborative, open source production model, understanding culture as an active, vital process intertwined with its environment. According to the "rules" of this space, all activities are carried out and provided at no cost and all production is developed under "free licensing" schemes.

The *Estaesunaplaza* (estaesunaplaza.blogspot.com) project emerged from a workshop where students and young professionals turned a vacant lot (C/ Doctor Fourquet no. 24) that had been abandoned for over 30 years, into a public space for the Madrid town of Lavapiés. Aiming to create a gathering space in a densely populated neighbourhood sorely lacking in facilities, this group was assigned the right of use of this lot after painstakingly long negotiations with the Madrid City Council. The project is now actively under way, promoting a self-management model whereby the entire space is made available to everyone, activities are free and participants donate their time to help keep it going.

▼ *Estaesunaplaza*, Madrid, 2011

▲ eXYZt. *Isla Ciudad (City IsLand)*, 2010

Temporality

As part of a one-night arts and culture festival (*La noche en blanco)* held in September 2010, an ephemeral recreational facility – *Isla Ciudad* – was set up in a vacant lot in the centre of Madrid. This empty urban space had been created by the recent demolition of a former sports centre, where the new planned project had been put on hold as a result of the economic crisis. The synergies created around the *Isla Ciudad* project triggered a vindicatory process that resulted in the *Elcampodelacebada* (elcampodecebada.org / *The barley field* in English*)* project – a citizen initiative to convert this empty space into a temporary public space where cultural, social, sports and other activities could be organised. In February 2011, the Madrid City Council signed a temporary assignment agreement, marking the onset of this promising project.

Hortas na cidade dos barrios (hortasnacidade.wordpress.com) is an initiative that began in 2009 for purposes of establishing networks between the city and the countryside through the temporary implementation and recovery of orchards in abandoned plots outside of Corunna. The team that designed this proposal (desescribir.com) created mechanisms to establish an autonomous process that can be managed by its participants in the long term and does not depend on oversight by any specific agents (designers, managers etc.). This project was set into motion by contacting the owners to reach agreements on the assignment of abandoned plots, as well as with public presentations of the initiative to orchard owners, interested individuals and other potential users. A board was later created, which would be responsible for drafting orchard use regulations and the

by-laws of the future users association. At present, this initiative is managed by the members of this association, expressly created for such purpose.

Gastronomy

Dining out in urban spaces can have countless cultural and social meanings. Beyond its strictly nutritional aspects, the collective practice of dining out can serve as an extraordinary tool for community mobilisation.

In her project called *Knock for neighbours* (knockforneighbors.com), Molly Turner, a student at the Harvard Graduate School of Design, developed a digital interface to help connect tourists with locals who are willing to open the doors to their homes and share their own food and table. Contrasting with predictable dining experiences for tourists, *Knock for neighbours* gives people the chance to meet and bond with other people from distant urban environments, ensuring a unique gastronomic and sociological experience. The database allows users to enter selection criteria such as profession, culture, type of cuisine etc.

In its *COMA* (*eat* in English) project, the Mexican group Torolab (torolab.org) explores the physiological changes that people experience over time in their day-to-day relationship with food and how this affects their social behaviour. This experience culminated with the creation of a new food product: a type of bread that contains all the nutrients missing in the typical Mexican diet, according to the Mexican national health census.

“*Bring buddy* is a social web developed by students that analyses the daily routes of people to build a distribution network for more efficient transport”

Mobility

Currently one of the major challenges in terms of energy consumption, pollution and physical urban space occupancy, the choice of urban mobility policies has a huge impact on city design and operation. In many cases, these policies are so decisive that they can radically transform the social habits of citizens.

Bring buddy is a project developed by students of the School of Design Thinking in Potsdam, in co-operation with the DHL Innovation Centre. This project aims to find new formulas for more efficient transport of goods within urban centres with rising energy costs, increased CO_2 emissions and restricted vehicle access. *Bring buddy* is a social web that analyses the daily routes of people to build a distribution network based on such routes. This system is inspired on food delivery networks in certain Asian cities, where thousands of meals are delivered every day through self-organised systems. Still in its experimental stage, this project includes GPS and mobile phone use, creating an exchange network that is connected to a transport network. Last but not least, *Bring buddy* is an altruistic network of anonymous citizens working together to help out other fellow citizens.

En tu coche o en el mío (entucocheoenelmio.es.tl) (*In your car or mine* in English), is an initiative created by a group of students from the School of Ar-

chitecture in Seville, that invites Sevillians to carpool for their daily commutes to and from the city. The goal is clear: to reduce the number of vehicles, as well as energy consumption and pollution levels.

Recreation

Setting up a unique ephemeral element or reinterpreting an everyday item in a different context can trigger unusual, surprising and playful urban experiences.

Play Me, I'm Yours (streetpianos.com) is a set-up by artist Luke Jerram that has been travelling across many cities around the globe since 2008. A piano standing smack in the middle of a public space for everyone to play and enjoy, acts as the catalyst for a wide range of impromptu dynamics in public space use. The piano and its surroundings temporarily become places for social exchange and interaction. Each city creates a website to provide access to all the material generated during the experience, including videos, photos and stories. The Web then becomes the project's legacy, as well as the connecting link between the pianos and communities involved.

The British group What if (what-if.info) implemented the *Sit in* project as a formula to revitalise a downtown neighbourhood that had number of abandoned plots due to the industrial economic downfall. *Sit in* – a small-scale project that encourages residents to donate benches or chairs to the city – has fully transformed public spaces by generating new positive dynamics and injecting life into them.

▲ Luke Jerram. *Play Me, I'm Yours.*, 2008

Transparency/Mapping

New technologies have enabled the routine collection and updating of geo-referenced data. With the contribution of thousands of individuals, many Web platforms are currently able to provide us with otherwise unavailable maps using real-time data. As problems and opportunities are now more visible and apparent, organising groups of people to help solve them has also become an easier task.

Implemented in New York City, *Garbagescout* (garbagescout.com) project consists of a number of geo-referenced photos of potentially reusable items that have been thrown out as garbage along public roads. These photos are taken by anonymous New Yorkers and later displayed on a city map. Any users interested in any of the photographed items can easily find their location and pick them up before they are taken away by the city's trash collection service.

Bristol Food for Free is a Web-based database that provides information on edible plants in the city of Bristol. The webpage generates maps for all of the 113 species identified and also shows new potential planting sites, allowing novice gatherers to find fresh fruits and vegetables quickly and safely.

Social software

Links are essential elements of Internet. Since their inception, we have associated Internet with "surfing" or moving from one page to another. Linking allows us to discover new things and build new relationships. Rather than concentrating on a small number of nodes, links propose a new intellectual structure based on networking systems and multi-point relationships. With an Internet-like structure, the *Critical City* (criticalcity.org) project summarises these concepts, encouraging entertaining dynamics for social interaction aimed at helping users experience the city as a place of opportunity. This project is a local social network where users can propose urban actions, meet their neighbours and help improve their surroundings, thus driving the creation of contact networks between people living in the same neighbourhood. The *Peuplade network* (peuplade.fr) allows same-street or same-neighbourhood residents to organise local festivals to get to know one another and build relationships with new acquaintances. *Peuplade* (*tribe* in English) offers added support to continue to build on new friendships by allowing people to trade favours and items.

What if cities (whatif.es) is a Web tool that modernises the interface of citizen participation with the use of the Internet, incorporating new participants that had so far been absent from traditional participatory dynamics. This tool explores new formats that enable communication and interaction among the agents involved in the process of creating a city. Using a simple interface, citizens can access this webpage to add comments, submit new ideas for their street, neighbourhood or city or upload photos and videos. All content is geo-referenced and connected to major social networks, producing real-time maps of the citizens' wishes and needs.

A *Whatif* mobile application to allow anyone, anywhere, to access the platform and enter content, is currently under development. *Whatif* is available under Creative Commons licensing for any city around the world to download, install and customise for its own use.

▲ Ecosistemaurbano, *What if cities* (whatif.es), 2010