The role of sustainable development in the construction of the city image

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Abstract. Cities are the future of sustainable urban development. A human and smart city has as a key point the participation and involvement of its citizens. The perception of the image of a city is a process of interaction of people with their surroundings. Identification with the city and urban space happens when it meets the demand for more creative, innovative and inclusive solutions. The relationship between people and the meaning of the city to them is little discussed in the actions of communicating an image of the city, resulting in a lack of identification and engagement. Cities are known for their counterpoints and, in the reverse direction of policies to make cities more human and resilient, in some municipalities, such as Porto Alegre (RS, Brazil), the relationship between citizens and their environment has been deconstructed, given the growing perception of insecurity and fear. In this context, the movement known as ZISPOA (Porto Alegre Sustainable Innovation Zone) emerges as an initiative aimed at transforming an area of the city that is little explored by the community and by companies, in a model area of sustainable and innovative development, including cooperation as a process for the consolidation of a more human and smart city. The objectives to be achieved in this article are: (i) present the Porto Alegre Sustainable Innovation Zone project (ZISPOA); and (ii) establish the relationship between the objectives of the ZISPOA project and the state of the art of sustainable urban development, environmental perception, city marketing, local identity, and appropriation of urban space use. It is intended that the results obtained contribute as information and justification of the relevance of this project that is being implemented in the city of Porto Alegre since 2015.

Keywords. Image of the city; Sustainable urban development; Place branding; City marketing; Porto Alegre.

1 Introduction

The Industrial Revolution had, as one of its characteristics, the growth of cities and the use of non-renewable resources in urban development. The relationship between the human being and the environment was characterized by the increasing environmental impact caused by production and consumption activities. As a living organism, cities are in constant transformation and growth, and the urban population is already the majority in global terms. According to the UN report (2014), more people live in urban areas than in rural areas, with 54% of the world's population living in urban areas. In 1950, 30% of the world's population was urban, and by 2050, it is projected an increase to 66% of the world's population. This scenario reinforces the need for a new approach to urban planning, management and design.

The urban lifestyle can be liable for much of the environmental impact, but as Leite (2012) affirms:

Megacities are the future of the Urban Planet. They must be seen as opportunities and not as a problem. Sustainable development presents itself more urgently where the problem resides: cities will give the answers for a green future. In them most of the resources are consumed; in them most of the residues are produced (LEITE, 2012, p.14).

Jane Jacobs in her book “The death and life of great American cities” of 1960 was already affirming that the great cities have difficulties in abundance since they have persons in abundance. They are alive, diversified and intense, and they have the seeds for its regeneration since they have the capacity to understand, communicate, plan and invent what will be necessary to face the difficulties.

In order for a city to be transformed, it needs to be renewed. Being sustainable is to think about a strategic net where the citizen could live, work and play in the same place. Leite (2012) says that sustainability must be demystified, that development with sustainability presupposes belief in the human being. Jan Gehl, in his book “Cities for people” emphasizes that the new ones and several global challenges show the importance of the preoccupation in the human dimension. “The vision of
lively, safe, sustainable and healthy cities became a universal and urgent wish" (GEHL, 2010, p.6). Besides, Gehl shows the necessity of transforming the image of a city so that the people can identify with it. For that, it is necessary to take into account the positive and negative factors of the perception of the citizen about the environment in which he is inserted, in order to reach the desired vision of the city.

Cities are facing a process of transition towards a more sustainable future with a greater concern for people. Responding to local challenges, groups of people seek solutions to their everyday problems based on collaborative and shared relationships. In this context, the movement known as ZISPOA (Porto Alegre Sustainable Innovation Zone) emerges as an initiative with the purpose of transforming an area into a model of sustainable and innovative development, including cooperation as a process for the consolidation of a more human and intelligent city. Understanding how the designer's action can strengthen this type of initiative can help build and sustain the movement by helping to build a city where people identify with it and to empower themselves as ambassadors and supporters of local identity.

2 Objectives

The purpose to be achieved in this article is to present the Porto Alegre Sustainable Innovation Zone (ZISPOA) project and, with this, to establish the relationship between the objectives of the ZISPOA project and the state of the art of the following themes: sustainable urban development, environmental perception, city marketing, design, local identity and appropriation of urban space use.

3 Methodology

Based on an exploratory study, this article begins with a theoretical review of themes related to the image of the city (sustainable urban development, city marketing, local identity and appropriation of the use of urban space), followed by a discussion of the local initiative, referred to as “Sustainable Innovation Zone”. Ultimately, this study aims to contribute to the discussion of sustainable urban development and illustrate the relevance of collaborative projects for this and other cities.

4 Background and Discussion

When talking about the transformation of the city, the journalist Jane Jacobs (2011), in the 60s, already emphasized the importance of making neighborhoods alive by instigating people to use the streets. Gehl (2014) also highlights the importance of people staying in public and collective spaces, encouraging social interaction. The valorization of the human dimension creates a new relationship between the community and urban space. These relations develop a positive image in the perception of the different publics of the city. This perceived image is constructed from individual images of its inhabitants, and thus a collective image is formed (LYNCH, 2011). The value perceived by different publics influences the creation of a place branding, which aims to attract investments and improve the city's economy. The shared vision makes citizens think about the future of the city and, at the same time, creates a sense of identity with urban space. Collaborative movements allow for social interaction, and develop the sense of community through processes such as co-design. The designer as a facilitator brings people together to determine what they would like to do to solve a particular problem and helps them find ways to decide how to do it (SANOFF, 2006).

4.1 Sustainable development in cities

It could be argued that the environmental movement began centuries ago as a response to industrialization, but it was only in 1987, with the Brundtland Commission report (W.C.E.D., 1987), that the concept of sustainable development came into the public discourse. For the first time, it highlighted the importance of considering the needs of people yet to come.

This discussion comes from the notion that the planet is collapsing, as its finite resources are being misused. With this, behaviour change is necessary. Resources have been consumed at an unsustainable rate and transformed for humanity to facilitate its life. Now we must deal with the consequences and envision an alternative path forward based on current knowledge.

The book Natural Capitalism (HAWKEN et al., 2004) brings a model based on man's ability to produce more and pollute less, using existing technology and knowledge, demonstrating that business and environmental interests complement each other to meet customer needs, increase profits and help solve, or at least reduce, the environmental problems arising from capitalist production. Within this model, a few labels on the new economy emerge such as "green economy," "creative economy," "sharing economies," and so on. All of them are based on service systems - not industrial ones - where the knowledge economy integrates creative people to exchange ideas and information in a space of the city.

It is necessary to understand the situation of each city specifically, observe and stimulate access to information related to urban sustainability and sustainable development. There are three well-known pillars of sustainability - the Triple Bottom Line - which involve economic, social and environmental levels (ELKINGTON, 1998). These must be thought together for changes to happen in a balanced way to achieve a better future, to learn from the past and to act in the present.

Cities are centers of innovation that generate development, by concentrating people who discuss new ideas and the use of technologies. Leite (2012)
emphasizes that when analyzing urban development through productive restructuring, it is necessary to look at labor market changes and redefine the role of cities that are being considered as enterprises, for which new forms of urban planning and management are necessary, such as the so-called city marketing, the urban regeneration projects of historical centers and strategic planning. A city is sustainable when it can provide its citizens an adequate quality of life while at the same time preserving the physical and environmental heritage of their territory for future generations.

According to Ellis Juan, general coordinator of the Inter-American Development Bank, it is important to point out that a city with poor air quality (which generates lung diseases), that does not have a good urban transportation system, has very high crime rates, does not offer its citizens public spaces or green spaces, that has many traffic jams, has no connectivity (and therefore cannot use smart applications to achieve better management efficiency), becomes non-competitive. Such a city can hardly attract private investment, making it difficult to offer work, just as it does not attract residents who have the freedom to choose where to live. However, this city will not stop growing, due to the increase of its own population or the migration of people with no option to go elsewhere. This circumstance is more likely to generate economic informality, since people need to find some way to obtain resources to survive. And then informality increases poverty and inequality, establishing a vicious cycle that is difficult to break. The difference between a city that is geared towards sustainable development and another that is not, is that the city that is geared towards sustainable development has at least the expectation that in the future it will be able to improve its competitiveness, attract investment, generate productive employment and, finally, to break this cycle of poverty and inequality (BID, 2011).

4.2 The image and perception of the city as opposed to city marketing

The image of a city tells how places are perceived by different audiences. Nowadays, the adaptation of cities to the international market has been observed, and, increasingly, the brand appears as a powerful tool that promotes tourism and business, attracts investments and increases its cultural and political presence (SEVIN, 2014). The city image is not only interesting for its history, culture or landscape, it is necessary to perceive what one wants to transmit, as one wishes to be seen. A city to represent something should improve the quality of life, economy, tourism, among other activities in its daily life. The representativeness of a city is achieved by the actions or decisions taken. It is very important for a city that its image is clearly defined, to attract potential residents or visitors.

According to Lynch (2011), people form a mental picture of the environment constructed through their attributes, being the product of immediate perception and memory of past experiences, and thus interpreting information and performing actions. The public image of any city is the overlap of many individual images; these images are always necessary when an individual is expected to act and cooperate in their environment (LYNCH, 2011). That is to say, as a social phenomenon, a local brand is based on the perceptions of the target audience - which may or may not be influenced by the physical and communicative aspects of a given city (SEVIN, 2014).

Kevin Lynch’s pioneering concept of city image, environmental perception, and how cognitive mapping happens, remains important today for understanding the current cities, which are increasingly dynamic and diverse, becoming more complex. Cities have their own image and their inhabitants create mental images by moving and living in them, forming an image or a collective perception that must be respected in creating, planning and redesigning the future of urban life more coherently (LYNCH, 2011).

In the field of design, the concept of image of a product or object serves to capture the attention of consumers. As Farina (2006) puts, “the image we perceive is an element of the process of visual perception”, acting as a stimulus in consumers and is often considered as the most important among all senses (sight, hearing, taste, smell and touch). It can be said that the better the stimulus, the better the perception of the product, as the interpretation of the consumer corresponds to what the image initiators wanted (interpretation gives the meaning). “Every perception implies the search for meaning; any search for meaning requires an organizing process and every organizing process requires a design hypothesis” (FRASCARA, 2008, p.74). Perception is a mental process that enables a person to interact with his or her environment, constructing meaning. It should not be understood as a passive process of stimulus registration, but as an active interest of the mind. According to the Gestalt (or “unified whole”) concept, in the readability of form of any object, for the purpose of this visual reading system, the image functions as a conclusive analytical interpretation about the object as a whole (FILHO, 2008, p.39).

Visual perception is perhaps the main meaning in the interaction of man with his environment. Marketing theorists Kotler and Keller approach perception as a process in which people select, organize, and interpret information by recreating a world-picture meaning: “Perception depends not only on physical stimulation, but also on the relation of these stimuli to the environment and the person’s internal conditions” (KOTLER; KELLER, 2006, p.184).

It is important to emphasize that perception can change depending on cultural and historical elements, and also on the capacity for interpretation. It does not exist because of the senses, but rather due to culture (memory). Perception is the starting point of human activity. It is perception that gives us all the necessary information to guide us in an environment where vision is the most developed system, and when perceiving and receiving information, we respond with our behaviour. (ELY, apud MORAES, 2004).
Visual communication design deals with the construction of visual messages for the purpose of affecting people's knowledge, attitudes and behaviour. Communication exists because someone wants to transform an existing reality into a desired reality. The designer is responsible for developing a communication strategy, for creating the visual elements to implement it and for adding to the identification and creation of this desired reality. Knowing that consumers make their choices based on their perceptions of value, many urban managers are importing certain methodologies from private initiative with the aim of making their cities more valued in the eyes of their citizens, tourists and external investors (SEVIN, 2014). With this, their inhabitants enjoy a good quality of life, and at the same time the city is promoted in the eyes of the external public.

Investments and the presence of sufficient infrastructure have a positive impact on people's perception of the city. Businesses are essential to the functioning of the city, as they provide jobs to their citizens, products and services to their customers, and also reinforce the economic network of a region or city. However, investments are not limited to the presence of companies and they can take many forms. The term infrastructure refers to structures and services such as roads, water supply, sewerage, electricity networks, telecommunications, and so on, also possibly defined by "the physical components of interconnected systems that provide essential products and services to enable, maintain or improve the living conditions of society" (FULMER, 2009). Its importance is evident to the residents of the city as they facilitate everyday life and its absence would be a disadvantage to the city.

Life in the city is a life in a communicational environment that is constantly changing, challenging people to separate noise from what is relevant to building meaning. According to Frascara, "hundreds of realities form the complex concept of 'city', and every day we discover new realities in them" (FRASCARA, 2008, p.76). Understanding how perceptions that individuals have about the environment in which they are inserted and how they affect their attitudes and behaviours is critical to acting on this perception, improving their image and thus the message they want to communicate.

Managers try to define and communicate what they believe to be their distinguishing and defining characteristics of places, to reach their audiences (CHEN, 2012). "Branding is about seizing every opportunity to express why people should choose one brand over another" (WHEELER, 2009, p.6). The concept of branding can also be applied to cities, using a strategy of economic, commercial, social, cultural and political innovation.

City branding promotes the building of the city's reputation as the place where innovation is produced. It consists of a representation of the city, according to which urban problems and their possible solutions are explained, communicated, shared and understood.

Public policies focus intensely on local development, with the result that a strategic policy of valorisation of the most relevant characteristics of cities, the so-called city marketing, has emerged. This strategic tool has the purpose of transforming the most attractive place for investments and is used by many municipalities, such as Curitiba and Barcelona (SANCHEZ, 2003). With its use, there is a valuation of the city space, creating an environment that is consumed by the population itself, tourists and investors. City marketing is the promotion of a city with the purpose of stimulating certain activities that may arise in the place. It is usually used to change the external perceptions of a city with the purpose of encouraging tourism, attracting internal migration of the residents or allowing business investment.

However, before attempting to "sell" the city externally, it is necessary to understand the internal problems and needs. It is important to understand how it is perceived by its different audiences and what is the influence of the physical and communicative aspects of the place, since there is still a great gap between the identity and the image of the place (SEVIN, 2014). "In order to improve the image of a city, social and political practices must be involved, not only in an imaginary, immaterial and discursive way" (VANOLO, 2015, p.2).

5 Porto Alegre Sustainable Innovation Zone (ZISPOA)

A topic not usually addressed when constructing urban identity is the ambiguous relationship between promoting the image of the city and the urban crisis. The empty zones of the cities - previously industrialized - are being debated by some groups in several cities (São Paulo, Barcelona, Montreal, San Francisco, Porto Alegre), but still the urban crisis has a small space of discussion in the approaches of these representations optimists urban identity. It is believed that mentioning the local crisis could stop the application of investors, the visits of the tourists and the continuity of the residents in the city, causing the cycle of the crisis to continue. Would not a solution exactly be to make a speech in which the city realized this crisis, that is in process of change, and for this it needs the help of all?

It is the small changes that really build the social wealth of a city. The kind of approach such as that of Jane Jacobs, in which it brings the discussion and redefinition of the very concept of city is transforming many cities around the world. The community has an important role in the valorisation of the space in which it is inserted. Ezio Manzini highlights the role of social innovation as a tool for change through people, in their community, so that they can act and try to solve local problems.

"The transition towards sustainability, specifically sustainable livelihoods, will be a largely diffused social learning process in which the most diverse forms of creativity, knowledge and organizational capacities should be valued in the most open and flexible way possible. A particular role will be played by a series of local initiatives that, for various
reasons, will be increasingly able to break through the established standards and guide us towards new behaviors and ways of thinking. For this reason they are called local discontinuities (MANZINI, 2008, p.61).

Localism starts from the idea of building healthier and sustainable communities, supported by a stronger and more resilient local economy. For this, resources are used to meet our needs. Also, it's a way of realizing that nobody does anything alone, that we are better when we share. Although the focus is local, the vision is global, where we are all part of a great common good (SCHWARZ; KRABBENDAM, 2013).

Some informal and creative initiatives emerge in cities as collective movements seeking to improve some perceived problem in public spaces. They are voluntary networks of community leadership and are not partisan linked, based on collaborative processes, whose fundamental element is cooperation, in which people take ownership of the common good in a sustainable way and benefit from its use. These networks involve technological interactions, but also direct interaction between people and organizations, with different capacities. To unite the competencies and exploit the potential of these networks "the strategic designer is shown as a possible agent for such process and intermediation" (OLIVEIRA; FREIRE; FRANZATO, 2015).

The strategic design have the effect of organize and continual reorganize relationships and activities that are developed in the ecosystem of public and private enterprises, ONGs and other organizations. That allows them to evolve in a sustainable way to the benefit of all members of this process. The designer assumes a role of engagement in the development of projects of social and cultural innovation. He have the ability of articulation between different ecosystems, can identify potentialities, fragilities, opportunities or threats, mapping the context and trends. As a result, a scenario is projected to develop a service, product or experience with the purpose of allowing the collectives groups to advance their projects closer to the real context (FREIRE, 2015).

Besides the characteristic of strategic design, the design approach allows a creative look about the city. The holistic view of the system, understanding the city as a living organism, can map different visions and solutions. More than this, design have a network thinking, making possible the integration between government, community, enterprises and non-governmental organizations.

Initiatives that aim to building a relationship between the different actors of the city and the urban space are emerging. In this context, the Porto Alegre Sustainable Innovation Zone (ZISPOA) project emerges with the main purpose of transforming an area of the city that has not been extensively explored by the community and companies in a model area for the growth of a sustainable and innovative city. ZISPOA is the name of the first Sustainable Innovation Zone of Porto Alegre, which aims to make the state of Rio Grande do Sul the most innovative and sustainable place in Latin America by 2030. ZISPOA is being developed to become one of the main research centers in the region, developing new technologies, startups, incubators and business accelerators. To achieve this scenario, ZISPOA have six working values, with groups of volunteers that work together in projects connected with sustainable innovation. In addition to the groups, partner companies, students and professors from universities in the region collaborate with ideas, projects and actions. Partnerships with universities have become fundamental to put into practice the idea of union of the community, companies and academia. The movement is new, but some projects are already being implemented in the region. Understanding in depth the process of developing your projects and actions, and how the designer's action can strengthen this type of initiative, can help build and sustain the movement, helping to build a city where people identify with it and empower themselves as ambassadors and supporters of place branding (INSCH, STUART, 2015). Projects such as ZISPOA are made up of ideas that give great value to the quality of our "common goods", a respectful and attentive attitude, the search for a slower pace of life, collaborative action, new forms of community and to new concepts of "locality" (MANZINI, JEGOU, 2003; MANZINI, MERONI, 2007 apud MANZINI, 2008).

6 Final comments

A sustainable city provides its citizens quality of life and, at the same time, preserves the physical, cultural and environmental heritage for future generations. When a city is geared towards sustainable development it has a future expectation of being able to improve the living conditions of society, breaking the cycle of poverty and inequality found today in many places.

As discussed earlier, city marketing aims to build the city's reputation to encourage tourism, attract internal migration of residents or allow business investment. This requires understanding people's perceptions and influencing their attitudes and behaviours. The public image of the city is the overlap of the set of images that people have of it. The process of building a local image together with the citizens and collectively producing visions about the future and how to get there, is strategic to achieving the goals sought by the city.

However, when constructing this image, the urban crisis is little discussed, because the theme is seen as a hindrance in the moment of promoting the city itself. However, the solution to the crisis is in the city itself, we must face the problems changing behaviours and having information. People should feel part of it, acting locally and thinking globally.

The great challenge that cities face today and for future generations is to improve the quality of life of its residents. The relationship between people and the environment in which they live must change in order to successfully address environmental and other issues. It is also necessary to think about the social relations existing within the urban space, as well as the economic impact...
generated. The traditional way of dealing with social issues seems incapable of solving current problems, requiring a better understanding of reality, seeking the transformation to a more sustainable society (FREIRE, 2015). Sustainability is also about understanding the disparities that arise in cities, integrating society with participatory processes for decision making. In this way the future and the present are articulated to improve the city environmentally, socially and economically so that everyone can live with quality of life, without fear and without the uncertainty of an unknown future.

Cities will continue to grow and, along with that, their problems can be aggravated. This requires a change of behaviour so that informality and inequality do not grow at the same pace as we currently observe and thus break the cycle that generates the urban crisis.

It is crucial to listen to people to know their desires for the city. Know what they expect from managers so that they enjoy to live together, rescuing the city alive, safe, sustainable and healthy. In this way, the role of design is essential because he have the ability to interpret the needs of people and, at the same time, have the tools to make different actors working together, in a collaboration process with different overviews to generate innovation.

In this context, Porto Alegre Sustainable Innovation Zone (ZISPOA) initiative is a prime example of a larger movement known as "creative communities". They represent groups of people that are organized in a collaborative way to propose solutions to difficulties faced in their daily lives (MANZINI, 2008; MERONI, 2008; OLIVEIRA; FREIRE; FRANZATO, 2015).

In the future, it will be necessary to discuss the concepts of imaginability in an urban context that is in the process of transformation and fragmentation, in which the dynamism and complexity of contemporary cities interfere in the process of constructing the image of themselves. It is important that any local project adequately contemplate people, because only by understanding the perception of those who live in the city, it will make citizens feel part of the change, enjoying the common good and identifying with the positive image of their city.

References


